The Screen Displays

JA0112

RADZONE

AMSTRAD

The colonisation team had almost completed their task when a nuclear power unit went super-critical. The base had to be abandoned. It is now down to you to make the planetoid safe again!
JOYSTICK OR KEYBOARD.

MANUFACTURED IN THE U.K.

5 012967 800130

The Aim of the Game

The colonisation team on the newly found planetoid had almost completed their task, when a nuclear power unit in a forgotten storeroom went super-critical. The resulting neutron bombardment made many of the objects there highly radioactive and the explosion scattered them throughout the area. The base had to be abandoned, and not just for a few weeks. Plutonium 239 has a half-life of over 24,000 years!

Now it is all down to one man (YOU!) with the guts and determination to get in there and clear up the mess. You work inside a protective metal suit, but wherever radiation remains, this suit will be slowly disintegrating. The suit's Moderators allow you to stabilise any radioactive objects. Fully decontaminating any area makes it a SAFE AREA where you can later return to recover. An onscreen Dosimeter shows your Radiation Absorbed Dose (RADs). When this reaches red your suit has collapsed and you must get to a safe room as soon as possible if you are not to die. Do not attempt to pick up radioactive objects without a suit on!

You will find that some resident electronic systems are still active and dangerous and that some of the planets life-forms that survived have become a little strange!

PLAYING HINTS:
THE MORE RADIOACTIVE OBJECTS THERE ARE ONSCREEN THE FASTER THE RADS COUNT GOES UP, so some rooms are more dangerous than others. As soon as each object is removed it will slow down the rate and give you more time. When all objects are removed it leaves a Safe Area, which has only a very slow "background" radiation count.

Making Safe Areas gives you bases from which to work outwards to new areas - re-entering a Safe Area is like having an infinite supply of suits! Spare "lives" on the start screen are available only after lives have been lost. "Crystals" can only be Moderated when in their RED state.

CONTROLS:
Z - Left
C - Right
J - Up
N - Down
SPACE - Jump
Esc - Restart
Or define your own keys
Or use a joystick. Fire button to jump.

LOADING INSTRUCTIONS

Hold down control and press the small enter key.

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Made in Great Britain

Design & Artwork: Words & Pictures Ltd., London.

ACE2

AMSTRAD & SPECTRUM INSTRUCTIONS

LOADING INSTRUCTIONS

Insert the cassette in your recorder and ensure that it is fully rewound. On 48K machine type LOAD"" and press ENTER. ON 128K machine select the LOADER menu. Press PLAY on the cassette record. ACE 2 will load after a few minutes.

'ACE 2' AIRCRAFT FLIGHT CONTROLS

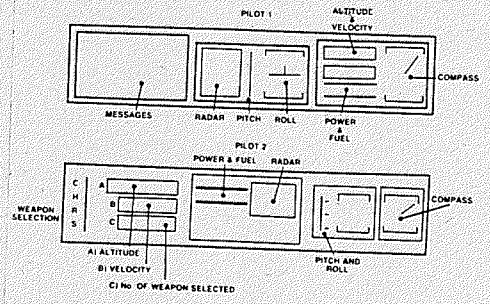
(1) PLANE ONE (If using joystick use Sinclair Joystick One)

F – Fire	D – Increase Engine Power
X – Bank Right	S – Decrease Engine Power
Z – Bank Left	C – Switch to Map View
Q – Dive	W – Select Weapon
A – Climb	

R – If the aircraft is not threatened by an enemy missile, this shows the number of Flares and Chaff pods available, but if it is being chased by a missile, it fires a flare to decoy a heat-seeking missile, or some chaff, to deflect an incoming radar guided missile.

COCKPIT INSTRUMENTS

(Instrumental Panel Black-on-White Line Drawing)



(2) PLANE TWO (If using joystick, use Sinclair Joystick Two)

H – Fire	K – Increase Engine Power
M – Bank Right	J – Decrease Engine Power
N – Bank Left	B – Switch to Map View
P – Dive	O – Select Weapon
L – Climb	U – Monitor/Fire defences

(3) ADDITIONAL CONTROLS

SPACE – Quit game and restart.

QUICK PLAY GUIDE

STALL SPEED	140 Knots.
CEILING	60000 Feet.
RETURNING TO CARRIER	PLANE ONE Fly off the west side of the map, at less than 1000 feet. PLANE TWO fly off the east side of the map, at less than 1000 feet.

CANNON (C)	Use against enemy aircraft, at range of less than 1 mile.
HEAT-SEEKING (H)	Fire at aircraft, ar range of less than 8 miles.
RADAR-GUIDED (R)	Fire at aircraft, at range of less than 25 miles. THIS MUST BE GUIDED TO THE TARGET.
AIR-GROUND/SHIP(S)	Fire at ground targets, from 2000 feet, at a speed of less than 500 knots. GUIDE IT TO THE TARGET.

ACE 2 — COMMODORE 64 • COMMODORE PLUS 4 • SPECTRUM & AMSTRAD

FULL INSTRUCTIONS

LOADING 'ACE 2'
(1) BEFORE YOU START
Remove all unnecessary peripherals (printer, cartridges etc) as they will interfere with the program. If you are using joysticks with an AUTO-FIRE Option, these must be set of OFF. Turn your computer ON. Commodore 128 users must hold down the COMMODORE KEY as they do so. If you are using cassette, ensure that the tape unit is placed some distance from the TV/Monitor, and that the tape heads are cleaned regularly.

(2) COMMODORE 64/128 CASSETTE
Hold down SHIFT, and press RUN/STOP. Press PLAY on the cassette unit. ACE 2 will load after a few minutes.

(3) COMMODORE PLUS/4 CASSETTE
Type 'LOAD' and press 'RETURN'. Press PLAY on the cassette unit, and the game will be loaded after a few minutes.

(4) COMMODORE 64/128/PLUS 4 DISK
Type 'LOAD"*",8,1' and press RETURN. The game will be loaded after a few minutes. KEEP THE DISK IN THE DRIVE DURING THE GAME.

OVERVIEW OF 'ACE 2'
AIR COMBAT EMULATOR TWO (ACE 2) is a head to head flight and combat simulation for one or two players, each flying a different type of fighter. Plane One is a carrier based aircraft, whilst Plane stationed at an airbase. In the single player mode, the human controls Plane One, and the computer flies Plane Two, using very advanced artificial intelligence to execute both offensive and defensive manoeuvres. Plane Two is from a desert country, with western coast line. Plane One is based on a foreign aircraft carrier, which is positioned out of territorial waters.

ACE 2 is really two games:-

(1) CLOSE RANGE DOGFIGHT
Both aircraft are armed with aerial cannon, and with close-range heat-seeking missiles. They are placed at a random map position, but fairly close to each other. The planes must fight each other using the available weapons, and if one aircraft is shot down, the game continues, both pilots receiving a fresh plane. The game ends when one of the pilots has no more aircraft left.

(2) FULL-SCALE AERIAL AND GROUND ATTACK
The country of Plane One has positioned a Spyship, close to the coast of its rival, whose mission is to monitor an inshore radar station. Contrary to all expectations, the inhabitants have reacted aggressively to this action, and have sent a single plane, from an airbase to the east of the radar station, to destroy any enemy aircraft, and sink the enemy vessel. Help is summoned, and a single, carrier based fighter is sent, with orders to shoot down the attacker, and then to destroy the aforementioned radar station. Each aircraft has an aerial cannon, and can be further armed with a variety of short and long range air-air missiles, and an air-ground missile. The pilots must choose the weapon load; the section ARMING THE AIRCRAFT explains this fully.

SETTING THE OPTIONS FOR 'ACE 2'
Use either joystick to move the arrow up and down, and press fire to change an option.

(1) COMMENCE CONFLICT
Move the arrow to the top, and press fire when you are satisfied with the options.

(2) COMBATANTS
Set for One Player, or Two Players.

(3) COMPUTER OPPONENT SKILL LEVEL
Only switchable if playing against the computer. Changing this value (1-20) will increase the skill and ability of the computer pilot.

(4) COMBAT SCENARIO
Change this, to obtain the type of game that you wish to play, either CLOSE RANGE DOGFIGHT or FULL SCALE CONFLICT (see above).

(5) NUMBER OF PLANES EACH
Effectively, this is the number of 'lives' allowed, and is normally set to 3, but can be increased to a maximum of 20, to give a really long game!

(6) CRASH DETECTION
Normally set to ON, this can be turned OFF, and when either plane crashes into the sea or the ground, the aircraft is not destroyed. Recommended for new pilots!

(7) NUMBER OF MISSILE HITS REQUIRED TO KILL
This normally set to 3, but can be reduced, to give a more realistic representation of the destructive power of modern weapons!

(8) SAVE THESE OPTIONS TO DISK (DISK BASED GAME ONLY)
Use this to save the current options to the disk, so that when the game is next loaded, they are automatically selected.

ARMING THE AIRCRAFT (ONLY NECESSARY DURING THE FULL-SCALE CONFLICT GAME)
When you see the picture of your aircraft, move the arrow down, to select 'ARM', and the arming menu will appear. Move the arrow to a weapon name, and press fire to increase the number that will be carried. The program will ensure that the weapon load selected is in the carrying capacity of the aircraft:-

CANNON - 3000 rounds (fixed)
HEAT SEEKING MISSILES - maximum of 8, but less if other weapons carried.
RADAR-GUIDED MISSILES - maximum of 6, but none may be carried if any air-ground/air-ship weapons are carried.
AIR-GROUND/AIR-SHIP MISSILES - maximum of 2.

FLYING THE AIRCRAFT IN 'ACE 2'
This part of ACE 2 has been designed as a simulation of flying a Mach 2 combat aircraft, but with many of the complex and difficult aspects of piloting removed. Here are some of the things about which you don't need to worry:-

Undercarriage control
Flaps setting
Rudder Control
Engine Temperature
Decrease in turn rate at very low and very high speed. Keeping below maximum safe speed.
Avoiding maximum g-forces.

The following information applies to flying EITHER aircraft.

(1) ENGINE POWER
Use the two keys specified, to increase or decrease the power of your turbofan jet engine. At more than 75% power (that is, when the thrust bar indicator on your instrument panel is more than three-quarters full), the afterburners are engaged. This drastically increases thrust, but at the price of heavy fuel consumption. Afterburners are needed to fly at speeds above Mach 1.0 (about 760 knots).

(2) USING THE JOYSTICK
Moving the joystick up or down will change the pitch angle of the aircraft. If the plane is flying upside down, pulling the joystick back will cause the aircraft to dive; when the plane is not upside down, the aircraft will climb. Observe your pitch indicator.
In order to turn the plane, it must be put into a bank. Moving the joystick left or right will do this. To turn quickly, put the plane into a steep bank, and pull back on the stick. Note that when the aircraft is in a steep bank, moving the joystick up or down will have little or no effect on the pitch of the plane.

(3) STALLING AND CEILING
Stalling occurs when the speed of the aircraft is not sufficient to keep the aircraft in flight. In a real aircraft, the stall speed varies according to its situation, but in ACE 2 it has been fixed at 140 knots. The ceiling (maximum altitude of the aircraft) is 60000 feet.

(4) HANDS ON THROTTLE AND STICK CONCEPT (HOTAS)
Real aircraft, such as the F-18 Hornet, and the F-15 Eagle, use the HOTAS concept in the design of their flight controls. The most important controls that are needed by the pilot during aerial combat are placed on either the throttle (the lever to control the engine's power), or the joystick. The pilot's left hand is usually on the throttle, his right hand on the stick. The flight controls to ACE 2 have been designed in a similar way; all the controls for Plane One are at the left of the keyboard, and those for Plane Two at the right. We recommend that each player sits to the appropriate side of the computer, with his right hand on the stick, and the fingers of his left hand on, or near the thrust, weapons selection, and defence keys. You may wish to vary this arrangement to suit your own needs.

AIRCRAFT INSTRUMENTATION

NOTE: REFER TO THE ENCLOSED DIAGRAM

PLANE ONE

The instrument panel of Plane One represents the latest type, with the information being presented on cathode ray tubes (CRT's). The bottom of the left CRT shows the name of the current weapon selected, and how many units of that weapon you have:-

CANNON - AERIAL CANNON
HEAT AA - HEAT-SEEKING AIR-AIR MISSILE
RADAR AA - RADAR GUIDED AIR-AIR MISSILE
AIR-GRND - AIR-GROUND MISSILE

At the left of centre CRT is the RADAR SCANNER. The dot in the middle is your aircraft, and radar contacts (missiles, enemy planes etc) to the front of your plane are shown above this dot. The radar automatically adjusts its display, when the target is at close range, and you will notice that the scale lines on the side of the display, will change.

To the right of the radar is the PITCH DISPLAY. This is a representation of the apparent movement of the horizon, as the pitch of the aircraft is changed. Thus, when the aircraft is flying with the nose at pitch zero, the pitch bar which represents the ground, occupies the bottom half of the display. As you increase your pitch, you will see the ground appear to move down, and the pitch bar moves in a similar fashion.
At the right of the centre VDU, is the aircraft roll indicator, which indicates the banking angle of your plane.

PLANE TWO

The instrument panel of Plane Two represents an older design, and features CRT's as well as conventional instruments.
At the extreme left, the weapons selector switch shows the current weapon selected:-

C - CANNON
H - HEAT-SEEKING AIR-AIR MISSILE
R - RADAR GUIDED MISSILE
S - ANTI-SHIP MISSILE

The operation and the meaning of the PITCH BAR, COMPASS, RADAR, DIGITAL READOUTS, POWER AND FUEL BARS, is the name as that of Plane One.

USING THE MAP

The map can be displayed on either player's screen. The black dot is Plane One, and the white dot is Plane Two. The map also shows missiles, the spyship, and the radar station. The aircraft carrier and airbase are NOT on the map; they are situated to the west and east of it.

USING THE AIRCRAFT WEAPONS SYSTEMS IN 'ACE 2'

Both the aircraft are armed with similar weapons and similar capabilities. They have an AERIAL CANNON for very close range work, HEAT SEEKING AIR-AIR MISSILES for close range, RADAR-GUIDED AIR-AIR WEAPONS for long range shots, and AIR-GROUND (Plane One) or AIR-SHIP (Plane Two) MISSILES.

(1) AERIAL CANNON
Mounted in the port wing roof of each aircraft, this fires cannon shells in a line of the direction of flight of the plane. Use the cannon against the enemy aircraft, when it is less than one mile away. To aim the gun, move the aircraft so that the centre of the gunsight is over the desired target. Try to fire at an aircraft from behind the target. Several cannon hits will be needed to destroy the plane.

(2) AIR-AIR MISSILES
Note: ACE 2 is initially set so that three missile hits are needed to destroy a target, but this can be reduced to two, or even one (see SETTING THE OPTIONS).

(i) HEAT SEEKING AIR-AIR MISSILES THESE ARE SHORT RANGE WEAPONS (RANGE LESS THAN 8 MILES). This is a FIRE AND FORGET WEAPON, which means that once the missile has been fired, the pilot does not need to guide it to its target; he can forget the missile.

Point the nose of your aircraft towards the target plane. You should see a sights box, indicating the position of the target, which will appear as only a dot at extreme range. The message panel will print the target's range and altitude, and will tell you when the sensors in the missile have locked on to the heat source (the enemy plane). The message 'TARGET LOCKED' means it is OK to fire. Once you fire, you have no control or influence over the missile. If the target is close, try some cannon shots.

(ii) RADAR GUIDED AIR-AIR MISSILES THESE ARE LONG RANGE WEAPONS (RANGE LESS THAN 25 MILES). This is a SEMI-ACTIVE RADAR GUIDED MISSILE, which means that the missile must be guided to the target by the radar from your aircraft. As with heat-seeking missiles, the sights box will indicate the target, the panel will say 'TARGET LOCKED', and you may fire. THIS IS WHERE THE USE OF THE MISSILES DIFFERS. Having fired the radar-guided missile, you MUST keep the target aircraft within the sights box, for the whole of the missile's flight (about 30 seconds if the target is 25 miles away).

Should the target 'move' away from the sights box for a few seconds, the radar will be unable to find it, and the missile will be lost. Note that the sights box moves around, so you do not need to point the plane DIRECTLY at the target.

(3) AIR-GROUND/AIR-SHIP MISSILE
The operation of this device is the same, for both Plane One and Plane Two, although the actual missiles are different. Approach the target at below 2000 feet, and at a speed of 500 knots or less. Point your aircraft so that the target is within the sights box, and when the panel says 'TARGET LOCKED', fire the missile. YOU MUST MAINTAIN YOUR AIM ON THE TARGET, whilst the missile flies towards it. As with radar-guided air-air missiles, if the target should 'move' from the sights box for more than a few seconds, the missile will be lost.

SCORING

CANNON HIT ON TARGET AIRCRAFT	20 POINTS
MISSILE HIT ON TARGET AIRCRAFT	50 POINTS
ENEMY AIRCRAFT DESTROYED	200 POINTS
ENEMY GROUND TARGET DESTROYED	2000 POINTS

DEFENDING YOUR AIRCRAFT

If an enemy missile is fired at you, launch flares or chaff (the game selects the correct one), to decoy the missile. You have 6 flares, and 6 chaff pods. Flares and chaff are most effective when the missile is about 1 mile away; the instrument panel will tell you the range. Either climb or dive to change your altitude by several thousand feet, to avoid the missile.

If an enemy aircraft is behind you, and quite close, either turn sharply, or pull up quickly, to move away from it. If the range is less than a mile, and you cannot get away from it, keep banking, pulling back, then rolling to a different angle, and pushing forward, to avoid the enemy cannon fire.
When attacking a ground target or ship, watch out for enemy surface to air missiles, and take the measures described above, to avoid them.

If you ARE hit, your controls will not respond for a few seconds, during which, you are very vulnerable to another missile, or cannon rire. So if you are being chased by a missile, fly AWAY from the enemy, as you take evasive action.

RETURNING TO BASE

If your fuel or weapons are low, or your plane has been hit several times, return to your base, to be repaired, re-armed and re-fuelled.
PLANE ONE MUST FLY OFF THE WEST SIDE OF THE MAP, AT LESS THAN 1000 FEET, TO RETURN TO THE CARRIER.
PLANE TWO MUST FLY OFF THE EAST SIDE OF THE MAP, AT LESS THAN 1000 FEET, TO RETURN TO ITS AIRBASE.

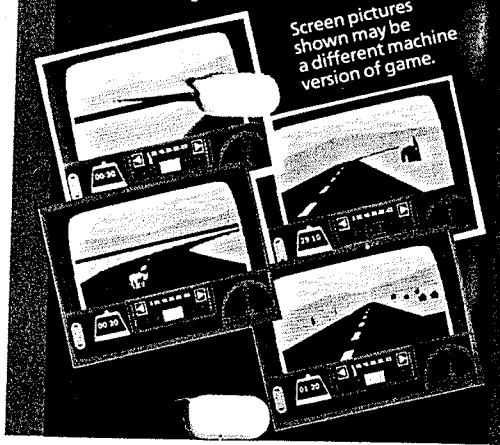
FLYING A COMBAT MISSION

New pilots are recommended to fly against the computer, at level one, to gain combat experience.
Your aircraft is primarily an air superiority fighter, designed to shoot down the other plane, but also has a secondary air-ground role, employed in the full-scale conflict game. When fighting an aircraft, try to gain height, so that your machine will be faster, and more agile, in the less dense air. Select the weapon that you wish to use, and close to the correct range. YOU WILL FIND YOURSELF DISTRACTED AND MOMENTARILY CONFUSED IF YOU LOOK AT THE OTHER PLAYER'S INSTRUMENT PANEL. DON'T DO IT. Flares and chaff are only partially effective against incoming missiles, so it is best to take evasive action as well. Enemy missiles cannot be shot down.

Remember that your plane can fly faster at higher altitudes (30000 feet or more is ideal). High speed will be needed to reach a distant target, or to escape from the conflict zone, and return to base.
If you are trying to flee, and the enemy is constantly close behind you, try slowing down, then pulling back on your stick until you face him, then firing a heat-seeking missile (it is best to take evasive action, and 'buy' you some distance.
Try to attack the enemy plane from approximately the same altitude (to within 10000 feet).
You CAN collide with the enemy plane, so take care!

Rally

Screen pictures shown may be a different machine version of game.



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AS191

Rally Driver

Rally

AMSTRAD AMSTRAD 199 RANGE

Rally

INSTRUCTIONS:
To compete successfully in a car rally requires more than just fast driving. You must plan your route carefully taking many things into consideration: the weather, longest or shortest routes, which are 'fast' roads, which are 'slow' roads.

Drive quickly, but drive carefully. You must always be on the look out in case spectators or farm animals have strayed on to the road!

The rally takes place in three stages over three gruelling days or nights. To win a cup you have to come in the top three after the third and final stage.

The competition is tough. Only the top seven competitors can proceed from Stage I to II, and just the top five go through to Stage III from Stage II.

Each stage contains a number of Time Controls (these are marked on the map which accompanies this program). You must drive through each Time Control in order to complete the stage. There are a number of different routes you could take to go through each Time Control. It is up to you to use your navigation skills to choose the best course.

Choosing a Course
Before you start to race study the map carefully and decide which will be your quickest route. You are not allowed to drive along all the roads shown on the map. The roads which you can use are clearly marked. Several of these roads are not always open: for example the Marquis of Harker Hall only occasionally allows rally drivers to take a shortcut along his private road through the Harker Hall estate.

Sometimes the weather conditions will cause roads to be closed. For instance after heavy rain some roads may become flooded. To find out which roads are closed and which are open you must stop at the Time Controls. Here the marshals will inform you of any changes to road conditions.

When you have completed a stage you are given a score. This consists of the time it took you to complete the stage in minutes and seconds (from the start to the last Time Control in the stage) plus any time penalties you have incurred. The lower your score, the better you have done. Time penalties are recorded on the navigator's clip board at the left of the dashboard.

Between the Time Controls are Passage Controls. These are simply boards with some letters written on them. When you reach a Time Control the marshal will ask you what the letters on the last board were. If you do not enter the correct letters, you will incur a 20 second time penalty.

Note: sometimes it may be to your advantage not to stop at a Time Control. Although you incur a 50 second time penalty you may save yourself valuable time by not stopping. However you may also miss important information about road conditions.

You can also incur penalties for:
1. crashing your car (30 seconds, or 5 minutes if you were travelling too fast);
2. going off the allowed roads (30 seconds);
3. trying to go in the wrong direction (30 seconds);
4. hitting animals or spectators (5 minutes).

RUNNING THE PROGRAM
Competing in the first stage.

Step 1: The Leaderboard
The Leaderboard appears. This lists the names and positions of the previous ten competitors. To qualify for Stage II you must gain a high enough score to get amongst the top 7 on the Leaderboard.

If you are playing on your own you can race the same course as many times as you like. If you are playing against other people each person can take a turn at competing in the stage.

Enter the name of your first competitor. If you make a mistake press DEL. When you have entered the name correctly, press ENTER to continue.

It is not possible to enter the same name twice.

Step 2: Weather reports
The next screen displays a weather report for the first stage of the rally. The weather conditions will affect the roads as follows:

Dry	Conditions good for rallying; roads firm, few pools of water or patches of mud.
Damp	Roads wet and greasy; some pools of water or patches of mud may cause skidding.
Very wet	Danger of flooding on some roads.

Press ENTER to begin the rally.

Step 3: Driving your car
The screen shows the view out of your car's windscreen and your dashboard.

Passage Controls and Time Controls.

As you drive along the roads you will see notice boards. These are either Passage Controls or Time Controls.

A Passage Control is simply a notice board with two letters written on it. You do not have to stop in order to find out what the letters on the board are, but you must be driving at a speed less than 45 m.p.h. You should make a note of these letters to avoid incurring time penalties at the next Time Control. If you drive past a Passage Control at faster than 45 m.p.h. your navigator will not be able to read the letters and you will not be told which letters they were.

Time Controls are where the marshals wait to check that each competitor has followed the proper course.

a. To stop at the Time Control, you must bring your car to a halt within the two lines marked on the road by the Time Control board.

b. If you stop too soon, you must drive forward. If you stop too late, you will incur a 50 second time penalty. You cannot reverse or turn round and so you must continue with the stage.

c. When you stop at a Time Control the marshal asks you to enter the letters on the last Passage Control board.

d. Type in the letters. Then press ENTER.

e. If you have entered the wrong letters, you will incur a 20 second time penalty.

f. The marshal may now give you information on road conditions. When he or she has told you that you can go, press 9 to start your car and continue with the stage.

What happens if you crash
When you drive your car close to the edge of the road, the border of the screen will flash. If your car goes too far off the road then you will crash. If you are going too fast, then your car will be wrecked and you will incur a severe time penalty. At slower speeds you will incur a less severe penalty. After a crash your car will then be placed back on the road. Accelerate to drive off.

How to avoid crashing your car
You will soon learn how to control your car but here are a few hints:

- Corners should be safe taken at about 30 m.p.h. until you are competent at steering.
- Sometimes you can use the handbrake to get you round a corner more quickly. Accelerate into the corner then press 3 to apply the handbrake. As the car rapidly decelerates steer yourself round the corner. Remember to press 3 to release the handbrake as soon as possible after the corner.
- Mud and water on the road can cause you to skid—so drive to suit the conditions.

Step 4: The end of the stage
When you have completed the stage, the Leaderboard appears again. If your competitor has qualified, you will see this name appear on the Leaderboard. Otherwise your competitor will be eliminated from the rally.

a. Enter the name of your next competitor as before.

Note: —you will not be allowed to enter a name which is the same as your last competitor.

b. If you do not wish to enter another competitor, press ENTER and the program will proceed to the final results.

Step 5: Final results of the stage
When all of your competitors have raced, the top seven competitors on the Leaderboard go through to Stage II. If none of your competitors has qualified for Stage II, you must start the rally again from Step 1 of Stage I.

If some of your competitors have qualified, then a new Leaderboard is displayed showing the top seven previous competitors and their times. You must race each of your surviving competitors in turn.

a. The competitor who must start first is highlighted.

b. Press ENTER to get the weather report before you continue your rally.

The same procedure applies for racing in Stage III (but only the top five competitors qualify). Good luck and good rallying!

Starting again
If you wish to abandon the rally at any stage press ESC.

Use of a joystick
You can use a joystick only when driving your car. On the Leaderboard and weather conditions screens you must use the keyboard as described in the preceding pages.

Note: You can steer and accelerate or brake at the same time. For example, to steer left and accelerate, push your joystick diagonally up to the left.

Keys:

SPACE	Cycle through choices	
ENTER	Confirms choice	
1	Steer left	Will not work at junctions
0	Steer right	
Q	Turn left in to junction	Will not work above
O	Turn right in to junction	25 m.p.h.
9	Accelerate	
2	Brake	
3	Handbrake on/off	
S-K	(any key) Sound horn	

Joystick Controls

Up	accelerate (same as 9)
Down	brake (same as 2)
Left	turn left (same as 1)
Right	turn right (same as 0)
Fire	apply/release handbrake (same as 3)
ESC	

Loading Instructions
Press CTRL & Enter then press PLAY.

Originally released by Five Ways Software.
Originally published by Hill MacGibbon Ltd.

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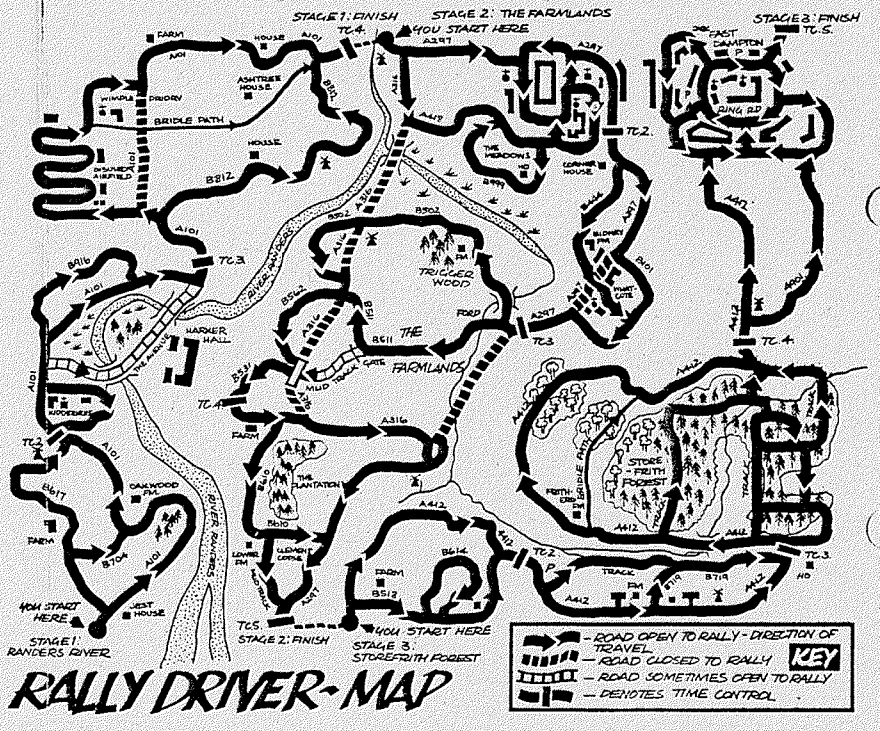
AS191


STAGE 1: FINISH
TC.4.
STAGE 2: THE FARMLANDS
YOU START HERE
STAGE 3: FINISH
TC.5.
FARM
HOUSE
A101
A1
A697
A1
A697
EAST DAMPTON
PO
PH
CHURCH
A697
A1
A697
A1
A697
A1

HUSTLER
AMSTRAD INSTRUCTIONS

LOADING
From tape:-
Press CTRL key and small enter key. [For CPC 646 and CPC 6128 first type 1 TAPE] = SHIFT and @ keys.)

From Disk:-
Type ICPM [=SHIFT and @ keys]

PLAY — Six games available are:
1 player — put any ball in any pocket.
1 player — pocket the balls in order.
1 player — put each ball in its own pocket.
2 players — put each ball in its pocket and score the pocket.
2 players — mini pool — one player goes for the blue balls the other for the red balls — the first ball down gives you your colour.
2 players — one player pots in order 1-6, the other player in order 6-1.

CUE — The cue is represented by a '+'. Move it to required position using joystick or keys, select SPIN if required then press fire button to shoot.
JOYSTICK
If two joysicks are attached use the joystick 0.
KEYS
Use the cursor keys to control the cue. The COPY key or SPACE BAR to fire. Pressing the ESC key will restart the program.
SPIN — This may be given to cue the ball by pressing the following keys before shooting.
L=Left, R=Right, B=Back Spin, T=Top Spin, 2=Increases the amount of spin, 1=Decreases the amount of spin, C=Cancel Spin.

Atari Screen Shots, other versions may vary

Hustler © Maynard International 1988

MIL, 12 CHILTERN ENTERPRISE CENTRE, STATION ROAD, THEALE, BERKS. RG7 4AA.

The Screen Displays

Amstrad Schneider
464 664 6128

into OBLIVION

MASTERTRONIC

LA 0106

into OBLIVION

AMSTRAD

Following the destruction of the evil computer that once ruled this galaxy you must seek the only safe planet to avoid the sadistic Droids who have been programmed to obliterate you. With 2,500 screens your task is not easy, however. If you do not succeed you will be blown into oblivion by the Droids.

MANUFACTURED IN THE U.K.

5 012967 810047

The Aim of the Game

Following the total destruction of the evil, paranoid computer that ruled the 42 planets in this galaxy [Soul of a Robot] all that is left is a force of erratic and unpredictable Droids and a race of primitive human-like creatures.

You have gained control of a sophisticated seeker – the MK II – are are based on the planet Satrik. Unless you can locate the legendary 'Safe Planet' you will be at the mercy of the Droids, who have been programmed to obliterate any intruders.

You are left with no choice, to survive you must find the only planet in the entire galaxy offering you safety from the swarms of Droids. There are a number of space ships left behind from the past generation of intelligent inhabitants some of which you will be able to control automatically on entry, others will be inhibited by a force field, you must learn to de-activate this in order to take control of the ship.

You will also find transporter planets which, once you are able to operate the transporter, will take you to a new location. However, as in all galaxies some planets will have unsuitable environments – these must be avoided.

Finally, you must gather the Psyche units [of which there are over 90] and take them to the Safe Planet. Will you survive the sadistic Droids or will they blow you into Oblivion?

Controls

Joystick or keys: Q – Thrust up; O – Thrust left; P – Thrust right; SPACE – Fire lazer; COPY – Pick up object; ↑ – Get directional help; ENTER – Take off, when in space ship.

Hints

1. Certain screens are one directional only, ie you can move out of the screen but not back into it.
2. Some areas on certain planets have a corrosive atmosphere that will cause you to lose a life – avoid them.
3. To help you certain screens have a cluster of direction indicators. Pressing the ↑ key will re-configure the arrows and point to the Safe Planet. However, the directions are shown 'as the crow flies' and do not take into account any obstacles.
4. You will also find Shield Units, which when picked up will give you immunity from the attacks of the Droids for a limited length of time. This will be shown by the border turning red.

LOADING INSTRUCTIONS

Hold down CTRL Key and Press the small ENTER Key.

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Made in Great Britain

Design & Artwork: Word & Pictures Ltd., London.

TURBO BOAT SIMULATOR

© 1988 Probe Software Ltd.

THE GAME

Lost in enemy territory, you are the pilot a super high-powered speed boat. Take the helm as you career down the twisting narrow waterways on this mission (almost) impossible. Not only must you avoid the shots from the enemy gun emplacements scattered along both shores, you also have to dodge the boats that race past and the nuclear submarines that could surface at any time. Pick up the parts of the map showing your route home that are dropped by the allied planes - however, don't pick up a mine or you'll never make it back!

LOADING

AMSTRAD 464 OWNERS

1. Place the rewound cassette in the cassette unit and press **PLAY**.

2. Hold down **CTRL** and press the **SMALL ENTER** key.

AMSTRAD 664/6128 AND 464 + DISK OWNERS

1. Hold down the **SHIFT** and press the @ key. Type **TAPE** and press **RETURN**.

2. Connect a suitable cassette player to your computer, according to the User Manual, and insert the rewound cassette.

3. Hold down **CONTROL** and press the **ENTER** key.

4. Press **PLAY** on the cassette player.

Note: *Full loading instructions can be found in your Amstrad Manual*

PLAYING THE GAME

Controls

The keys are redefinable from the title-page, or use a joystick.

Default keys:

Q	**- Up,**
A	**- Down**
O	**- Left**
P	**- Right**
SPACE	**- Fire**
Pause	**- X (Spectrum)**
	- ESC (Amstrad)

The cargo packages dropped by the allies contain five parts of a map which leads you to your next combat zone, pick them up as they are dropped by passing over them. Once you have them all, you will appear in the next waterway, slightly closer to home. Let's hope you are given the correct route back, but remember the enemy will try and sabotage the cargo and spoil the maps!

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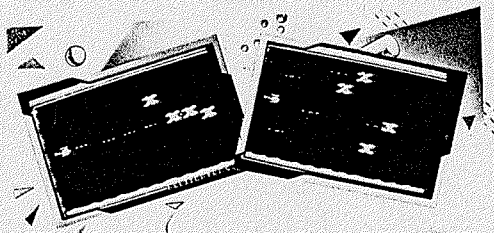

"SHOOT TO KILL!" those are your orders. Earth has been invaded by the aliens of Tariod, they will do anything to steal Earth's only lifeline to civilization, uranium. With the aid of the most sophisticated helicopter available you must protect Earth and all it's inhabitants.

WRITTEN BY:
JONE PAUL ELDRIDGE
PRODUCED BY:
RICHARD PAUL JONES

5 013728 000240

PLAYERS

Nuclear Heist

amstrad schneider

Nuclear Heist



PLAYERS

amstrad/schneider

LOADING INSTRUCTIONS

464: Hold down CTRL key and tap the small enter key.

664/6128: Type I (Shifted @)TAPE (ENTER) then type RUN" (ENTER)

CONTROLS

A-Up
Z-Down
RETURN-Fire
DEL-Pause
ESC-Restart or quit

THE STORY

For years man fouled the atmosphere with his factories and cars, unaware of the danger that lay ahead.

Now, our planet Earth, once rich in vegetation and animal life has been reduced to a frozen, barren wasteland. Man was forced to abandon the planet's surface and build their lifestyle in underground cities. The mineral uranium is the only energy source available to man in order to remain in existence.

It has been brought to the leaders of our planet that Taroid, a planet on the other side of the galaxy, has no natural deposits and looks to Earth's uranium to survive.

Your mission is to defend the nuclear reactor using a specially equipped fighter helicopter, with the use of a built in hyper-warp system.

SHOOT TO KILL!

Remember, all will perish if you fail.

SCORING

Ten points scored for every direct hit.

© PLAYERS 1988

- to enter your name
- to enter a level of difficulty level the

The lower the time allowed.
shorter the time allowed.

During the game a question may be chosen by pressing the first letter (of the 2 or 3 letters) shown in that hexagon. There is no need to press RETURN. As the question is written across the screen it can be interrupted by pressing a key. Having then typed your answer press RETURN to have the computer check it. A clock on the screen counts down the time allowed for answering. If a slight misspelling occurs the player will usually be given another opportunity to answer.

At the end of each game a "best times" screen will be displayed. You may then start another game in the series by pressing any key or be returned to the start of the game by pressing N.

GOLD RUN is complementary to MACSEN's Blockbusters program. It is a single player game, adapted from the successful TV quiz. The objective is to answer a series of general knowledge questions, with 2 or 3 word answers, and forge a path across the 5 × 4 matrix of hexagons. The cassette includes the game itself and hundreds of general knowledge questions to give you hours of competitive enjoyment.

LOADING

To run the game, make sure that the cassette is fully rewound. Hold down the CTRL key and press the ENTER key (or type RUN"" and press ENTER). Press any key on your recorder then press any PLAY on your recorder to start the loading process. Several files will appear. Finally the GOLDRUN screen will appear. Press any key to stop the music. Another file will then be loaded. (NOTE: The two sides of the tape contain identical files.)

PLAYING

Before playing the game you will be asked:

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GOLD RUN from Macsen Software is based on the well-known television series **Blockbusters.** The TV game is a **Central Production** made in association with Mark Goodson and Talbot Television.

Whilst every precaution has been taken in the preparation of this recording the publisher assumes no responsibilities for errors nor liability for damage arising from its use.

KONAMI

JACKAL™

INSTRUCTIONS

ENGLISH

THE GAME
So, you've decided to have a shot?

You're mad! (But then some of the greatest figures in history have been mad.)

A recent surprise attack from the enemy caught us unawares and they got away with rather too many of our troops. We know those men are being held in huts inside enemy camps. And we know it's virtually impossible to get them out.

So, we're sending some of our toughest lads - Bob, Grey, Quint and Deckar - behind enemy lines to see what they can do. The plan - codename JACKAL - is to round up the men and drop them off at various locations. They will then be picked up by helicopter.

They won't get any help, unless they chance upon extra weapons in the prison huts, but they'll certainly get plenty of hindrance.

If they manage all that, they're to go on and launch a solo attack on enemy headquarters.

No one expects them to survive. What do you think? Got any smart ideas?

If you have, don't waste any more time. Go to it!

LOADING AND PLAYING INSTRUCTIONS

SPECTRUM: To Load type LOAD "JACKAL" and Press ENTER

The game can be played with Kempston, Protek and Sinclair joysticks, or redefinable keyboard.

Keyboard Controls: Left = Z, Right = X, Up = K, Down = M, Fire = L

Joystick Controls: Left, Right, Up, Down, Fire. Press P to Pause, 1 to Quit.

AMSTRAD: To Load Tape and Disk versions, type RUN "JACKAL" and Press ENTER

Keyboard Controls: Left = Z, Right = X, Up = +, Down = ?, Fire = Space Bar

Joystick Controls: Left, Right, Up, Down, Fire. PRESS P to Pause, Q to Quit.

COMMODORE TAPE: To Load Press RUNSTOP and SHIFT Simultaneously

COMMODORE DISC: To Load Type LOAD "*", 8, 1

Joystick Controls: Left, Right, Up, Down, Fire. Press RESTORE to Quit.

WEAPONS SELECTION For all Computers: To Fire Machine Gun, press **FIRE** key repeatedly. To Fire Grenade, Short Range Missile, Long Range Missile and Starburst Missile, hold down **FIRE** key. The Missiles are automatically selected when **"POW(ER) UP"** sign appears on screen after certain huts have been attacked and single occupant rescued.

FRANCAIS

LE JEU
Donc, vous avez décidé de tenter la mission?

Vous devez être fou ... (mais quelques-uns des personnages historiques les plus célèbres étaient assez fous).

Une récente attaque surprise de l'ennemi nous a causé de gros dégâts et lui a permis de faire de nombreux prisonniers. Nous savons que ces hommes sont dans des huttes à l'intérieur de camps ennemis. Et nous savons également qu'il est pratiquement impossible de les atteindre.

Nous avons donc décidé d'envoyer les plus durs parmi nos gars, Bob, Grey, Quint et Deckar, derrière les lignes ennemies pour voir ce qu'ils peuvent faire. Le plan (nom de code JACKAL) est de rassembler les hommes et de les acheminer jusqu'à divers points où des hélicoptères pourront les emmener.

Ces quatre commandos ne peuvent compter sur aucune aide, sauf les armes supplémentaires qu'ils pourraient trouver dans les huttes, et ils peuvent s'attendre à de nombreux problèmes.

S'ils arrivent à tous les surmonter, ils devront ensuite lancer une attaque en "solo" sur le Q.G. de l'ennemi.

Personne ne s'attend à ce qu'ils en réchappent. Qu'en pensez-vous? Avez-vous quelques bonnes idées?

Si oui, ne perdons pas plus de temps. Allons-y!

INSTRUCTIONS CHARGEMENT ET JEU

SPECTRUM : pour charger, taper LOAD "JACKAL" et appuyer sur ENTER

On peut jouer avec des manettes Kempston, Protek et Sinclair ou avec un clavier à touches redéfinissables.

Commandes clavier : gauche = Z, droite = X, haut = K, bas = M, feu = L

Commandes manette : gauche, droite, montée, descente, tir. Appuyer sur P pour pause et sur 1 pour sortir du jeu.

AMSTRAD : Pour charger les versions cassette et disque, taper RUN "JACKAL" et appuyer sur ENTER.

Commandes clavier : gauche = Z, droite = X, haut = +, bas = ?, feu = barre d'espacement

Commandes manette : gauche, droite, montée, descente, tir. Appuyer sur P pour pause et sur Q pour sortir du jeu

COMMODORE CASSETTE : appuyer en même temps sur RUNSTOP et sur SHIFT

COMMODORE DISQUE : Pour charger, taper, LOAD "*", 8, 1

Commandes manette : gauche, droite, montée, descente, tir. Appuyer sur RESTORE pour sortir du jeu

SELECTION DES ARMES Tous ordinateurs : pour tirer avec la mitrailleuse, enfoncer de manière répétée la touche **FIRE.** Pour lancer des grenades, des missiles courte portée, les missiles longue portée et le missile Starburst, maintenir la touche **FIRE** enfoncée. La sélection des missiles est automatique lorsque le message **"POW(ER) UP"** apparaît sur l'écran après l'attaque de certaines huttes et le sauvetage de l'unique occupant.

DEUTSCH

SPIEL BESCHREIBUNG
Du hast dich also entschlossen, Kopf und Kragen zu riskieren?

Du mußt absolut verrückt sein! (Doch wer in der Geschichte groß 'rauskam, ist schon immer verrückt gewesen.)

Bei einem feindlichen Überraschungsangriff, der uns vor kurzem völlig unerwartet getroffen hat, ist der Feind mit zu vielen von unseren Truppen davongekommen. Wir wissen, daß diese Männer in Hütten des feindlichen Lagers gefangengehalten werden. Wir wissen ebenfalls, daß es so gut wie unmöglich ist, sie da herauszuholen.

Deshalb schicken wir unsere zähesten Burschen - Bob, Grey, Quint und Deckar - hinter die feindlichen Linien, um auszukundschaften, was sich machen läßt. Der Plan mit dem Kodenamen JACKAL sieht

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MAKE OF J/STICKS | WHICH COMPUTER WOULD YOU PURCHASE NEXT?

folgendermaßen aus: Die Männer sollen versammelt und an verschiedene Orte gebracht werden. Von dort geht's dann weiter per Helikopter.

Unsere Helden sind vollkommen auf sich selbst gestützt, es sei denn, sie stöbern zusätzliche Waffen in den Gefängnishütten auf. Das soll ihnen jedoch so schwer wie möglich gemacht werden.

Wenn ihnen die Befreiung überhaupt gelingt, soll anschließend in einem Schlag das feindliche Hauptquartier ausgelöscht werden.

Keiner rechnet damit, daß sie lebend von ihrer Mission zurückkommen. Was meinst du? Irgendwelche gute Ideen?

Wenn ja, verlier' keine Zeit. Stürz' dich sofort mitten ins Geschehen.

LADEN UND SPIELANLEITUNG

SPECTRUM: Um das Spiel zu laden, muß LOAD "JACKAL" über die Tastatur eingetippt und ENTER gedrückt werden.

Das Spiel kann entweder mit einem Joystick von Kempston, Protek und Sinclair oder über eine benutzerdefinierbare Tastatur gespielt werden.

Spielsteuerung über Tastatur:	Links = Z, Rechts = X, Auf = K, Ab = M, Feuern = L
Spielsteuerung über Joystick:	Links, Rechts, Auf, Ab, Feuern. P für Pause, 1 für Verlassen drücken.

AMSTRAD: Um Kassetten- und Diskettenversionen zu laden, muß RUN "JACKAL" über die Tastatur eingetippt und ENTER gedrückt werden.

Spielsteuerung über Tastatur:	Links = Z, Rechts = X, Auf = +, Ab = ?, Feuern = Leertaste
Spielsteuerung über Joystick:	Links, Rechts, Auf, Ab, Feuern. P für Pause, 1 für Verlassen drücken.

COMMODORE KASSETTE: Um das Spiel zu laden, müssen die Tasten RUNSTOP und SHIFT gleichzeitig gedrückt werden.

COMMODORE DISKETTE: Zum Laden muß LOAD "*", 8, 1 über die Tastatur eingetippt werden.

Spielsteuerung über Joystick:	Links, Rechts, Auf, Ab, Feuern. RESTORE für Verlassen drücken.

BENUTZUNG DER WAFFEN für alle Computer: Maschinengewehr feuern: **FEUERtaste** wiederholt drücken. Granaten, Kurzstrecken-, Langstrecken- und Starburstraketen: **FEUERtaste** gedrückt halten. Die Raketen werden automatisch gewählt, wenn das Zeichen **"POW(ER) UP"** auf dem Bildschirm erscheint, nachdem bestimmte Hütten angegriffen wurden und ein Insaße befreit wurde.

ESPANOL

EL JUEGO

¡Así que has decidido intentarlo!

¡Estás loco! (Aunque también lo estaban algunos de los personajes históricos más importantes).

Un reciente ataque por sorpresa del enemigo nos pilló desprevenidos y consiguieron escapar con un gran número de nuestras tropas. Sabemos que los tienen prisioneros en chozas dentro de su territorio. Y sabemos también que es prácticamente imposible rescatarlos.

Es por ello que enviamos algunos de nuestros mejores hombres - Garra, Volcán, Lanza y Paredón - detrás de las líneas enemigas para ver que pueden hacer. El plan - denominado JACKAL - es el de agruparlos y dejarlos caer en diversos emplazamientos. En su momento los recogerá un helicóptero.

No recibirán ayuda alguna, a menos que se encuentren inesperadamente con más armas en las chozas que hacen de prisión, pero lo que es seguro es que encontrarán resistencia en abundancia.

Si tienen éxito, continuarán y efectuarán un ataque en solitario sobre el cuartel general enemigo.

Nadie espera que vuelvan con vida. Tú, ¿qué crees? ¿Se te ocurre algo brillante?

Si es así, no esperes más. ¡Lánzate!

INSTRUCCIONES PARA LA CARGA Y EL JUEGO

SPECTRUM: Escriba LOAD "JACKAL" para cargar y pulse ENTER.

El juego puede jugarse con palancas de control Kempston, Protek y Sinclair o con un teclado redefinible.

Controles de teclado	Izquierda = Z, Derecha = X, Arriba = K, Abajo = M, Fuego = L
Controles de palanca:	Izquierda, Derecha, Arriba, Abajo, Fuego. Pulse P para una pausa y 1 para salir.

AMSTRAD: Si desea cargar versiones de disco y de cinta, escriba RUN "JACKAL" y pulse ENTER.

Controles de teclado:	Izquierda: Z, Derecha: X, Arriba = +, Abajo: = ?, Fuego = Barra de espacio
Controles de palanca:	Izquierda, Derecha, Arriba, Abajo, Fuego. Pulse P para una pausa y 1 para salir.

CINTA COMMODORE: Si desea cargar pulse RUNSTOP y SHIFT simultáneamente.

CINTA DISCO: Si desea cargar escriba LOAD "*", 8, 1

Controles de palanca:	Izquierda, Derecha, Arriba, Abajo, Fuego. Pulse RESTORES para salir.

SELECCIONES DE ARMAMENTO para todos los ordenadores: Pulse la tecla de FUEGO, **("FIRE")** repetidamente para disparar con la ametralladora. Si desea lanzar granadas, misiles de corto alcance, misiles de largo alcance y misiles "Starburst", mantenga pulsada la tecla de FUEGO **("FIRE")**. Los misiles se seleccionan automáticamente cuando en la pantalla aparece el signo de ENCENDIDO **("POWER UP")** después de que se haya atacado alguna choza y se hayan rescatado alguno de los prisioneros.

SVENSKA

SPELET

Jaså du har beslutat dig att göra ett försök?

Du är inte klok! (Men vissa av de största gestalterna i världshistorien var tokiga.)

Vid ett överraskande fientligt anfall nyligen blev vi tagna på sängen och fienden drog sig tillbaka och tog med sig många av de våra som fångar. Vi vet att våra grabbar hålls fångslade i hyddor inne i fiendelägret. Vi vet dessutom att det är praktiskt taget omöjligt att befria dem.

Vi har därför beslutat att skicka in några av våra tuffaste killar, Jonne, Anders, Kalle och Orvar, bakom fiendelinjerna förattse vad som kan göras åt saken. Planen, som fått kodnamnet Jackal, består av att befria våra grabbar och därpå släppa av dem på skilda platser. Efter det plockas de upp med helikopter.

De får ingen hjälp såvida de inte råkar komma på extra vapen i fånghyddorna, men de kommer i stället att råka ut för en massa hinder.

Om de lyckas med allt det där har de order att gå till storms mot fiendens högkvarter och slå ut det.

Det är ingen som väntar sig att de kommer att överleva. Vad anser du? Har du några bra idéer?

I så fall stå inte här och slösa mer tid. Sätt igång bara!

LADDNINGS- OCH SPELANVISNINGAR

SPECTRUM: För laddning skriv: LOAD "JACKAL" och tryck ENTER.

Spelet kan spelas med Kempston, Protek och Sinclair spak eller återdefinierbart tangentbord.

Tangentbords-manövrering:	Vänster = Z, Höger = X Upp = K, Ner = M, Skjut = L
Spakmanövrering:	Vänster, Höger, Upp, Ner, Skjut Tryck P för Paus, 1 för att gå ur.

AMSTRAD: För laddning av band- och diskversioner skriv RUN "JACKAL" och tryck ENTER.

Tangentbords-manövrering:	Vänster = Z, Höger = X Upp = +, Ner = ?, Skjut = mellanslagstangent
Spakmanövrering:	Vänster, Höger, Upp, Ner, Skjut. Tryck P för Paus, Q för att gå ur.

COMMODORE TAPE: For laddning tryck RUNSTOP och SHIFT samtidigt.

COMMODORE DISK: För laddning skriv "*", 8, 1

Spakmanövrering:	Vänster, Höger, Upp, Ner, Skjut Tryck RESTORE för att gå ur.

VAPENVAL Gäller alla datorer: För att skjuta med kulspruta tryck **FIRE** upprepade gånger. För att avfyra en granat, kortdistansrobot, långdistansrobot och Starburstrobot hålls tangenten **FIRE** nedtryckt. Robotarna väljs automatiskt ut så snart **"POW(ER) UP"** - tecknet visas på skärmen efter att vissa hyddor har anfallits och den ende där närvarande har befriats.

KONAMI T-Shirt Offer!

Konami now have a great T-shirt range for games enthusiasts! New dynamic designs are Jackal, Iron Horse, Gryzor, Salamander, Combat School and Maze of Galious. All are 50/50 washable, and in full colour!

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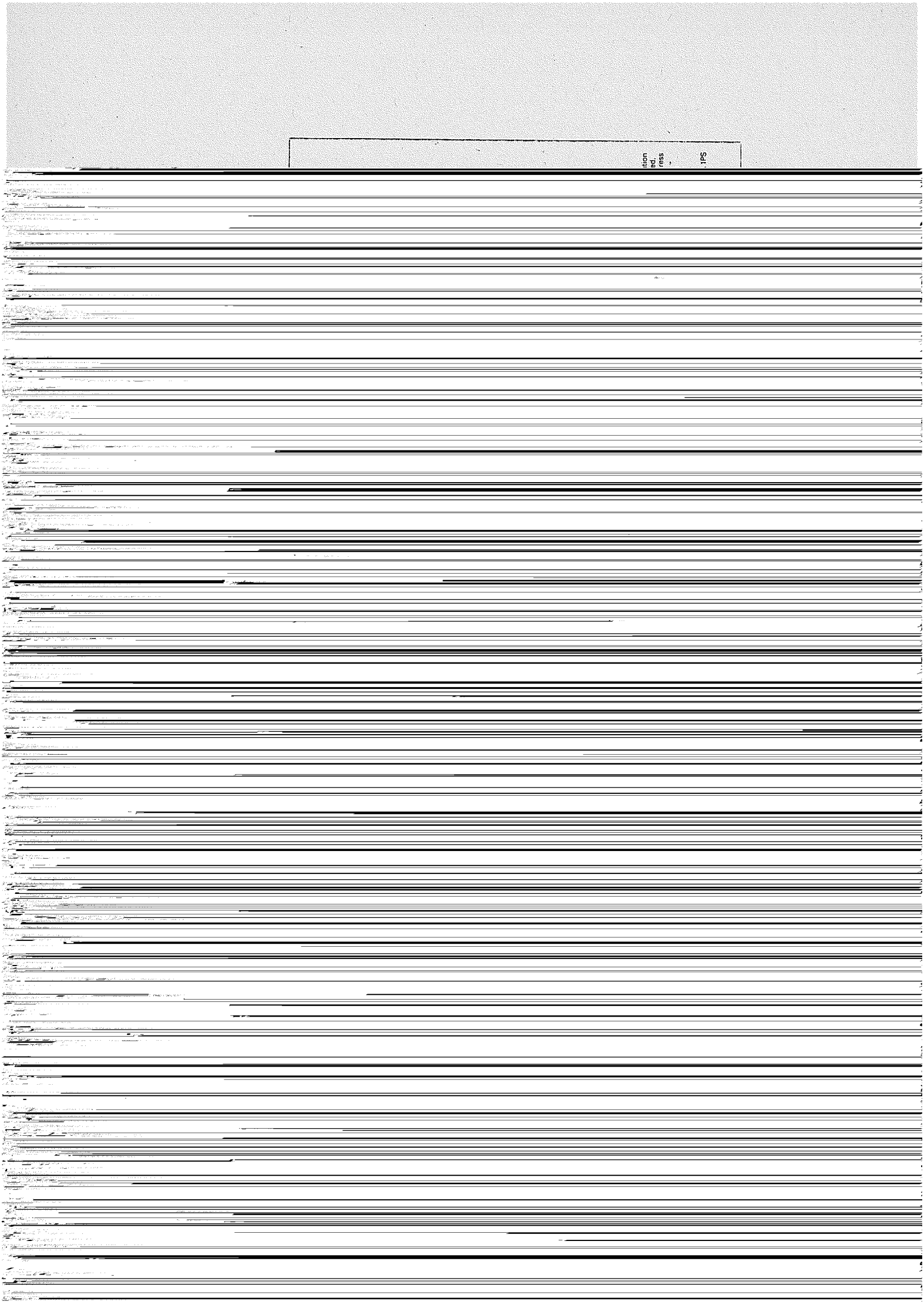

SURPRISE SURPRISE WRITTEN BY JOHN KING

TO LOAD, PRESS CTRL AND SMALL ENTER TOGETHER THEN PRESS PLAY ON CASSETTE PLAYER.

KEYS:-
SHIFTED O = TUNE OFF SHIFTED T = TUNE ON
CURSOR KEYS FOR MOVEMENT.

PLAYING:-
THE MAIN CHARACTER HAS BEEN INVITED TO A BANQUET BY LONG JOHN, BUT THE BANQUET DOOR HAS BEEN LOCKED AND CAN ONLY BE OPENED BY PRESSING 4 BUTTONS. EACH BUTTON IS IN A DIFFERENT ROOM AND IS A LETTER OF THE SECRET CODE. WHEN YOU GET TO A ROOM WITH ONE OF THE BUTTONS PRESS IT AND LEAVE THE ROOM, DON'T TOUCH ANTHING ELSE EXCEPT THE WALL OR THE FLOOR, WHEN YOU HAVE PRESSED ALL FOUR BUTTONS RETURN TO THE BANQUET HALL.

TO SAVE YOUR POSITION/HOLD GAME PRESS SHIFTED S THEN SHIFTED C TO ABANDON OR ENTER TO PROCEED.
TO RELOAD POSITION PRESS SHIFTED L THEN SHIFTED C TO ABANDON OR ENTER TO PROCEED.

MANUFACTURED AND PUBLISHED BY
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500 CHESHAM HOUSE
150 REGENT STREET
LONDON W1R 5FA



Surprise - Surprise



AMSTRAD LOADING INSTRUCTIONS

To Load Press RUN ""

Sabotage is fast-paced action. Clever icon control makes getting into the game easy. You play a mercenary hired by the people of your planet, a planet buckling under the incessant attack waves of circling alien spaceships. Your task is to go to each sector of the planet and destroy any alien attack craft which approaches you. When you reach the end of the sector you must destroy the sector guardian ships and land on the sector runway. Your job now is to find the 5th columnist rebel who will give you a piece of blue-print which , when all pieces are assembled, allows your ship's weapon computer to lock on to the alien leader's elusive mothercraft. Each 5th columnist will give you a different piece of blueprint. Only when you have destroyed all sector guardians will the planet be safe.

CONTROLS

JOYSTICK
Use icons to select one or two player, joystick or keyboard. The triangle icon leads into the game. Press FIRE to activate any icon.

KEYBOARD
Q – UP **I** – FIRE
A – DOWN
O – LEFT **P** – RIGHT
CLR – to pause game
FIRE – to release game
ESC – to quit game

Your blue space ship blasts the approaching aliens as they swoop about you. Your craft can pick up a forcefield for a few precious moments of invulnerability, or can run into a pocket of gravitational acceleration where the craft shoots ahead in a flash of speed. When a sector has been cleared of alien craft your ship's computer guides you in for an automatic landing. It is here you meet the rebels, a motley crew of disaffected individuals who have grown disillusioned with their leader's tyrannical ways. They are held out, unknown to their hosts, in a disused droid service hold, which is reasonably comfortable save the bare live wires which run throughout the mosaic of cracks along the length of the floor. Collect one piece of blueprint here and it won't be long before you figure out a use for the key. After each level a password is revealed for the next level, up to level Six, after which levels Seven and Eight must be completed afresh each time. At the end of the game all eight pieces of the blueprint are assembled and the secret computer code revealed.

Have you tried FRONTLINE, Zeppelin's combat action game set at the front?



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SPACED OUT

© 1987 JOHN GIBSON & STEVEN CAIN

THE GAME
To while away the hours in deep space while the robo boys look after the herds of Cybernetically Operated Wagons (COWS), Cowboys tend to get SPACED OUT quite frequently. The aim of the game is to get from the bottom left hand corner of their holographic screen to the top right hand corner without getting SPACED OUT by the army of NASTIES designed to make their life a little more difficult! Not only will you have to dodge the NASTIES but you will have to watch the penalty points.

LOADING
AMSTRAD 464 OWNERS
1. Place the rewound cassette into the cassette unit and press PLAY.
2. Hold down CTRL and press the SMALL ENTER key.

AMSTRAD 664, 6128 and 464+DISK OWNERS.
1. Hold down SHIFT and press the @ key. Type TAPE and press RETURN.
2. Connect a suitable cassette player to your computer, according to the User Manual, and insert the rewound cassette.
3. Hold down CONTROL and press the ENTER key.
4. Press PLAY on the cassette player.

NOTE: Full loading instructions can be found in your Amstrad Manual.

PLAYING THE GAME
SPACED OUT is a game that can be played with either a Joystick connected to your Amstrad or with the following keys:
8=Up U=Down H=Left J=Right Space Bar=Fire
Select the size of the play area by increasing or decreasing its size. Push FIRE to select the required area. Similarly, the number of opponents can be increased or decreased and set by pushing the FIRE button.
The screen will then prompt you to push the FIRE button again and you're ready to get SPACED OUT.
Push FIRE to roll the dice which indicate the number of dots you must move vertically and horizontally, but when a double is thrown 2 moves must be made. Move left and right and select the direction and number by pushing FIRE. You cannot move ACROSS an opponent but you can move TO a square occupied by an opponent. This means that the opponent is SPACED OUT and removed. When the move is completed it is the opponent's turn. If they succeed in boxing you in, you're SPACED OUT and they move again and gain another NASTY.
PENALTY POINTS
There are 4 ways of incurring Penalty Points.
1. **Time penalties**
If you run out of time you will lose your remaining moves, incur 600 Penalty Points and another NASTY will appear. Time penalties are also incurred after the first 15 seconds (25 if a double is thrown).
2. **Opponent Penalty**
When a NASTY is removed during a move, 100 Penalty Points are scored.
3. **Spaced Out Penalty**
If you are boxed in you'll score 400 Penalty Points. Tell the computer that you're SPACED OUT by selecting the icon at the bottom right of the screen.
4. **Throw Penalty**
When you have used your allotted 20 moves, 100 Penalty Points are incurred for every extra move.
Remember that the penalties scored in the game will be the HANDICAP in the rematch. If you exceed the Handicap with penalties in the rematch YOU LOSE!

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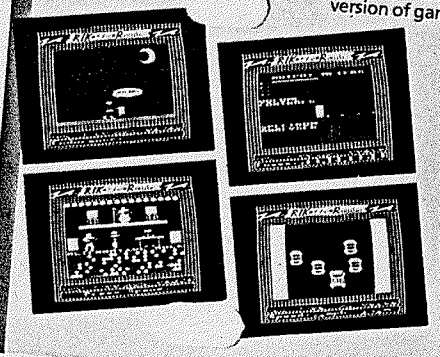
RIK

THE ROADIE

Screen pictures shown may be a different machine version of game.



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AMSTRAD

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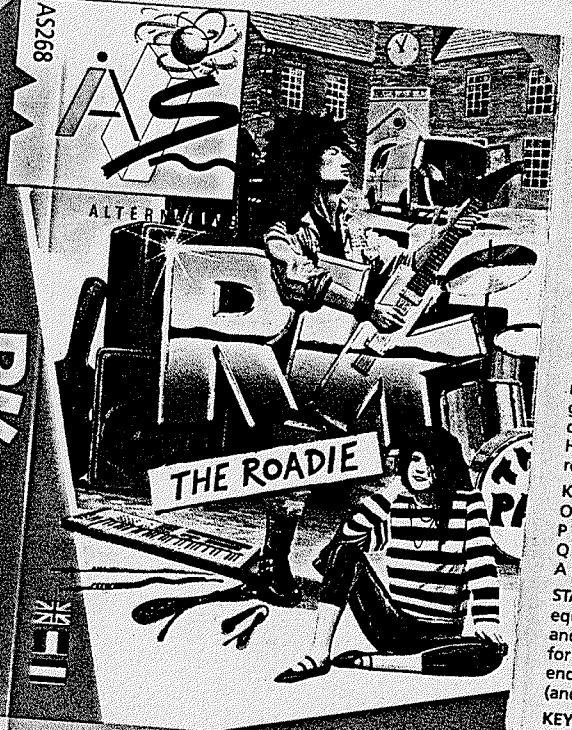

AMSTRAD

199 RANGE

RIK THE ROADIE

LOADING INSTRUCTIONS
Hit CTRL and SMALL ENTER then PLAY then any key.

You are Rik, roadie to the world famous pop group ALTERNATIVE ROCK. In order for Alternative Rock to stay popular, you as their roadie, must get all their equipment to the gig, take it into the hall, and set up the sound levels before the gig starts.

STAGE 1 You have 200 miles to go to reach the site of the next gig. You have only 6 hours to get there, set the gear up, and check the sound levels. Get to the gig as quickly as possible, avoiding all oncoming traffic. Hitting anything will cost you time, as your van is repaired.

KEYS
O — Left
P — Right
Q — Accelerate
A — Brake

STAGE 2 Now you are at the gig, you have to carry the equipment from the van into the hall. As amplifiers and speakers are very heavy, you cannot hold them for very long. Move as fast as possible before your endurance runs out, and you drop the very heavy (and expensive) equipment.

KEYS
O — Move left foot
P — Move right foot

STAGE 3 Finally, the equipment is set up, and all that remains is to set up the power levels. Too low, and the audience cannot hear the group. Too high, and the fuses blow. Keep the levels in the red, and soon as the optimum level is reached, the next sound channel is automatically selected. Once all four channels have been set, you can sit back, relax and watch your group the world famous 'Alternative Rock' perform live on stage.

KEYS

* — Power Up
? — Power Down

Once all three stages have been completed, then you have to transport the equipment to the next gig, with less time to complete it in!

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RIK LE ROUTARD

Instructions de chargement:
Appuyez sur CTRL et la petite clé ENTER puis sur PLAY et une clé quelconque.

Vous êtes Rik, le routard du groupe 'Alternative Rock' célèbre dans le monde entier. Pour qu'ils continuent à jouer de leur popularité, vous, leur routard, devez apporter tout leur équipement sur les lieux de leur concert.

ETAPE 1
Vous avez 200 miles à faire pour arriver sur les lieux du prochain concert. Vous n'avez que 6 heures pour faire le trajet, installer l'équipement et régler la sono. Conduisez aussi vite que possible, mais évitez les voitures qui roulent dans l'autre sens. Tout accident vous fera perdre du temps pendant que vous ferez réparer la camionnette.

Clés:
O à gauche
P à droite
Q accélérer
A freiner

ETAPE 2
Maintenant que vous êtes sur les lieux du concert, vous devez transporter l'équipement de la camionnette jusque dans la salle. Comme les amplificateurs et les haut-parleurs sont très lourds, vous ne pouvez pas les porter pendant longtemps. Allez aussi vite que possible avant que vos forces ne vous abandonnent, et que vous ne laissiez tomber ce très lourd (et couteux) équipement.

Clés:
O avancer le pied gauche
P avancer le pied droit

ETAPE 3
Enfin tout est installé et il ne reste qu'à régler les différents volumes de la sono: trop bas, le public ne peut pas entendre le groupe, trop fort, les fusibles sautent. Maintenez-les dans la zone rouge, et dès que le volume optimal sera atteint, le canal suivant se sélectionnera automatiquement. Quand les quatre canaux seront réglés, alors asseyez-vous, détendez-vous et regardez votre très célèbre groupe 'Alternative Rock' donner leur concert.

Clés:
* Augmenter le volume
? Diminuer le volume

Quand vous aurez les trois étapes, vous devez transporter l'équipement dans la ville suivante, en moins de temps qu'avant.

Rik, el 'técnico'

Instrucciones de carga:
Pulsa CTRL/ENTER pequeña, luego PLAY y cualquier tecla.

Tú eres Rik, 'técnico' del famoso grupo 'pop' ALTERNATIVE ROCK. A fin de mantener la popularidad del grupo, tú, como técnico del mismo, tienes que procurarte todo el equipo, llevarlo a la sala y ajustar los niveles de sonido antes del concierto.

FASE 1. Tienes que viajar 200 millas al lugar de la próxima movida. Tienes sólo 6 horas para ir, montar el equipo y verificar los niveles de sonido. Vete lo antes posible, evitando el tráfico que viene en dirección contraria. De dar contra algo te pierdes el tiempo de reparación de tu furgoneta.

TECLAS:
O Izda.
P Decha.
Q Acelera
A Frena

FASE 2. Ya has llegado. Tienes que llevar el equipo de la furgoneta a la sala. Los amplificadores y altavoces pesan mucho, por lo que no puedes sujetarlos mucho tiempo. Muévete lo más rápido posible, antes de que te agotes y se te caiga el pesado (y caro) equipo.

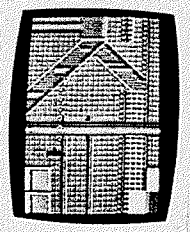
TECLAS:
O Mueve pie izqdo.
P Mueve pie decho.

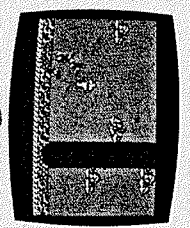
FASE 3. Ya está instalado el equipo y sólo falta ajustar el nivel de potencia. Si es demasiado bajo la gente no puede oir al grupo. De ser demasiado alto se funden los plomos. Ten los niveles en rojo y, en cuanto se consigue el nivel óptimo, se selecciona automáticamente el nivel del sonido siguiente. Una vez ajustados los cuatro canales te sientas cómodo, te relajas y miras la actuación en escena del grupo 'Alternative Rock', famoso en el mundo entero.

TECLAS:
* Sube la potencia
? Baja la potencia

Una vez ajustadas las tres fases tienes que transportar el equipo a la siguiente movida, ¡con menos tiempo para ejecutar tu tarea!

AS268





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LEGEND OF KAGE

AMSTRAD CPC 464·664·6128

LEGEND OF KAGE

TAITO

Imagine ...the name of the game

LEGEND OF KAGE

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Legend has it that long ago in Japan the beautiful Princess Kiri was kidnapped by the evil Dragon King, and Kage, a young ninja who was walking with her in the forest at the time, was given the formidable task of rescuing her.

You must help Kage in his quest through the forest to the Dragon King's palace, gain entrance, find Kiri and take her to safety, while avoiding the Dragon King's ninja guards.

LOADING

CPC 464

Place the rewound cassette in the cassette deck type RUN" and then press ENTER key. Follow the instructions as they appear on screen. If there is a disk drive attached then type |TAPE then press ENTER key. Then type RUN" and press ENTER key.
(The | symbol is obtained by holding shift and pressing the @ key).

CPC 664 and 6128

Connect a suitable tape recorder ensuring that the correct leads are attached as defined in the User Instruction Booklet. Place the rewound tape in the cassette recorder and type |TAPE then press ENTER key. Then type RUN" and press ENTER key follow the instructions as they appear on screen.

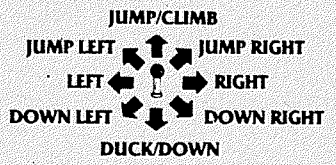
CONTROLS

When the tape has loaded a menu appears giving you the option of playing a one – or two-player game. Joystick or Keyboard control will be selected automatically.

KEYBOARD

Q – FIRE/USE SWORD
W – JUMP/CLIMB
S – DROP/FALL/CROUCH
N – MOVE TO THE LEFT
M – MOVE TO THE RIGHT

JOYSTICK



The UP arrow cursor key increases the music volume and the DOWN arrow cursor key lowers the music volume.

Whichever option you have selected, the ESC key can be used to pause the game. The joystick or any key can then be used to retart the game.

When playing a two-player game the players take turns at the keyboard or joystick.

THE SCREEN LAYOUT

The status line at the top of the screen shows the current scores.

GAMEPLAY

SCREEN 1 – A short introduction shows Kiri standing in the forest where she is kidnapped by the Dragon King who is passing in his carriage. On this screen Kage must defeat twenty ninja warriors during which time the Dragon King himself makes an entrance.

SCREEN 2 – You have now reached the Dragon King's palace and are at the foot of the wall, but the palace is surrounded by his ninja guards. You must defeat ten of them before you can climb the wall – but watch out for the ninja warriors in the river!

SCREEN 3 – You must now climb the wall. At the top you finally gain entrance to the palace.

SCREEN 4 – Inside at last! But where is the Princess? It is a large palace and she is hidden on the top floor! Make your way past the guards, the Dragon King will appear and make a final attempt to thwart your rescue bid. Stand well back from him – he's no pussycat!

Having disposed of the Dragon King, a little joystick action soon frees the Princess and you can go back to your romantic walk in the forest.

STATUS and SCORING

You are awarded 100 points for each ninja guard that you dispose of and 500 points for hitting the Dragon King. An extra 1000 bonus and one extra life (up to a maximum of five) is awarded for completing the final screen.

HINTS and TIPS

SCREEN 1 – Stand well back from the ninja warriors – they can be deadly! For a tougher but more interesting game, take to the trees!

SCREEN 2 – Watch out for ninja guards under your feet as your sword cannot reach low enough to hit them.

SCREEN 3 – Again, watch out for ninja warriors coming up from below or they'll take a swipe at your feet. However, you can try the same trick on them. . . .

SCREEN 4 – Perhaps the toughest – going like the clappers sometimes works but generally you'll have to be smarter than that.

LEGEND OF KAGE

This software product has been carefully developed and manufactured to the highest quality standards. Please read carefully the instructions for loading.
IF FOR ANY REASON YOU HAVE DIFFICULTY IN RUNNING THE PROGRAM, AND BELIEVE THAT THE PRODUCT IS DEFECTIVE, PLEASE RETURN IT DIRECT TO:
MR. YATES, OCEAN SOFTWARE LIMITED,
6 CENTRAL STREET, MANCHESTER M2 5NS.
Our quality control department will test the product and supply an immediate replacement if we find a fault the product will be returned to you, at no charge. Please note that this does not affect your statutory rights.

Produced by D. C. WARD
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This product contains only one cassette tape. The larger packaging has been introduced as a standard for this and future products. We may from time to time incorporate two tapes or possibly a disk.

WOOKY & MOTY

Wooky and Moty are two fast moving multi-screen arcade games.

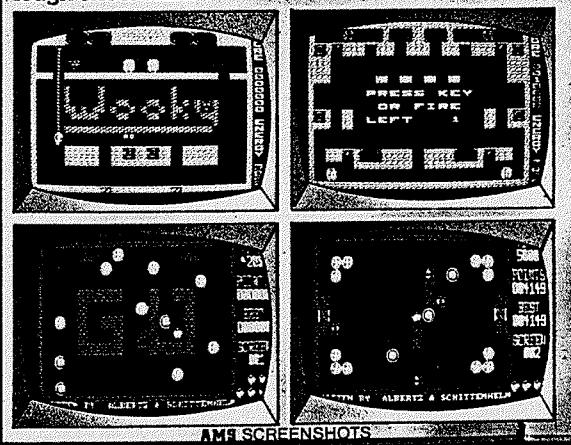
Wooky is weird and Moty is strange. They are locked in worlds of terror and are trying to escape. Can...Wooky use his multipurpose elastro-sucker head to get him out of trouble. Can he spring the locks and get out in time?

All Moty has to do is line up three balls – simple? Not unless you and Moty know something I don't. His private nightmare is a hell on rollerskates, heavy sheet after heavy sheet.

He's got a long way to go before he is out of the woods, so to speak. As for Wooky he's got a lot of fiendish puzzles to work out.

Too much to think about not enough time.

Tough sheet Huh?



AMS SCREENSHOTS

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WOOKY & MOTY

CRL



WOOKY

Description.

After loading the program the following menu appears.

Start	(1)
Password	(2)
Load Screens	(3)
Load Highscores	(4)
Save Highscores	(5)
Monitor	(6)

Option 1: Starting
Option 2: Input of a Password to select special Screens
Option 3: Loading
Option 4: Loading of Highscoretable
Option 5: Save of Highscoretable
Option 6: Give Control to Monitor (END of program)

Select an Option with the Cursor key or joystick (up & down) with 'CR' or 'FIRE'. After a password is inserted, the screen number can be chosen by pressing the joystick or the cursor key (left & right). When inserting the password or registering into the highscore.table the position can be directed by left-right and the sign with up-down.

The Game:

To finish a screen, all switches which are in playground, must be switched on with a red playstone. The exit to the next screen will open when all switches are on. If a stone is moved towards a lift, the lift will start to move. ATTENTION: Blue stones don't effect to switch.

WOOKY can be moved:

1. Cursors:	left-right	=go
	up	=to shoot the rope up on rope
	up-down	=move up and down
	SPACE	=jump; drop from the rope
	CR	=to throw a ball
2. Joystick:	left-right	=go
	up-down	=to shove the rope up
	up/left	=jump left
	up/right	=jump right
	Fire	=to throw a ball

If a stone is destroyed, the next level can't be attained. With the rope, WOOKY can reach higher levels, keep away from monsters.

You can restart screens during the play with SHIFT/BREAK.

MOTY

Description.

After loading the following menu will appear.

S: Start	Starts game
P: Password	After every five screens a new password will appear, which you should note. You can insert a known password and confirm this with 'CR'. With Cursor "left" and "right" you can select your screens.
C: Speed	You can select your speed by using Cursor "left" and "right".
K: Key definition	Defines the key or allows you to use joystick.

TASK.

Your task is to line up three stones vertical or horizontal. Please beware of the following:

1) Yellow Stones.

– They slide when pushed, until they hit something.
– They will be destroyed if they are pushed towards the brick wall.
– If they hit an elastic spring, they will be pushed back.
– If they hit a "mover" it becomes activated. The "mover" will destroy all stones that are in its path.

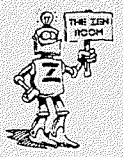
2) Violet Stones. (stopper)

– If you push them, they will move, and line up. If you push them on a yellow stone, they will splash.

3) Moving Walls.

– Can be stopped by violet stones.
– do not touch them.

We hope you have a lot of fun with MOTY.



G.I.HERO

THE STORY

The game is set in a politically sensitive country. Your mission is to retrieve the peace documents that have been stolen by a spy. If you are captured, all knowledge of your existence will be disclaimed.
The flight to the country in question will only take a few hours — just enough time to prepare yourself mentally for the task ahead.
Equipment for your mission has already been loaded into the light aircraft you will be flying in. To your surprise you find you have a companion — a dog called Killer.
As you approach the landing zone you are informed by the pilot that there are problems with the engines and you will have to jump now. As you make your descent, Killer becomes nervous and manages to slip free from your grasp. You make a heavy landing in the trees. Some equipment has been damaged and seems to malfunction, although not all the time. Killer is nowhere to be seen. Your first task is to find him.

PLAYING THE GAME

To move your man around the playing area, use the left and right movement controls.
Access to menu system is gained by facing your man forward and pressing fire.
Each menu can be used in the following way:
Move the gun sight over the menu you wish to use and press fire. Then, move over the option and press fire again. To leave the menu system move the gun sight away from all the menus and press fire.
To move into another part of the terrain, walk your character off the screen to the left or right. To move him to another screen, face him away and use the up movement control. To make him fire his gun, press the up or down control and then press fire.
If you fire from a crouched postion, and the enemy fire at you from a shoulder position, their bullets will pass over you without harm.
The game must be completed in order and the satelite messages will help with this.

CONTROLS

Left.....O
Right.....P
Up.....Q
Down.....A
Fire.....SPACE
You can use a joystick in port 2 on the Commodore version

HINTS

Try to conserve energy by cutting down the use of the following; Message decoder, homing beacon direction finder and torch.

Find and use Killer the dog to help with movement around the map. A helicopter base will put an end to your mission if not destroyed.
Use wirecutters to enter the enemy base.

G.I.HERO
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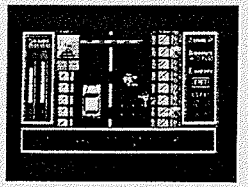
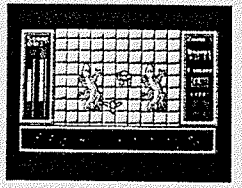
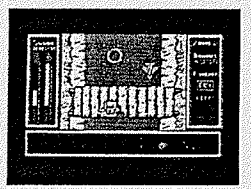




Join Ricky Steel, teenage Superhero in his Class A101 hyper alloy combat vehicle 'Nightwind', to defeat the onslaught of android troops built and controlled by the infamous Dr. Vardos. YOU must stop him achieving his ultimate goal....

To Conquer Earth.....

The game has the fastest and smoothest 2 directional replacement inertia scrolling yet seen on the Amstrad. Allowing Nightwind to Rapid fire Double barrelled energy bolts in twelve different directions. Not forgetting the Uranium thunderbombs that are used later...



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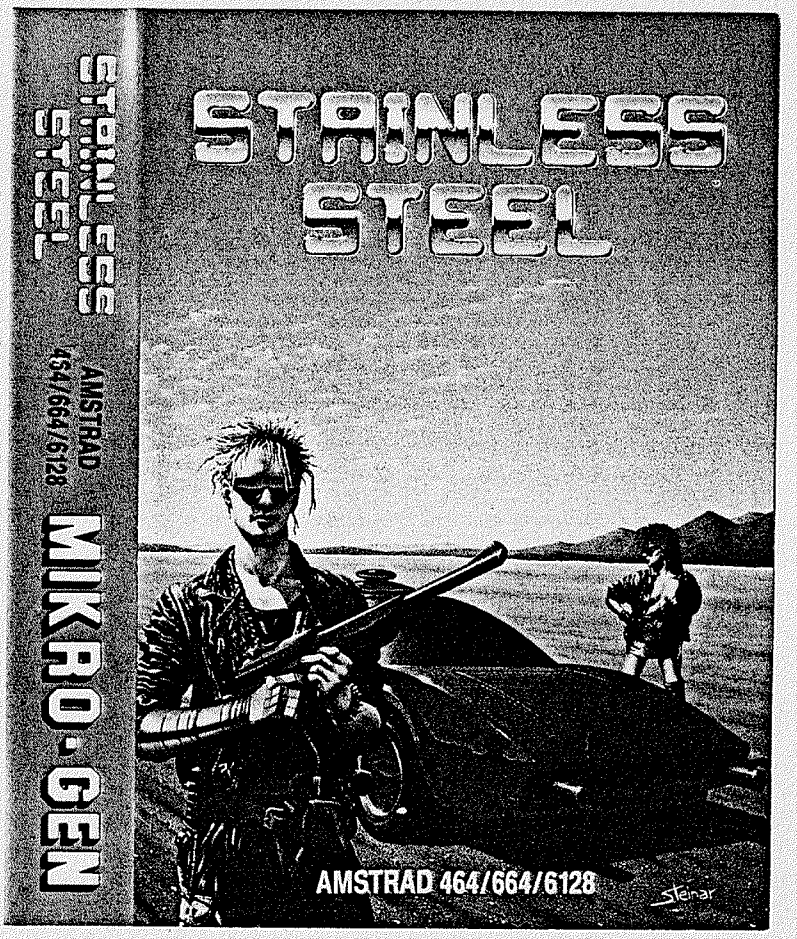
STAINLESS STEEL

AMSTRAD 464/664/6128

MIKRO-GEN



Stainless Steel Loading Instructions

Amstrad 464/664/6128

To load the game on an Amstrad 664 or 6128 type in : TAPE press RETURN then type RUN "" and RETURN. If using an Amstrad 464 just type RUN "" and press RETURN. Then press PLAY on the tape recorder. If you have any difficulties, consult your Manual and try adjusting the volume.

The keys are:-

Q - Up/Thrust Z or A - Down/Turn O - Left P - Right
SPACE - Fire N or I - Bomb/Shield

When using a joystick UP - Thrust LEFT - Left
DOWN - Turn RIGHT - Right
FIRE - Fire

The 'bomb/shield' function drops bombs when you are flying in Nightwind; otherwise this activates the shield, which lasts for a short period of time, which makes you indestructible. (Don't waste your shield -you only get one per life!).

To start game press SPACE.

To Pause a game - Press CONTROL and ESC together, to continue press ESC.

To Abort a game - Press CONTROL, SHIFT and ESC together.

There are 3 different stages to the game, these are:

WALKING: You can walk and fire in eight directions.

DRIVING: Press THRUST to speed up. To slow down stop thrusting. To turn around press TURN. Don't drop any bombs or you will blow yourself up. Don't drive into walls, rocks etc...

FLYING: The keys respond the same as driving however you can now use the Uranium Thunderbombs to wipe out any Enemy Submarines.

Gameplay:

In ZONE ø you must battle your way on foot until you reach your car Nightwind. (It is parked somewhere at the top of the Zone!)

In ZONE 1 you must wipe out all of the android troops before you can continue to the Second zone.

In ZONE 2 you can use your bombs to annihilate enemy submarines.

In ZONE 3 you must find Dr. Vardos and destroy him!

On Screen

Your score is on the top left hand corner of the screen. Below that are your FUEL & BOMB level sliders. You will lose a life if you run out of FUEL. Therefore there are fuel canisters scattered around each zone. To collect these just go into them. On the right is a Bonus counter, this will be added to your score upon successful completion of each zone. BEWARE: if you are too slow the bonus will become negative. (ie. Kiss goodbye to your score!) Below the bonus is an ENEMY counter, as you kill each alien it will click down one. When it reaches ø you have completed that zone.

Along the bottom of the screen is an alien scanner for the present zone, your indicator starts at the far right hand side and as you move up through the zone your indicator moves left. All the other symbols on the scanner are aliens and must be destroyed!

Knight Games

A Medieval Challenge for your computer. **ENGLISH SOFTWARE** brings medieval combat to life, giving you the chance to become an Olde English Knight, challenging your skills in 8 exciting events including:

SWORD FIGHTING 1
DUELLING AXEMEN
ARCHERY
QUARTERSTAFF BASHING
CROSSBOW SHOOTING
SWORD FIGHTING 2
BALL AND CHAIN FLAILING
PIKESTAFF CONTESTS

KNIGHT GAMES loads in 8 separate parts and features:

One and Two player combat modes.
Evocative medieval-style hi-resolution graphics.
Hundreds of different sprite positions
Exciting medieval-style music, specially composed for **KNIGHT GAMES**
Joystick and keyboard operation (Amstrad).
Joystick operation (Commodore).
Selectable skill levels.

FOR FULL LOADING INSTRUCTIONS and **JOYSTICK/KEYBOARD CONTROLS SEE REVERSE SIDE.**

KNIGHT GAMES OBJECTIVE:

In the 6 combat events, your objective is to win as many roses and shields as possible off your opponent; within the selected time limit. In the archery and crossbow events, you must score as many direct hits as possible.
Amount of time left is indicated by the burning candle.

KNIGHT GAMES loads from cassette in 8 separate stages, with four different events on each side of the cassette. Always load in the first program on the cassette first, which is the menu selection program, before selecting a particular event. Use the cursor keys or joystick to choose which event you wish to select, then press the **SPACE BAR** to load. Follow the same procedure for disk loading.

IMPORTANT NOTE: Always remember to leave your tape recorder on play when making your selections.

When the selected game has loaded, you will be presented with an **OPTIONS SCREEN**. Use the cursor keys or joystick to select your games options, then press the **ENTER/RETURN** key to select that option.

WHEN you have finished choosing your options, select the **START GAME** option and hit the **ENTER/RETURN** key.

CONTROLS:

RESET GAME: Ø key (AMSTRAD) Restore key (Commodore)

FREEZE GAME: Press the H key, then press again to re-commence play.

KNIGHT GAMES PROGRAMMING CREDITS:

Amstrad Game and Graphic Programming:
Dennis Travers

Commodore Game and Graphics Programming:
Jon Williams

Graphic Design: Colin Brown

Original Musical Composition: Yekao and Spiz,
with David Whittaker.

Original Knight Games Concept: Philip Morris.

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THE ENGLISH SOFTWARE COMPANY, 1 North Parade, Parsonage Gardens, Manchester M60 1BX. Tel: 061-835 1358

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AMSTRAD LOADING INSTRUCTIONS:

Cassette: Press the CTRL &small ENTER key then press PLAY.
Diskette: TYPE RUN "KNIGHTS, then hit the LARGE ENTER Key.

SCORING IN THE SIX COMBAT EVENTS:

ROSE = 25 points
SHIELD = Ten roses = 250 points
BONUS = 100 points/per shield remaining before time runs out.

SCORING IN ARCHERY and CROSSBOW EVENTS:

ARCHERY = 50 points/wooden horse hit
CROSSBOW = 35 points/small target hit
25 points/larger target hit
15 points/largest target hit

AMSTRAD CASSETTE USERS:

To save time when loading, it may be helpful to reset your tape counter to 000 (ZERO), and then note the tape counter position for each separate game on the cassette. Note the tape counter position in the space below for future reference:

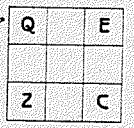
SWORDFIGHT 1	_ _ _	SWORDFIGHT 2	_ _ _
QUARTERSTAFF	_ _ _	PIKE STAFF	_ _ _
ARCHERY	_ _ _	CROSSBOW	_ _ _
BALL & CHAIN	_ _ _	AXEMAN	_ _ _

AMSTRAD INSTRUCTIONS

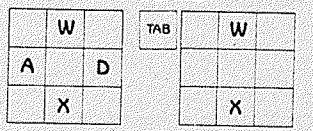
Use the following Joystick and Keyboard controls for:
● SWORDFIGHT 1 & 2 ● QUARTERSTAFF ● ARCHERY
● BALL & CHAIN ● PIKESTAFF ● CROSSBOW
● AXEMAN

PLAYER 1 (JOYSTICK OR KEYBOARD)

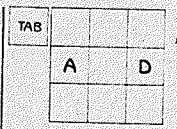
DEFENSIVE MOVES KEYBOARD



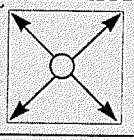
ATTACK MOVES KEYBOARD



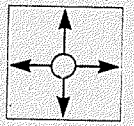
LEFT/RIGHT MOVEMENT KEYBOARD



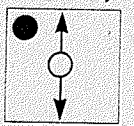
JOYSTICK (WITHOUT BUTTON PRESSED)



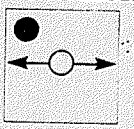
JOYSTICK (WITHOUT BUTTON PRESSED)



JOYSTICK (WITH BUTTON PRESSED)



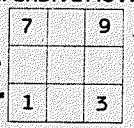
JOYSTICK (WITH BUTTON PRESSED)



PLAYER 2 (KEYBOARD ONLY)

KEYPAD OPERATION

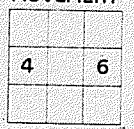
DEFENSIVE MOVES



ATTACK MOVES



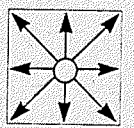
LEFT/RIGHT MOVEMENT

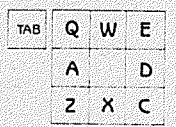


ARCHERY & CROSSBOW

Guide the cursor with joystick or keyboard, then push button or TAB key to fire:

JOYSTICK






AMSTRAD/SCHNEIDER
SKATE ROCK
Screen Shots From The C64 Version
Experience all the thrills and spills of skate boarding as you thrash your way around the ten gruelling courses in an attempt to qualify for the elite "Slime Rat Skaters".
All the moves you will want are here, along with a powerful musical beat to drive you on.
One Player Only.
Joystick or Keyboard.
PROGRAM BY RICHARD CLARK (THE 128 CREATION!)
PREVIOUSLY PUBLISHED BY BUBBLE BUS SOFTWARE AS SKATE ROCK.
MANUFACTURED IN THE U.K.
5 012967 400651
SKATE ROCK
BA 019
BY MASTERTRONIC
Rocket
Are you up to the challenge? Ten courses have been set up around the town, and it is time to see who really is the hottest skateboarder in town. Thrash your way around the courses, hit the right flags on each and reach the finish line with time to spare.
If you are one of the elite that can complete them all you will join the "The Slime Rat Skaters". Will you pass the grade or are you only another toy skater?
LOADING INSTRUCTIONS
AMSTRAD 464
Press CNTRL and small ENTER.
AMSTRAD 6128
Type | TAPE and press RETURN. Press CNTRL and small ENTER.
CONTROLS
Joystick only
OPTIONS
Use the joystick to select between the following options.
Courses 1-10, you must complete the courses in order, and can only start at one of the courses that you have previously finished.
TIME LIMIT
Truck setting. The tighter you have the trucks set, the faster you will turn. Set this for personal preference.
Press fire to start game.
IN PLAY
Joystick controls without fire button pressed.
Accelerate
Left
Right
Decelerate
Joystick with fire button pressed.
Accelerate
Kick turn left jump
Kick turn right
Wheelie
Space bar pauses game, any joystick movement will then restart it. Restore aborts game.
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JOE BLADE 2
AMSTRAD LOADING INSTRUCTIONS

464: Hold down CTRL and tap the small ENTER key. 664/6128: Type | (shifted @) TAPE (ENTER) then type RUN" (ENTER).

THE STORY

The year is 1995, the setting London. The streets are crawling with punks, thugs and muggers! The ordinary urbanite masses remain prisoners in their crumbling homes, too terrified to venture outside, into the crime ridden inner-city horrorscape beyond their front doors.

Only one man can clean up this city... That man is JOE BLADE.

Joe Blade - teenage pin up and pop idol, media celebrity, hero of the people, defender of the flag, helper to those less fortunate than himself. Mean tough and fearless, his very name strikes fear into the cold hearts of every punk, thug and mugger.

THE MISSION

You are Joe Blade... Using only your skills of hand to hand combat you must clean up the city.

The punks wear armour to protect themselves from each other, so in order to kill a punk you must kick him in the head, this is achieved by jumping over him (not too easy as the punks like jumping too). You do not have to kill all the punks, once you have killed about 100 the remaining punks will get the message, and repent of their evil deeds, and become decent law abiding citizens.

Not only must you kill your daily quota of punks, you must also rescue sixteen citizens who have foolishly ventured onto the streets. To rescue a citizen you must walk into him, then solve one of four subgames:

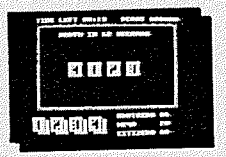
Subgame one

You must complete the sequence 1,2,3,4 by pressing FIRE when the correct number appears. Be careful you can not select a number when it is fading out.



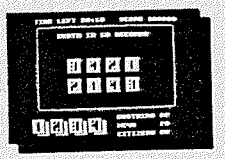
Subgame two

As with subgame one you must complete the sequence 1,2,3,4 however this time by swapping numbers, press FIRE when the desired pair of numbers are flashing.



Subgame three

In this subgame you are presented with two sets of jumbled numbers. You only have to complete one 1,2,3,4 sequence, either top or bottom, by swapping numbers between the two. When the desired pair of number icons are flashing press FIRE.



Subgame four

In subgame four you are presented with an ever changing number icon and four jumbled numbers, the object of this sequence is to swap the changing number with the flashing number to form the sequence 1,2,3,4. When the desired pair of number icons are flashing press FIRE.



Scattered around the city you may find items such as bins and clocks which will help you in your mission. Press 1 on the menu for more information.

CONTROLS

You may use a joystick or Q,A,O,P and SPACE. ESC will pause the game (you can not pause during subgames).

Joe Blade 2

WIZBALL

Während vielen Jahren haben Wiz und seine phantastische Katze glücklich in der viellarbigen Wizwelt gelebt. Der böse Zark jedoch mag Farbe nicht, und er und seine schrecklichen Kobolde machen alles farblos und grau. Das Schlimme ist nun, daß eine boswillige Macht diese Aussicht entdeckt und sich vorgenommen hat, den Glanz ein für allemal auszulöschen. Der böse Zark und seine schrecklichen Kobolde sind nun erschienen, um die Farbenpracht zu zerstören und die ganze Landschaft grau und farblos zu machen. Also spring in Deinen Transporter und mach Dich auf, mit Hilfe Deines treuen Dieners Catelite die frühere Schönheit von Wizwelt wieder herzustellen. Während Du versuchst, die fremden Mächte loszuwerden, kannst Du Fähigkeits-Abbildungen für besondere Effekte sammeln. Tolle Graphiken machen Lust auf ein aufregendes und fesselndes Spiel mit jeder Menge versteckten Eigenheiten und zusätzlichen Steuerungen.

LADEN

CPC 464

Lege die zurückgespulte Kassette in das Kassettenteil, tippe RUN" und danach drücke die ENTER Taste. Folge den Anweisungen, wie sie auf dem Bildschirm erscheinen. Falls ein Diskettenlaufwerk angeschlossen ist, tippe | TAPE und danach drücke die ENTER Taste. Anschließend tippe RUN" und drücke die ENTER Taste (Das | Symbol erhältst Du, indem Du die Umschalter Taste festhältst und @ drückst.)

CPC 664 und 6128

Schließe einen geeigneten Kassettenrekorder an und versichere Dich, daß die korrekten Kabel angeschlossen sind, wie es in der Anleitung für benutzer beschrieben ist. Lege die zurückgespulte Kassette in den Rekorder und tippe | TAPE und danach drücke die ENTER Taste. Anschließend tippe RUN" und drücke die ENTER Taste. Folge den Anweisungen, wie sie auf dem Bildschirm erscheinen.

STEUERUNGEN

Wizball wird mit Joystick mit Tastatur gesteuert.

JOYSTICK

Joystick nach rechts bewegen gibt dem Wizball einen Dreh nach rechts. Joystick nach links bewegen gibt dem Wizball einen Dreh nach links. FIRE drücken aktiviert die Waffen, die Du gerade trägst. FIRE drücken und den Joystick bewegen steuert Catelite beim 1-Spieler Spiel. Durch drücken der LEERTASTE kann die Funktion, die in der Abbildung oben am Bildschirm aufleuchtet, gewählt werden.

TASTATUR

ESC — PAUSE
Wenn Q während der Pause gedrückt wird, wird das Spiel abgebrochen.

DAS SPIEL

Die Landschaften in der Wizwelt haben je drei Farben. Du versuchst, diese zu restaurieren, indem Du die ROTEN, GRÜNEN und BLAUEN Farbbläser abschießt, und dann Catelite losschickst, um die auf den Boden gefallenen Chemikalientropfen einzusammeln. Diese werden in den Kesseln unten im Bild gesammelt, bis Du von jeder Farbe genug hast, und die Zielfarbe zu machen, die im Kessel ganz rechts dargestellt ist.
Auf den drei Stufen hat den Außerirdischen hat die eine Rot, die andere Grün und die dritte Blau. Deshalb mußt Du die Tunnels zwischen allen drei benutzen, um alle drei Farben einsammeln zu können.
Um eine Spielstufe zu beenden, mußt Du alle drei Graustufen einfarben, die dunkelste zuerst. Sobald ein Farbtyp beendet ist, gibt es eine Bonusszene. Es gibt drei Typen von Außerirdischen in der Bonusszene, und jeder hat eine andere Punktzahl. Diese werden zusammen multipliziert, und am Ende der Szene gibt es einen Mega-Bonus.

ABBILDUNGEN

Bestimmte Außerirdische deponieren, wenn sie getötet werden, eine grüne Perle, die auf dem Bildschirm festbleibt. Wenn der Wizball darüber rollt und sie aufhebt, leuchtet die erste Abbildung oben im Bild auf. Wiz kann nun die abgebildete Fähigkeit selektionieren. Wenn Du lieber eine andere Fähigkeit möchtest, sammle weitere Perlen ein, bis die gewünschte Abbildung aufleuchtet.

ABBILDUNG 1
SCHUB — Gibt Wiz mehr Kontrolle über den Wizball und erlaubt ihm, diesen nach rechts und links zu bewegen. ANTI GRAV — Gibt Wiz totale Kontrolle über den Wizball, stoppt das ewige Aufspringen.

ABBILDUNG 2
DOPPEL — Gibt Wiz automatische Feuerkraft in zwei Richtungen.

ABBILDUNG 3
CATELITE — Gibt Wiz eine neue Katze vom Trainingscollege

ABBILDUNG 4
FEUERWERFER — Gibt Wiz und Catelite superkräftige Feuerwerfer (sparsam benützen).

ABBILDUNG 5
WIZ SPRAY — Gibt Wiz Mega-Spray-Schutz.
CAT SPRAY — Dasselbe für Catelite (Wiz und die Katze können den Spray nicht gleichzeitig haben).

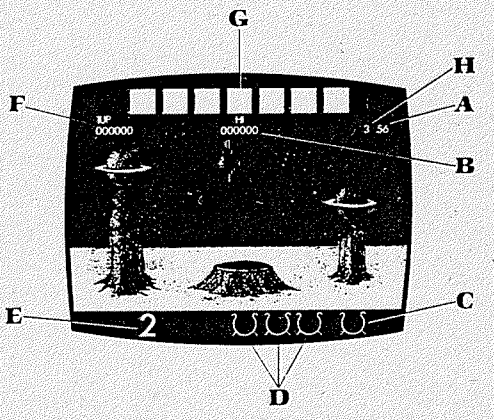
ABBILDUNG 6
SCHILDER — Gibt Wiz und Catelite Schilder für eine begrenzte Zeit.

ABBILDUNG 7
INTELLIGENZBOMB! — Totet jeden Kobold in Sicht.

WIZ-LAB

Nach einer Bonusszene betritt Wiz das Wiz-Lab und erhält von seinem Schutzengel Wiz-Schwung. Du kannst entweder eine Waffe oder Steuerung, die auf magische Weise auf alle Wizbälle von der Geburt weg übertragen wird auswählen, oder aber den 1000 Punkte Bonus mal die Wiz-Stufen Nummer.

ANZEIGETAFEL



SCHLÜSSEL

A — Anzahl der verbleibenden Außerirdischen
B — Höchstpunktzahl
C — Kessel mit Zielfarbe
D — Kessel zum Sammeln der Farbe
E — Stufe
F — Punktzahl für Spieler 1
G — Abbildungen
H — Anzahl der verbleibenden Wizies

STATUS UND PUNKTEGEWINN

AUSSERIRDISCHE	— 10 — 500 Punkte
PRELEN EINSAMMELN	— 100 Punkte
TROPFEN EINSAMMELN	— 150 Punkte
FARBE BEENDEN	— 2000 Punkte
STUFE BEENDEN	— 7500 Punkte
BONUS WELLE	— Extra Bonus Welle
GETÖTETE AUSSERIRDISCHE	— x 40 Punkte
WIZ-PUNKTE IN DER HAND	— Stufen Nummer x 1000 Punkte

Pro 100.000 Punkte gibt es einen Wizball. Zusätzlich können während der Bonus Welle durch Abschießen von Wiz's Ebenbildern extra Leben gewonnen werden (wenn das Ebenbild ein Geräusch macht, gibt es ein zusätzliches Leben).

SPIELTIPS

★ Stufe 4 kann erst nach Beendigung von Stufe 1 betreten werden, ebenso Stufe 5 erst nach Beendigung von Stufe 2 usw.
★ Es sind nie mehr als 3 Landschaften von Außerirdischen besetzt. Sobald Du eine Landschaft beendet hast, verschwinden alle Außerirdischen, außer auf Stufe 6.
★ In der Nähe von allen Tunnels sind Pfeile, die angeben, ob der Tunnel Dich nach oben oder nach unten bringt.
★ Wenn ein Außerirdischer aussieht wie ein Gehirn, und Du ihn eliminierst, bist Du automatisch im Intelligenzbomben-Modus.

WIZBALL

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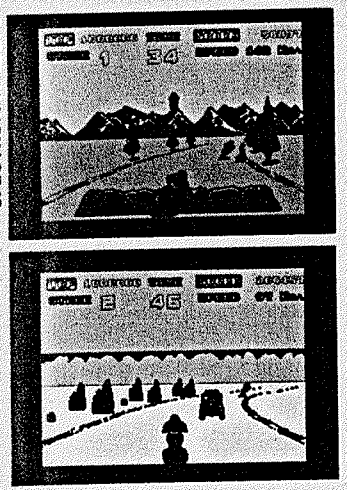
JUMP INTO THE WORLD OF ENDURO RACING...

SPECTRUM SCREENS



Based upon the popular arcade coin op, ENDURO RACER has been described as "THE MOST FAITHFUL AND COMPELLING COIN OP CONVERSION SEEN" (Sinclair User) and "THE BEST COIN OP CONVERSION AVAILABLE" (Popular Computing Weekly).

From tarmac tracks to desert trails ENDURO RACER is a stunning motorbike race pitting you against time as you compete with deadly opponents and the cruel and challenging terrain...

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SINGLE CASSETTE PACK
UQK 572

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ENDURO RACER

SEGA®

ENDURO RACER™

FREE GAME OFFER 1 TOKEN DETAILS INSIDE PACK

'BEST COIN-OP CONVERSION'
Popular Computing Weekly

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ENTERTAINMENT SOFTWARE

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Electric Dreams game of your c
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Write to Activision U.K. Ltd., 2
Street, London NW3 2PN enclo
tokens from 5 different games,
purchase for each of these game
of your name and address and t
of your choice (or an alternative
should the first not be available
Please state whether this should
be for Amstrad, Commodore o
Spectrum Home computer.
Activision reserve the right
to refuse applications
they consider to
be counterfeit.

UQK 572

LOADING INSTRUCTIONS

COMMODORE 64 CASSETTE:-
Press 'Shift' and 'RUN/STOP' keys simultaneously and press 'PLAY' on your cassette recorder.
COMMODORE 64 DISC:-
Type LOAD "★", 8,1 and then press 'RETURN'.
SPECTRUM 48K CASSETTE:-
Type LOAD " " and then press 'ENTER'.
AMSTRAD/SCHNEIDER CASSETTE:-
CASSETTE BASED COMPUTER (ie CPC-464) – Press 'CTRL' and the small 'ENTER' keys simultaneously. DISC BASED COMPUTER WITH ADDITIONAL PLAYER (ie CPC-6128) – Type TAPE and press 'RETURN' then press 'CTRL' and the small 'ENTER' keys simultaneously.
AMSTRAD/SCHNEIDER DISC:-
CASSETTE BASED COMPUTER WITH ADDITIONAL DISC DRIVE (ie CPC-464) – Type: DISC and press 'RETURN' then type RUN" DISC and press 'RETURN'. DISC BASED COMPUTER (ie CPC-6128) – Type RUN "DISC and press 'RETURN'. All programs will RUN automatically after LOADING is complete.
In case of LOADING difficulties please refer to the chapter on LOADING and SAVING programs in your computer's User Manual.

GAME INSTRUCTIONS
Once Enduro Racer has loaded press any key to display the menu screen

START GAME
ONE PLAYER

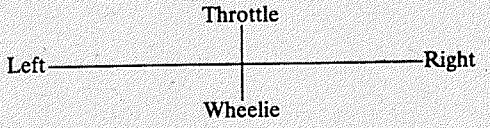
To select one of these choices you should press the Space key or Fire button.
START GAME: If this is lit up and you press Space then the game will start.
If you are using a joystick then press the Fire Button to start.

ONE PLAYER:
If you press the Space Bar when this is lit then it will change between ONE and TWO PLAYER mode. If you are playing a two player game then '1 UP' will appear in the bottom right of the screen while player 1 is playing, '2 UP' will appear in the bottom right while player 2 is playing. Control will switch between players when one of them crashes or when their time runs out.

CONTROLS:

KEY	EFFECT
Q	Increase Throttle
A	Pull a Wheelie
O	Turn Left
P	Turn Right
Space Key	Apply Brakes
H	Pause Game
R	Reset Game

If you are using a Joystick then the controls are:



Fire Button: Brakes.

SCREEN DISPLAY:
The top of the screen looks something like this:

TOP	1000000	TIME	SCORE	970034
STAGE	1	54	SPEED	161 Km/Hr

TOP gives the top score.

TIME gives the time you have left (in seconds) to complete the current stage.

SCORE gives your score.

STAGE tells you which of the 5 stages you are on.

SPEED gives your speed in Kilometers per Hour.

HINTS AND TIPS

Avoid other riders, jeeps, rocks, trees, water etc.

Remain on the road (in stage 3 there is water to either side of t road) in order to maintain maximum speed.

When you go over the jumps you will lose speed unless you pu wheelie before reaching the jump. You may also go round the of the jumps, though this may slow you down.

There are 5 Stages taking you through 5 different landscapes.

END OF GAME AND HIGH SCORE:
At the end of a game the following will appear on screen:

	RECORD	PLAY
	1 0 47 27	0 50
	2 0 55 00	62
	3 0 59 99	
	4 0 59 99	
	5 0 59 99	
TOTAL	4 42 24	0 50

In the RECORD column the number of the stage is given foll the fastest time for that stage.

In the PLAYER column your times for the stages are given. I final stage that you were unable to complete a percentage is g showing how far you got through that stage.

MR WEEMS AND THE SHE VAMPIRES

Weems, a failed accountant turned lion-tamer, found circus life too dull. So he decided on a career as a vampire hunter. Now he faces his toughest challenge.

Armed only with a rapid-fire garlic gun and a single smart-garlic pill, he has forced his way into the Mansion of the She Vampires. Weems must blaze his way through the six lethal levels of the labyrinthine Mansion. Attacked on all sides by sharp-fanged bats, dim-witted Frankenstein monsters and hungry She Vampires, Weems has to pick up a vital weapon on each level. Occasional bottles of blood to supplement his fast failing blood count and a few garlic bombs strewn around may just help Weems survive but the ultimate horror still lies ahead. On the final level of the Mansion lurks the Great She Vampire herself. Weems will only be able to destroy her if he has collected all the weapons he needs on the battle-torn way to her lair. Then he must fight his way out of the Mansion. Weems has just one small problem. Staying alive!

A game by the Ram Jam Corporation

ISBN 0-333-45761-7

Piranha

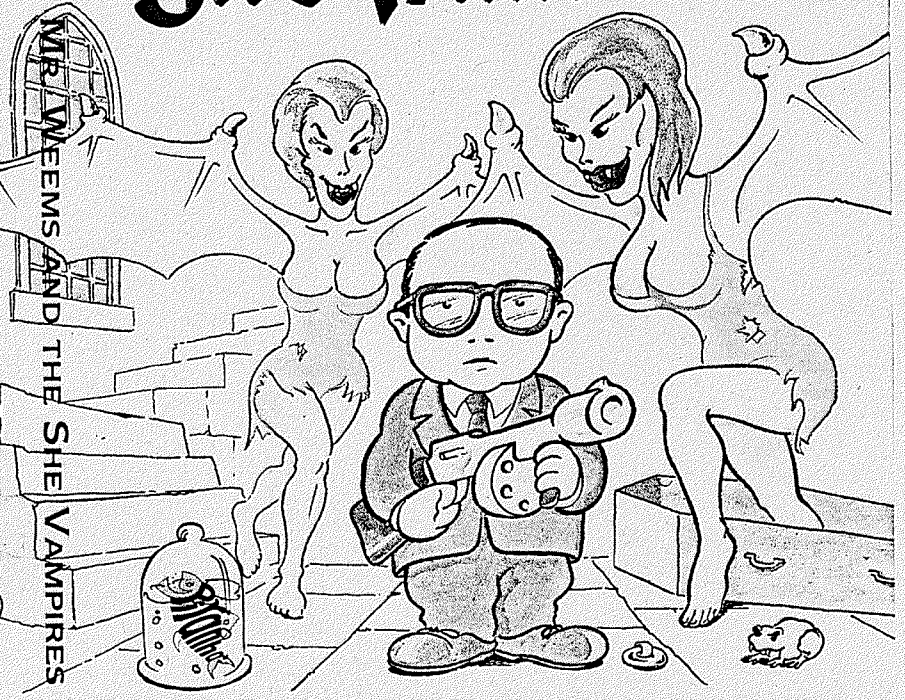
9 780333 457610

Amstrad CPC

MR WEEMS AND THE SHE VAMPIRES

THE ASTONISHING ADVENTURES OF

MR WEEMS AND THE SHE VAMPIRES



Loading the Game

Spectrum 48k	LOAD""
Spectrum 128/Plus 2	Select BASIC 48 then LOAD""
Amstrad CPC cassette	RUN""
Amstrad CPC disc	RUN"WEEMS"
Commodore cassette	SHIFT RUN/STOP
Commodore disc	LOAD"WEEMS", 8,1

Playing the Game

Once loaded the game is menu-driven.

Select keyboard or joystick options. The Spectrum version is Kempston and Interface II compatible. Type in your initials, hit ENTER and let battle commence! Use the redefine option on the initial menu for any of the following:

redefine keys for keyboard play;
select 'Silent Fright' for no sound;
select 'Freeze Frame' for pause;
choose 'Fang Length' (1-3) for level of difficulty – the longer the fangs, the more quickly your blood is drained!

You cycle through the redefine options by pressing ENTER. When all are defined, you are returned to the start-up menu. You can't assign the same key to more than one control parameter and Fang Length can only be 1, 2, or 3. You won't be returned to the start up menu until this is done.

If you don't select the redefine option the game defaults to the following:

Left	**Z**	Garlic Bomb	**G**
Right	**X**	Smart Garlic	**S**
Down	**N**	Freeze Frame	**F**
Up	**B**	Silent Fright	**W**
Fire	**M**	Fang Length	**1**

Use a joystick for direction control and the joystick's fire button to let rip with the garlic gun.

Screen Display

From left to right, in the folds of the vampire's wings, you'll see the following readouts:

blood count: starts at 1000 and drops fast;
keys: the number shows you how many you're carrying – the symbol with no number means you have no keys;
garlic bombs: the number shows how many you're carrying – the symbol with no number means you have no bombs;
level: tells you which level of the Mansion you're on;
scores: current and high scores are shown;
during the game, when you locate and collect each of the five weapons you need to destroy the Great She Vampire, they will appear amongst the folds of the wings.

Gameplay

Weems has to battle through six labyrinthine levels of assorted ghouls to reach the Great She Vampire in her penthouse lair. If he's picked up the vital secret weapon on each of the previous levels, he'll be able to destroy her. If not, it's curtains for Weems!

Each level has its own layout of corridors and rooms littered with coffins and alive with bloodsucking nasties. Watch out for hidden doors in the walls and magic transporter blocks in the floors. Weems' garlic gun fires such tiny particles of garlic that his ammo is more or less limitless. He can also pick up keys (for any locked doors), refreshing bottles of blood to raise his flagging blood count and the few garlic bombs scattered about the place.

Garlic bombs clear the screen of nasties. Weems can also swallow his single smart-garlic pill at any time to give himself short-term immunity to the bloodsuckers. This can be handy either early in the game to give you a chance to get used to the gameplay, or later when the going gets really tough!

Once the bloodsuckers have been wiped out from a screen, you can blast coffins. This helps to keep the area clear because bats, in particular, gather around them. She Vampires are even harder to kill and they're smart!

The objects you need to find to kill the Great She Vampire are in boxes, one on each level. The five are: a stake, a mallet, a piece of mega-garlic, a mirror and a crucifix.

If Weems kills the Great She Vampire, he'll need to get out of the Mansion fast. The enraged nasties on all levels don't take kindly to having their boss knocked off, so Weems can expect a rough time!

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NINJA SCOOTER SIMULATOR

© PROBE SOFTWARE

THE GAME
Whizz through the night on your Dream Scooter, jumping and dodging the grates that could slow your progress, and also the holes and walls that'll slam you out. Use the ramps to make leaps and pull some rad Ninja stunts.
You gotta beat the clock to beat the rest, so don't hang around, Ninja Scooter's the best!

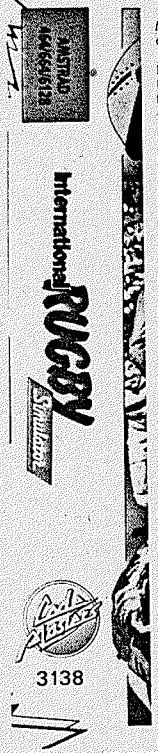
LOADING
AMSTRAD 464 OWNERS
1. Place the rewound cassette into the cassette unit and press PLAY.
2. Hold down CTRL and press the SMALL ENTER key.

AMSTRAD 664, 6128 and 464+DISK OWNERS.
1. Hold down SHIFT and press the @ key. Type TAPE and press RETURN.
2. Connect a suitable cassette player to your computer, according to the User Manual, and insert the rewound cassette.
3. Hold down CONTROL and press the ENTER key.
4. Press PLAY on the cassette player.

Note: Full loading instructions can be found in your Amstrad Manual.

PLAYING THE GAME
One or two players may play Ninja Scooter Simulator.
Keyboard controls are redefinable, otherwise a joystick may be used.
UP and DOWN controls move you across the pavement.
LEFT and RIGHT slow you down and speed you up.
Press FIRE to jump. When you hit a ramp, press FIRE in the air and RIGHT for a trick. The longer the stunt is held, the more points scored. Press FIRE in the air and LEFT for mid-air rotate. The more rotations, the more points you'll get. Land correctly or bust! Go for it! Wicked!


8 PLAYERS A-SIDE!
AMSTRAD 464/664/6128
International RUGBY Simulator
The first real simulation of the world famous game – it's all there... conversions, touch-backs, line-outs, drop-kicks, real tackling, scrum-downs, throw-ins and all the rest...
An amazing mixture of strategy and fast action – definitely the best Rugby game, ABSOLUTELY BRILLIANT!
David Darling.
INTERNATIONAL INSTRUCTIONS
INSTRUCCIONS
5 015026 031384
ACTUAL AMSTRAD SCREENSHOTS
3138
AMSTRAD 464/664/6128
International RUGBY Simulator
NEW RELEASE
BRILLIANT 3D ACTION
This is it—the truly definitive Rugby game. It's got all you would expect, and more. Here are just some of the amazingly realistic features...
★ Up to EIGHT players using the league feature
★ All-action scrum-down sequences
★ Conversions and drop-kicks
★ 8 preset team playing policies, and you can make your own!
★ Watch your team members line out behind you, waiting to receive the pass, while others mark the opposition...
★ Real throw-ins
★ Choose your own team name
With it's many remarkable facets, this will soon be your favourite game – PLAY IT AND SEE!!
PLAY YOUR FRIENDS OR THE COMPUTER
LOADING:
on the 464 type: RUN" (ENTER)
on the 664/6128 type: |TAPE (ENTER) RUN" (ENTER)



USING THE MENU

Move the highlight bar up and down using the cursor keys. Press **ENTER** to choose the option under the highlight bar.

CONTROLS

Keyboard/Joystick control.
During a game, pressing **ENTER** will pause the action. Pressing it again will continue. While in pause mode, press **Q** to quit the game. **1** and **2** will let you change playing policies. (See FOR ADVANCED PLAYERS).

STARTING A GAME

Watch the digital display on the stadium roof to see who is playing the first match. The team on the left of the scoreboard is controlled by player 1, and the team on the right by player 2.

PLAYING THE GAME

During a game, you control one of the players on your team. This player is highlighted with a circle overhead so that you can see him easily. The member of your team holding the ball is controlled by you, or, if your team doesn't have possession of the ball, pressing FIRE will change control over to the member of your team nearest to the ball. This means you have control of all of your players, and stay on top of the action.
While you control the active player, all your other team members will be using their artificial intelligence and following the chosen team playing policy.

ON THE FIELD . . .

If you're not using a joystick, then use the keys that correspond the joystick movements mentioned below . . .
PASSING – Hold the joystick in the direction of the pass and press FIRE – you cannot pass forward.
KICKING – Hold the joystick in the direction of play and push FIRE. The 'KICK POWER' indicator will appear and start growing. Release the button when you have the power that you want, and the direction bar will start. Push FIRE again to kick.
SCRUMMAGE – This happens if you are tackled and don't throw the ball back. The scrummage indicator will appear then waggle left and right quickly to win the scrum and gain possession.
LINE OUTS – Moving left or right selects the controlled player. Up/down will reposition the player. The ball holder will throw the ball when FIRE is pushed.
SCORING A TRY – Press FIRE when you are over your opponents try line with the ball.
CONVERSION – Use left/right to position the arrow. Press hold FIRE when the arrow points towards the goal. The 'POWER BAR' starts growing. Release FIRE to make the conversion when the power bar has sufficiently grown.

THE LEAGUE

If you start a league, the computer will want to know how many teams are involved. It assumes there are 8 unless you tell it otherwise. Decide amongst yourselves which team you want to be. If you want to change your team names, go to the OPTIONS selection, then choose TEAM NAMES. Move the highlight bar over the current name of your team and hit FIRE. You can then type the name of your favourite team (followed by **ENTER**).
When playing in a league, be careful to see that the right people play the right matches by watching the scoreboard the beginning of the game.

FOR ADVANCED PLAYERS: TEAM PLAYING POLICIES

Your team playing policy governs how the rest of your team play – remember you only control one man at a time! You can change your strategy at any point during the game by pressing ENTER (to pause the action) and then pressing 1 (for player 1) to 2 (for player 2). Press the ENTER key to step through the preset policies, and move the highlight bar to LEAVE MENU to select the policy that's on the screen.
You can also make your own policies (before starting a game) by selecting the POLICIES option in the OPTIONS menu. You can then select which player you want to move with your joystick/control keys. Hold down FIRE to drag the player to where you want him in your new policy.
There are 8 players on each team, 3 are the pack and 5 are backs or line members. The pack always follows the ball.
The line members follow the policy (either for attacking or defending).
When defending, a player can either be in a fixed ZONE on the pitch or he can 'MARK' his opposite number in the attacking team.
When attacking, the ZONE determines where the players run in relation to the pitch. The ball FOLLOWERS move in relation to the ball and you can set their relative positions. (The line in the centre represents the ball position.)
The best way to learn about policies is to experiment with them . . . try a few different ones and see what happens.

ESPANOL

PARA USAR EL MENU

Mover la linea luminosa hacia arriba y hacia abajo, usando el cursor de teclas. Pulsar **ENTER** para escoger la obción bajo la linea luminosa.

CONTROLES

Tablero/control de mando (palanca)
Durante el juego, el pursar **ENTER** dará una pausa en la acción. El pulsar otra vez, la hará continuar.
Mientras esté en la colocaión de pausa, pulsar **Q** para abandonar el juego.
1 y **2** te permitirán cambiar los planes de acción. (Ver FOR ADVANCED PLAYERS/Jugadores avanzados de juego).

AL EMPEZAR UN JEUGO

Mirar la visulización digital en el tejado del estadio para ver quién esta jugando el primer partido. El equipo a la izuierda del tablero de resultados es controlado por el jugador I, y el equipo a la derecha por el jugador 2.

AL JUGAR

Durante el juego, tú controlas uno de los jugadores en tu equipo. Este jugador es iluminado por un círculo sobre la cabeza para que le puedas ver fácilmente. El miembro de tu equipo que tiene el balón es controlado por ti, ó, si tu equipo no tiene posesión del balón, el pulsar FIRE dará control al miembro de tu equipo que esté más cerca del balón. Esto significa que tienes el control de todos tus jugadores, y con él el control de la acción.
Mientras controlas al jugador activo, todos los otros miembros del equipo estarán usando su inteligencia artifical, siguiendo el plan de acción del equipo escogido que está jugando.

PLUGSIMULATOR

Ladeanweisungen:
CTRL ENTER gleichzeitig drücken, dann PLAY, dann eine beliebige Taste.

FLUGSTEUERUNG:
U Aufstieg
D Abstieg oder Joystick
L Links
R Rechts
F Klappen auf/ab
W Fahrwerk einziehen/ausfahren
B Bremsen betätigen/lösen
O Gas geben
C Gas wegnehmen
! Wenden
P Schwierigkeitsgrad erhöhen (nur bei Stillstand)
Q Schwierigkeitsgrad senken (nur bei Stillstand)

START
Beim Start befindet sich das Flugzeug bei Längengrad 000, Breitengrad 000.

Man startet durch Gaegeben und Lösen der Bremsen: das Flugzeug beginnt, sich vorwärtszubewegen. Wenn in diesem Stadium die Klappen hoch sind, wird die Beschleunigung verbessert. Wenn Ihre Luftgeschwindigkeit 60 Knoten (40 Knoten bei gesenkten Klappen) überschreitet, können Sie den Aufstieg beginnen.

Jetzt sollte das Fahrwerk eingezogen werden, um den Widerstand zu verringern.

HINWEIS:
Das Flugzeug sackt durch, wenn die Luftgeschwindigkeit unter 60 Knoten fällt (40 Knoten bei gesenkten Klappen). Die Höchstgeschwindigkeit des Flugzeugs beträgt 500 Knoten. Wenn sie überschritten wird, stürzen Sie ab.

LANDEN
Sie können nur auf den beiden Flugplätzen landen. Wenn Sie dazwischen landen, stürzen Sie ab. Wenn Sie die Landebahn gefunden haben, sind die Klappen zu senken und das Fahrwerk auszufahren, wodurch Ihre Fluggeschwindigkeit sowie die Mindestfluggeschwindigkeit reduziert werden.

Sie müssen darauf achten, daß der Absteig nicht zu schnell vor sich geht, da Sie andernfalls abstürzen.

Wenn Sie zu schnell an Höhe verlieren, reduzieren Sie Ihre Luftgeschwindigkeit, bis eine sichere Landung gegeben ist. Beim Landen (0 F B) müssen Sie sofort das Gas wegnehmen und die Bremsen betätigen.

Sobald Sie in der Luft sind, können Sie über die Taste! das Landen üben.

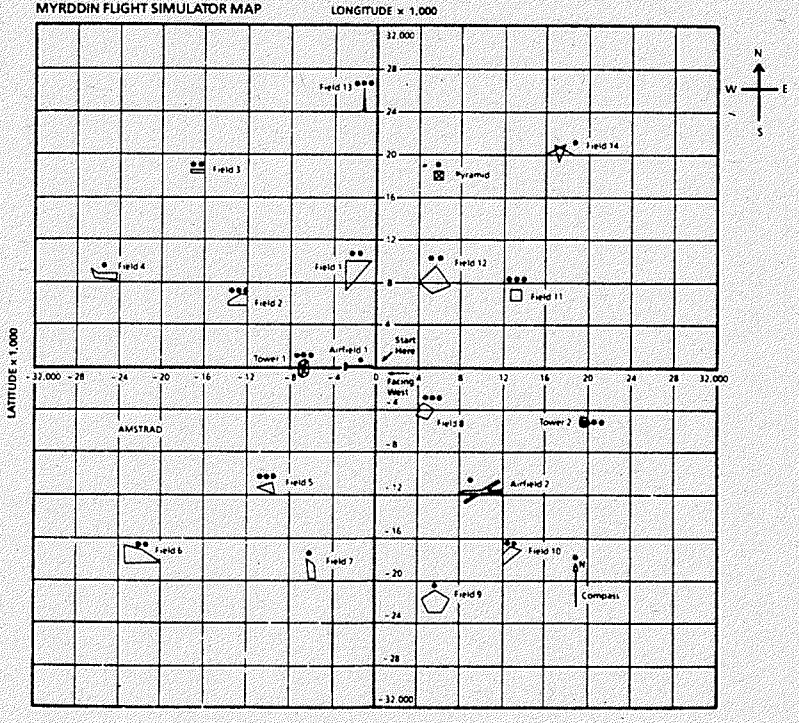
TANKEN
Wenn Sie mit weniger als einem halben Tank voll Kraftstoff landen, wird das Flugzeug automatisch aufgetankt. In Ihrem Flugbereich befinden sich die verschiedensten Landmarken. Diese lassen sich am besten aus einer Höhe zwischen 300 und 400 FuB erkennen.

SCHWIERIGKEITSGRADE
Durch Verändern des Schwierigkeitsgrades wird das Ansprechen des Flugzeugs auf die Steuerung verändert, was einem Flugzeugwechsel gleichkommt.

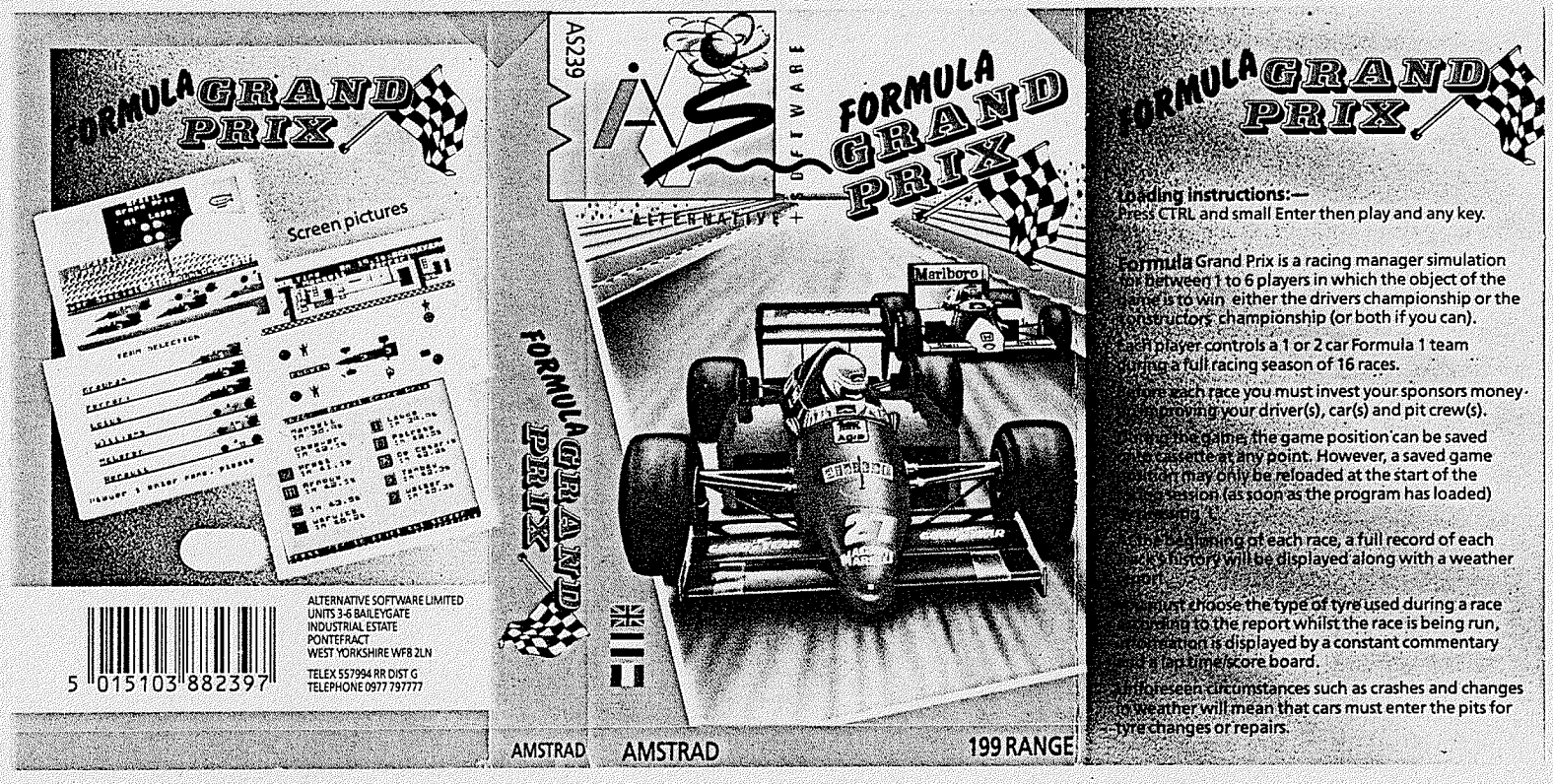
Wenn man bei Schwierigkeitesgrad 15 nochmals P drückt, wird die Steuertafel isoliert. Machen Sie sich auf einen haarsträubenden Flug gefaßt!

Punkte = Farbe
. = schwarz
. . = blau
. . . = rot

MYRDDIN FLIGHT SIMULATOR MAP



Myrddin Flight Simulator


FORMULA GRAND PRIX
Screen pictures
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ALTERNATIVE SOFTWARE LIMITED
UNITS 3-6 BAILEYGATE
INDUSTRIAL ESTATE
PONTEFRACT
WEST YORKSHIRE WF8 2LN
TELEX 557994 RR DIST G
TELEPHONE 0977 797777
AS239
FORMULA GRAND PRIX
AMSTRAD
AMSTRAD
199 RANGE
FORMULA GRAND PRIX
Marlboro
Loading instructions:—
Press CTRL and small Enter then play and any key.
Formula Grand Prix is a racing manager simulation for between 1 to 6 players in which the object of the game is to win either the drivers championship or the constructors championship (or both if you can).
Each player controls a 1 or 2 car Formula 1 team during a full racing season of 16 races.
Before each race you must invest your sponsors money improving your driver(s), car(s) and pit crew(s).
During the game, the game position can be saved onto cassette at any point. However, a saved game position may only be reloaded at the start of the racing session (as soon as the program has loaded) by pressing 'L'.
At the beginning of each race, a full record of each track's history will be displayed along with a weather report.
You must choose the type of tyre used during a race according to the report whilst the race is being run, information is displayed by a constant commentary and a lap time/score board.
Unforeseen circumstances such as crashes and changes in weather will mean that cars must enter the pits for tyre changes or repairs.

When in the pits, the tyres must be changed first, then any repairs done. To change a tyre, move the pit manager to each tyre in turn 'Execute Manoeuvre'. Note you must be roughly centred on your tyre.

Once all repairs and tyre changes are made the car will automatically return to the race.

KEYS:
On team selection and team status screens.
6/ —Down
7/ —Up

During pit stops
Q —Up
Z —Down
I —Left
P —Right
N —Execute Manoeuvre
OR USE JOYSTICK

During a race
P —Request pit stop
C —Cancel pit stop request
F —Full race graphics
H —Race Highlights only
G —Gambling Option
Q —Cancel Gambling Option
S —Save game to tape (game position will be saved once the race has ended).

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PROGRAMMERS—If you have written a good programme for ANY home computer, send it to us now for evaluation. We pay EXCELLENT royalties!! Your programme could be in the shops within 3 weeks!! SEND TO: ALTERNATIVE SOFTWARE Units 3-6 Baileygate Industrial Estate, Pontefract, West Yorkshire. We will acknowledge receipt of your programme same day.

Instructions de chargement
Appuyez sur CTRL et petit enter sur "PLAY".

"GRAND PRIX": jeu de courses d'automobiles pour entre 1 et 6 joueurs et dont le but est de remporter le championnat soit en tant que pilots soit en tant que constructeur (ou bien les deux, si vous en êtes capable . . .).

Chaque joueur dirige une équipe formule 1 à 1 ou 2 voitures pendant une saison complète comprenant 16 courses.

Avant chaque course vous devez investir l'argent fourni par votre sponsor de façon à améliorer la performance de votre/vos pilot(s), voiture(s) et équipe(s) de stand.

Pendant le jeu, la situation du jeu peut être sauvegardée sur cassette à tout moment. Cependant, la situation sauvegardée ne peut être rechargée qu'en début de course (c-à-d dès que le programme a été chargé) en appuyant sur le "L".

Au commencement de chaque course, l'historique détaillé de chaque circuit sera affiché avec un bulletin météorologique.

Il vous faut choisir quels pneus utiliser pendant la course en fonction du message météo. Pendant la course seront affichés le commentaire suivi ainsi que les temps de tour de piste, etc . . .

De temps en temps les voitures auront à se mettre au stand pour changement de pneus, interventions mécaniques, etc, ou bien à cause d'événements imprévus tels que changements de temps ou accidents.

Au stand, il faut changer les pneus avant de réaliser toute intervention mécanique. Pour changer un pneu, il vous faut déplacer le chef de stand vers chaque pneu successivement en utilisant "Effectuer manoeuvre". Notez que vous devez vous centrer à peu près par rapport au pneu.

Aussitôt interventions et changements de pneu effectués, la voiture se remettra automatiquement su la piste.

TOUCHES

Ecrans sélection/statut d'équipe
6/ — VERS LE BAS
7/ — VERS LE HAUT

Au stand
Q — VERS LE HAUT
Z — VERS LE BAS
I — A GAUCHE
P — A DROITE
N — EFFECTUER MANOEUVRE

Ou bien utilisez la manette.

Pendant une course
P — Demander arrêt en stand
C — Annuler demande arrêt en stand
F — Affichage détaillé course
H — Affichage instants marquants seulement
G — Option chance'
Q — Annuler option chance
S — Sauvegarder sur cassette (la situation de jeu sera sauvegardée en fin de course).

Instrucciones de carga
Pulse CTRL/ENTER dequena y ent ouces PLAY.

En Grand Prix se simula a un director de carrera; toman parte en el juego de 1 a 6 personas, que tienen por objeto llevar el campeonato o del corredor o del constructor (o los dos si es posible).

Cada jugador controla a un equipo de 1 o 2 coches de Formula 1 durante una temporada completa de 16 carreras.

Antes de cada carrera Vd. tiene que invertir el dinero de su(s) corredor(es), coche(s) y cuadrilla(s) de box.

Durante el juego, la posición del juego puede guardarse en casete en cualquier momento. Sin embargo, una posicion de juego guardada no se podrá recargar sino al principio de la Sesión de carreras (en cuanto to[illegible]rgado el programa) oprimiendo 'L'.

Al principio de cada carrera se presentará u[illegible]pleto de la historia de cada Pista junto con un boletin meteorlógico.

Vd. debe escoger el tipo de neumático a utilizar durante una carrera según el boletin mientras la carrera está verificándose. Se presenta información mediante un comentario continuou y un tiempo de vuelta/anteador.

Sucesos imprevistos como choques y cambios meteorológicos harán que coches entren en los boxes para cambio de neumáticos o reparaciones.

Llegado el coche en el box, hay que cambiar los neumáticos primero, luego efectuar reparaciones si las hay. Para cambiar un neumático, desplace al jefe de box a cada neumático a su vez 'Ejecute Maniobra'. Notese que Vd. ha de centrarse más o menos en su neumático.

En cuanto los cambios de neumáticos y las reparaciones se hayan efectuado, el coche volverá automaticamente a la carrera.

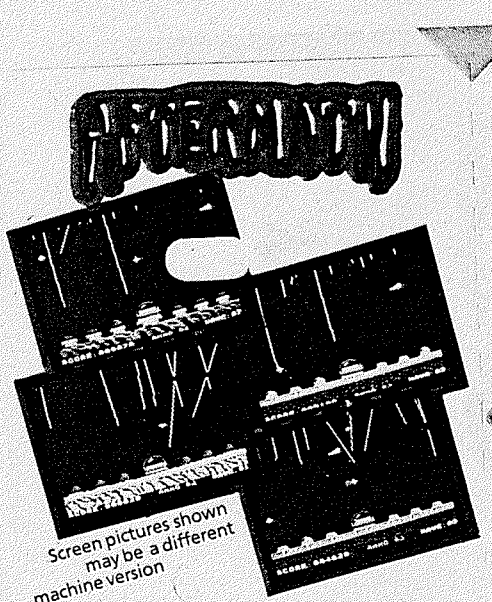
TECLAS
En pantallas de selección de equipo y las de rango de equipo

6/ — DOWN (Abajo)
7/ — UP (Arriba)

Durante las paradas en box
Q — UP (Arriba)
Z — DOWN (Abajo)
I — LEFT (Izquierda)
P — RIGHT (Derecha)
N — EXECUTE MANOEUVRE (Ejecutar maniobra)
O — PALANQUILLA

Durante una carrera
P — Pedir para en box
C — Anular petición de parada en box
F — Gráfica de carrera completa
H — Solamente rasgos descollantes de la carrera
G — Opción de jugada por dinero
Q — Anular opción de jugada por dinero
S — Guardar juego en cinta (La posición del juego se guardará en cuanto la carrera haya terminado)

AS239



Screen pictures shown may be a different machine version

5 015103 882175

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PONTEFRACT
WEST YORKSHIRE WF8 2LN

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TELEPHONE 0977 797777

AS217

ALTERNATIVE SOFTWARE



AMSTRAD AMSTRAD 199 RANGE

AFTERMATH

Loading instructions:
Hit Ctrl/Small enter then play.

The year is 2012 and tensions between the two superpowers are at their highest.

As Regional Air Defence Co-ordinator it is your duty to protect military bases in your area.

Each base consists of six domed billets and an Anti Missile complex. It is from here that you launch your anti missile missiles.

The attack is on.

You must destroy all incoming enemy missiles, aircraft and smart bombs, before they reach ground zero, but fire carefully as you have a limited number of A.B.M.s. Should a missile or smart bomb hit either a billet or control centre, it will be destroyed. Control centres are repaired after each attack wave, but billits are unrepairable.

However, one billit is repaired once you have scored 10,000 points. Once all billits have been destroyed, the game will end.

Will you be able to cope with the Aftermath of it all?

KEYS:

Q	— UP
A	— DOWN
O	— LEFT
P	— RIGHT
SPACE	— FIRE

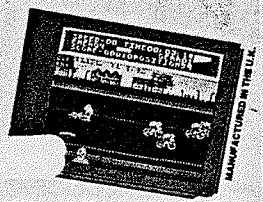
OR JOYSTICK
KEYS REDEFINABLE

Aftermath



Cycling 1000 miles is no mean feat – and you could end up feeling pretty exhausted by the time you've finished playing this superb race simulation designed especially in conjunction with this years Milk Race.

JOYSTICK OR KEYBOARD
DESIGNED AND PROGRAMMED BY ICON DESIGN



MANUFACTURED IN THE U.K.



AMSTRAD

MILK RACE

RECORDED ON BASF TAPE

AMSTRAD/SCHNEIDER

464 664 6128

MILK RACE



MASTERTRONIC

THE GAME

An internationally acclaimed event in world cycle racing, the Milk Race is becoming increasingly popular every year. In May cycling nations from all over the world send their best competitors to England for the 1000 mile trek around the country, and more and more spectators turn out to watch every year.

In this superb simulation designed especially to coincide with this years event you will experience every exhilerating and disheartening moment of the race, every pot hole in the road, every crucial bend – not to mention all those moments when you're convinced you're never going to make it over the finishing line!

Starting in Newcastle-upon-Tyne, the competitors will cycle through the North of England, and down through the Midlands on their way to London for the final all important race to the finishing line. There are a record number of entrants this year, 84 in total, made up of both professional and amateur cyclists so the competition has really hotted up.

ON YER' BIKE

As one of the 84 competitors in this years Milk Race, you'll need to summon up all your energy and stamina to maintain 1st position over all 13 stages of the race which you must do in order to win. If you've been practising you shouldn't have too many problems, but if you've spent the winter playing computer games and letting your bike get rusty then you had better read our list of helpful pointers!

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Made in Great Britain
Design: Words & Pictures Ltd., London



1. Cycling 1000 miles is no mean feat, so don't start off too quickly. If you over do it you could end up suffering from exhaustion and be forced to retire from the race.
2. Use your gears to attain the most efficient use of your energy reserves depending on your speed, pedal rate and the gradient of the road.
3. Picking up milk from the side of the road will provide you with essential extra energy.
4. Potholes in the road, cars and other riders will hinder your progress, so watch out for them.
5. At random points during the race a time trial may be sprung on you. If you fail to complete that section of the race in the time you have been allotted you will be eliminated!

CONTROLS

Joystick or keyboard
Keys can be redefined or use:
Q – Up
A – Down
O – Left
P – Right

Pressing SPACE will select the gears
Escape aborts the game

Game controls without using the selector function

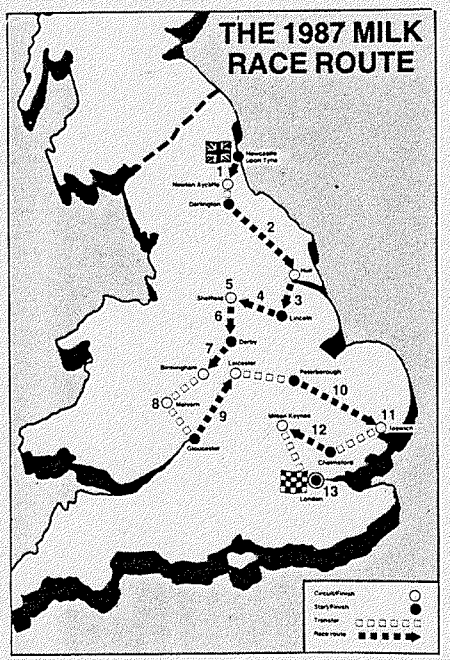
Up (Q) moves the bike up the screen
Down (A) moves the bike down the screen
Left (O) decreases the cycling speed
Right (P) increases the cycling speed

Game controls with the selector function

Pressing Up (Q) changes up a gear
Pressing Down (A) changes down a gear

LOADING INSTRUCTIONS

464: Press CNTRL and small ENTER.
664/6128: Type| TAPE and press RETURN.
Press CNTRL and small ENTER



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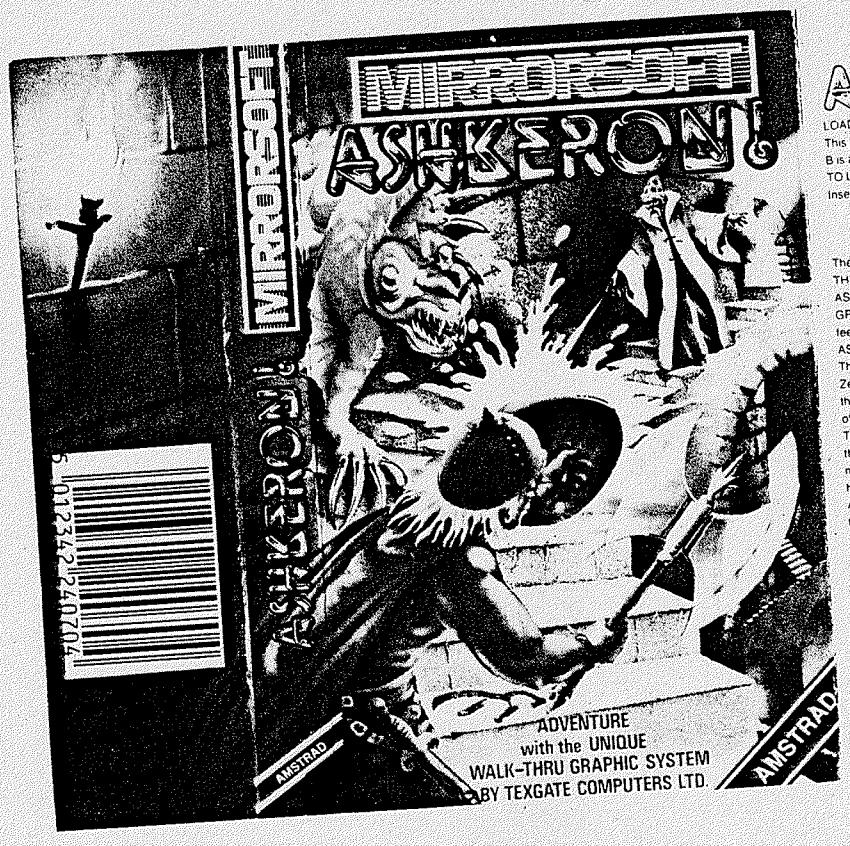


ASHKERON!

LOADING

This program runs on the Amstrad CPC464. Side A is a high-speed recording, and side B is a normal speed recording

TO LOAD

Insert the tape into the cassette player and ensure that it is fully rewound

Press the CTRL and small ENTER keys simultaneously

Press PLAY on the cassette player

Press any key

The program will run automatically

THE ASHKERON! DIFFERENCE

ASHKERON! is a 100% machine code adventure featuring a unique WALK-THRU GRAPHICS SYSTEM - where you go is what you see! It really does give you an instant feel for where you are, and can provide some interesting clues as well

ASHKERON! - THE STORY SO FAR

The time is the dim and distant past; the place the principality of Ashkeron. Princess Zeraphina lies weeping. Her forthcoming marriage will be cursed if it proceeds without the customary dowry of the five treasures, bequeathed for the well-being of the people of Ashkeron and their rulers.

The people concerned for the princess's future, elect Stephen the Blacksmith to reclaim the stolen treasures from the evil Wizard's castle. Stephen is a powerful and resourceful man. He vows to return and place the crown upon the head of the princess, and to claim his prize.

At the crack of dawn on the day of the Spring Equinox, the people accompany Stephen to the gates of the Wizard's castle. Suddenly, the sky darkens, lightning flashes, and a clap of thunder bursts immediately overhead. A wave of panic runs through the people.

The sky clears, and Stephen is alone.

Make haste, Blacksmith, for time is limited and a valuable prize awaits you on your successful return.

PLAYING ASHKERON!

Two game options are available. In the standard game, the objects always start out in the same place. In the randomised game, the objects are scattered randomly and the game will be different each time, although always solvable.

To proceed on your mission, you can talk to the computer either in simple English, for example, GO NORTH, in complete sentences, or, in some instances, with a single letter. During the course of your quest, you will come across various characters who may or may not help you. You can talk to them by saying, for example, SAY TO THE MAID "HELLO"

Some other useful commands might be:

(I) INVENTORY - gives a list of objects you are currently carrying

(L) LOOK - redescribes the current location

HELP - may provide some rather cryptic clues

SAVE - allows you to save your current position to tape for later recall

LOAD - reloads a saved position

QUIT - ends the game

A (AGAIN) - repeats the previous instruction

ASHKERON! is a real time adventure, so events will progress, even if you do nothing.

KEYBOARD CONTROL

Use DELETE as normal to correct any input errors.

Use the COPY key to repeat the last command issued.

JOYSTICK CONTROL

If you have a joystick connected, directional commands can be given by using the eight compass point positions. UP and DOWN commands are achieved by moving the joystick forwards or backwards with the Fire button depressed.

CAN YOU BECOME THE MIRRORSOFT HOME COMPUTER WEEKLY ADVENTURER OF THE MONTH?

At the end of each month until February 1986, the adventurer with the highest score will qualify for a prize of £25 cash. In the event of more than one person achieving the maximum 250 points, the prize will be awarded to the adventurer taking the least number of turns. The winner will remain champion and qualify for subsequent months prizes until such time as that score is beaten. When you have completed the adventure, be ready to save proof of your achievement to tape on instructions from the screen. Send your saved tape for verification, with details of your score, time taken, and number of turns taken, with your name, address, telephone number and passport-sized photograph to:

MIRRORSOFT
Adventurer of the Month Competition
Mirror Group Newspapers Ltd
Holborn Circus
London EC1P 1DQ

The winners names will be published monthly in Home Computing Weekly

Employees of Mirror Group Newspapers, Pergamon Press, and Argus Specialist Publications, their agents and families are not eligible

Please note that tapes sent in for verification cannot be returned

RIG ATTACK - AMSTRAD

RIG ATTACK is an action packed game with smooth scrolling screens, demanding skill and quick reflexes to guide your helicopter from rig to rig without coming under attack from enemy submarines.

The submarine is equipped with the latest missiles, your copter carries short range bombs that need to be dropped at a low altitude to reach that darting submarine in the waters below.

CONTROLS:

Press 'S' to Start Game

Cursor Keys for UP-DOWN-LEFT-RIGHT

COPY - to Fire
or Joystick

HINTS AND TIPS

Don't allow your copter to run low on fuel, shown by the change of colour at the bottom of the screen, land on the Heli-pads to re-fuel. When enemy sub comes onto the screen you have to eliminate it before you can re-fuel and continue your patrol.

LOADING:

Press CTRL key and small ENTER key together and follow prompts.

TYNESOFT
COMPUTER SOFTWARE

K; JAttack



AMSTRAD LOADING INSTRUCTIONS
RUN"
THEN PLAY ON THE RECORDER

Mazie is fast bat 'n' ball action with more fascinating features than you can shake a joystick at. For a start, you don't just fire at the bricks...they fire at you! Avalanches of bombs will wing their way toward you, the dreaded Yello will descend from jets flying over, and the red devil tumbles from its cage. All can have a seriously detrimental effect on your life! Then there are the capsules to be caught, some of which can give you a larger bat, or a plank over part of the holy grass, or a free life, or even a wipe screen.
36 screens with a more difficult big bonus version of each and every one—that's the marvel of Mazie.

CONTROLS

JOYSTICK

Fire to get things moving (including after a pause).
Left and Right to move the bat.
Up, to keep green face up, if you are not scoring points and haven't got a dish yet.

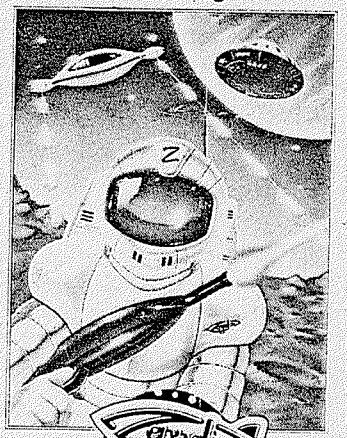
KEYBOARD

SPACE BAR to pause
C to clear screen matrix

Mazie has five levels of difficulty which effect your starting bat size, the number of lives you are given, and how many bricks you have to destroy before blue face arrives.
There are lots of different permutations to this game but here are one or two clues to get you going.
When an alien is hit the ball teleports back to the bat to zoom off again.
A hand drops a second ball and the two balls then effect each other's direction.
A smile gives an extra life, but also a pause which can destroy your rythmn.
A comb zeroes your x axis velocity for a few bounces.
A tube will take you through solid walls and also drops bombs.
A cage drops an alien which effects your balls direction as it disappears.
A blue face appears when you have done most of the work on a screen.
The next time you hit any brick, or the face, so long as there are no bombs or aliens falling, then an invisible force finishes the screen for you.
Note: If the second ball scores, or a red devil disappears off the bottom of the screen, then your ball direction will change.
So, can you get a golden nugget in every position? We'll see...

Have you written a game which comes up to Zeppelin's high standards? If so, send off for immediate valuation to the address below.

Have you tried 2088, Zeppelin's great robot shoot it out game



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28 Osborne Road, Jesmond, Newcastle upon Tyne NE2 2AJ
ENGLAND

INTERNATIONAL SPEEDWAY

© Probe Software Ltd.

THE GAME

OK Super Speedway rider, you've been racing your bike on the streets for ages and you reckon you're good enough to take on the rest of the world! Start off in the local league, then if you're a winner, the national league, it's getting tougher, but you might make it through to the continental league - then, your big chance, The WORLD CHAMPIONSHIP! The very best riders from around the globe have been waiting for a chance like this too, so they're gonna fight just as hard as you to be number one!

LOADING

AMSTRAD 464 OWNERS

1. Place the rewound cassette in the cassette unit and press **PLAY**.

2. Hold down **CTRL** and press the **SMALL ENTER** key.

AMSTRAD 664/6128 AND 464 + DISK OWNERS

1. Hold down the **SHIFT** and press the @ key. Type **TAPE** and press **RETURN**.

2. Connect a suitable cassette player to your computer, according to the User Manual, and insert the rewound cassette.

3. Hold down **CONTROL** and press the **ENTER** key.

4. Press **PLAY** on the cassette player.

Note: *Full loading instructions can be found in your Amstrad Manual*

PLAYING THE GAME

Controls

Use a joystick or keyboard. Keys are redefinable from the main menu. Default keys are:

O	- left,	**P**	- right,
9	- boost,	**SPACE**	- accelerate,
ESC	- pause/abort,		

When you start the game, you will be asked to enter your name, nationality (for example, English), and the continent in which you live (eg. in this case, Britain). The computer prints up the standings after the first, imaginary race. Press fire to start the next one.

The starting lights will show from left to right, but don't try and go before the third light comes on or you will cause a false start. Press and hold down fire to accelerate, with left and right controlling steering.

Hint: Oversteering will slow you down, so a happy medium will bring the best results. Pushing the boost key (forward on a joystick) will give you one burst of extra speed per race which lasts for a little while, use it wisely to get you out of any scrapes.

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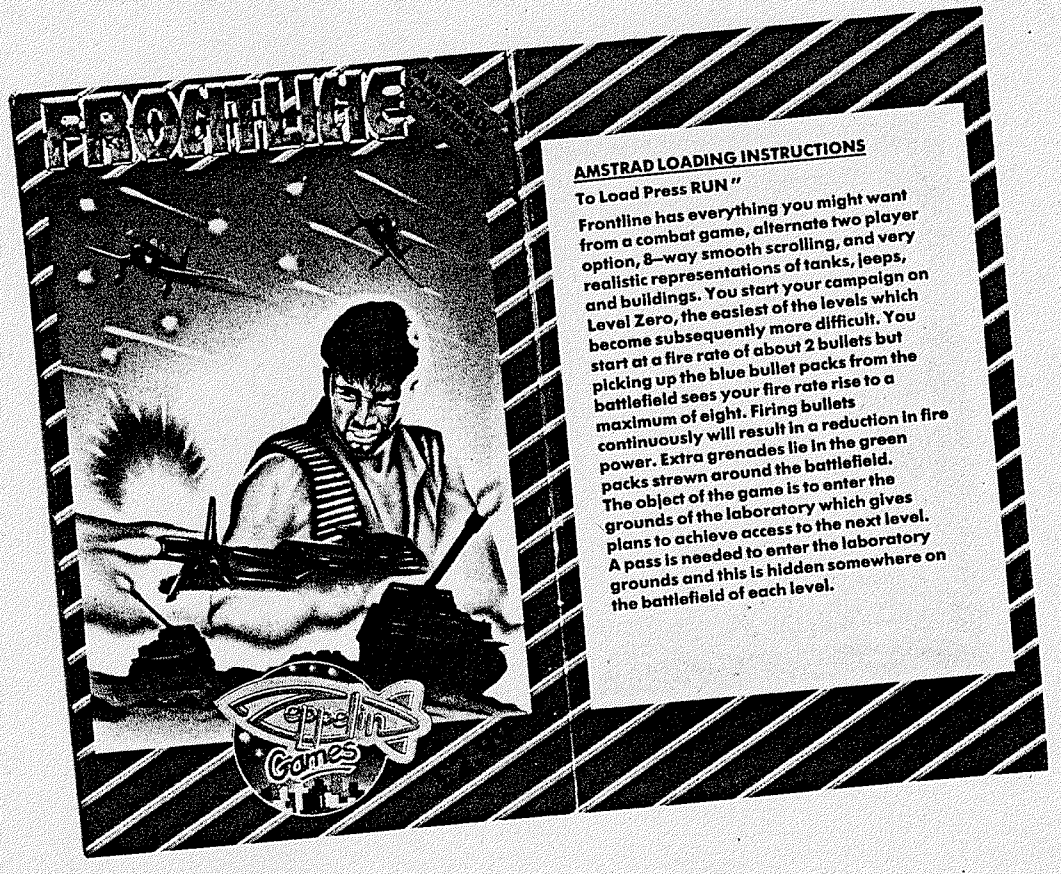
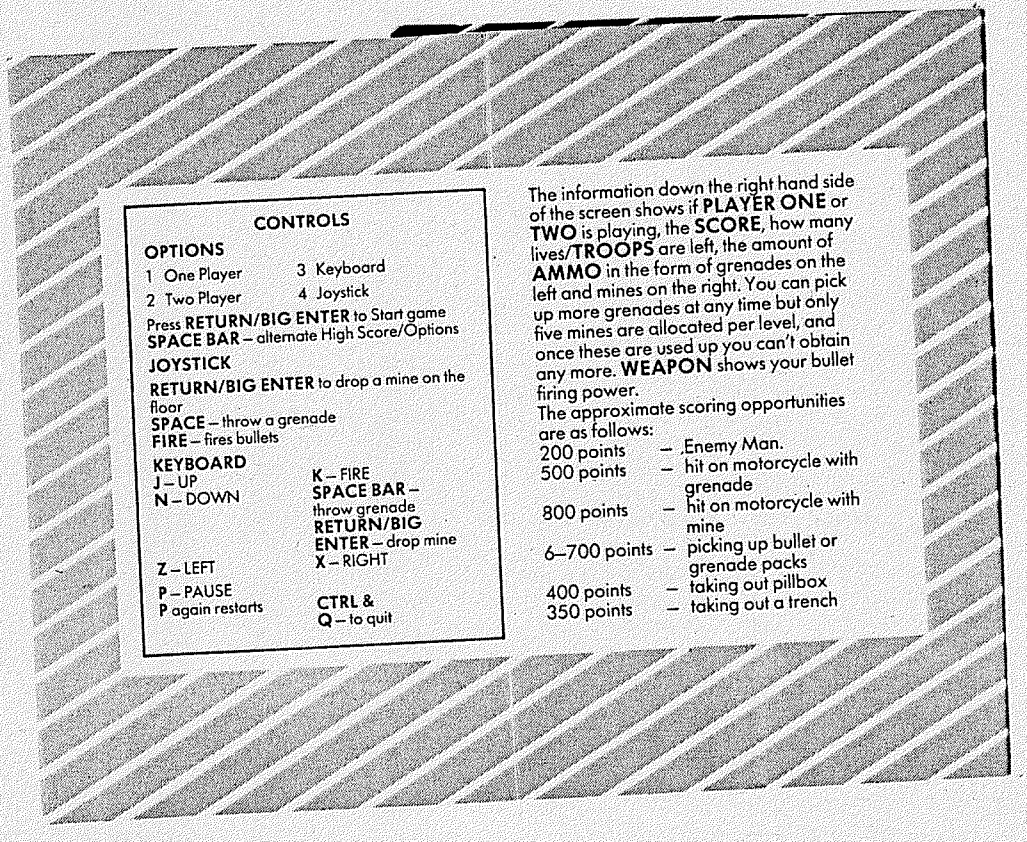


AMSTRAD LOADING INSTRUCTIONS

To Load Press RUN "

Frontline has everything you might want from a combat game, alternate two player option, 8–way smooth scrolling, and very realistic representations of tanks, jeeps, and buildings. You start your campaign on Level Zero, the easiest of the levels which become subsequently more difficult. You start at a fire rate of about 2 bullets but picking up the blue bullet packs from the battlefield sees your fire rate rise to a maximum of eight. Firing bullets continuously will result in a reduction in fire power. Extra grenades lie in the green packs strewn around the battlefield. The object of the game is to enter the grounds of the laboratory which gives plans to achieve access to the next level. A pass is needed to enter the laboratory grounds and this is hidden somewhere on the battlefield of each level.



CONTROLS

OPTIONS

1 One Player
2 Two Player
3 Keyboard
4 Joystick

Press **RETURN/BIG ENTER** to Start game
SPACE BAR – alternate High Score/Options

JOYSTICK

RETURN/BIG ENTER to drop a mine on the floor
SPACE – throw a grenade
FIRE – fires bullets

KEYBOARD

J – UP
N – DOWN
Z – LEFT
P – PAUSE
P again restarts
K – FIRE
SPACE BAR – throw grenade
RETURN/BIG ENTER – drop mine
X – RIGHT
CTRL &
Q – to quit

The information down the right hand side of the screen shows if **PLAYER ONE** or **TWO** is playing, the **SCORE**, how many lives/**TROOPS** are left, the amount of **AMMO** in the form of grenades on the left and mines on the right. You can pick up more grenades at any time but only five mines are allocated per level, and once these are used up you can't obtain any more. **WEAPON** shows your bullet firing power.

The approximate scoring opportunities are as follows:

200 points	–	Enemy Man.
500 points	–	hit on motorcycle with grenade
800 points	–	hit on motorcycle with mine
6–700 points	–	picking up bullet or grenade packs
400 points	–	taking out pillbox
350 points	–	taking out a trench

WILLOW PATTERN

© MR. MICRO 1985

THE GAME

Chang's quest is to make his way through the beautiful, but complex Oriental maze in search of Princess Koong-Shee. On his way he will encounter sword-throwing Samurai Warriors as well as giants who guard the river crossings. There are items to be collected on the way, including a key which gives Chang access to the Princess's hiding place and assorted items of treasure. When he has Princess Koong-Shee, Chang must race back through the maze, persued by Li Chi, Princess Koong-Shee's furious father, until he reaches a boat, and safety.

LOADING

1. Place the tape in the cassette unit and rewind to the beginning.
2. Hold down CTRL and press small ENTER key.
3. Press PLAY on the cassette unit.

NOTE: Full loading instructions can be found in your Amstrad Manual.

PLAYING THE GAME

The computer will accept either keyboard or joystick commands. The keyboard controls are as follows:-

Q=UP

O=LEFT P=RIGHT

A=DOWN

or relevant cursor keys

SPACE=THROW SWORD/JUMP & START GAME

H=HOLD OR RETURN TO GAME

Whilst holding, ENTER will switch music on or off.

The boat is located somewhere on the left hand side of the maze, and cannot be reached until Chang has rescued the Princess.

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If this program is faulty and fails to load please return it to the address below and it will be replaced free of charge. This offer does not affect your statutory consumer rights.

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Du bist GALVAN, das einzige überlebende Mitglied der Kosmo Polizei. Deine Hauptaufgabe ist es, alle Gegner in den unterirdischen Techno Kavernen des Planeten Cynep zu eliminieren. Sie werden von vielen Androiden, Robotern und Außerirdischen bewohnt; Deine Aufgabe wäre unmöglich ohne die Kraftpyramiden, welche willkürlich in dem komplizierten Labyrinth verteilt sind.

LADEN

CPC 464

Lege die zurückgespulte Kassette in das Kassettenteil, tippe RUN" und danach drücke die ENTER Taste. Folge den Anweisungen, wie Sie auf dem Bildschirm erscheinen. Falls ein Diskettenlaufwerk angeschlossen ist, tippe TAPE und danach drücke die ENTER Taste.

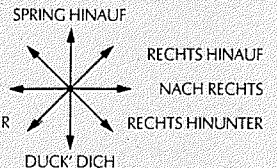
(Das Symbol erhältst Du, indem Du den Umschalter festhältst und @ drückst.)

CPC 664 und 6128

Schließe einen geeigneten Kassettenrekorder an und versichere Dich, daß die korrekten Kabel angeschlossen sind, wie es in der Anleitung für Benützer beschrieben ist. Lege die zurückgespulte Kassette in den Rekorder und tippe TAPE und danach drücke die ENTER Taste. Anschließend tippe RUN" und drücke die ENTER Taste und folge den Anweisungen, wie sie auf dem Bildschirm erscheinen.

STEUERUNGEN

JOYSTICK



FIRE – Waffe abfeuern oder zuschlagen
FLIEHEN – Pause

TASTATUR

SPRING HINAUF – 8
DUCK' DICH – U
LINKS – H
RECHTS – J
FEUER – LEERTASTE
FLIEHEN – PAUSE

STATUS UND PUNKTEGEWINNUNG

Das laufende Resultat und das Höchstresultat werden im oberen Teil des Bildschirms angezeigt. Links unten steht die Anzahl der verbleibenden Leben und rechts unten die Kraftangabe (diese verkleinert sich jedesmal, wenn Du getroffen wirst).
Für jeden beseitigten Gegner erhältst Du je nach Schwierigkeitsprad 100 oder 200 Punkte. Für unterwasser Haifische und Stachelrochen gibt es 100 Bonuspunkte. Der Riesendämon am Ende jeder Spielstufe zählt 1000 Punkte für jeden zerstörten Teil.

DAS SPIEL

Einer nach dem andern haben die Mitglieder des Topsquadrons der Kosmo Polizei das Böse im Planeten Cynep aufgespürt und zu zerstören versucht. Du als letzter Überlebender dieser Gruppe mußt nun fertigbringen, was Dutzende vor Dir nicht geschafft haben – alle Verteidigungsanlagen von Cynep neutralisieren und in die gefährlichen Labyrinthe eindringen, um Cyneps scheußlicher Herrschaft in dieser Galaxis ein Ende zu bereiten.
Da keiner vor Dir überlebt hat, weiß man wenig über die Verteidigungsanlagen, außer daß jede Stufe der Techno Kavernen von einem riesigen, vielköpfigen Dämonen bewacht wird; jeder Kopf speit tödliche Lazerstrahlen und muß einzeln getötet werden. Es gibt unzählige Roboter und Außerirdische, welche alle das gleiche Ziel haben – jedermann zu zerstören, der in ihr Gebiet eindringt.
Es ist Dein einziges Ziel, diese Kreaturen zu eliminieren, was durch Deinen Mangel an Waffen erschwert wird. Du hast aber einen schwachen Hoffnungsschimmer, da man annimmt, daß Deine gefallenen Kameraden es geschafft haben, mehrere Kraftpyramiden in den Techno Kavernen zu verteilen. Wenn Du diese findest, erhältst Du extra Kraft und stärkere Waffen. Suche diese Kraft, um Dich von einem gewöhnlichen Sterblichen in einen Oberbezwinger zu verwandeln.
Am Ende jeder Stufe erscheint ein Riesendämon, welcher Stück um Stück zerstört werden muß (jeder Teil des Dämons muß viermal getroffen werden) – erst dann kannst Du zur nächsten, schwierigeren Stufe weitergehen.
Die Kraftpyramiden, welche Du in den Kavernen findest, geben Dir extra Kraft und stärkere Waffen (während die Kraft sich verkleinert, werden diese durch schwächere ersetzt). Dies ist die Reihenfolge der Waffen in ihrer Wirkungskraft: 1. FAUST, 2. GEWEHR, 3. BOGENSCHLEUDER, 4. BLAUSTRAHLEN NEUTRALISIERER.
Jetzt bist Du allein! VIEL GLÜCK

SPIELTIPS

- Kraftpyramiden werden willkürlich gefunden, aber sie werden von einem Weltraumgegner fallengelassen, wenn er umgebracht wird.
- Der Kontakt mit dem schwebenden Dreieck verursacht eine temporäre Lähmung.
- Einige Teile des Dämons können nur in Bewegung wirkungsvoll getroffen werden.
- Es ist viel einfacher, auf Stufen hinaufzuspringen, als zu versuchen, hinaufzusteigen.

HERAUSGEBER

Produced by D.C. Ward
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ICON JON

By Mark Roberts

This program runs on all Amstrad CPC microcomputers. On the tape, Side B is a repeat recording of Side A. The game can be played with keyboard or joystick.

LOADING

Tape: Press **CRTL** and small **ENTER**
Press **PLAY** on the cassette recorder
Press any key
Disk: Type **RUN "ICON**
The program will run automatically.

WHO IS ICON JON?

The vast majority of programs which reside inside your Amstrad are very docile and quite happy to go about the tasks for which the Great User has created them. But there is one rather recalcitrant program who has decided that he is not going to be summarily wiped out when the power goes off like the rest of the CPU residents. His name is Icon Jon...

THE OBJECT OF THE GAME

In order to escape certain death at power-down, Jon must find a way out of the computer. Although he is a fairly independent type, he will need some assistance in finding his way round Arnold's more remote recesses. This is where you come in.

If Jon is to escape alive, you, The User, must interface directly with him, his friends Andy Capacitor and Charlie Chiplin, his surroundings, and the other characters he meets. This is achieved via the HCID *(Human to Component Interface Device)*, developed by a team of mega-brains over a period of years. A quick introduction to using the HCID follows.

HCID CONTROL

After loading up the game, a number of windows will appear on screen, containing the instructions for starting up. Follow the ones which apply to you – ie whether or not you're using a joystick.

continued over ▶

HCID is represented on screen by a set of icons on the right of the screen. Most icons lead to a menu of options which will appear in a window in the centre of the screen, from which you make your choice by highlighting the option you require.

The function of the icons is as follows:

STATUS
Gives you an indication of how far you have gone in the game in terms of percentage completed. It also provides clues to the temperament of the other characters in the game, together with music status

CHAT – Allows you to communicate with the other characters in the game through a menu of topics available for discussion.

TYPE – Lets you type at a terminal, again using a menu of options.

MANIPULATE – Allows you to do things with an object in your possession.

ACT – Brings in a menu which allows you to do certain things such as **PICK UP, DROP, GIVE, EXAMINE, etc.**

MOVE – Transfers control from the HCID to the Image Enhancer at the left of the screen, which puts Jon under your direct control so that you can move him from one location to another.

NOTEPAD – Brings up a page on which notes can be written for reference.

HELP – Tells you where the other characters are presently located.

STORE – Gives another menu from which you can choose to save your present position to tape or disk or do a RAM save to memory. Saved positions are also loaded via this icon.

QUIT – Allows you to quit or continue.

CONTROLS

MOVING JON
Standard joystick control movements apply. The default movement keys are given below, but most keys can be user-defined.

Enter door/up	**Q**
Left	**O**
Right	**P**
Down	**A**

ACCESSING THE ICONS
Press **SPACE BAR** or **FIRE BUTTON** to enter the **HCID**. An arrow will appear which you can move to the icon you wish to select using standard joystick movement or the movement keys given above.

USING THE NOTEPAD
Use cursor keys/joystick to move round the pad. Press **RETURN** to end.

ENERGY
Jon carries an emergency power supply in the form of a small energy capsule. The capsule will lose some of its charge every time an illegal access is attempted. If the capsule is drained completely, or time runs out and the computer is turned off, he is wiped out immediately.

HINTS AND TIPS
To escape the computer before power down, Jon will need to converse with other characters so that they become friendly and trusting enough to help. However, they may require some help from Jon first to remedy their own problems, for example, something to boost their strength.

When talking to other characters, it may be useful to remember that Andy Capacitor is a component manufactured in the North and loves the great outdoors. Charlie Chiplin, on the other hand, is a rather well-educated component and has an instant dislike of anything 'common'.

Components, just like you and me, can get very bored with people droning on and on about the same subject. So take care not to raise a subject more than once, in case their friendliness turns to dislike.

Some of Charlie's and Andy's problems may require two or more items to be combined into one new item before they can be solved.

There are three ROMs in use inside Icon Jon's computer, each of which is accessed by a different item. They are all accessed by the same door.

ICON JON

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EINLEITUNG

In einem früheren Kampf besiegte der Barbar die Krieger von Drax und er löste somit Prinzessin Mariana von seinem bösen Zauberbann.

Drax floh in das Verließ unter seiner schwarzen Burg und schwor, Unheil über das Juwelenkönigreich zu bringen.

Es steht fest, das es nur eine Lösung gibt, wie man Drax davon abhalten kann. Der Barbar und Mariana, die selbst eine perfekte Schwertkämpfer in ist, sind die einzigen zwei Krieger, die fähig sind, die gefährliche Reise zu dem Versteck von Drax zu über leben. Sie müssen ihn von seinem Plan abhalten, bevor es zu spät ist.

BARBARIAN·II
THE DUNGEON OF DRAX

Nach dem Laden des Programms sollte der Kassettenrekorder bzw. das Diskettenlaufwerk angeschlossen bleiben. Wenn sie von der Kassette geladen haben, lassen Sie den "PLAY"-Schalter unten.

WAHL DER SPEILFIGUREN

Sie können zwischen dem Barbar und Prinzessin Mariana wählen. Zu Spielbeginn erscheinen beide Figuren. Wählen Sie Ihren Krieger, indem Sie den Joystick nach links bzw, rechts bewegen und "FIRE" drücken.

BEREICHE

Sie müssen sich durch drei Bereiche kämpfen: Ödland, die Höhlen und das Verließ, bevor Sie in dem vierten Bereich, dem Heiligtum von Drax ankommen. Diese Bereiche müssen in der richtigen Reihenfolge gespielt werden.

Jeder der drei ersten Bereiche ist ein Labyrinth, das aus ca. 28 Bildern besteht. Auf jedem der Bilder kann man nach links oder rechts, durch Türen bzw. in Höhlen im hinteren Teil des Bildschirms gehen.

Die Richtung, in die Sie gehen, wie auf einer Landkarte betrachtet, ändert sich ständig und daher wurde am unteren Rand des Bildschirms ein Kompaß (auf dem das Schwert immer nordwärts zeigt) dargestellt.

Wenn Sie in den nächsten Bereich eintreten, leuchtet das "Level Display" zur Warnung auf. Es ist ratsam, vor Verlassen eines Bereichs erst alle vorhandenen Zaubergegenstände (siehe unten) zu sammeln.

MONSTER

In jedem der ersten drei Bereiche müssen Sie sechs verschiedene Arten von Monstern bekämpfen, von denen einige mit einem wohl plazierten Schlag getötet werden können.

Es gibt die folgenden Monster:

Im Ödland: Saurier, Neandertaler, Menschenaffen, mutierte Hühner, stechende Wesen, schwimmende Wesen;

In den Höhlen: Fleischfresser, wachende Ungeheuer, Krabben, rutschende Wesen, Höhlenrolle, stechende Wesen;

In dem Verließ: Grubenwesen, Verließgebieter, Riesenraupen, Vielfräße, Augen, kleine Ungeheuer

Wenn Sie die Reise zum Heiligtum des Drax überleben, müssen Sie sich dem lebenden Götzen, einem großen Dämonen und schließlich dem gefürchteten Drax stellen!

ZAUBERGEGENSTÄNDE

In jeder der ersten drei Bereiche müssen Sie zwei Zaubergegenstände sammeln, um die Suche zu über leben.

Die Axt verleiht Ihnen mehr Kraft.

Die Kugel schützt vor sofortigem Tod durch Drax's Zauberkraft.

Der Zaubertrank erhöht Ihre Widerstandskraft.

Der Schlüssel öffnet die Fallgittertore.

Das Schutzschild schütz vor sofortigem Tod durch das Feuer des Dämonen.

Der Juwel macht den lebenden Götzen kampfunfähig wenn man bei dem Götzen ankommt.

ENERGIE UND LEBEN

Ihr Energiestand wird rechts oben am Bildschirm angezeigt. Wenn die Energie aufgebraucht ist, verlieren Sie ein Leben.

Zu Spielbeginn haben Sie fünf Leben. Während des Spiels können Sie mehr Leben gewinnen, wenn Sie alle Schädel, die Sie vor Ihnen gelebt haben. Wenn Sie alle Ihre Leben verloren haben, beginnen Sie wieder in demselben Bereich.

Die Energie des Monsters, mit dem Sie gerade kämpfen, wird links oben am Bildschirmrand angezeigt. Wenn die Energie aufgebraucht ist, ist das Monster vernichtet.

SPIELSTAND

Je schwieriger die Kampfhandlungen, desto mehr Punkte werden erzielt und desto größer ist der Schaden.

DIE BEWEGUNGEN DES JOYSTICKS

Wenn man rechts davor steht, kann man den Joystick wie folgt bewegen (andersherum, wenn man links davor steht).

JOYSTICK	
	BEI GLEICHZEITIGER BETÄTIGUNG DES "FIRE"-KNÖPFES
RENNEN RÜCKWÄRTS GEHEN VOWÄRTS GEHEN DURCH DIE TÜR DURCH DIE TÜR UMDREHEN	ÜBERKOPFHIEB ODER SPRUNG MIT ANLAUF (WENN ZUERST "RENNEN" GEDRÜCKT WURDE) FLIEGENDER NACKENSCHLAG TRITT NIEDRINGER SCHLAG

KEYBOARD	
	BEI GEDRÜCKTER LEERTASTE
Q = RENNEN	Q = ÜBERKOPFHIEB oder SPRUNG MIT ANLAUF (wenn zuerst RENNEN gedrückt wurde)
A = UMDREHEN	A = NIEDRINGER SCHLAG
O = RÜCKWÄRTS GEHEN	O = FLIEGENDE NACKENSCHLAG
P = VOWÄRTS GEHEN	P = TRITT
N = DURCH DIE TÜR	
CLR = PAUSE	ESC = BEENDEN

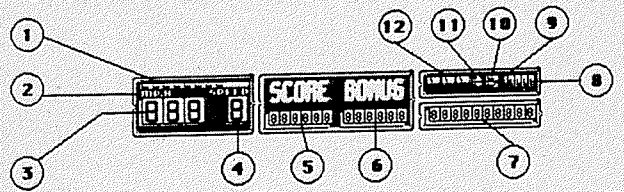
Um über Löcher oder Gruben springen zu können, müssen Sie einen Sprung mit Anlauf machen. Wenn Sie nicht genug springen, werden Sie am hinteren Lochrand hin- und herschwanken. Durch schnelles Wackeln des Joysticks nach links und rechts können Sie sich selber retten.

4- YOUR MISSION :

At the beginning of the game, your starting position and the location you have to reach will be shown on the map. You will have to consult the map repeatedly in order to know the direction you are supposed to take.
At each crossroad, your on board computer will indicate the direction and number of the road you can take.
The game represents the actual roads of the 4 states of the USA that you can travel in.
If you notice a road which would connect the one you're on, you can cut across fields, but watch out for telegraph poles and milestones !
As soon as you start your engine, the countdown will start. If it reaches zero, your Ferrari will explode !

5- Your Ferrari dashboard:

Your F40, property of the FBI intervention department, has been specially adapted for your mission... Its dashboard represents the following elements:



1 RPM counter
2 speed unit indicator (KM/H or MP/H)
3 speedometer
4 gear shift indicator: High (H) or Low (L)
5 digital score counter
6 digital bonus counter
7 timer / direction indicator: tells you which direction to take when the road splits, and the road number (as on the map)
8 indicates the distance to the closest radar (or police car)
9 indicates the location of radar (or a police car)
10 indicates the working condition of the radar detector.
11 indicates the direction the radar or police car is going
12 connects/disconnects the radar detector

6- SCORE AND BONUS :

Your score will increase with the distance covered. At the end of each stage, a bonus will be added to your score.
At the beginning of the 1st chase, your bonus counter will be set to 20000 points (40000 at the 2nd chase, 60000 at the 3rd one....) For each chase bonus the time allowed corresponds to the ideal route as estimated by your on board computer. The counter goes down rapidly with the distance covered. Each time the Ferrari succeeds in breaking through a police cordon, 10000 points are added to your bonus. Your bonus will be earned if you arrive at your destination before the timer reaches zero.

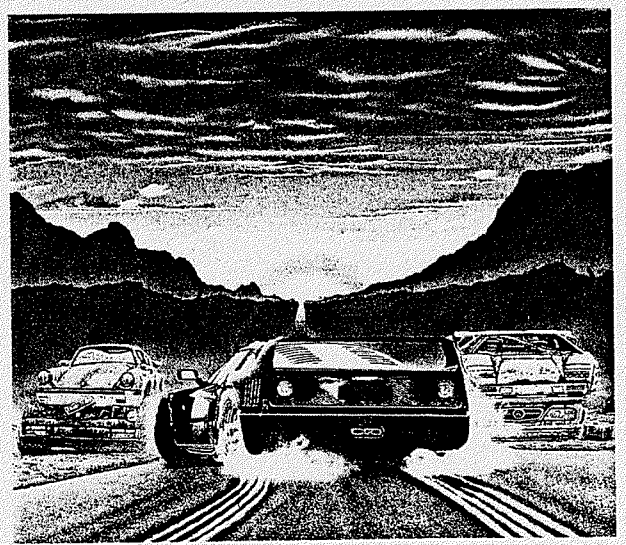
7 - 8 bit machine versions:

The TITUS team has edited the 8 bit versions of this game which was originally created for Amiga. On the 8 bit versions, some secondary phases had to be cut out.

IMP. METAIS s.a. - 95110 SANNOIS

TITUS COPYRIGHT 1988

crazy CARS II



CRAZY CARS II
by TITUS

1 - GETTING STARTED :

CBM 64/128 Disk
on Commodore 128, type : GO64, then : LOAD»*»,8,1
on Commodore 64 and SX64, type: LOAD»*»,8,1

CBM 64/128 Cassette
On Commodore 128, type : GO64, then press SHIFT and RUN/STOP keys together.
On Commodore 64 and SX64, press SHIFT and RUN/STOP keys together.

SPECTRUM Cassette
Type LOAD»» and press ENTER key. Press PLAY on your recorder.

SPECTRUM +2 Cassette
Turn on your monitor and your computer. Insert your CRAZY CARS 2 cassette in your recorder and press ENTER key.

SPECTRUM +3 Disk
Turn on your monitor and your computer. Insert your CRAZY CARS 2 disk in your disk drive and press ENTER key.

AMSTRAD CPC Cassette
Turn on your computer and press CTRL and SMALL ENTER keys. Press PLAY on the cassette recorder.

AMSTRAD CPC Disk
Turn on your computer, insert your CRAZY CARS 2 disk in your disk drive and type RUN»CRAZY2" and press ENTER

ATTENTION :
You must never remove the CRAZY CARS 2 disk from the drive while it is being used.

2- Controls :

- Commodore 64/128 :
F3 key switches the sound on/off
F7 key holds/pauses the game
During the game, you are controlling your Ferrari F40 with a joystick or one of the following keys: A,Z,< and >

A....UP ..... accelerate
Z....DOWN ..... brake
<....LEFT ..... Left
>....RIGHT ..... Right
SPACE BAR ..... Change the speed of the gearbox

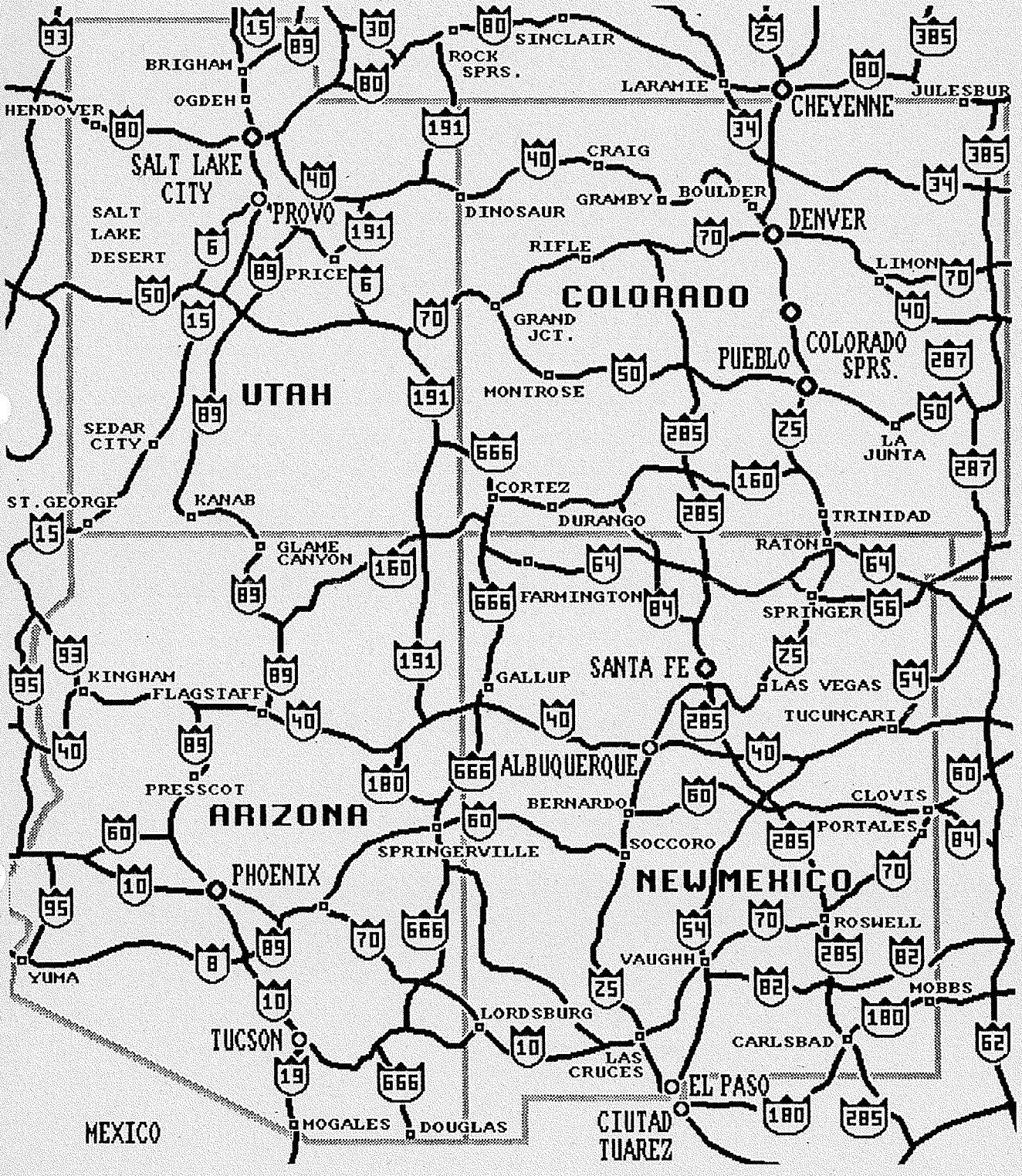
- Spectrum :
P key holds/pauses the game
During the game, you are controlling your Ferrari F40 with a joystick or one of the following keys: Q,A,Z and X

Q.....UP
A.....DOWN
Z.....LEFT
X.....RIGHT
CAPS....Change the speed of the gearbox

- Amstrad CPC :
ESC key aborts the current mission
F2 displays the road map
F3 turns on (or off) the radar detector
F4 switches the speed unity (Miles/Kilometers)
P pauses the game
During the game, you are controlling your Ferrari F40 with a joystick or one of the arrow keys.
Space Bar (or fire button) changes the speed of the gearbox.
At the end of the game, you can put your name beside your score. You do this by choosing the letters of your name one by one with the cursor. You move the cursor with the arrow keys on the keyboard. Press the space bar to store each individual letter. When you have finished entering your name, move the cursor to the END display and press the space bar again. Your new score is now stored on the disk.

3- THE STORY :

This time you're at the wheel of the fabulous Ferrari F40 and in a race against time in a bid to smash a stolen car racket - the only problem is the guys involved in the racket are corrupt policemen ! As you go tearing through four states of America in search of the corrupt police, you will also have problems with the honest road cops who don't appreciate the sight of a Ferrari F40 crossing their state at 200 miles per hour..... But, it ain't that easy .....
You must plan your route carefully from the maps of each state which are displayed on screen and which show the actual American freeways that you will travel on - Be careful, the shortest routes aren't always the easiest as the sight and sound of a blue flashing light will soon make you realise.
Your Ferrari is furnished with the latest radar which will enable you to detect police road blocks which may have been set up to catch you, therefore keep an eye on the Freeway junctions as you may be forced to change your route !



SINCLAIR
ROCK SPRS.
BRIGHAM
OGDEH
HENDOVER
LARAMIE
CHEYENNE
JULESBUR
SALT LAKE CITY
CRAIG
GRAMBY
BOULDER
DENVER
SALT LAKE DESERT
PROVO
DINOSAUR
RIFLE
LIMON
PRICE
COLORADO
GRAND JCT.
COLORADO SPRS.
PUEBLO
UTAH
MONTROSE
SEDAR CITY
LA JUNTA
CORTEZ
ST. GEORGE
KANAB
DURANGO
TRINIDAD
GLAME CANYON
RATON
FARMINGTON
SPRINGER
SANTA FE
KINGHAM
FLAGSTAFF
GALLUP
LAS VEGAS
TUCUNCARI
ALBUQUERQUE
PRESSCOT
ARIZONA
BERNARDO
CLOVIS
PORTALES
SPRINGERVILLE
SOCCORO
PHOENIX
NEW MEXICO
ROSWELL
YUMA
VAUGHH
MOBBS
LORDSBURG
TUCSON
CARLSBAD
LAS CRUCES
EL PASO
MEXICO
MOGALES
DOUGLAS
CIUTAD TUAREZ



FOUR HUGE COMBAT ZONES!

ABSOLUTELY INCREDIBLE PLAYABILITY! Adrenalin pumping action – use grenades, machine guns, tanks, jeeps...wade thru swamps, hand to hand combat, brilliant overhead action, side view action, ALL ACTION!

Find bazookas, ammo, armoured vehicles...fight crocodiles, blow moving trains! It's absolutely incredible how much gameplay there is!!!
David Darling

INTERNATIONAL INSTRUCTIONS
MODE D'EMPLOI
ANLEITUNG
INSTRUCCIONS

5 015026 031292

SAS COMBAT Simulator

3129

ACTUAL AMSTRAD SCREENSHOTS

SAS COMBAT Simulator

AMSTRAD CPC 464/6128

NEW RELEASE

JEEPS! BAZOOKAS!

PLAYING THE GAME

Fight your way single handed through the hordes of enemy troops – there are four areas to assault on your way to the rebel leader, each with a huge overhead section and a fast action side view hand to hand combat game as you make your offensive on each enemy installation. You'll come up against paratroops, bunkers, dugouts, foxholes, enemy trained crack commandos, trenches, mercenaries, garrisons, treacherous swamps, ambushes and surprise rush attacks! Watch out for crocodiles and moving trains!!!

Move quickly and quietly, and remember . . . **WHO DARES WINS!**

The number one name in the game

HAND TO HAND COMBAT!

LOADING:
on the 464 type: RUN" (ENTER)
on the 664/6128 type: TAPE (ENTER) RUN" (ENTER)

BMX Freestyle

BY AUTHOR OF No 1 BESTSELLER SUPER STUNTMAN

TREASURE

CONTROLS

You can use a joystick or the keyboard to control your combat commando.

	KEYS	JOYSTICK
LEFT	O	Left
RIGHT	P	Right
UP	Q	Up
DOWN	A	Down
FIRE	SPACE	Fire

To lob a grenade, face in the right direction and hold down your fire button until the grenade is thrown.

HINTS 'n' TIPS

Pick up CodeMasters logos for bonus features . . .

A JEEP or TANK armours you against the enemy's bullets, but not armour piercing grenades

SMART BOMBS annihilate everything in the immediate area

RAPID FIRE gives you superior firepower

Also, pick up any ammunition that you find – it'll top up your supply of grenades.

FRANCAIS

COMMEN JOUER

Frayez votre chemin en combattant seul à travers les hordes de troupes ennemies – il y a quatre zones à prendre d'assaut sur le chemin qui vous mène au chef rebel, chacune avec une immense section en haut et une action rapide sur le côté de jeu de combat au corps à corps comme vous menez une offensive sur chaque installation ennemie.

Vous affronterez des parachutistes, des bunkers, des abris, des terriers, des commandos d'élite ennemis sur-entrainés, des tranchées, des mercenaires, des garnisons, des marais perfides, des embuscades et des attaques surprises rapides. Faites attention aux crocodiles et aux francs-tireurs. Déplacez-vous rapidement et en silence, et souvenez-vous . . . OSER C'EST GAGNER!

COMMANDES

Vous pouvez utiliser un levier de commande ou le clavier pour controler votre commando de combat.

	Touches	Manche à Balai
GAUCHE	O	Gauche
DROITE	P	Droite
VERS LE HAUT	Q	Vers le haut
VERS LE BAS	A	Vers le bas
FEU	SPACE	Feu

Pour lancer une grenade, tournez-vous du côté voulu et appuyez sur votre bouton de mise à feu jusqu'à ce que la grenade soit lancée.

CONSEILS ET INDICATIONS

Les logos CodeMaster vous apportent des avantages supplémentaires . . .

Une JEEP ou un TANK vous protège des balles ennemies, mais pas des grenades anti-chars.

Les **BOMBES À TÊTE** chercheuse annihilent tout dans leur champ d'action.

Un **TIR RAPIDE** vous donne une puissance de feu supérieure.

Recueillez également toutes les munitions que vous trouverez – cela complètera votre approvisionnement en grenades.

ESPANOL

CÓMO JUGAR

Tenéis que atraversar el campo de batalla luchando solos contra las hordas de las tropas enemigas – hay cuatro áreas de asalto en vuestro camino al jefe rebelde, cada una con una inmensa sección en lo alto y una acción rápida al lado del juego de combate cuerpo a cuerpo a medida que hacéis un ataque en cada instalación enemiga. Tendréis que enfrentaros con paracaidistas, defensas subterráneas, trincheras individuales, una élite de comandos enemigos muy bien preparados, trincheras, mercenarios, guarniciones, ciénagas traicioneras, emboscadas y ataques repentinos y no esperados! Tened cuidado con los cocodrilos y los tiradores apostados.

Moveros cada vez más rápidamente y recordar . . . EL QUE MAS SE ARRIESGA ES EL QUE GANA!

CONTROLES

Podéis usar las palancas en el control el mandos para controlar vuestro comando de combate.

	TECLAS	PALANCAS
IZQUIERDA	O	Izquierda
DERECHA	P	Derecha
HACIA ARRIBA	Q	Hacia arriba
HACIA ABAJO	A	Hacia abajo
FUEGO	SPACE	Fuego

Para lanzar una granaca, volveros hacia donde queréis tirar, tener sujeta la tecla de fuego hasta que tiréis las granadas.

CONSEJOS E INDICACIONES

Los "logos CodeMasters" aportan ventajas suplementarias . . .

UN JEEP or UN TANQUE os progeje de las balas de los enemigos, pero no de las granadas penetrantes . . .

BOMBAS DESTRUCTORAS lo aniquilan todo en un área inmediata.

FUEGO RÁPIDO os da una fuerza superior de fuego.

También, recoger todas las municiones que podáis – esto completará vuestro aprovisionamiento en granadas.

DEUTSCH

SPIELABLAUF

Kämpf' Dir einhändig den Weg durch die Horden der feindlichen Truppen – es gibt vier Angriffsstufen auf Deinem Weg zum Anführer der Rebellen, jede mit einer grossen Vogelperspektivdarstellung und einer schnellagierenden Seitenansicht der Mann-gegen-Mann Gefechte, während Du Deine Offensiven gegen die einzelnen feindlichen Stellungen machst.

Du stösst auf Fallschirmjäger, Bunker, Unterstände, Schützenlöcher, feindliche Elitetruppen, Schützengräben, Söldner, Garnisonen, tückische Sümpfe, Hinterhalte und überraschende Sturmangriffe. Nimm Dich in Acht vor Krokodilen und Heckenschützen!

Beweg' Dich schnell und leise und denk' dran . . . WER WAGT, GEWINNT!

STEUERUNG

Du kannst Dein Gefechtskommando mit dem Joystick oder über die Tastatur steuern.

	TASTEN	JOYSTICK
LINKS	O	links
RECHTS	P	rechts
AUF	Q	auf
AB	A	ab
FEUER	SPACE	Feuer

Wenn Du eine Handgranate werfen willst, musst Du in die gewünschte Richtung zielen und den Feuerknopf solange gedrückt halten, bis die Handgranate geworfen ist.

HINWEISE UND TIPS

Verwende die CodeMasters Logos als Zusatzfunktionen . . .

Ein **Jeep** oder ein **Panzer** schützen Dich feindliche Kugeln, aber nicht gegen durchdringende Handgranaten

Intelligente Bomben vernichten alles im angrenzenden Bereich

Schnellfeuer gibt Dir überlegene Feuerkraft

Also, nimm alle Munition, die Du finden kannst – sie wird Deinen Vorrat an Handgranaten auffüllen.

These are other great CodeMasters games available for your Amstrad

SIMULATORS

BMX Simulator · Grand Prix Simulator
Fruit Machine Simulator · Pro Snooker Simulator
Pro Ski Simulator · ATV Simulator
Advanced Pinball Simulator

ARCADE ACTION

Transmuter · Super Stunt Man · 3D Starfighter
Super Hero · Death Stalker · Ninja Massacre

PLATFORM ACTION

Ghost Hunters · Super Robin Hood
Vampire

CARTOON ADVENTURE

Dizzy · Desert Island Dizzy

And in our new PLUS range . . .

Jet Bike Simulator · The Race Against Time
Pro BMX Simulator

YOU COULD WRITE FOR CODEMASTERS

CodeMasters excellence is a result of utilizing the best games programmers there are. **The best programmers deserve the best rewards.** If you are good enough to program for us then write to David Darling now — you won't regret it.

SAS Combat Simul

Design and Coding
Graphics
Music/Sound FX
Project Leader
Production
Design and Illustration

This program, including c
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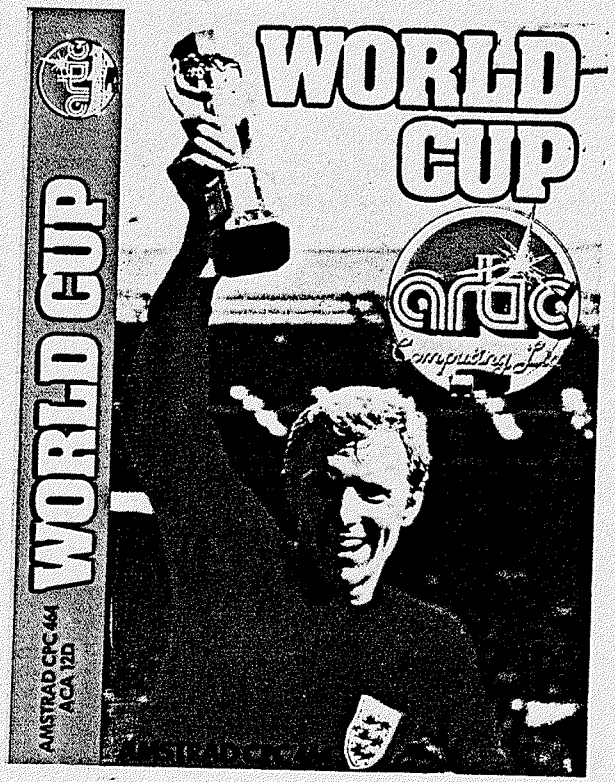


WORLD CUP

Today is the final of the World Cup and the atmosphere is electrifying. People are everywhere shouting and cheering. Your team has fought its way through the qualifying rounds beating some of the best teams in the world and now it's your chance to carry away the most famous trophy ever.

You could be playing for Brazil, or West Germany, or England, or . . . Maybe you're playing for one of the "outsiders". It's up to you to win the game and take the World Cup. The crowd go wild as you walk out of the tunnel, "it's now or never!" You can either play the Computer or against a friend.

Game controls:

Player 1 – Cursor keys
Copy – to shoot or pass the ball.
– Joystick (0)

Player 2 W – Up
X – Down
A – Left
D – Right
S – Shoot or Pass
– Joystick (1)

LOADING

Press CTRL key and small ENTER key together then follow prompts.

World Cup may be played by 1–8 players, each player can choose which team and country they would like to represent from a pool of 10 teams.

Once you have selected to play, and the game has started, you have control of the player nearest the ball. The player you control is indicated by a change in colour of his shorts.
For the RED team (Player 1), the controlled player has White shorts.
For the YELLOW team (Player 2 or the Computer), the controlled player has Pale Blue shorts.

The Goalie can dive to save a goal by pressing the Shoot Key or the Fire Button, if using Joysticks. The Goalie will automatically dive in the direction of the ball.

The music may be turned ON/OFF by pressing the 2 Key on the main keyboard.

The game may also be PAUSED by pressing the 1 Key on the main keyboard.

If you leave the computer for a short while it will automatically go into Demonstration Mode. This can be interrupted by pressing the Space Bar, and returning you to the title screen.

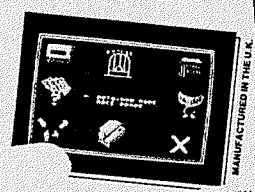
Good Luck!

1985 Artic Computing Ltd.



Experience all the thrills and excitement of a day at the races in this icon driven simulation for up to 5 players.

JOYSTICK REQUIRED.
AMSTRAD CONVERSION BY PROBE SOFTWAP



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AMSTRAD

SPORT OF KINGS

MANUFACTURED IN THE U.K.

AMSTRAD/SCHNEIDER

SPORT OF KINGS



MASTERTRONIC ADDED DIMENSION

THE GAME

Experience all the thrills and excitement of a day at the races in this icon driven simulation for up to 5 players.

You can choose up to 75 horses to face in any season to start with they will not have any form so build this up by choosing the 'YES' icon when you are asked if you would like to auto-run some races.

Follow the on-screen prompts upon loading.

To place your bet choose the 'Bookie' icon and then choose one of the four types of bet. Once all players have selected their horses and placed their bet the race will run automatically. Nothing is random in the results, jockeys, weights, going and distances are all carefully calculated for the final outcome. However, the more horses you choose for the season the smaller your chances of winning become.

To use the program, move the cursor around with the joystick and press FIRE to activate the desired icon or letter. When using an icon, press FIRE again to leave that section of the process. The main menu screen is divided into nine sections. The meaning of the icons are:-

SAVE/LOAD GAME FACILITY	BOOKIE	FORM BOOK
PLAYER MONEY STATUS	PLAYER(S) NAMES	NEXT RACE DETAILS
ENTER/LEAVE GAME	PRINTOUT FACILITY	RUN NEXT RACE

CONTROLS
Joystick only.

LOADING INSTRUCTIONS
Press control and small ENTER key together. START tape.

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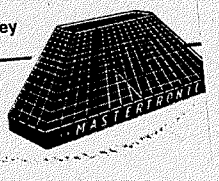
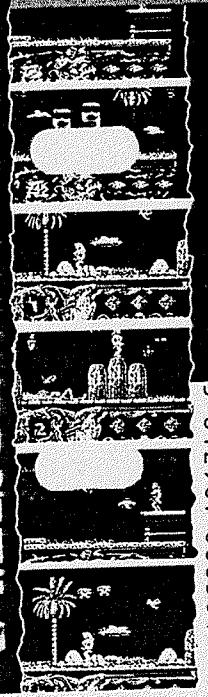
Made in Great Britain
Design: Words & Pictures Ltd., London



SPECTRUM · 48 · 128 · PLUS 2 · SPECTRUM · 48 ·

AMSTRAD · SCHNEIDER · 464 · 664 · 6128 · AMST

MASTERTRONIC



Enter the Kingdom of Lukx, find the three sacred jewels and free Jorund. In four different scenes you'll have to battle with eight different enemies – good luck!

RECORDED ON BASF TAPE

TITLE HUNDRA

MACHINE TYPE SPECTRUM · AMSTRAD

ISA 0272

5 012967 800581

SPECTRUM · 48 · 128 · PLUS 2 · SPECTRUM · 48 · 128 · PLUS 2 · SPECTRUM · 48 · 128 · PLUS 2 · SPECTR

AMSTRAD · SCHNEIDER · 464 · 664 · 6128 · AMSTRAD · SCHNEIDER · 464 · 664 · 6128 · AMSTRAD · SCHNEIDER



Loki the God of Lies has tricked Jorund, King of the Northern Vikings into entering the Forbidden Garden of the Norns. The other Gods, enraged by this insult have imprisoned him in the Kingdom of Lukx. Jorund's daughter, Hundra has convinced the Gods that it was all Loki's fault but she hasn't persuaded them to free her father. But they have given Hundra permission to attempt to rescue him.

This is a difficult task! Hundra has to get into Lukx, free Jorund and find the three sacred jewels before she can get out again!

OBJECTS

1. *Ymir's skull* This will give you immunity from all threats with the exception of water for a certain time. While it lasts it is displayed on the screen.
2. *The Winged Heart* This raises your blood level to the maximum. (Only your blood level – it doesn't restore life.)
3. *Crystal Beads* If you've got one of these beads when you fall in the water you won't lose a life, and the life you've got will rise to the maximum.
4. *Shala's Axe* This axe will prevent you from using yours for a while.
5. *Broken Heart* If you go over this you will lose half a life.
6. *Jewels* You must collect three of these to rescue Jorund. The score line brightens as you collect them.
7. *Triangular key* This key can be found at the top of the Castle and it opens the door on the left.
8. *Round key* This key opens the door on the right. You can only collect it once you've collected the triangular key.

ENEMIES There are four groups of enemies and this is where you'll find them:

In the open air: Ears, flying earthworms, dragons and storks

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Made in Great Britain

Design: Studio A Pictures Ltd., London.

MASTERTRONiC

In the areas under the bridge: piranhas
In the Castle: mummies and ghosts
In the underground areas: bats and vampires
In addition, in the scenes with the piranhas there are some mobile platforms which can carry you over the water.

ADVICE

1. Use the winged heart when you have very little life left. Remember it cannot give you a new life but it can restore the one you've got.
2. If you use the beads wisely you can achieve the same results as with the winged heart.
3. There are scenes in which some of the floors are illusions – if you try to walk on them you'll fall through.
4. Study the map. There are places where it's wiser to throw yourself into the void than to attempt to retrace your steps.

CONTROLS: Keyboard or Joystick.

KEYBOARD CONTROL

	SPECTRUM	AMSTRAD
LEFT	O	O
RIGHT	P	P
JUMP	Q	Q
FIRE	SPACE	SPACE
RE-START	1	ESC
PAUSE	2	CTRL

LOADING INSTRUCTIONS

AMSTRAD

464: Press CNTRL and small ENTER
6128: Type ITAPE and press RETURN. Press CNTRL and small ENTER.

SPECTRUM

Type LOAD"" and press ENTER.

FRENCH

Entrez dans le Royaume de Lukx, trouvez les trois bijoux sacrés et délivrez Jorund. Affrontez huit ennemis différents dans quatre scènes différentes.

LES COMMANDES

Clavier ou Manche à Balai.

INSTRUCTIONS DE CHARGEMENT

AMSTRAD

464: Appuyez sur CNTRL et la petite touche ENTER.
6128: Tapez ITAPE et appuyez sur RETURN. Appuyez sur CNTRL et la petite touche ENTER.

GERMAN

Dringen Sie in das königreich von Lukx ein, finden Sie die drei geweihten juwelen und befreien Sie Jorund. Nehmen Sie den kampf mit acht verschieden Feinden in vier unterschiedlichen Szenen auf.

KONTROLLEN

Tastatur oder Joystick

LADEANWEISUNGEN

AMSTRAD

464: CNTRL drücken und die kleine ENTER-Taste.
6128: ITAPE eintippen und RETURN drücken. Dann CNTRL drücken und di kleine ENTER-Taste.

ITALIAN

Penetra nel Regno di Lukx, trova i tre gioielli sacri e libera Jorund. Affronta otto nemici diversi in quattro scene diverse.

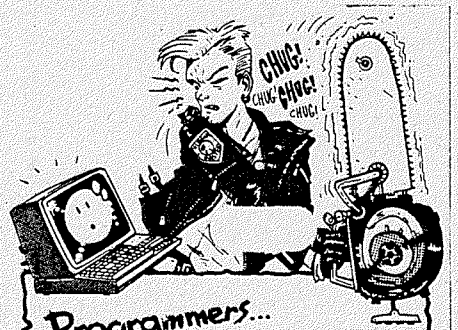
CONTROLLI

Tastiera o Joystick

ISTRUZIONI DI CARICAMENTO

AMSTRAD

464: Premere CNTRL ed ENTER piccolo
6128: Battere ITAP e premere RETURN. Premere CNTRL ed ENTER piccolo.



Programmers...

Don't be duped by other companies claims – when it comes down to publishing budget software there's really only one choice.

If you think you can meet our standards send a copy of your game with instructions to:

THE MAGIC POST BOX. Mastertronic,
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MASTERTRONiC
Nobody does it better!

BLASTEROIDS®

GERMAN

Blasteroids ist ein Spiel in bester Arkaden-Tradition. In einem Raumschiff, das drei Formen annehmen kann, müssen Sie sich Ihren Weg durch die Sektoren und Galaxien bahnen, in denen es von Asteroiden und todbringenden Feindschiffen nur so wimmelt, mit dem Ziel, den bösen MUKOR zu bezwingen, den Herrn über alle galaktischen Welten.
In BLASTEROIDS gibt es vier verschiedene irreale Sphären ("Warps"), jede schwieriger als di vorherige: EASY, MEDIUM, HARD und EXPERT. Jede davon umfaßt mehrere Galaxien und jede Galaxis wiederum besteht aus 9 oder 16 Sektoren, je nach Schwierigkeitsgrad. Sausen Sie den Tunnel runter, der in die gewünschte Warp-Sphäre führt. Aber seien Sie gewarnt: die mit HARD und EXPERT bezeichneten sollten Sie sich wirklich nur zumuten, wenn Sie ein routinierter Pilot sind!
Das Raumschiff kann die folgenden Inkarnationen annehmen:
SPEEDER – das superschnelle Schiff
FIGHTER – das unübertroffene Kampfgefährt
WARRIOR – das Schiff mit dem undurchdringlichen Panzer.
Gesteuert wird das Schiff durch Drehen und Schub, doch da es Masse hat, unterliegt es auch den Trägheitsgesetzen.
Um einen Sektor zu säubern, müssen alle vorhandenen Asteroiden außer Dienst gestellt werden. Durch Beschuß werden große Asteroiden inkleinere zerbrökelt, die aber auch zerstört werden müssen. Kollisionen und Schub verbrauchen Energie. Zum Auffüllen der Treibstoffvorräte dienen die Kristalle, die als Nebenprodukt anfallen, wenn rote Asteroiden de kompletten Zerstörung anheimfallen. Allerdings schwindet dieEnergiemenge de Kristalle, in dem Maße, wie sie verrotten. Ihre Energie kann absorbiert werden, wenn man über sie hinwegfliegt.
Unterwegs werden Sie auf verschiedene Arten von feindlichen Schiffen stoßen. Sie unterscheiden sich im Aussehen und in ihrem Angriffsverhalten. Bei der Vernichtung eines Feindschiffes fällt Ihnen, wenn Sie Glück haben, das eine oder andere an Apparatur oder Einrichtung in den Schoß – sammeln Sie es durch Überfliegen ein.

BLASTEROIDS®

GERMAN

Wenn Sie einen Sektor überstanden haben, taucht plötzlich ein Ausgangsportal auf – dieses müssen Sie Durchfliegen, um auf die Galaktische Karte zu gelangen. Zum Manövrieren des Schiffs bewegen Sie den Steuerknüppel nach rechts und links, um das Schiff in die betreffenden Richtung zu lenken. Schub erhalten Sie durch Vorwärtsdrücken des Joystick. Schnelles Dauerfeuer liefert die Feuertaste.

DIE GALAKTISCHE KARTE

Zum Auswählen eines neuen Sektors rotieren Sie Ihr Schiff, bis der gewünschte Sektor markiert ist. Ein Druck auf die Feuertaste erwirkt den Eintritt.
Der Inhalt jedes Sektors ist durch Miniatursymbole dargestellt, welche Asteroiden und Feinde signalisieren. Sektoren, die Sie bereits absolviert haben, bleiben leer – es ist sinnlos, sie nochmals abzuklopfen. Sie würden bloß Treibstoff zum Fenster rauswerfen! Sektoren, die außerhalb Ihrer Reichweite liegen, sind mit Fragezeichen versehen – da müssen Sie schon erst mal näher heranfliegen, um sich ein Bild davon zu machen, was auf ihnen vorgeht.

ASTEROIDEN-TYPEN

NORMALE Asteroiden können durch Beschuß vernichtet werden.
ROTE Asteroiden enthalten die Energie-Kristalle
POPCORN – Asteroiden müssen mehrmals getroffen werden, ehe sie zum Stillstand kommen. Bei jedem Treffer blähen sie sich auf. Ein Sektor kann erst von der Karte gestrichen werden, wenn sämtliche POPCORNS außer Aktion gesetzt sind.
EIER – Asteroiden sind voller BLUTEGEL. Diese haben es auf Sie abgesehen und sind schwer abzuschütteln. Siz zapfen hemmungslos an Ihren Energien. Versuchen Sie, die Blutegel durch hohe Geschwindigkeit oder Kollisionen abzuschütteln.
SEEKER – Asteroiden rasen mit Höchstgeschwindigkeit auf Sie zu, nachdem sie das erste Mal getroffen wurden. Sie müsen mehrmals angeschossen werden.

BLASTEROIDS®

GERMAN

SPEZIALAUSRÜSTUNG

Die Ausrüstung/Bewaffnung, die bei de Zerstörung von Feindschiffen anfallen, kann in 8 Kategorien unterteilt werden:
SCHILDE – verleihen einen beschränkten Schutz gegen Zusammenstöße und feindliches Feuer. Die Anzahl Schilde wird am oberen Bildschirmrand angezeigt. Bei jedem Treffer büßen sich welche ein.
BLASTERS – Kanone für Doppelfeuer.
ZUSÄTZLICHE FEUERKRAFT – Diese Apparatur verleiht Ihrem Beschuß Nachdruck.
RIPSTAR – Diese Waffe bewirkt im aktivierten Zustand, daß Ihr Schiff wie wild in Drehung gerät und riesige Salven abgibt. Allerdings nur einmal je Ripstar. Zum Aktivieren, Joystick nach hinten ziehen und Feuerknopf drücken.
BOOSTER – Zur Erhöhung der Schubkraft.
KRISTALLMAGNET – Zieht die lose herumschwirrenden Energiekristalle an.
TARNUNG – Eine "Tarnkappe", die Ihr Schiff für den Feind unsichtbar macht.
All diese Spezialfunktionen haben eine beschränkte Wirkungsdauer.

MUKOR

Wenn Sie schließlich alle Sektoren der Galaxis überlebt haben, kommt die Auseinandersetzung mit MUKOR. Er wird alles tun, Ihr Schiff zu rammen, während die Miniaturschiffe in seinem Dienst in ihren Angriffen nicht locker lassen. Sie können MUKOR zu Leibe rücken, indem Sie seine Fangarme abschießen. Wenn sie alle lahmgelegt sind, bleibt MUKOR nichts anderes übrig, als sich davonzuschleichen und ihnen ein paar gute Stücke seiner Spezialausrüstung zu hinterlassen . . . Doch dies ist nicht die Zeit zum Aufatmen. Jede Warp-Sphäre besteht aus mehreren Galaxien. Erst wenn Sie die alle absolviert und MUKOR den Meister gezeigt haben, muß er klein beigeben und die Warp-Sphäre ein für allemal räumen.

image works™

GERMAN

Ladebefehle:

Diskette: ¦cpm eingeben (¦ ist der vertikale Strich über dem Klammeraffen @)

Band: RUN"" eingeben.

Das Spiel kann über Joystick oder Tastatur gesteuert werden. Im 2-Spieler-Betrieb können auf Wunsch beide einen Joystick benutzen oder einer die Tastatur, der andere den Joystick. Zum Spielen mit 2 Joysticks ist ein Joystick-Adapter erforderlich, wobei der zweite Joystick auf Tastatur-Simulation konfiguriert werden muß.

JOYSTICK-STEUERUNG

Das benutzte Interface auswählen. Die Sinclair Optionen 1 und 2 beziehen sich auf den Joystick-Steckplatz.
Nach vorn = Schub
Zurück = Umwandlung
Links = Drehung nach links
Rechts = Drehung nach rechts
Feuerknopf = Feuer

TASTATUR-STEUERUNG

Der Benutzer kann die Tasten selber belegen.

ANDERE FUNKTIONEN

H = Pause
R = Weitermachen
SHIFT+Q = Laufendes Spiel abbrechen

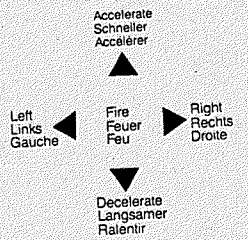
Instruction Sheet
Anweisungen
Instructions

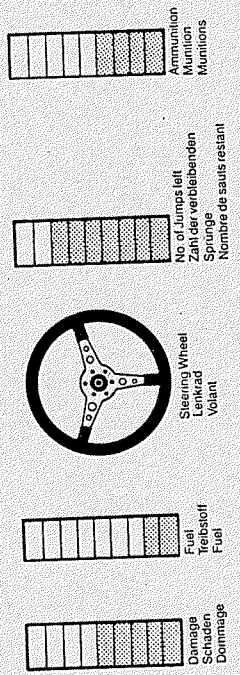
Loading Instructions
Hit small **ENTER** +CONTROL together then press **PLAY** on tape.

Ladeanweisungen
small **ENTER** +CONTROL gleichzeitig betätigen dann **PLAY** des Recorders drücken.

Instructions de chargement
Appuyer sur small **ENTER** +CONTROL simultanément puis presser **PLAY** sur le lecteur.

Joystick





Keyboard
Press K to define keys and joystick 'Fly' key.
To select vehicle press 'Fire'.

Tastatur
K drücken, um Tasten und Joystick 'Flug'—Taste zu bestimmen.
Zur Wagenwahl 'Feuer'—Taste drücken.

Clavier
Appuyer sur K pour définition du clavier et de la touche 'Vol' pour contrôle par joystick.
Presser touche 'Feu' pour choix de voiture.

M=Music on/off
M=Musik ein/aus
M=Musique marche/arrêt

PLAYING THE GAME . . .

The first thing you should do is to explore the complex and find the four magical gifts that Venus has hidden for you – these will endow you with supernatural powers . . . look for the POWER BOOTS which enable you to jump . . . the RETURNING WARHAMMER, for slaying the mynad monsters and ghouls in the corridors . . . a TRANS-DIMENSIONAL BAG which nullifies the mass and size of an object, allowing you to carry it easily . . . and a MYSTICAL HELMET which destines you to be showered with gifts from the watching gods.

THE TREASURES FROM THE GODS

Once you have the Mystical Helmet, gifts from the gods will occasionally be bestowed upon you while you are in the corridors of the complex. Gifts could be:
TELEPORT KEYS for using the teleports . . . MERCURY'S WINGED SHOES for running more swiftly (only temporarily) . . . a PARALYSER to eliminate monsters in the corridors . . . GOLD to buy things from the traders . . . and ESP ACTIVATORS which, when taken to the ESP Orbs (in certain rooms), will guide you towards the next GUARDIAN'S SPIRIT (GREEN means right direction, RED means wrong direction)

ALSO STARRING IN THIS GAME . . .

TRADERS — Bodiless creatures with winged ears — you can buy things from them with your gold (extra lives, paralysers, teleport keys, information) or you can gamble with them! Run headlong into a trader to activate him.

ENERGY SPHERES — Fuzzy balls that are found in some of the rooms — they home in and kill you, unless you can jump on top of them.

GUARDIANS — In the corridors your way will sometimes be blocked by one of the 5 EVIL GUARDIANS. The GUARDIANS can only be vanquished by capturing their spirits, which are hidden in rooms in the complex.
Every time you capture a Guardian's Spirit you will be thrown into the DeadZone — if you survive you are awarded a bonus life.
To complete the game you must eliminate all five Guardians then enter the room behind the final Guardian. When you pause the game the PLAYER STATUS screen is displayed. This will tell you many things, including which of Venus' magical items you have found — you possess the ones that light up in yellow.

FRANCAIS

POUR JOUER A CE JEU . . .

La première chose à faire est d'explorer le labyrinthe et de trouver les quatre dons magiques que Vénus a dissimulés pour vous; ceux-ci vous doteront de pouvoirs surnaturels. Cherchez les Bottes magiques (POWER BOOTS) qui vous permettront d'avancer en faisant des bonds . . . le Marteau de Guerre qui revient à son envoyeur (RETURNING WARHAMMER), pour massacrer des mynades de monstres et de goules dans les couloirs . . . un Sac Trans-Dimensionnel (TRANS-DIMENSIONAL BAG) qui annule la masse et la taille d'un objet, vous permettant ainsi de la transporter facilement . . . et un Casque Mystique (MYSTICAL HELMET), qui vous destine à être comblé des présents des Dieux vigilants.

LES TRESORS DES DIEUX

Une fois que vous aurez le Casque Mystique, des dons divins vous seront accordés de temps en temsp, alors que vous parcourerez les couloirs du labynnthe. Ces dons pourront être: Les clefs Téléport pour utiliser les "téléports" . . . les Souliers Ailés de Mercure pour courir plus vite (mais seulement de façon momentanée) . . . un Paralyseur pour éliminer les monstres dans les couloirs . . . de l'or pour acheter des objets aux Marchands . . . et des activateurs ESP qui, une fois dans les Orbes ESP (dans certaines pièces), vous guideront vers le prochain Espnt du Gardien – vert signifiant que vous êtes dans la bonne direction; rouge dans la mauvaise direction.

SONT EGALEMENT DANS CE JEU . . .

Les Marchands créatures sans corps et aux oreilles ailées. Avec cotre or, vous pouvez leur acheter des objets (des vies supplémentaires, des paralyseurs, des clefs "téléport", des renseignements) ou jouer à des jeux d'argent avec eux! Foncez à toute allure dans un marchand pour l'activer.
Des Sphères d'Energie – Ce sont des boules floues que vous trouverez dans certaines des pièces – Elles se dirigent sur vous et vous tuent, sauf si vous réussissez à sauter sur elles.
Les Gardiens – Dans les couloirs, l'un des cinq gardiens diaboliques barrera parfois votre passage. On ne peut les vaincre qu'en capturant leur esprit; ces espnits sont cachés dans des pièces du labynnthe.
Chaque fois que vous capturerez l'Esprit d'un Gardien, vous serez envoyé dans la DEAD ZONE – si vous survivez, on vous accordera une vie supplémentaire.
Pour terminer ce jeu, vous devez éliminer les cinq Gardiens, puis entrer dans la pièce que surveillait le dernier Gardien. Chaque fois que vous arrêtez le jeu, l'écran PLAYER STATUS s'affiche. Ceci vous indiquera beaucoup de choses, dont les objets magiques de Vénus que vous avez trouvés; vous possédez ceux qui s'affichent en jaune.

DEUTSCH

WIE DAS SPIEL ZU SPIELEN IST

Zuerst solten Sie das Labynrth exploneren und die vier magischen Geschenke finden, die Venus für Sie versteckt hat – diese werden Sie mit übenrdischen Kräfen versehen. Halten Sie Ausschau nach den MACHT-STIEFELN (POWER BOOTS), die Sie befähigen zu springen, dem ZURCKKEHRENDEN KRIEGSHAMMER (RETURNING WARHAMMER), um die unzähligen Ungeheuer und leichenverzehrenden Dämonen in den Korridors zu vernichten, dem TRANS-DIMENSIONALEN BEUTEL (TRANS-DIMENSIONAL BAG), der die Masse und Grösse eines Objekts zu nichte macht, Ihnen jedoch erlaubt, ihn leicht zu tragen und dem MYSTERIÖSEN HELM (MYSTICAL HELMET), der Sie erwählt, mit Geschenken von den zuschauenden Göttern überschüttet zu werden.

DIE SCHÄTZE VON DEN GÖTTERN

Wenn Sie erst einmal den Mysteriösen Helm haben, dann werden Ihnen gelegentlich Geschenke von den Göttern zufallen, während Sie in den Korridors des Labyrinngth sind. Geschenke könnten sein: TELEPORT SCHLÜSSEL um die Teleports zu benutzen, SCHUHE MIT MERKUR-FLÜGEN, mit denen Sie geschwinder laufen können (nur vorübergehend), ein PARALYSATOR, um Ungeheuer in den Gängen zu zerschmettern, GOLD, mit dem Sie Güter von den Händlern kaufen können und ESP AKTIVATOREN die, wenn man sie zu den ESP HIMMELSKÖRPERN nimmt (in gewissen Zimmern), Sie zu dem nächsten BESCHÜTZER-GEIST führen werden. GRUN bedeutet richtige Richtung, ROT bedeutet falsche Richtung).

IN DIESEM SPIEL WIRKEN AUCH MIT . . .

HÄNDLER – körperlose Kreaturen mit Flügelohren – Sie können Dinge von ihnen mit Threm Gold kaufen (Extra-Leben, Paralysatoren, Teleport Schlüssel, informationen), oder Sie können mit ihnen um Geld spielen. Rennen Sie schnurstracks in den Händler, um ihn zu aktivieren.
ENERGIE SPHÄREN – Flaumige Bälle, die in einigen Zimmern zu finden sind – sie dringen ein und töten Sie, wenn Sie nicht auf sie springen können.
BESCHÜTZER – in den Korridors wird Ihr Weg machmal durch einen der 5 SCHLECHTEN BESCHÜTZER blockiert sein. Die WÄCHTER können nur überwunden werden, wenn ihr Geist eingefangen wird, der jewweils in den Zimmern des Labyrinth versteckt ist.
Jedesmal, wenn Sie den Geist eines Beschützers einfange, werden Sie in eine TOTE ZONE (DEAD ZONE) geworfen – wenn Sie überleben, bekommen Sie ein Extra-Leben.
Um das Spiel zu beenden, müssen Sie alle 5 BESCHÜTZER eliminieren und dann müssen Sie das Zimmer hinter dem letzten Beschützer betreten. Wenn Sie das Spiel anhalten, kann man den STATUS DES SPIELERS (PLAYER STATUS) auf dem Bildschirm sehen. Dies wird Ihnen viele Dinge verraten, einschliesslich welche der magischen Gegenstände von Venus Sie gefunden haben – Sie besitzen die, die in gelb aufleuchten.

ESPANÖL

PARA PARTICIPAR EN EL JUEGO . . .

Lo primero que debes hacer es explorar el intrincado labennto y encontrar los cuatro obsequios mágicos que Venus ha escondido para ti – estos te dotarán de poderes sobrenaturales . . . busca las botas poderosas (POWER BOOTS) que te permitirán saltar . . . la rnza que vuelve a ti (RETURNING WARHAMMER) para matar a los millares de monstruos y vampiros en los pasadizos y el tamano de los objetos, penutiéndote que los transported con facilidad . . . y el casco mistico (MYSTICAL HELMET) que te destina, a que los vigilantes dioses, derramen sobre ti sus obsequios.

LOS TESOROS DE LOS DIOSES . . .

Una vez tengas el casco mistico, los obsequios de los dioses se te serán confendos, de vez en cuando, mientras estés en los pasajes del intrincado labennto. Los obsequios pueden ser: llaves telespaciales para usarlas en las plataformas espaciales . . zapatos con alas de Mecuno para correr con mayor rapidez (sólo temporalmente) . . . un paralizador para eliminar los monstruos en los pasajes para comprar lo que desees a los mercaderes . . . y activadores de percepción extrasensonal que, cuando seas llevado a esferas de percepción extrasensonal (en ciertas espacios) te guiarán hacia el siguiente espíritu guardián – verde significa dirección correcta; – rojo, dirección equivocada.

TOMANDO PARTE TAMBIEN EN ESTE JUEGO

Los mercaderes criaturas incorpóreas con orejas en forma de alas – puedes comprarles todo lo que desees (vidas extra, paralizadores, llaves telespaciales, inmformación) o puedes jugarte tu oro con ellos. Corre directamente a un mercader para activarle.
Esferas de energía Bolas borrosas que se encdentran en algunos espacso – te localizan y te matan, a menos que puedas saltar sobre ellas.
Los guardianes – En los pasajes serás a veces bloqueado por uno de los cinco guardianes malignos. Los guardianes sólo pueden ser derrotados si capturas sus espíritus, que están escondidos en espacios del intrincado labennto.
Cada vez que captures el espíritu de un guardián serás arrojado en una zona muerta (DEAD ZONE) – si sobrevives se te dará la prima de una vida.
Para terminar el juego debes eliminar a los cinco guardianes y entrar en el espaciao que hay detrás de último guardián.
Cada vez que pares el juego la posición relativa del jugador (PLAYER STATUS) aparecerá en la pantalla. Esta te dará mucha información, incluyendo los artículos mágicos de Venus que has encontrado – los que reluzcan en amanllo, son los que posees.

CONTROLS

Q = North, A = South, @ = West, [= East
SPACE = PICK UP/DROP
RETURN or ENTER = JUMP/FIRE
P= Pause/Status (Press P then ESC to Quit)

These are other great CodeMasters games available for your Amstrad

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BMX Simulator · Grand Prix Simulator · Fruit Machine Simulator
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Ghost Hunters · Super Robin Hood · Vampire

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Dizzy

And in our new PLUS range . . .
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YOU COULD WRITE FOR CODEMASTERS

CodeMasters excellence is a result of utilizing the best games programmers there are. **The best programmers deserve the best rewards.** If you are good enough to program for us then write to David Darling now — you won't regret it.

This program was bro

Paul Machacek
Bernie Drummond
Guy Stevens
David Darling/Mark B
Liz Darling
Mike Clark

Made
Published by Code
PO Box 6, Leamingt

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BLOCKBUSTERS From Macsen Software is based on the well-known television series of the same name. The TV game is a **Central Production** made in association with Mark Goodson and Talbot Television.

Whilst every precaution has been taken in the preparation of this recording the publisher assumes no responsibilities for errors nor liability for damage arising from its use.

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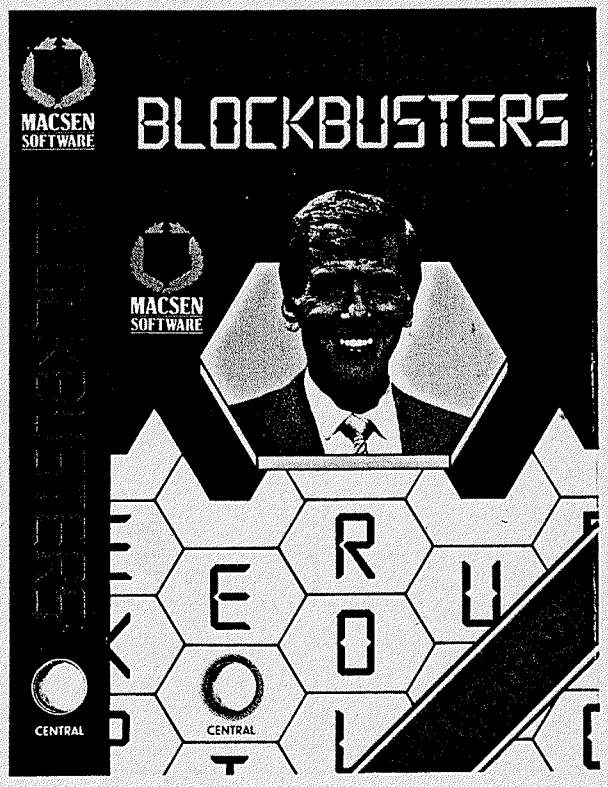

Blockbusters is a version of the successful TV quiz game adapted for the popular home computers. It is a game for two single players played on a 4 * 4 matrix of hexagons, each player attempting to form a path across the matrix. The cassette contains the game itself and hundreds of general knowledge questions (split across 2 data files) to give you hours of competitive enjoyment.

NB. Each side of the cassette contains the game and both data files. The data files are recorded in reverse order on the second side for your convenience.

LOADING. Insert the cassette (fully rewound) into the recorder. Hold down the CTRL key and press the ENTER key (or type RUN" " then ENTER), press PLAY on your recorder, followed by pressing any key.

At the stage where you are asked if your monitor is colour or monochrome Amstrad CPC464 users will find that their cassette pauses. Do not switch it off. Later, after you have pressed ENTER from the BLOCKBUSTERS introductory screen, it will restart in order to load the data file.

Users without cassette players under computer control should manually stop the player when the 'colour monitor' message appears and restart it after pressing ENTER in order to clear the BLOCKBUSTERS introductory screen.

When a screen appears asking whether or not you want sound, you may switch off your tape recorder.

PLAYING. Before playing the game you will be asked:

- Whether or not you wish to have sound.
- The names of your players.
- The number of games in the series (1 – 9).
- The skill level – the higher the skill level, the shorter the time allowed to answer.

Each player will then be allocated a colour, and a key to interrupt (A or]).

During the game, either player, by pressing his key, can interrupt the question as it is being written on the screen. (A reminder of the letter with which the answer starts is displayed at the bottom left of the playing area).

At the end of a game, the series game score is displayed.

At this stage, press ESCAPE to abandon the series or any other key to continue with the next game.

At the end of a series, the final score is displayed, and you have the option whether or not to start another series. When starting a new series you are given an opportunity to load the alternative question set. Remember to switch on your tape recorder to do this. The second set of questions immediately follows the first set on tape.

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Music © ITC Film Scores Ltd 1983

BLOCKBUSTERS

Now that you have your **BLOCKBUSTERS** program, Macsen Software is giving you the opportunity to purchase the follow-up **QUESTIONMASTER** program at a special price of **£5.95**

This cassette:

1. provides you with hundreds of new questions for your Blockbusters game
2. provides you with the means to create your own questions for the game – thousands and thousands of them and they can be as difficult or as easy as you please. You will, by using the **QUESTIONMASTER** program, be able to build up a 'library' of questions on different subjects

Please supply me with a copy of the Blockbusters' **QUESTIONMASTER** program for my _____ micro computer
eg BBC, Spectrum etc.

Name: _____
Address: _____
_____
_____ Postcode: _____

I enclose a Cheque/Postal Order to the value of £6.40 (£5.95 + 45p P&P).
Please debit my Access/Barclaycard No.
_____ to the sum of £6.40

Signature _____

Reply to: **Macsen Software, G.B.A. Ltd.**
17 Nott Square, Carmarthen, Dyfed SA31 1PQ

EYE SPY

Move over Kojak and Co.... and make way for Eye Spy, the smartest detective yet!!!

With a homicide to solve in Mad Mavrin's caverns, Eye Spy has been assigned to search out the vital clue leading him to one of the 7 suspects, lined up in the court room.

The 8 secret elements of the clue are randomly hidden in eight of the many safes around the complex. But life is not that simple: on collecting all 8 clues, Eye Spy must find the KEY to the 'CLUE RELEASE', before proceeding to the courtroom to unravel the RIDDLE awaiting him!!

If Eye Spy succeeds in collecting all 8 pieces of the clue, only then will the RIDDLE be displayed. One of the 7 suspects is guilty, but which one??

They are numbered 1 to 7: Eye Spy must press the CORRECT KEY (1 – 7) when the random riddle appears: only smart players will win the game, and find the real criminal!....

The suspects are:

1. CAPT SCARLET REVOLVER
2. COL GREEN SWORDE
3. MR BLUE BOW & ARROW
4. DR MUSTARD POISON
5. FATHER PLUM BOMB
6. SERG GREY RIFLE
7. PROF BROWN NOOSE

The riddle awaits you, if you are smart, in the courtroom!!

Every new game, it's a different suspect to arrest.

COMMISSIONER RATING AWAITS THE SMARTEST EYE SPY!!

Scanner:

The scanner shows updates on your current location, time and energy left to fulfill your task. Each element of the clue collected changes the colour of the indicator.

Joystick Control:

Using the joystick port, press FIRE to somersault, left to move left, right to move right. Pulling the joystick down will make you duck, if you need to. When travelling in the elevators, you may swop to another one passing you by moving the joystick left or right as it passes. Great for avoiding a nasty death in the boiler-room!!

Keys:

Z Move Left	F: Freeze/Unfreeze Game
X Move Right	M: Switch Music On/Off
RETURN : Jump	SPACE BAR: Start Game/Exit Score Page
R: Reset Game	

In the Courtroom, keys 1 – 7 will select suspects numbered 1 – 7.

Press joystick button/space bar to start the mission.

Hints on Play:

Only one: conserve your energy by avoiding contact with anything that looks the slightest bit nasty!! Try the POLICE STATION if you are running low on energy....

Hints on Good Play:

Check every safe as soon as you see it!

Hints on Great Play:

Memorise the location of every cavern: it really helps!!

Loading Instructions:

Press CTRL and the small ENTER, press PLAY, then hit any key. Then follow the screen prompts.

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Die Zargon-Flotte nähert sich der Erde, auf der Sie allein zurückgelassen wurden, um die Uranvorräte zu verteidigen. Eine schwierige Aufgabe für Sie, denn das feindliche Mutterschiff setzt Zellen aus, die bei der Landung ausbrüten, oder sich teilen, wenn Sie sie treffen. Andere Schiffe lösen sich aus dem Flottenverband, um die Barriere zu durchbrechen. Gelingt ihnen dies, werden sie in unzerstörbare Mutterschiffe verwandelt. Sobald die Mehrzahl von ihnen verwandelt wurde, beginnen sie ihr Landemannöver auf der Erde.
Um ausgebrütete Zellen in die Falle zu locken, haben Sie fünf Mal die Möglichkeit, Löcher in ihre eigene Verteidigungsbarriere zu machen.

Punktetabelle

Raketen	= 20
Mutterschiffe	= 0
Eindringlinge	= 20
Angreifer	= 10
Zellen	= 30

Sie haben drei Leben und erhalten jeweils nach 10 000 Punkten ein weiteres und eine zusätzliche Möglichkeit, ein Loch zu graben.

Bedienung
Sie können entweder einen Joystick oder die vorgegebenen Tasten verwenden:

z = links
x = rechts
SHIFT = Feuer

Drücken Sie die Leertaste, um ein Loch zu graben, oder ziehen Sie den Joystick zurück und drücken Sie den Feuer-Kopf.

P = Anhalten/Starten des Spieles
Es gibt 8 Schwierigkeitsgrade, 8 ist der schwerste.

Ladeanweisung
Drücken Sie gleichzeitig die Tasten CTRL, SHIFT und ESC, um den Computer zurückzusetzen. Legen Sie die Cassette in den Datacorder, spulen Sie sie zum Anfang zurück und drücken Sie dann einmal die Taste STOP/EJECT. Drücken Sie nun gleichzeitig CTRL und die kleine ENTER-Taste, dann zuerst PLAY und eine beliebige Taste. Der Ladevorgang dauert 4 Minuten. Die Spielanleitung erscheint dann auf dem Bildschirm.
Auch für Schneider Joystick JY1.

WARNUNG
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Alien Break In

The Aim of the Game

The radiation gnaws away at you, draining your precious energy resources – sapping your life force. The multi perspective 3D maze is hiding the very life pills that can bring you salvation. You are the Molecule Man: Your purpose is to survive.

Lost in the middle of the enormous maze with time and radiation as your enemies escape via the teleporter would be easy but for the fact that it can only be activated by the insertion of 16 circuits; these must be found and collected first.

In this cruel world extra life time can be bought with cash! However, once you have found a coin you must make the decision of either buying life pills or bombs. The bombs will destroy parts of the maze which would otherwise be impassable.

MOLECULE MAN – THE INFERNAL SURVIVAL GAME!

CONTROLS

JOYSTICK 1 or

KEYS				
A	– Up	Z	–	Down
N	– Left	M	–	Right
B	– Buy (bombs/pills)	Space	–	Pick up (coins/circuits)
X	– Throw bomb			
ENTER	– Pause/unpause game	Esc	–	Abort game

or define your own keys.

THE MAZE DESIGNER

The Maze Designer is a separate program that follows after the game. To load it stop the tape after loading Molecule Man, reset the computer and follow the normal loading instructions.

The Designer will allow you to change the game completely; once it has loaded you'll see a blank cyan window in the top right hand corner of the screen, a yellow window running down the left hand side containing some of the objects to be found in the maze, a box labelled 'CURRENT', 2 indicators labelled 'X' and 'Y' and a list of keyboard options. The cyan window is used to display each of the 256 locations in the maze. To see this in action, press 'L' (to load a saved maze) and re-start the tape, as a saved copy of the maze follows directly after the program. Once it has loaded, you will see the top left hand location of the maze displayed in the window, although not in 3D, its purpose is to show the layout of passages and the positions of objects etc. Using the cursor keys or a joystick, you can move the window to display any location, the X and Y indicators giving the position of the window within the maze. To view the entire maze at any time press 'V'. Everything is marked except for the starting position of Molecule Man.

EDITING THE MAZE

To edit the maze, you must first select the object you want to place in it. Press 'O', Space or fire on the joystick and one of the characters in the yellow window will be displayed. Move the cursor over the object you wish to use and press 'O', Space or fire again – it will then be displayed on the screen in the box labelled 'CURRENT'.

Not all of the objects that you can choose from will be displayed on the screen together; to choose from a different set move the cursor down to the bottom or to the top of the yellow window and another set will appear. There are three sets altogether containing 42 objects.

To place your chosen object within the maze, press 'E' and a cursor will appear in the top left hand corner of the cyan window. To move to the next location move the cursor off the screen, in any direction (unless you are at the edge of the maze) and it will appear in the cyan window. You can set the program to automatically change every object in the maze to your chosen 'CURRENT' object by pressing 'A', once an object has been changed it can be restored to its original form by pressing 'C'.

You can place any object anywhere in the maze and as many times as you like. However, you must have 16 circuits when you step onto the teleport square to complete the game. The only exception to this rule is Molecule Man himself; if you try to place him twice he will be erased from his old position before being placed in his new one.

SAVING YOUR MAZE

Once you have finished editing your maze save it to tape by following these simple instructions:

1. Insert a blank tape into your cassette deck, ensure that it is wound on past the coloured leader tape.
2. Return to main menu.
3. Press PLAY and RECORD on the cassette deck.
4. Press 'S' on the keyboard.

The new maze will now save to tape.

LOADING YOUR MAZE

1. Load in Molecule Man.
2. Choose 'Load saved maze option' & press ENTER.
3. Insert your own tape.
4. Press play.

LOADING INSTRUCTIONS

HOLD DOWN CTRL AND PRESS THE SMALL ENTER KEY

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Made in Great Britain

Design & Artwork: Words & Pictures Ltd., London

Molecule Man

AN™
THE MOVIE
ARE RELEASE FROM
ocean
DUE
WINTER 1989
AN TM & © 1988 DC COMICS INC.

latman's deadliest enemies — The
ntered will vary.

mansion, but, of course old habits die

Joker'! Batman's arch enemy has returned.

ere's no place like home! Boom! Boom!

vels
e two quotes). The ' is obtained by

volume and tone control and consulting

anual.

ADER' option. This program will then load

hey appear on screen. If there is a disk

ction Booklet. Place the rewound tape in the
instructions as they appear on screen.

he machine can access the disk drive. Now

re the machine can access the disk drive.

to the beginning. Ensure that all the leads
'S PLAY ON TAPE. This program will then

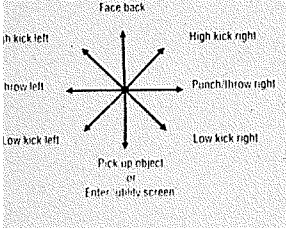
)"",8,1 (RETURN). The introductory screen

load automatically.

overlaid panels'. Any text (i.e. clues,

ving puzzles en route.

WITH THE FIRE-BUTTON PRESSED



requirements of the player.

texte (c'est à dire les indices, descriptions, etc..) est affiché dans des cases à légende dans "l'image" appropriée.

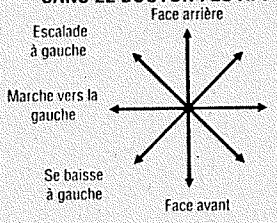
Le joueur, étant Batman, a une liberté totale de mouvement et d'interaction avec les nombreuses locations, résolvant les problèmes au fil de sa route. Il faut faire attention à ne pas "surmener" Batman — trop de bagarres et son endurance pourrait être réduite dans des proportions alarmantes.

Le jeu est fini seulement lorsque l'aventure est terminée ou que Batman n'a plus assez d'énergie pour continuer.

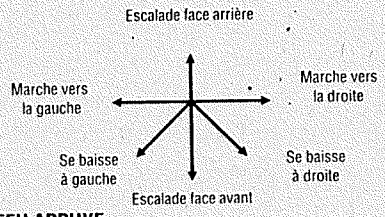
LES CONTROLES

Le joueur peut faire agir Batman selon une grande variété de manoeuvres...

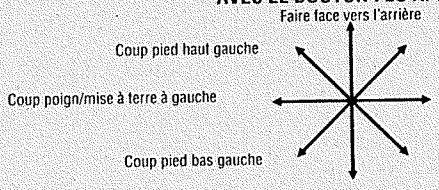
SANS LE BOUTON FEU APPUYE...



ATARI/AMIGA



AVEC LE BOUTON FEU APPUYE



Ramasse un objet
– ou –
Entre dans l'écran "d'utilité"

L'ECRAN D'UTILITE

EN "tirant vers le bas" et en appuyant sur "feu", Batman entrera dans l'écran d'utilité.

Ceci affiche tous les objets que vous avez "ramassé" ainsi que les "icônes" de contrôle utilisées pour la manipulation des objets.

Note — divers aspects des affichages et effets sonores du jeu peuvent également être modifiés à présent pour satisfaire les exigences du joueur.

Les barres de la situation énergétique de Batman et le "pourcentage d'exécution du complot" sont aussi affichés sur cet écran.

Pourcentage de jeu

Objets portés

Icônes de contrôles

Curseur-Batman

Barres de situation énergétique

EXEMPLE
UTILISATION D'UN OBJET

En déplaçant le "curseur-Batman" sur l'objet et en appuyant sur "feu" puis en sélectionnant l'icône "utilisation" de la même manière, l'objet en question sera utilisé.

c'est à dire, nourriture consommée (énergie augmentée)
la clé ouvre une porte fermée
une fléchette est lancée

CONSEILS UTILES

1. Ne mangez pas trop
2. Certains objets font plus de mal que de bien!
3. Continuez à vous baisser pour esquiver les balles
4. Ne jugez aucun livre par sa couverture (complot du Joker)

BATMAN, LE CHAMPION A CAPE

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BATMAN, DER MASKIERTE KÄMPFER

Dieses Programm verbindet die Elemente eines Adventures mit denen eines Action-Spiels. Das Spiel besteht aus zwei Handlungsteilen, in denen es um BATMANs Todfeinde geht: Der PINGUIN und der JOKER. Der Spielablauf dieser Abschnitte ist etwa gleich, doch die Schauplätze und die auftretenden Probleme unterscheiden sich.

Und darum geht es:

DER PINGUIN — "LIEBER DEN VOGEL IN DER HAND..."

Der PINGUIN wurde gerade aus dem Gefängnis entlassen und eröffnet eine Fabrik für Regenschirme in der Nähe seiner Villa in Gotham. Natürlich hat er sich nicht geändert, und die neue Fabrik dient nur als Tarnung seine wirklichen Plans: Mit Hilfe einer Armee aus Roboter-Pinguinen will er die Weltherrschaft erringen.

Können Sie in der Rolle des BATMAN den geheimen Steuerungscomputer finden und dieses üble Vorhaben stoppen?

DER JOKER — "EIN SCHICKSAL, SCHLIMMER ALS DER TOD"

ROBIN ist unter mysteriösen Umständen verschwunden. Die einzige Spur ist eine einzelne Spielkarte — das Erkennungszeichen des berüchtigten JOKER. BATMANs Erzfeind ist wieder da. Nach aufwendigen Untersuchungen entdeckt der BATCOMPUTER eine auf der Rückseite der Karte versteckte geheime Nachricht:

"ROBIN steht für ein Schicksal (*fate*), schlimmer als der Tod — die Lunte brennt — drum vergeude keine Zeit, folge deiner Nase (*nose*) und vergiß nicht: Zuhause ist's am schönsten! Boom! Boom!"

Sind Sie in der Lage, diesen Fall zu lösen, ROBIN zu befreien und den JOKER zu besiegen? Die Zeit läuft...

LADEANWEISUNGEN — COMMODORE

KASSETTE

Legen Sie die zurückgespulte Kassette mit der beschrifteten Seite nach oben in Ihren Commodore Kassettenrecorder. Achten Sie auf den richtigen Anschluß der Verbindungskabel. Drücken Sie nun gleichzeitig die Tasten SHIFT und RUN/STOP und befolgen Sie die Anweisungen am Bildschirm (PRESS PLAY ON TAPE)- drücken Sie die PLAY-Taste des Recorders. Das Programm wird automatisch geladen und gestartet. Besitzer eines C128 schalten zuvor bitte mit GO 64 (RETURN) in den C64-Modus.

DISKETTE

Schalten Sie in den C64-Modus. Schalten Sie das Diskettenlaufwerk ein und legen Sie die Programmdiskette mit dem Aufkleber nach oben in das Laufwerk ein. Tippen Sie nun LOAD "*",8,1 (RETURN). Daraufhin erscheint der Titelbildschirm und das Programm wird automatisch geladen.

LADEANWEISUNGEN — CPC

KASSETTE

Legen Sie die zurückgespulte Kassette in den Recorder, geben Sie RUN" ein und drücken Sie die ENTER-Taste. Befolgen Sie die Anweisungen, die auf dem Bildschirm erscheinen. Ist ein Diskettenlaufwerk angeschlossen, geben Sie | TAPE ein und drücken die ENTER-Taste. Dann geben Sie RUN" ein und drücken die ENTER- Taste erneut.

(Das Zeichen | erhalten Sie, indem Sie bei gedrückter Shift-Taste die @-Taste betätigen.)

CPC 464 und 6128

BATMAN, TH

Questo è un gioco elettro
mortali di Batman — Per

La storia fino ad ora ...

IL COMPLOTTO

Il Penguin, dopo essere s
naturalmente, il lupo per
usando un esercito di pin

Potete, nelle vesti di Batr

IL COMPLOTTO

Robin è sparito misterios
di Batman è ritornato all
"Robin è diretto verso un
meglio della propria casa

Potete risolvere il mister

CARICAMEN

Mettete la cassetta nel vo
ben collegati. Premete il t
Questo programm si car

DISCO

Selezionate la modalità 6
schermo di introduzione

ESECUZIONE

La presentazione sullo s
esempio gli indizi, le des

Il giocatore, nelle vesti d
non affaticare troppo Bat

Il gioco finisce quando l'

I CONTROLL

Il giocatore può far eseg

CON IL PULSANT

Gir

Arrampicarsi a sinistra

Camminare a sinistra

Sportarsi a sinistra

Spostando verso il bas
Questo mostra tutti gli
NOTA — A questo pun
Vengono anche mostra
Percentuale del gioco
Oggetti portati con sè
Icone di controllo
Cursore di Batman
Barre della condizione

ESEMPIO
COME UTILIZZ/

Muovendo il cursore di

per esempio

Cibo Ingerito (energia
La chiave apre la porta
Viene lanciato un dard

SUGGERIMI

1. Non mangiate tro
2. Alcuni oggetti fan
3. Cercate di schiva
4. Non giudicate ma

BATMAN, TI

Il suo codice di progra
conservati, presi a no

BATMAN e tutti i suoi
©1988 DC Comics In

LEPAKKOM

LEPAKKOMIES

Tämä on riuskaa kaha
vaarallisimmat vihollis

PINGVIININ S

Pingviini, joka on oll
sijaitsevaa kartanoaa
nerokkaalle ajatukselt

Kykenetkö sinä 'Lepa

JOKERIN SAL

Robin on kadonnut s
Lepakkomiehen perii

"Robinin kohtalo tule
Boom! Boom!

Pystytkö selvittämää

COMMOD

Aseta kasetti Comma
johdot on kytketty. P

Sind Sie in der Lage, diesen Fall zu lösen, ROBIN zu befreien und den JOKER zu besiegen? Die Zeit läuft...

LADEANWEISUNGEN — COMMODORE

KASSETTE

Legen Sie die zurückgespulte Kassette mit der beschrifteten Seite nach oben in Ihren Commodore Kassettenrecorder. Achten Sie auf den richtigen Anschluß der Verbindungskabel. Drücken Sie nun gleichzeitig die Tasten SHIFT und RUN/STOP und befolgen Sie die Anweisungen am Bildschirm (PRESS PLAY ON TAPE)- drücken Sie die PLAY-Taste des Recorders. Das Programm wird automatisch geladen und gestartet. Besitzer eines C128 schalten zuvor bitte mit GO 64 (RETURN) in den C64-Modus.

DISKETTE

Schalten Sie in den C64-Modus. Schalten Sie das Diskettenlaufwerk ein und legen Sie die Programmdiskette mit dem Aufkleber nach oben in das Laufwerk ein. Tippen Sie nun LOAD"*",8,1 (RETURN). Daraufhin erscheint der Titelbildschirm und das Programm wird automatisch geladen.

LADEANWEISUNGEN — CPC

KASSETTE

Legen Sie die zurückgespulte Kassette in den Recorder, geben Sie RUN" ein und drücken Sie die ENTER-Taste. Befolgen Sie die Anweisungen, die auf dem Bildschirm erscheinen. Ist ein Diskettenlaufwerk angeschlossen, geben Sie |TAPE ein und drücken die ENTER-Taste. Dann geben Sie RUN" ein und drücken die ENTER- Taste erneut.

(Das Zeichen | erhalten Sie, indem Sie bei gedrückter Shift-Taste die @-Taste betätigen.)

CPC 664 und 6128

Schließen Sie einen geeigneten Kassettenrecorder gemäß der Computer-Bedienungsanleitung an. Legen Sie die zurückgespulte Kassette ein und gegen Sie |TAPE gefolgt von RETURN ein. Dann geben Sie RUN" ein und drücken erneut die RETURN-Taste. Befolgen Sie die dann erscheinenden Bildschirmanweisungen..

CPC 464 DISKETTE

Legen Sie die Programmdiskette mit der Seite A nach oben in das Laufwerk. Tippen Sie |DISC und drücken Sie die ENTER-Taste, damit der Rechner auf das Diskettenlaufwerk zugreifen kann. Danach geben Sie RUN"DISC ein und drücken die ENTER-Taste zum Abschluß. Das Spiel wird nun automatisch geladen.

CPC 664 UND 6128 DISKETTE

Legen Sie die Programmdiskette mit der Seite A nach oben in das Laufwerk. Tippen Sie |DISC und drücken Sie die ENTER-Taste, damit der Rechner auf das Diskettenlaufwerk zugreifen kann. Danach geben Sie RUN"DISC ein und drücken die ENTER-Taste. Das Spiel wird nun automatisch geladen.

ATARI/AMIGA

Legen Sie die Diskette A in das Laufwerk ein und schalten Sie den Computer wieder an. Das Programm wird automatisch geladen.

DAS SPIEL

Die Darstellung auf dem Bildschirm simuliert einen Comic Strip mit der Stadt Gotham und den damit verbundenen Personen in verschiedenen Anzeigefeldern. Texte (Hinweise, Beschreibungen usw.) werden in besonderen Feldern über dem entsprechenden Bild eingeblendet.

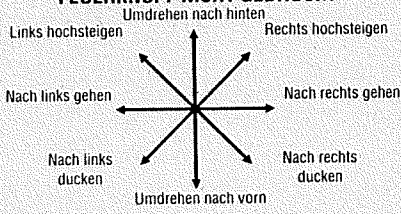
Der Spieler übernimmt die Rolle des BATMAN und kann sich innerhalb der vielen Schauplätze frei bewegen, um die verschiedenen Aufgaben zu lösen. Achten Sie darauf, daß Sie BATMAN nicht überlasten, da seine Gesundheit durch zuviele Kämpfe gefährlich absinken kann.

Das Spiel ist beendet, wenn das Abenteuer bestanden und die Fälle gelöst sind, oder wenn BATMAN wegen fehlender Kraft nicht mehr weitermachen kann.

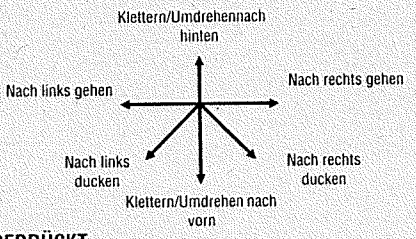
STEUERUNG

Sie können BATMAN in vielerlei Weise bewegen:

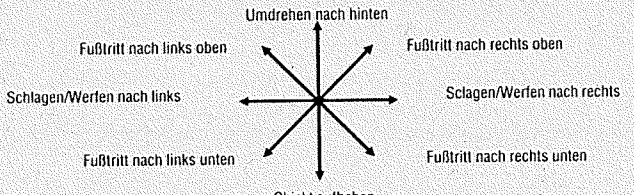
FEUERKNOPF NICHT GEDRÜCKT



ATARI ST/AMIGA



FEUERKNOPF GEDRÜCKT



DIE ANZEIGEN

Wenn Sie den Steuerknüppel nach hinten drücken und dabei den Feuerknopf drücken, schalten Sie auf den Anzeige-Bildschirm. Hier werden die aufgenommenen Objekte angezeigt, sowie die Steuerungssymbole, mit denen Sie bestimmen, was mit den Objekten geschehen soll.

Hinweis — Sie können von hier aus verschiedene Einstellungen vornehmen, um die Bildschirmdarstellung und die Geräusche Ihren Wünschen anzupassen.

Die Anzeigen:

Game percentage — Zeigt Ihnen in Prozenten, wie weit Sie in diesem Abschnitt bisher vorangekommen sind.

Objects carried — Die mitgeführten Objekte.

Control icons — Die Steuerungssymbole.

Bat-cursor — Hiermit wählen Sie Objekte und Symbole aus.

Energy status bars — BATMANs Kraft wird in Form von Balken angezeigt.

Beispiel für die Benutzung eines Objektes

Bewegen Sie den Bat-Cursor auf das gewünschte Objekt, und drücken Sie den Feuerknopf. Nun bewegen Sie den Bat-Cursor auf das entsprechende Steuerungssymbol und drücken wieder den Feuerknopf. Damit wird das Objekt benutzt.

Nahrung essen (Kraft steigt an)

Schlüssel öffnet verschlossene Tür

Pfeil wird geworfen

TIPS UND TRICKS

1. Essen Sie nicht zuviel.
2. Einige Objekte zerstören mehr als gut ist!
3. Weichen Sie Geschossen durch ducken aus.
4. Beurteilen Sie Bücher nicht nach ihrem Umschlag (Abschnitt JOKER)

BATMAN, DER MASKIERTE KÄMPFER

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LEPAKKOMIES - "SIIVEKÄS S

Tämä on riuskaa kahakointia täynnä oleva 'p
vaarallisimmat vihollset Pingviini ja Jokeri. H

PINGVIININ SALAJUONI - "P

Pingviini, joka on ollut viime aikoina lukemas
sijaitsevaa kartanoaan. Totuus on tietenkin s
nerokkaalle ajatukselleen ottaa hallintansa al

Kykenetkö sinä 'Lepakkomiehen' roolissa pys

JOKERIN SALAJUONI - "KOH

Robin on kadonnut salaperäisesti - ainoana
Lepakkomiehen perivihollinen on palannut. I

'Robinin kohtalo tulee olemaan karnevaalia
Boom! Boom!

Pystytkö selvittämään mysteerin, pelastama

COMMODORE — LAT

Aseta kasetti Commadore-nauhuriin niin, et
johdot on kytketty. Paina samanaikaisesti n
PLAY. Tällöin tämä ohjelma latautuu autom

LEVY

Valitse 64-tila. Kytke levyasema päälle ja as
Johdantonäyttö ilmestyy kuvaruutuun ja oh

PELIN KULKU

Näytössä näkyy simuloituna Gotham City ja
kuvaukset jne.) näkyy siihen liityvässä 'keh

Pelaaja eli Lepakkomies voi liikkua vapaast
kestokykynsä voi joutua koetuksille, jos hä

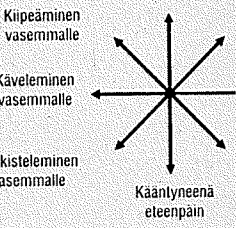
Peli päättyy vasta silten, kun seikkailu on l

SÄÄTIMET

Pelaaja voi liikutella Lepakkomiestä monin

PAINAMATTA TULITUSPAINIKE

Kääntyneena taaksepäi



TARVIKENÄYTTÖ

'Alasvedolla' ja 'tulittamalla' Lepakkomie

Siinä näkyvät kaikki ne artikkelit, jotka o

Pane merkille - pelin näyttöä ja ääniteho

Lepakkomiehen energiastatusosoittimet

Pelin prosenttimäärä

Kannettavina olevat artikkelit

Säätökuvakkeet

Lepakko-kohdistin

Energiastatuksen

osoittimet

ESIMERKKI ARTIKKELIN KÄYTTÖ

Asianomaisia artikkelia voidan käyttää s
samalla tavalla.

Esimerkiksi Ruoka syöty (energia lis
Avain avaa lukitun oven
Nuoli on heitetty

NEUVOJA JA VIHJE

1. Ala syö liikaa
2. Jotkut artikkeleista ovat enemmän va
3. Kyykisty ammusten välttämiseksi.
4. Ala koskaa arvostele kirjaa sen kansi

LEPAKKOMIES - SIIV

Ohjelman tunnukset, tietokoneistetut g
tallentaa, vuokrata tai esittää julkisesti
maailman.
Batman ja sen kaikki hahmot, tunnusla
©1988 DC Comics Inc. Kaikki oikeudet

CREDITS

SPECTRUM

Graphics by Chas Davies
Design and Programming by Jonatha
Produced by D C Ward and P J Finne
©1988 Special FX by Ocean Software
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COMMODORE 64

Programmed by Robbie Tinman
Graphics by Karen Davies
Game design by Jonathan Smith
Produced by D C Ward and P J Finne
©1988 Special FX by Ocean Software
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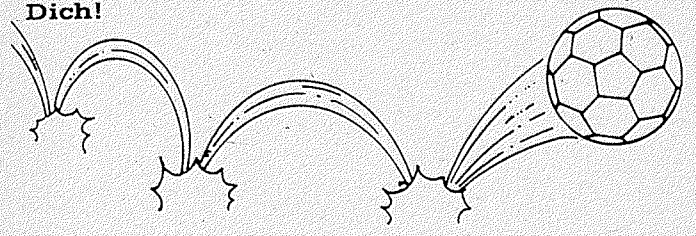
Gelingt es Dir, durch geschicktes Rollen nach rechts und nach links den abgrundtiefen Spalten auszuweichen und dabei nicht in den steilen Abgrund zu stürzen? Höchste Vorsicht ist geboten bei den Quadraten, die Dich ungeheuer beschleunigen oder Dich zum Springen zwingen. Und achte auf die unerbittlich tickende Uhr: je mehr Zeit Dir nach Abschluß jeder Spielebene verbleibt, desto besser für Dich!



...ann eine beliebige Bahn gefahren werden – mit einem Zeitlimit von ...0 Sekunden!

2 TEILNEHMER – MATCH

Die Spieler wählen drei beliebige Bahnen für diesen Wettlauf aus, wobei jede in 99 Sekunden zu beenden ist.

MENSCHLICHER SPIELER GEGEN ROBOTER

Analog zum Match mit 2 Teilnehmern, wobei hier jedoch der Computer als Gegner auftritt. Auch hier kann, wie beim 2 Teilnehmer Arkadespiel, versucht werden, den anderen "aus der Bahn zu werfen".

PUNKTEVERGABE

10 Punkte pro Quadrat (100 Punkte pro Quadrat bei Verzerrung), Bonuspunkte für die nicht verwendete Zeit bei Beendigung eines Laufs, 100 Punkte je Runde beim Bonusspiel – ein Bonusspiel jeweils nach drei Ebenen.

BONUSSPIEL

Der Computer bewegt den Ball um eine Anzahl von Quadraten, und Du mußt das Muster ganz genau wiederholen. Achte auf die Zeit! Das Quadrat vor Ausführung der Bewegung mit Hilfe des Joysticks bzw. der Tasten auswählen, dann mit FEUER/LEERTASTE bewegen.

...rechts.

GRÜN – Beschleunigung.

ROT – Verlangsamung.

WEIß – Verkrümmung (nur in Arkadespiel, ansonsten gleiche Wirkung wie Blau).

LADEANLEITUNG

Kassette:
Kassette in den Kassettenrekorder einlegen. Gleichzeitig **SHIFT** und **RUN/STOP** drücken, dann die **PLAY**-Taste des Kassettengeräts. Das Programm wird automatisch eingelesen und gestartet.

Diskette:
Diskette ins Laufwerk einlegen. Denn Befehl **LOAD"*",8,1** eintippen und **RETURN** drücken. Das Programm automatisch eingelesen und gestartet.

MSX 64K

AMSTRAD/SCHNEIDER CPC464/664/6128

Kein Spiel für Leute mit schwachen Nerven. TRAILBLAZER stellt höchste Anforderungen an die Reaktionsfähigkeiten! Kannst Du mithalten?

Ziel des Spiels ist es, den Ball so schnell wie möglich über alle 14 Bahnen zu fahren und dabei Löcher und andere Hindernisse zu vermeiden. Jede Rennbahn hat ihr eigenes Zeitlimit. Je nach Farbe haben die Quadrate unterschiedliche Wirkungen:

WEISS – HÜPFER.

GELB: – BESCHLEUNIGUNG.

GRÜN – VERLANGSAMUNG.

BLAU – UMKEHR DER STEUERUNG.

Es kann unter zwei Spieloptionen gewählt werden:

a) ARKADESPIEL

Pro Rennbahn können 4 Sprünge ausgeführt werden. Jede Bahn hat ein Zeitlimit. Das Ziel besteht darin, möglichst viele Bahnen zu durchlaufen.

b) DREI-BAHNEN ÜBUNGSSPIEL

In diesem Spiel kannst Du drei beliebige Bahnen mit einem Zeitlimit von je 99 Sekunden durchlaufen.

PUNKTE

Die Punktezahl erhöht sich mit der Fahrtgeschwindigkeit.

STEUERUNG

Q – LINKS; W – RECHTS; P – BESCHLEUNIGUNG;

L – VERLANGSAMUNG; LEERTASTE – SPRUNG;

M – MUSIK EIN/AUS;

CONTROL & ESCAPE – SPIEL ABBRECHEN

oder: Bedienung über Joystick.

MSX 64K

LADEANLEITUNG

Kassette in das Kassettengerät einlegen. Über die Tastatur **BLOAD"CAS:",R** eingeben und danach **ENTER** und am Kassettengerät die **PLAY**-Taste drücken. Dies bewirkt ein automatisches Laden un Starten des Programms.

AMSTRAD

LADEANLEITUNG

Kassette:
Kassette in das Kassettengerät einlegen. Gleichzeitig **CTRL** und die kleine **ENTER**-Taste drücken. Die **PLAY**-Taste des Kassettenrekorders betätigen und anschließend eine beliebige Taste auf der Computertastatur drücken. Dies bewirkt ein automatisches Laden und Starten des Programms.

Diskette:
Diskette in das Laufwerk einschieben, mit dem Etikett nach oben. ¦CPM eingeben und **ENTER** drücken. Das Programm wird automatisch eingelesen und gestartet.

C16/PLUS 4

Zeil des Spiels ist es, den Ball so schnell wie möglich jeder Rennbahn entlang zu rollen und dabei Löcher und Hindernisse zu vermeiden. Es gibt 16 Rennbahnen, jede mit einem Zeitlimit und einem Maximum von je 5 Sprüngen.

PUNKTE

1 Punkt je Quadrat und zusätzlich:
einen Bonuspunkt für die Beendigung jeder Bahn, einen Bonus für nicht gebrauchte Sprünge nach jedem Lauf, 50 Punkte für jede Fahrt, ohne in einem Loch zu landen, 40 für eines, 30 für zwei usw.

DIE VERSCHIEDENEN QUADRATE

BLAU – Ball wird hochgeworfen.

VIOLETT – Bewirken einen Stoß nach rückwärts.

BLAUGRÜN – Umkehrung der Steuerung, d.h. links wird rechts.

GRÜN – Beschleunigung der Fahrt.

ROT: Verlangsamung der Fahrt.

BEDIENUNG

Joystick im Port 1 oder
T – START/SPRUNG
3 – LINKS
4 – RECHTS
A – BESCHLEUNIGUNG
Z – VERLANGSAMUNG

LADEANLEITUNG

Kassette in das Kassettengerät einlegen, Band wenn nötig zurückspulen. **LOAD** eingeben, dann **RETURN** drücken. Dies bewirkt ein automatisches Laden und Starten des Programms.

ATARI

ARKADENSPIEL, 1 SPIELER

Bringe alle Bahnen in möglichst kurzer Zeit hinter Dich. Die Zeit für jede ist bemessen, und Du hast höchstens 7 Sprünge.

Für jedes Quadrat gibt's 10 Punkte und einen Bonus von 100 Punkten für jede Sekunde, die Du nicht aufgebraucht hast. Das Spiel läuft solang weiter, bis die Zeit zu Ende ist.

ARKADENSPIEL, 2 SPIELER

Wie oben, jedoch mit 2 Teilnehmern, die gleichzeitig sausen.

HINTS

Dan has only one life, but contact with sprites causes a reduction in energy. Energy can be topped up by eating food. Sprites can steal various items you hold, for example magenta sprites take fuel as it, too, is magenta.

Watch out for Blitzen zapping at you with his psychon ray gun. If he hits you, you're mesmerised and will wander out of control for a short while.

Each island contains one secret passage, which can only be accessed if you are carrying a particular object.

The safety of the world is in your hands – can you beat Blitzen one more time?

DYNAMITE DAN II

Doktor Blitzen auf der Insel Arcanum

In Szene gesetzt von ROD BOWKETT

Dieses spannende Action-Spiel läuft auf allen Schneider-Rechnern der CPC-Reihe. Die B-Seite ist eine Sicherheitskopie der Seite A. Spielen können Sie dies farbenfrohe und knifflige Programm über die Tastatur oder mit dem Joystick.

Wie wird's eingeladen?

*Kassettan-Version: **CTRL** und kleine **ENTER**-Taste drücken!*

*Diskettenbetrieb: **RUN"DAN** eingeben und **ENTER**-Taste drücken!*

ZUM SPIEL

Die Jugend der Welt wurde verdorben. Die Jugendlichen stehen unter einer Art von Hypnose; ihre Gehirne wurden bis auf's Blut ausgesaugt durch angeblich harmlose Rock-LPs. Irgendjemand hat die "Scheiben" manipuliert: Mit Sounds, die unterbewußt den Verstand und die Geisteskraft zerstören. Dabei kommt eigentlich nur ein Schurke in Frage, der für solch' eine Schandtat verantwortlich sein kann. Vielleicht ahnen Sie es schon? Ja, richtig, Doktor Blitzen ist wieder auf der Bildfläche erschienen. Sein Ziel ist es, ohne Skrupel ein Chaos auf unserem Planeten anzurichten!

Ihre Aufgabe, als Super-Agent DAN, ist, zu einer Inselgruppe vorzustoßen, die allgemein unter dem Namen ARCANUM bekannt ist. Dort hat Blitzen sein streng geheimes und gehütetes Hauptquartier aufgeschlagen. Sie werden nun auf jeder der insgesamt acht Inseln eine gut versteckte Maxi-Single finden müssen und eine Music-Box ausfindig machen, um die Scheibe abzuspielen. Als nächstes gilt es, Ihr gewohntes kleines Luftschiff vollzutanken, um damit zur nächsten Insel zu gelangen. Nachdem Sie sieben Inselin "musikalisch" befreit haben, kommen Sie zum Zielpunkt – dem achten und letzten Eiland der Inselgruppe. Dort befindet sich Blitzen's Schallpatten-Firma. Wenn es Ihnen auch hier gelingen sollte, die gefundene Single abzuspielen, dann können Sie als DYNAMITE DAN Ihr Meisterstück vollbringen: Sie legen eine Bombe in Blitzen's Laboratorium. Ab diesem Zeitpunkt haben Sie noch ganze drei Minuten, um zu Ihrem Zeppelin zurückzufinden, ehe die ganze Firma Blitzen in die Luft fliegt!

DIE STEUERUNG

Links	*(die Tasten ←, **Z** oder **?**)*
Rechts	*(die Tasten →, **X** oder \)*
Nach oben oder Sprung	*(die Tasten ↑, **Q** oder **[**)*
Nach unten	*(die Tasten ↓, **A** oder +)*

*Mit **"P"** kann man eine **PAUSE** einlegen oder einen **NEUSTART** beginnen.*

*Mit **"ESC"** können Sie das Spiel vorzeitig beenden.*

DIE WICHTIGSTEN GEGENSTÄNDE

***BOMBEN** — lassen Türen zerbersten, die Ihnen den Weg frei machen, um zu anderen Orten der Spiel-Landschaften zu gelangen.*

***SCHUTZBRILLEN** — gewähren Ihnen Schutz vor der gefährlichen Hypnose.*

***SCHALLPLATTE** — muß abgespielt werden, bevor man zur nächsten Insel fliegen darf.*

***SPRIT** — ist wichtig, um den Zeppelin wieder aufzutanken.*

***LEBENSMITTEL** — geben Ihnen verbrauchte Energie sofort zurück.*

Einige der gefundenen Gegenstände haben eine ganz besondere Bewandnis – sie können DAN unsichtbar, unverwundbar usw. machen. Sie werden diese Objekte schon bald kennenlernen und zu schätzen wissen, je länger Sie auf den Inseln verweilen! Es gibt aber auch drei einzigartige, wichtige Gegenstände auf jeder Insel, die Ihnen verloren gehen, sobald Sie den Zeppelin besteigen: Wir lassen Sie aber bewußt im Unklaren, um welche es sich handelt und warum diese "verschwinden". Finden Sie es selbst heraus!!!

WICHTIGE HINWEISE

DAN hat "nur" ein Leben zu verlieren! Die Berührung mit den verschiedenen "Kobolden" bewirkt einen Energie-Verlust. Die lebens notwendige Energie unseres Helden kann nur durch die Einnahme von Lebensmitteln wieder zurücherlangt werden! Die vielen verschiedenen Kobolde werden versuchen, Ihre gesammelten Gegenstände zu stehlen; z.B. werden die pink-farbenen Monster Ihren Sprit klauen, weil dieser auch "pink" angezeigt wird!

Hüten Sie sich auch vor Doktor Blitzen's Angriffen! Dieser versucht, in jedem Level mit seinem Psycho-Laser Ihnen den Garaus zu machen! Falls er Sie wider Ihres Willens treffen sollte, werden Sie für eine Weile völlig geistesabwesend umherirren.

Auf jeder Insel gibt es einen geheimen Durchgang, der nur durchquert werden kann, wenn man ein bestimmtes Objekt bie sich trägt!

DIE ERRETTUNG DER GANZEN MENSCHHEIT LIEGT IN IHREN HÄNDEN – KÖNNEN SIE BLITZEN EIN WEITERES MAL PAROLI BIETEN?

Dynamite Dan II

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Mirrorsoft Ltd, Headington Hill Hall, Oxford OX3 0BW



STAR WRECK

Full colour graphic and text adventure.

Loading instructions:—
Hit CTRL ENTER together,
then press PLAY then any key.

A mission to the far reaches of a distant Galaxy. This is a story from the log of the Star Ship 'Paralysed'.

You Captain James T. Cake, are on this mission to the planet Dandrox with a cargo of one Trell and a Rigellian Slime Beast which are needed for experimental purposes. You also have on board the Thracian Ambassador going to Dandrox and a Krall in transit to Alpha-Trica 111.

To help you to go where no man has been!! before:— Here is a selection of command words, IGNITE— ENERGISE—DISARM—TELL—TASTE—KISS— STROKE—STUN—BEAM—REVERSE, as well as the usual commands such as Go N S E W, HELP etc. Altogether there are over 100 command words. If you get stuck and would like the full list, then send a stamped self addressed envelope and we will send you the complete list so you can cheat.

The success of your mission is down to your own initiative and ability as a Star Ship Commander. After payment of the necessary fee at the checkout in this store you will be immediately beamed aboard your Star Ship. Good Luck Captain.

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LOADING INSTRUCTIONS

AMSTRAD CASSETTE

A) Switch your TV/monitor and Computer ON.
B) If your computer has a built in disk drive you should now connect a compatible cassette player to your computer and then type | tape and press RETURN. This sets your computer ready to load from cassette.
C) Insert the cassette into the cassette player. Ensure it is fully rewound.
D) Press the CTRL and the small ENTER key together, then press the PLAY key down on the cassette player.

AMSTRAD DISK

A) Switch your TV/monitor and Computer ON.
B) If your computer has a built-in cassette player you should switch your computer OFF and connect a compatible disk drive to your computer. Now switch the disk drive and the computer ON and type | disc and press RETURN. This sets your computer ready to load from diskette.
C) Insert the diskette into the disk drive, label side up.
D) Type RUN"QUARTET then press the ENTER key.

GETTING STARTED

From the four team members you may choose one (for a 1 player game) or two (for a 2 player game) to take part in the assault on the space colony.
Select the team member of your choice by using the ←or→keys.
Players may control their chosen team member from keyboard or joystick.
Select the control you require for your chosen team member by pressing the C key. You may choose "KEYS 1" for player 1 on the keyboard, "KEYS 2" for player 2 on keyboard, "JOY 1" for player 1 on joystick or "JOY 2" for player 2 on joystick. (Note: you will require a special joystick interface for a 2-joystick game).
Once you have completed your selections for a team member, type S and the word "READY" will be displayed beneath that team member. If you are playing a 2-player game, select the second team member in the same manner.
When your team is "READY" press the RETURN/ENTER key.

CONTROLS

ACTION	PLAYER 1 KEYBOARD	PLAYER 2 KEYBOARD	JOYSTICK
UP	8	↑	FORWARD
DOWN/CRAWL	9	↓	BACKWARD
LEFT	6	←	LEFT
RIGHT	7	→	RIGHT
FIRE	O	SPACE BAR	JOYSTICK BUTTON
PAUSE GAME	P	P	
QUIT GAME	ESC	ESC	

(You may choose to redefine the control keys to suit your own requirements. Type D **before** you select your team members. Note: certain keys have been reserved and should not be used by you - these are the letters O, P and I).

EDGAR - The fighter with the best jumping ability.
LEE - Manoeuvres his wide beam gun quickly and skilfully.
MARY - Proficient in operating the powerful bazooka.
JOE - The fastest mover among the four fighters.

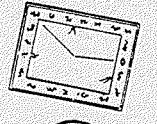
PLAYING THE GAME

The game has 15 different designs of level, which cycle in sequence.
Players can run left and right, jump up to higher platforms or crawl under low obstacles. Pressing fire unleashes a continuous stream of fire from the player's weapon. Ammunition is unlimited.
The only way to leave a level and move to the next is to obtain the key (by killing the large mechanical monster) and take it to the exit. Meanwhile the pirates are pouring out of the many portals on each level - blast them, as their touch means death.
Various bonus objects appear throughout the game and can be collected by touching them.

Bouncing Balls with the initials E, L, M, or J will change the weapon being carried if picked up by a player with the same initial. Picking up a ball with someone else's initial just scores bonus points. X2 doubles your score.

QUARTET POWER-UP GOODS

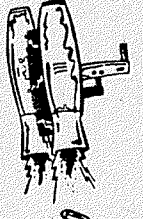

Spring gives you extra jumping power.


Clock stops the aliens for 10 seconds.



Shield protects you for 15 seconds.


Changes your weapon.


Jet Packs allow the player wearing them to float up a the screen.


Smart Bomb Potion destroys all the aliens on the s

Any other objects give you Bonus Points.

THE GAME

KOBYASHI NARU: the final trial for those who would be one with the immortals.

You stand in a closed chamber on the world of Ygor, a candidate to the Order. Sent here by the Overlord of All, you must complete the Naru in all its phases. Success will bring you the knowledge and power of those who have transcended the need for life itself. Failure results in extinction.

Ahead of you there are three doors and behind you only a closed portal, off the planet. It will not open again until you have completed the three tasks of Kobyashi Naru and obtained the required objects from each. To help you, you have your wits and little else. The standard wrist terminal you're wearing may be able to analyse certain items and provide you with useful information, but its use is limited.

A chime sounds and the Naru has begun ...

CONTROLLING THE ADVENTURE

Joystick or Cursor keys for movement SPACE = FIRE

PLAYING THE GAME

Press fire on the title screen to start. Move around the verb icons and note that each one is highlighted in turn, with the meaning of the icon appearing in the verb window. The entire game is played using these icons so it is worth becoming familiar with their meanings as quickly as possible. The message window will scroll across exits from any given location and any objects present. Keep an eye on it! It is also used for displaying a variety of different messages as you progress through the game – or not as the case may be.

To choose an action, highlight the icon by moving onto it and press fire. Some icons act only on that single word:-

QUIT	this restarts from the beginning.
INVENTORY	list the items carried.
LOAD'SAVE	sends you into the load'save screen.
THE ARROWS	move you in the specified direction.

Some icons place you into the object window ie. EXAMINE, ACTIVATE, GET, DROP, USE and THROW. Selecting one of these results in the location graphic clearing and the object window appearing. The blinds will open showing an object. If you don't wish to act on this object, move the joystick up or down to scroll through the available objects. Pressing fire. The description of the object is placed in the noun window. Note that the icon THROW then places you in the text window. You must specify where you want to throw the object.

NB. the EXAMINE command acts on objects in your possession. If you wish to look at things described in the text you should use the ANALYSE command.

All other commands place you into the text window. The selected verb icon decolours and the first word in the text window illuminates. Use the joystick to move along or down. Note that if you are in the middle of a line and move down, the highlight goes to the first word on that line. The illuminated word is also placed in the noun window so that you can see at all times what you are trying to do. Pressing fire selects that word and the full command is then executed.

If at any time during play the border should turn to red, you have died and pressing fire will restart the game. The command ACTIVATE is a toggle switch, first use "on", second time "off" etc.

THE LOAD SAVE ICON

Move the hand left or right with the joystick. Pressing fire selects. Selecting ABORT on the first screen will return you to the game. Selecting LOAD or SAVE will then ask MEMORY or CASS'DISK. Load or save to memory is a quicksave feature. Any save to memory overwrites any previously memory saved position. Similarly LOAD from MEMORY destroys your current position and replaces it with the position last saved to MEMORY. When selecting LOAD or SAVE from CASSETTE or DISK you will be asked to select a single letter identifier for the data file. Any error is reported and you start again.

HINTS

Be very sure the path you're on isn't the garden one! The three doorways lead to three separate quests. It doesn't matter in which order you attempt them but once you enter a door you cannot return to the Games Room until the quest object is in your possession.

Exactly what that is you must discover for yourself.

LOADING INSTRUCTIONS

464 press CNTRL and small ENTER
664/6128 Type – ITAPE press RETURN
Press CNTRL and small ENTER

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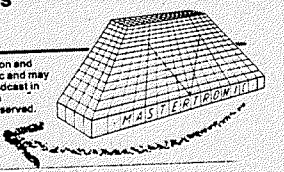
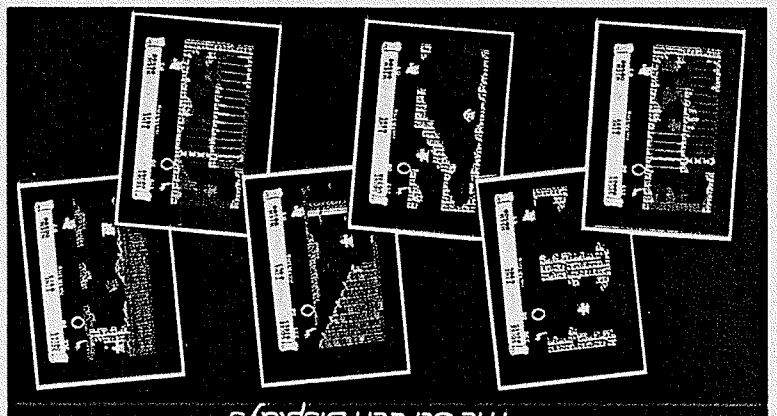
Made in Great Britain
Design: Words & Pictures Ltd., London





The Screen Displays

Amstrad/Schneider
464 664 6128

The Apprentice

MASTERTRONIC

LA 0129

AMSTRAD

Come tender novice, your skill to try at this the game to end all games. Save the apprentice from his blundering spell! Steer him round pernicious pitfalls; through concealing exits! Does disaster await the apprentice? Play it and see!

Joystick and keyboard.

WRITTEN BY JAMES HIGGINS.

MANUFACTURED IN THE U.K.

5 012967 800178

The Aim of the Game

Come, tender novice, your skill to try at this the game to end all games.
But Caution: If by chance th'apprentice die then bid farewell to friends and fame.

Save the apprentice from his blundering spell! Steer him round pernicious pitfalls; through concealed exits! Does disaster await the apprentice? Play it and see!

You, oh feeble trainee wizard, have totally messed up your studies. In a vain attempt to make up for lost time you start playing with old incantations which catapult you into the maze – a real occult assault course. The only way to escape is to collect 10 magic power rings from 10 wizard examiners. Only then will you be allowed to reverse the incantation.

HINTS

10 wizards guard the entrance to the ring chambers. Only by bribing them with gifts will they open the door. Each wizard requires a different gift. All 10 rings must be collected to complete the game.

There are five scrolls in the maze which will open hidden magic doors if used in the correct place. 4 **must** be used to complete the game. The apprentice can destroy his enemies by firing power bolts. But beware – he cannot put out fires.

Search thoroughly for the rings – some are **well** hidden.

Joystick – pull back to pick up or drop items.

KEYS

Q	– Up	A	– Collect
O	– Left	P	– Right
SPACE – Fire			

LOADING INSTRUCTIONS

Hold down CTRL and press the small ENTER key

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Made in Great Britain

Design & Artwork: Words & Pictures Ltd., London

CYRUS II

HESS PROGRAM FOR AMSTRAD

NSTRUCTION MANUAL

SOFT 06026 (TAPE)
SOFT 07026 (DISC)

Copyright 1985 Intelligent Chess Software Ltd.

1. INTRODUCTION
2. LOADING THE PROGRAM
3. STARTING A GAME
4. THE TWO CHESSBOARD DISPLAYS
5. SPECIAL MOVES
6. CORRECTING ERRORS
7. MESSAGE DISPLAY
8. RESULT OF THE GAME
9. INTERRUPTING THE COMPUTER
10. NEW GAME
11. LEVELS OF PLAYING STRENGTH
12. CHANGING SIDES
13. PLAYING BOTH SIDES
14. DEMONSTRATION
15. RETRACTING AND REPLAYING MOVES
16. HINT
17. ANALYSIS
18. SETTING UP A POSITION
19. CHESS PROBLEMS
20. SAVING AND LOADING GAMES
21. PRINTER
22. SUMMARY OF COMMANDS

APPENDIX: THE MAIN RULES OF CHESS

A. THE CHESSBOARD AND PIECES
B. THE MOVES
C. CHECK AND CHECKMATE
D. CASTLING
E. STALEMATE AND OTHER TYPES OF DRAW

Cyrus II is a chess program to interest players of all levels. Its abilities range from almost instantaneous play suitable for a beginner, through to tournament-style play for chess experts. It offers a wide range of operating features, enabling you (for example) to take moves back, replay a game that is over, or set up special positions for problem-solving.

Cyrus II can also play against itself, allowing you to learn by study and example. Or it can stand aside, keeping a watchful eye on a game between two humans – ready, when asked, to analyse the situation and give advice.

A novel feature of the program is its attractive "three-dimensional" chessboard display. A more conventional diagrammatic display is also provided as an alternative.

If you like, start up the program and find out by experiment how to use it. No harm can come, whatever key you press, and Cyrus will do its best to understand your intentions.

We recommend, however, that you read this manual as far as Section 5 ("Special Moves") in order to get under way quickest. You can then return to the manual for reference whenever you need to.

2. LOADING THE PROGRAM

The program comes in two versions – on cassette or on disc.

(a) Loading from cassette:-

Follow the standard procedure for setting up the computer, as described in the Amstrad CPC 464 user manual. Connect up your printer if you want to use it with the program (see Section 21). Insert the Cyrus II cassette into the built-in cassette recorder, and make sure the tape is wound back to the beginning. Then type

RUN""

– and press either of the blue **ENTER** keys. The computer now prompts you: "Press **PLAY** then any key". When you have done this, the tape automatically starts, and after a few seconds the message "Found CYRUS" should appear on the screen. The process of loading will take about 3 minutes.

(b) Loading from disc:-

Connect up the computer, disc drive and printer (if desired), as

ribed in the relevant operating documents. Switch on the
r, and type:

"" <ENTER>.

n loading is complete, a chessboard appears, and the
es are inserted in their starting positions.

u want the program to work with its sound signals, the
ne control on the right-hand side of the computer should
ned up to an audible level. The volume can be
justed at any time.

STARTING A GAME

e the square at the bottom left-hand corner of the board,
will see a flashing white arrow. This is the marker, which is
for indicating your moves to the computer.

eans of the four "direction" keys (←↑↓→), you can move
marker around the chessboard to position it wherever you
A quick key-press moves the marker one square in the
tion indicated. If you hold the key down, the marker keeps
oving (until it reaches the edge of the board, or the key is
ased).

u are playing White, make your first move like this:-

(a) Place the marker on the square occupied by the
piece you want to move (so that it points towards the
base of this piece).

(b) Press one of the **ENTER** keys. The computer
"beeps", and the marker stops flashing.

(c) Press a "direction" key again; you will now see two
markers. One is flashing, and responds to your
commands; the other one, pointing towards your piece,
remains static.

(d) Move the flashing marker to the square where you
want the piece to go.

(e) Press **ENTER** again ("beep").

r move is now carried out, and Cyrus starts computing its
y. When it is ready, it "beeps" and moves its piece on the
d. Make your next move in the same way as before.

e the two blue keys marked **ENTER** are identical in
. Also, in place of either of these, you may use the
RY key which is located in between the arrow keys.

You can make the program move first – if you want to play Black – by pressing **M**. In this case, before the game starts, you will probably want to invert the chessboard by pressing the **I** key.

The strength and speed of the computer's play can be altered whenever you like; see "Levels of Playing Strength" on page 8, as well as "Message Display" (page 6).

4. THE TWO CHESSBOARD DISPLAYS

If you press the **ESC** key, the "three-dimensional" image of the board and pieces is replaced by a two-dimensional diagrammatic display. On the diagram, the marker takes the form of a flashing yellow square. The operation of the program is just the same whichever display you are using, and the **ESC** key can be used to switch from one to the other at any time.

5. SPECIAL MOVES

A **capture** is made no differently from any other move – simply move your own piece to its destination square. The same goes for a pawn capture **en passant**.

In order to **castle**, make the move of the **king**, and the rook's move is made for you automatically.

If you advance one of your pawns to the far end of the board, this pawn will repeatedly move back and forth until you tell the computer what piece you want in its place. Press **Q**, **R**, **B** or **N** according to whether you want a queen, rook, bishop or knight. (Other keys have the same effect as **Q**. When Cyrus promotes one of its own pawns, it always chooses a queen.)

If you aren't sure of all the rules which apply to these special moves, turn to the Appendix (pages 24 and 27-29).

6. CORRECTING ERRORS

If there is only one marker visible, and it is not on a square occupied by a piece that can move – then a press on an **ENTER** key will simply produce a dull buzz, the error signal.

The same thing happens if you press **ENTER** when the static marker is pointing to one of your pieces and the flashing marker is on a square where this piece cannot legally go.

In either case, simply re-position the flashing marker and continue entering your move.

If the static marker is pointing to a piece which you decide not to move after all, bring the flashing marker back to this same square – so that it disappears, leaving only the static marker visible. The re-press **ENTER**. The marker begins flashing, and you can start again to move another piece.

7. MESSAGE DISPLAY

On the "two-dimensional" display the word CYRUS or PLAYER, in black or white at the top or bottom, shows whether the computer or the user is playing from this end of the board, and with which colour.

On the "three-dimensional" screen, the contestant playing from the bottom end is recorded on the left-hand side below the chessboard, while blue lettering shows who is playing Black.

A clock reading is also displayed for each opponent, for example:

01 : 17 : 36

– meaning that the total thinking time so far used by this side is one hour, seventeen minutes and thirty-six seconds. By seeing which "clock" is going, you can tell which side is to move next.

If you press the **SPACE BAR**, the screen changes to a different type of display. In place of the chessboard, you will see a record of the last few moves made and a list of the commands currently at your disposal.

Here is how moves are recorded. Each file (or vertical column of squares) is given a letter, viewed from the "White" side, the letters range from "a" (on the extreme left) to "h". Each rank (or horizontal row) is given a number, running from 1 (at White's end) to 8. Each square is designated by the letter of its file and the number of its rank. (So at the start of the game, the white king is on e1, the black queen is on d8, etc.) A move by a pawn is recorded by simply naming the pawn's old and new squares. When any other piece moves, its initial letter (or **N** in the case of a knight) is inserted before the departure square.

Example:			
	1	e2 - e4	d7 - d5
	2	e4 x d5	Ng8 - f6
	3	Bl1 - b5+	

White has started by moving his pawn from e2 to e4 (ie the pawn in front of his king has gone 2 squares forward). Black has replied with a double advance of the pawn in front of his

en – from d7 to d5. Then the White pawn has captured the k one (a capture is indicated by "x"), and Black has ght out his knight from g8 to f6. On his third move, White played his bishop from f1 to b5; the "+" sign shows that move gives check.

te's moves are always listed on the left, Black's on the . Castling (on the king's side or queen's side respectively) enoted by "O-O" or "O-O-O".

ow the game-record, you will see either the word NKING (if Cyrus is computing the next move) or else YOUR VE.

ver down the screen, there is a list of the commands that currently available, eg:

B – Back

minding you that by pressing the **B** key you can retract a ve as described on page 10. The full list of commands ich is reproduced on page 16) should be clear to you once have read the remaining sections of this manual.

return from the message screen to the chessboard screen, ss the **SPACE BAR** again.

RESULT OF THE GAME

e message screen displays CHECKMATE or STALEMATE if h a situation has come about.

yrus recognizes that the same position (with the same side move) has arisen three times, it announces a DRAW.

raw is also announced if, over the space of 50 consecutive ves (played by one side and answered by the opponent), no ce has been captured and no pawn moved.

signify the end of the game, one of the kings (that of the ayer whose opponent made the last move) repeatedly ashes" on the chessboard display.

ou want to check upon the rules which determine a awn result, turn to the Appendix, page 30.

INTERRUPTING THE COMPUTER

ou press the **M** key while Cyrus is computing its move it will short its calculations and play the move assessed as best cording to its analysis so far.

Notice that most of the special operating features described below (eg selection of the "level", retraction of moves, etc) will not work when it is the program's turn to move. By inducing a move, you enable any of the features to be used.

10. NEW GAME

You can begin a new game at any time, by pressing the **G** key. The screen then shows:-

New Game (y/n)

To confirm your command, press **Y**. The starting position reappears, and both "clocks" are set back to zero.

Note that until you actually enter a move or start Cyrus computing, the previous game still remains in the computer's memory. You can return to any position in that game by using the **F** key – see page 10.

If you have pressed **G** by accident, a key-press other than "**Y**" allows play to be resumed.

11. LEVELS OF PLAYING STRENGTH

There are various levels of skill on which Cyrus II may be instructed to play. Obviously, the program plays more strongly the more thinking time it has for its moves. The following table shows the approximate average time it takes for a move on Levels 1 – 9.

Level	Time
1	2 seconds
2	6 seconds
3	15 seconds
4	30 seconds
5	45 seconds
6	1 minute
7	2 minutes
8	3 minutes
9	2 minutes 30 seconds

There are also three further levels, called "adaptable", "infinite" and "problem".

When playing on the **adaptable** level, Cyrus aims to play at roughly the same rate as its opponent; it measures your thinking time over a series of moves, then speeds up or slows down as necessary.

When computing a move on the **infinite** level, Cyrus will normally carry on thinking until you tell it to move by pressing **M**. If you don't do this, the computer will not actually play a move unless:

(a) it has a "book" move available (see below);

or (b) it finds a forced mate, or completes as deep an analysis of the position as is within its capacity;

or (c) there is only one legal move it **can** make.

On the **problem** level, the program searches for a way to force checkmate in 5 moves or less; for more details, see the section on "Chess Problems" (page 14).

When you first set up the program, Cyrus is ready to play on Level 1. The current level can always be seen on the message display. You may change the level any time when it is your turn to move, by pressing the **L** key. A single key-press takes you one level higher. If you hold the key down, you will see the level constantly changing – after going up to Level 9, the screen shows ADAP, INF, PROB, and then Level 1, Level 2 ... and so on.

When the level that you want is displayed, simply carry on playing. The program remains on the same level (even after a new game starts), until you change it again; you may do so as often as you like.

NB. (a) Like a human player, Cyrus normally takes more time in a complicated position than in a relatively simple one. So the time it takes for an individual move is sometimes much more than the average for the level.

(b) Cyrus has knowledge of a large number of standard chess openings, so the first few moves of a game (on any level) are likely to be played fast. In a position where the program has two or more "book" moves available, it chooses between them largely at random. The total number of moves in the "openings book" is nearly 1900.

(c) Cyrus normally continues analysing the position even when it is your turn to move; so if it anticipates your next move correctly, it may reply instantaneously, irrespective of the level.

12. CHANGING SIDES

If you press the **M** key when it is **your** turn to move, Cyrus will start computing a move for the side that you have been playing, and will expect you to take over the other side.

do so, you will still be playing "up the screen". To invert the board, press the **I** key.

13. PLAYING BOTH SIDES

It's possible for you to play a series of moves for both White and Black. For example, you may want to enter the moves of an opening variation which interests you, to see how Cyrus handles the resulting position. To do this, press **S** followed by **M** (you will then see the word PLAYER at **both** sides of the chessboard screen). You can now enter moves for both sides in turn. When you want Cyrus to carry on playing, re-press the **M** key.

This "multi-move" feature enables two human opponents to play a game against each other with the screen display as their chessboard.

14. DEMONSTRATION

If you press the **D** key, both sides will be taken over by the program, as a demonstration game. (Then CYRUS will be displayed at both side ends of the screen.) After finishing a game, the program will pause for a few seconds and then begin a new one. To halt the demonstration, press **M**. Then, after the next move is made, you may continue the game against the computer.

15. RETRACTING AND REPLAYING MOVES

If you've played a move but then have second thoughts about it, you can easily take it back. Wait for Cyrus to reply, or make it do so at once by pressing **M**. Then press **B**, and the program's move is retracted. A second press on this key retracts your own last move, and you may make another one in its place. A move can be taken back even when the program is displaying checkmate or a draw.

By pressing the **B** key repeatedly or holding it down, you can take back a whole series of moves by both sides (going right back to the start of the game if you want). Notice that if you take back one more move for White than for Black (or vice versa), you swap sides with the computer.

The **F** key ("forward") has the opposite effect to the **B** key; it replays the move or moves that you have taken back. As one example of its use, suppose that during a game you want to have another look at a position which arose 10 moves earlier. finished examining this position, hold down the **F** key until you arrive again at the position where you interrupted the game. Play can now be resumed.

You can retract and replay the same sequence of moves as many times as you like. You may also carry on playing from any position within the sequence. This means you can find out what would have happened if you had played differently at a particular stage of the game.

Note, however that when – in any position – you enter a new move or press **M** (or **D**), you are erasing from the computer's memory the moves that had previously been played from this position onwards. Those moves can no longer be replayed with the **F** key.

To review the entire game, you can press the **G** key (so that the starting position reappears), then repeatedly press **F**. This is not, however, possible if the game began from a position which you "set up" (see Section 18).

16. HINT

If you want Cyrus to suggest a move for you, press **H**. One of your pieces makes a move on the board, and then goes back again. It is for you to decide whether to act on this hint; it is not necessarily the best move available (especially on the program's lower levels), though Cyrus will not deliberately mislead you.

If you press **H** when Cyrus is computing the next move, one of the program's pieces is moved back and forth in the same way. This shows you what move was rated as best at the outset of the analysis.

17. ANALYSIS

If you would like some further insight into the program's train of thought, press the **A** key. The word ANALYSIS appears on the message screen. Now press the **M** key. If Cyrus has just started computing its move, the display will now remain unchanged for a few moments, but after that a series of moves will be recorded just above the list of commands. The first move in this series is the one that Cyrus is thinking of playing next – the best move according to its analysis so far. The following move is your expected reply, then comes the computer's intended answer to that ... and so on.

For this feature, a simplified form of notation is used – each the piece. The analysis displa can be cancelled by re-pressing the **A** key. Please note that this function is not available until each player has made at least 8 moves.

18. SETTING UP A POSITION

Now and again you may want to see Cyrus solve a chess problem; or you may wish to set up a position from a game th has been published, to see how the program handles it. In or er to rearrange the position on the chessboard, first press the **S** key. The wording SET UP appears on the chessboard screen – in "set up position" mode, some of the keys have different uses from their normal ones.

As long as SET UP is displayed, you can do any of the following things:-

(a) You can clear the entire chessboard by holding dow a **SHIFT** key and pressing **CLR**. Usually you will want to do this before anything else – but not if the position that you intend to set up differs only slightly from the positio currently displayed.

(b) To clear an individual square, position the marker or that square and press **CLR** (without **SHIFT**).

(c) To insert a piece on the board, bring the marker ont the desired square and press the appropriate key: **K** (king), **Q** (queen), **R** (rook), **B** (bishop), **N** (knight) or **P** (pawn). The way to select the colour of the piece will be explained presently.

(d) Both of the clock times can be set back to zero by pressing **Z**. (Notice that as long as the program is in "se up position" mode, the clocks are stopped.)

On the screen you will see the word WHITE or BLACK. This shows which colour a new piece will be, if you now place one on the board. To change over from one colour to the other, press **X**.

The word WHITE or BLACK also indicates which side will mo next if play is commenced at this moment. So once the position is ready, you may need to press **X** to display the correct colour.

Finally press the **S** key, to take the program out of "set up position" mode again. The normal list of commands will now l shown on the message screen, and play may proceed.

Here's an example of how a position is set up. We'll suppose that the position you want is the following, and that White is to

Press **S**. "SET UP" appears on the chessboard screen.

Hold down **SHIFT**. The board is cleared. and press **CLR**.

If the word BLACK is displayed, press **X** (message: WHITE). You can now place white pieces on the board.

Bring the marker onto the square where you want the white king (b2).

Press **K**. A white king appears.

Bring the marker onto the square for the white pawn (b3).

Press **P**. A white pawn appears.

Bring the marker onto the square for the white queen (c4).

Press **Q**. A white queen appears.

Press **X**. The word BLACK appears. You can now enter black pieces.

Bring the marker onto the square for the black king (f6).

Press **K**. A black king appears.

Bring the marker onto the square for the black queen (g5).

Press **Q**. A black queen appears.

Press the **X** key again (message: WHITE). Cyrus now knows that when play continues from this position, it will be White to move next.

Finally, press **S**. The wording SET UP disappears, and YOUR MOVE is shown on the message screen. Play can now begin. Adjust the "level", if you want; then press **M**, to start Cyrus computing. (Or else, if you are playing White yourself, make a move in the usual way.)

In connection with setting up positions, there are a few more points to be noted:-

(a) Illegal positions:- If you've set up a position in which (say) there are no kings, or one side has two queens as well as eight pawns, or Black's king is in check when White is to move – then Cyrus recognizes this position as illegal. With such a position on the board, it is impossible to take the program out of "set up position" mode and continue playing; when you press **S**, the computer will merely give the "error buzz" and display ILLEGAL SET UP. Correct the position as necessary.

(b) Castling:- If a king or rook has been placed on the board in the way we have just described, there can be no castling with that piece. A position in which (say) White has the right to castle king's side may be set up as follows. First press **G** and **Y** (the starting position appears), then enter "set up position" mode by pressing **S**. The white king and king's rook should now be left alone, while unwanted pieces are removed individually with the **CLR** key.

(c) **En passant** captures:- After a position has been set up, the next move cannot be a pawn capture **en passant**. To create a position where such a capture is legal, set up the immediately preceding position and then make the move which permits the capture.

(d) Game record:- When play proceeds after you have set a position up, the numbering of subsequent moves always begins from 10. The computer's memory of any game you had previously been playing is now erased.

This does not, however, mean that the foregoing moves are erased from memory if you press **S** by accident in the middle of a game. As long as you re-press the same key without actually having made any alterations to the position, play may continue as before. The numbering of the moves remains unchanged, and if you like they can be "taken back" or "replayed" in the normal way.

19. CHESS PROBLEMS

Most chess problems carry some such wording as "White to play and mate in three moves" – meaning that you have to find a move which enables White to give checkmate on his third move at the latest, no matter how Black tries to defend himself.

Cyrus II can solve problems for mate in anything up to 5 moves. Set up the position as described in the preceding section. Make sure Cyrus knows which side moves next. Select "problem" level with the **L** key. On leaving "set up position" mode, press **M** to start Cyrus computing.

Cyrus now begins by looking for a move that gives checkmate immediately. If it discoves that this is not possible, it displays NO MATE IN 1 on the message screen, and starts searching for a way to force mate in **two** moves ... and so on. If the program finds (say) a forced mate in 3 moves, it momentarily displays MATE IN 3, and makes the appropriate move on the chessboard. You may now make a move for the defending side. Then (after re-computing if necessary), Cyrus will play th next move of the solution. After that, you can, if you like, take back the last pair of moves, and play a different move for the defence, to see how the program answers it.

If Cyrus discovers, by performing an exhaustive analysis of th position, that it is impossible to force checkmate within 5 moves, it displays NO MATE IN 5, and simply makes the mov it considers best.

NB. (a) If there is a "book" move available, Cyrus will move immediately, without performing any analysis.

(b) Cyrus cannot solve problems that require "under-promoting" a pawn to rook, bishop or knight.

20. SAVING AND LOADING GAMES

The record of a game may be saved on cassette or disc, and a later date re-loaded into the computer for resumption of pla or for replay and analysis, etc.

If you have loaded Cyrus from tape, you will use a cassette fo saving and loading games. Insert a suitable one into the built in cassette recorder, and press the **C** key. You then have the following options (the text on the message screen will guide you in your operations):-

(a) To save a record of the game you have been playinc press **S**. The computer then prompts you to give the game a name (for instance FIRSTGAME); this must comply with the format for filenames as explained in the computer's operating manual. It cannot include blank spaces. Type the name and press **ENTER**. You are now prompted to start the tape and press any of the computer's keys. This will begin the saving process; onc it is finished, the program reverts to normal playing conditions.

(b) To load a game from cassette, make sure the tape is wound back far enough, and press **L**. Type the name under which the game was recorded, press **ENTER** and the **PLAY** button, then press any key on the keyboard. When loading is complete, the final position of the gam record can be viewed on the chessboard screen, and y may make use of any of the program's functions.

(c) To allow play to be resumed (if, say, you pressed the **C** key by mistake), press any key other than **S** or **L**.

If you are using the disc version of Cyrus, games can be saved and loaded from disc using exactly the same set of commands (**C** followed by **S** or **L**).

21. PRINTER

If you have a printer connected, pressing the **P** key allows you to give instructions for its operation. This key-press automatically switches to the message screen, which lists a special set of commands. The options are as follows:-

(a) For a print-out of the complete game-record in memory, press **G**.

(b) Pressing **B** causes the current position on the board to be printed.

(c) Press **D** for a continuous listing of moves. This means that when play continues, each move will be printed out as soon as it is made. The listing can subsequently be halted by repeating the same command.

(d) The facility of inserting a "line feed" together with each "carriage return" can be switched off or on by pressing **L**. An asterisk on the screen indicates that the facility is "on".

(e) Any other key-press allows play to be resumed.

22. SUMMARY OF COMMANDS

A	Display analysis (predicted continuation). Repeat to cancel.		
B	Take back last move; promote pawn to bishop		
C	Casette operation.		
	: **L**	Load game record.	
	: **S**	Save game record.	
	: Other keys: return to normal playing mode.)		
D	Demonstration (program plays both sides).		
F	Step forward, ie replay move taken back.		
G	New game.		
	: **Y**	Yes.	
	: Other keys: no.)		
H	If user to move, give hint; if program to move, show move currently assessed as best.		
I	Invert chessboard.		
L	Change level.		
M	Take over the side which is to move; if already on this side, move immediately.		
N	Promote pawn to knight.		
P	Printer operation.		
	: **B**	Print board position.	
	: **C**	Continuous listing (each move printed when played). Repeat to cancel.	
	: **G**	Print game record.	
	: **L**	Carriage return + line feed (off/on).	
	: (Other keys: return to normal playing mode.)		
Q	Promote pawn to queen.		
R	Promote pawn to rook.		
S	Selects "Set up position" mode.		
	: **B**	Bishop.	
	: **K**	King.	
	: **M**	Multi-move mode (user plays both sides).	
	: **N**	Knight.	
	: **P**	Pawn.	
	: **Q**	Queen.	
	: **R**	Rook.	
	: **S**	Return to normal playing mode.	
	: **X**	Change colour of pieces to b entered and side to move.	
	: **Z**	Set both clocks to zero.	
	: **CLR**	Clear square.	
	: **SHIFT + CLR**	Clear entire chessboard.	
ENTER (COPY)	During move entry, selects square of departure or destination.		
ESC	Switch between chessboard screens.		
← ↑ ↓ →	Move cursor.		
SPACE BAR	Switch between chessboard and message screen.		

AMSTRAD THE NEVERENDING STORY AMSTRAD



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THE NEVERENDING STORY

"A BOY WHO NEEDS A FRIEND FINDS A WORLD THAT NEEDS A HERO"

The Story

The computer game follows the main theme of the film and is set in "Fantasia", a world of the imagination facing extinction by the "All consuming Nothing", erroding its very fabric and condeming it to oblivion. It is in desparate need of a hero from the "Real World", someone to believe in it and thus renew its life.
That someone is a small boy, Bastian Balthazar Bux, who discovers a dusty old book on the shelves of an antique bookshop. The title is "The Neverending Story" and it chronicles the ever changing fortunes of the people of "Fantasia".
Bastian takes the book and blowing the dust from its jacket reveals the front cover depicting "Auryn" the silver and gold medallion symbolizing the strength of "Fantasia". On reaching school he avoids his teachers, climbs into an abandoned attic and settling himself down on an old rug begins to read the compelling tale.
The many peoples of "Fantasia" are gathered to seek audience with their Empress, but are dismayed to find her ill and weak. "Cairon", the physician gives them encouragement, telling of a hero, a small boy from the plains by the name of Atreyu – the only person who can find the saviour of "Fantasia".
In the game you take the part of Atreyu and only through your endeavours will the Kingdom be restored to its former glory!
The main characters that you will encounter are listed below and you must judge whether they will help or hinder your quest.

The Three Travellers –
Rockbiter, Teenyweeny and Nighthob, these three friends are on their way to the Ivory Tower, home of the Empress, to see her.

Gmork the Werewolf –
The main servant of the "Nothing". He will use all his powers to catch the one person who can stop his master from destroying "Fantasia" – so don't dawdle.

The Empress –
The eternal, ever youthful, ruler of Fantasia. She lives at the very top of the Ivory Tower.

Morla – The Ancient One –
The oldest inhabitant, Morla is an enormous earth covered tortoise who lives in the "Swamps of Sadness".

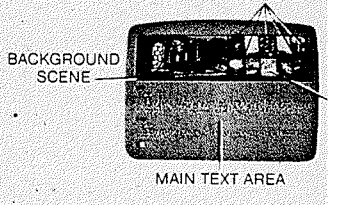
The Gnomes –
Engywook and Urgll, live in the Southern Lands.

Falkor –
The Luckdragon, a huge white dragon who will lend assistance to anyone who carries Auryn.

Artax –
The faithful steed of Atreyu.

The Game

"The Never Ending Story" is a graphic text adventure with
some locations, some "Events" and all objects. Experience
may not wish to read the following explanation but for all
enhance the understanding and enjoyment of the game.
If you haven't played an adventure game before, don't be
difficult and will give hours of enjoyment. You are embarking
discovery with problems to solve, obstacles to avoid, chara
and an ultimate goal (in this case to save Fantasia from th
In most ways it isn't any different from other game types –
method of presentation and the way you interact with it.
The computer will describe to you, in words, your current l
characters and any objects that are there. Once you have c
do (in this game you take the role of the hero, Atreyu) you
computer by typing in your request in a limited form of Englis
the words that the computer understands is explained late
Language", but it has been deliberately kept simple to allow
game data. If the computer can understand what you have
perform the required action and describe the results to yo
The game is split into three parts (there is over 100k of co
altogether) which must be played in order. (You cannot beg
you have completed Part I and so on). The three sections ar
storyline and any objects that you are carrying when you fini
retained for possible use in the next one. (It is important to re
you come across an object, but can find no use for it in the
The use of graphics in this game is quite different to some
games. Firstly every object has a small illustration; up to five
at one time and they will be displayed at the top right-hand
at any time, you have a companion with you (either Falkor
their picture will appear at the bottom of the object display
illustrations for locations or depicting events appear in the
screen and approximately one third of these are of the "Ev
should be noted that none of the graphics are designed to replace the text but to enhance it!



The Language

You control Atreyu by instructing the computer in a restricte
English, however there are a few simple rules to bear in mi

(i) Every instruction must have a verb. Some of the "verbs
computer understands are not strictly English verbs, s
you regard a "verb" as a word which causes an action.

(ii) Some "verbs" need a "noun" to operate on – e.g. GET AURYN "Get" is the verb and "Auryn" is the noun.

(iii) The program will pick out the words it "understands" from a sentence and if it finds a word that isn't in its vocabulary, the computer will tell you what it is.

(iv) If you wish to type in more than one sentence at a time you can separate them with the word "and" e.g. Get the apple "and" go East.

(v) You need only type the first three letters of a word for it to be understood.

Here are the most commonly used words to get you started.

Look (or L)	To look around. This re-displays the description of the current location (it is done automatically if you move to a new location).
North (or N) **North East (or NE)** **East (or E)** **South East (or SE)** **South (or S)** **South West (or SW)** **West (or W)** **North West (or NW)**	These are movement verbs that are used most often. You can type just the direction or place the word "Go" in front, (it makes no difference). Of course the program will only let you move in a specified direction if it is possible.
GET/DROP –	For picking up or dropping an object.
INVENTORY –	This instruction displays in text format a list of the objects that you are carrying. (You can also reference this on the objects illustration display).

Time

If you spend too long contemplating your next move (and the game is not on pause) then "Time" will pass and anything typed in and "Left" will be interpreted.

General Advice

(i) Draw a map – Unless you have an unusually good memory it will be enormously helpful to chart your progress.

(ii) Everything you come across in the Adventure will have a use – you only have to find out what it is!

GOOD LUCK

THE NEVERENDING STORY

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Getting Started

Insert the game tape into the cassette unit press the CTRL key and the small ENTER key simultaneously then press play on the tape unit. Now press any key to start loading and the game will load automatically from there. When it has finished loading the credits page will appear and the theme tune will begin to play, press the SPACE bar to enter the game proper.

The computer will now be asking whether you want to restore an old game or not. If you do press the "Y" key then follow the procedure for loading an old game as below. If you wish to start a new game then press "N".

The computer now needs to load Part I so insert the tape with this on rewind it to the beginning, press the space key and press play on tape to start loading. The computer will now load Part I and after a short introduction you will be into the adventure itself. When you finish a part you will need to insert the correct tape for the next part which the computer is asking you to load. Rewind, press play and then the SPACE bar to start loading.

Saving/Loading a Game;

Insert the tape you wish to use into the tape unit and follow the onscreen instructions.

The following is a list of "Verbs" (Action Words) which the computer will understand.

Acceptable "Verbs"

GO	NORTH	NORTH EAST	EAST
SOUTH EAST	SOUTH	SOUTH WEST	WEST
NORTH WEST	UP	DOWN	DROP
ATTACK	LIGHT	ENTER	IN
PULL	LOOK	GET	TAKE
INVENTORY	EAT	FLY	CLIMB
BLOW	RIDE	SMASH	HIT
OUT	READ	REMOVE	
OPEN	CUT	UNLOCK	LOCK
CLOSE	TIE	FASTEN	SAY

Special Verbs

WAIT/ Use if you want to just let time pass.

PAUSE/ To pause the game if you leave the game unattended without doing this (Time) will still continue.

SAVE FACILITY – To save the current state of play.

N.B. Never attempt to save games onto you master game cassette ("see saving/loading" procedure).

LOAD – To restore a saved game. QUIT/ To end the game in progress.

We wish you many hours of enjoyment with The Neverending Story.

The Neverending Story

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Game design and programming by Ian Weatherburn.

Produced by D. C. Ward.

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SHADOW SKIMMER

"Es ist sicher zwecklos zu fragen "Warum gerade ich?". Für jeden Offizier auf einem Liner der Sternenklasse gehört es zum Dienst einen solchen Erkundungstrip machen. Zu meinem Glück war ich ohnehin nur einmal während dieses 5 Jahre dauernden Fluges dazu eingeteilt, aber leider hatte sich der Computer ausgerechnet diesen Zeitpunkt ausgesucht, um eine Fehlfunktion zu produzieren. Allerdings bin ich auch nie der Meinung gewesen, daß im Leben alles glatt gehen müßte."

"Schließlich hatte ich einen voll funktionstüchtigen Gleiter mit exzellenter Bewaffnung. Ein kurzer Check ergab, daß der "Rollmechanismus" funktionierte und ich hatte so ein Gefühl, als würde ich ihn dort draußen auch dringend brauchen. Irgendwie gingen mir Gus Worte nicht aus dem Sinn. Er hatte mir erklärt daß es sich hier lediglich um eine Routineangelegenheit handelte...daß ich das Ganze in 30 Minuten abgewickelt haben würde und was er sonst noch so erzählte. Das ist nun aber schon 2 Stunden her. Nun, ich will mich nicht beklagen. Normalerweise hätte alles glatt gehen müssen. Nur noch ein kurzer Blick in die Sektion 1 am Heck des Schiffes, ein Check der automatischen Abwehrsysteme und der Wartungseinheiten und dann den Weg zurück antreten. Stattdessen ein klemmendes Schott! Mit so etwas rechnet man bei der Technologie des 23. Jahrhunderts wirklich nicht mehr."

"O.K., mein netter kleiner Bordcomputer erzählt mir gerade, wie ich wieder hineinkomme. Es kann sicher nicht schwer sein, wahrscheinlich durch eine Luke ganz in der Nähe."

"Was???!?? Das darf ja wohl nicht wahr sein! Tatsächlich, kein Zweifel. Der einzige Weg zurück führt durch die Haupt-Personen-schleuse vorn an der Kommandozentrale des Schiffes und das ist exakt am gegenüberliegenden Ende, wenn man von meinem derzeitigen Standort ausgeht. Das bedeutet jedoch, daß ich all unsere eigenen Sicherheits- und Verteidigungssysteme, die in den drei Rumpf-sektionen installiert sind, überwinden muß. Außerdem hatte das galaktische Oberkommando schon vor langer Zeit entschieden, daß jemand in solch einer Situation völlig auf sich allein gestellt ist. Der Kapitän erhält unter keinen Umständen die Genehmigung, die Verteidigungssysteme nur wegen mir zu deaktivieren.

"Was soll denn das schon wieder heißen? Das Computersystem in meinem Gleiter informiert mich gerade, daß, falls ich tatsächlich noch irgendwelche Hoffnung haben sollte zu überleben, ich unbedingt in jedem Sektor die Hauptverteidigungsdetektoren ausschalten muß. Leider sind sie so konstruiert, daß sie nahezu unauffindbar und unzerstörbar sind. Glücklicherweise können die Detektoren meines Gleiters sie ausfindig machen und mir den Standort der verdammten Dinger anzeigen."

"So also kommt sich ein umherirrendes Stück Weltraumschrott vor, daß mit einem interstellaren Linienschiff kollidieren möchte. Hoffentlich ist letzte Prämie meiner Lebensversicherung bezahlt..."

LADEANWEISUNGEN

COMMODORE 64/128 KASSETTE: Als C128 Benutzer achten Sie bitte darauf, daß sich Ihr Computer im C64 Modus befindet. Drücken Sie SHIFT und RUN/STOP
COMMODORE 64/128 DISKETTE: Als C128 Benutzer achten Sie bitte darauf, daß sich Ihr Computer im C64 Modus befindet. Geben Sie LOAD "*",8,1 ein und drücken Sie abschließend die RETURN-Taste.
SCHNEIDER CPC KASSETTE: Drücken Sie CTRL und die kleine ENTER-Taste.
SCHNEIDER CPC DISKETTE: Geben Sie RUN"DISC ein und drücken Sie die ENTER-Taste.

DAS SPIEL

Ihr Gleiter ist mit drei Energieschirmen ausgestattet, wobei die verbleibende Anzahl links auf dem Kontrollpult angezeigt wird. Ein Energieschirm immer dann geht verloren, wenn Sie mehrere Treffer erhielten.

Das Fahrzeug ist mit starken Pulslasern bestückt, die alle feindlichen Objekte auf Ihrem Weg zerstören können. Der Rumpf des Mutterschiffes besteht aus drei Sektionen die Sie durchqueren müssen und in jeder Sektion gibt es ein Gerät, daß unbedingt zerstört werden muß, damit Sie in die darauffolgende Sektion gelangen können. In der dritten und letzten Sektion befindet sich der Eingang zum Mutterschiff, der auch das Ziel des Spieles darstellt.

Gelegentlich kann es erforderlich werden, in den Rumpf vorzustoßen. Hierzu schweben Sie über der entsprechenden Luke und drücken den Feuerknopf, um diese zu öffnen und hineinzufliegen.

Außerdem können Sie auch auf dem Kopf fliegen, indem Sie den Gleiter herumrollen. In dieser Lage fliegen Sie zwar langsamer, aber es ist der einzige Weg unter Aufbauten hindurchzukommen, die sonst unpassierbar wären. Der Gleiter kann nur auf den Kopf gedreht werden, wenn sich keinerlei Hindernisse auf dem Deck befinden.

Auf dem Steuerpult werden zusätzlich noch Ihre Punktwertung, die Nummer des Sektors in dem Sie sich aufhalten und die Beschädigungen des Gleiters (hier sehen Sie wann Sie Ihr nächstes Schutzschild verlieren) angezeigt.

STEUERUNG

TASTATUR

Die Tastaturkontrolle können Sie nach eigenen Vorstellungen definieren. Hierzu müssen Sie lediglich die Bildschirmanweisungen befolgen. Die Grundeinstellung sieht folgendermaßen aus:

	C64/128	Schneider CPC
LINKS	Z	Q
RECHTS	X	A
AUF	O	O
AB	K	P
FEUER	0	LEERTASTE
ROLLEN	LEERTASTE	RETURN

ANMERKUNG: Der Feuerknopf aktiviert auch die Luken auf der Oberfläche des Mutterschiffes, wenn Sie ihn drücken, während Sie unbeweglich direkt über der Luke schweben.

JOYSTICK

COMMODORE 64/128 - Schließen Sie den Joystick an Port 2 an und benutzen Sie die Leertaste zum Rollen des Gleiters.

SCHNEIDER CPC - Bei Benutzung eines Joysticks kann die Rollfunktion mit jeder beliebigen Taste ausgelöst werden.

■ **EARTH DATE:**
48.73/2093
■ **INTERNAL MEMO FROM:**
Engineering
■ **TO:**
Combat Droid Deployment
■ **REACTOR TYPE:**
UCF Reactor No. 14C in geostationary orbit around earth 27,000KM above Atlantic Ocean. Space coordinates F12.W78.B3.
■ **DESCRIPTION OF FAULT:**
The Josephson Junction Supercomputer (TUJAD) controlling reactor 14C has developed a fault in the Emotion Damper systems. TUJAD has programmed its defensive computers but it is unable to distinguish defending droids from attacking aliens. It computes that all droids in the reactor are aliens and must be destroyed. The ensuing battle will result in damage that will destroy the reactor in approximately 800 Intergalactic Boson Measures.
■ **NECESSARY ACTION:**
There has been a Radiation leak of approximately 83K RADS, so use of a Radiation Resistant droid is strongly recommended. Although the new GEN 19 is a yet untested, its high manoeverability, sophisticated defensive systems and weapons storage facilities make it the ideal choice. The GEN 19 must enter the reactor via the transporter in the main computer room. The communication link may be found here, along with the TUJAD main processor. The GEN 19 must collect the elements necessary to build a new EDS and insert this in the main processor.
■ **RECOMMENDED EQUIPMENT:**
A 23MW blast laser will be necessary to destroy the Securinuke type guards Cyberfreeze discs, Remote Controlled Audodrones and Deuteron Grenades will also be needed to deal with the Auto Patrol IV guards. Additional supplies of these weapons may be found in the reactor.

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■ **LOADING TUJAD:**
RUN "AS Then press ENTER.

A loading message should appear after a few seconds.

■ **CONTROLLING GEN 19:**
Z will move GEN 19 left.
X will move GEN 19 right.
P will move GEN 19 up.
L will move GEN 19 down or activate the defensive shield.
In keyboard mode, use S to select a new weapon and SPACE bar to fire.
In joystick mode, use the SPACE bar to select weapons.
ENTER will pause the game.

A joystick may be used to replace the left/right/up/down and fire keys.

DIE WELTEN

Blickt nicht zurück, da Ihr die vier Welten des Mysteriums betreten habt.

Den Wald: Feindliche Mächte drohen Euch hier. Und der Bann des Druiden, dessen Spruch, so er trifft, Eurem Leib die Gestalt einer Kröte verleiht.

Den See: Todesfische und die Aale des Schlags trachten nach Euch.

Die Höhle: Ihr seid lebend begraben, und die Luft wird Euch knapp. Euer End ist besiegelt, so Ihr nicht schnell findet ans Licht.

Camelot: Suchet die Stimme aus der Welt, die nicht hier. Sie allein vermag das Rätsel zu lösen.

Wohl verbunden sind die Welten des Mysteriums. Doch ist es dem Edlen bewahrt, einen Weg sich zu bahnen.

IHRE BEWOHNER

Aznaht: Druide des Waldes, ein Herrscher voll Macht
Kindo: Der König des Sees und Bruder Neptuns
Azornic: Drache der Höhlen, sein Pesthauch gefürcht'
Arthur: Hochwohlgeborner König von Camelot

Edler, oh finde die Dinge der Zeit, die Dir verwandt. Den Wächtern der Welten stehn sie wohl an. Drum geb ihrer Zier:

das Feuer ohn' Flamm'
den Spiegel der Weisheit
das Lebenselexier
die Stimm' einer Welt, die uns fremd.

Die Wächter, sie wissen darob, welch Händel tun Noth.
Euer Schwert möge stark sein, gleich dem Blitzschlag des Himmels,
doch den Sprung einer Grille schätzet nicht unter Werth.

DIE AUFGABE

Gewinnet den Zutritt zu Schloß Camelot und bringet Licht über das Mysterium.

(Und vielleicht bringt jemand diesem obskuren Tattergreis mal etwas moderneres Deutsch bei. Die Red.)

BEFEHLE

TASTATUR	JOYSTICK	
O	Links	= Links
P	Rechts	= Rechts
Q	Oben	= Sprung
Space	Feuerknopf	= Schwert

LADEN
Geben Sie RUN"AS" ein, und drücken Sie ENTER.

Hiero der Born mächt'ger Fährnisse!

Herr, der Ihr dies lest. Tiefer Schlummer umschlang Euch auf Eurer Lagerstatt fernab dieses Orthes wohl Anno Domini MCMLXXXVII, aus dem Ihr erwachtet itzo, der Zeit König Arthurs, des Rühmlichen und seines noblen Schlosses Camelot. Dieses Mysterium, so merket auf wohl, enthüllt sich Euch nur, so Ihr grabet nach dem Schwert Excamembert und nehmet auf Euch den Kampf voll Ehr durch drei Welten in die vierte daselbst, deren Nam' ist Schloß Camelot. Die Lösung; sie harrt Euer an jener Stell. Doch zuvor überwindet manch böse Noth. Möge Treu Euch beschützen vor den Vögeln der Nacht, das Licht Eures Augs ihren Krallen entziehn. Hab das Fleisch Eures Leibes vor dem Achtbein Bestand. Sei ein Schild Eurer Seel vor dem Rachen des Fischs und mögen die Wege des Schicksals Euch nicht führen zu den Pflanzen des Tods.
Alas, der Dinge vier aus Eurer Welt sind es, die gedrungen nach Camelot. Findet Ihr sie heraus und kämpfet um Euer Leben. Möge die Kraft Euch nicht verlassen.

Joystick oder Tastatursteuerung

Unter Lizenz von Dinamic Soft
Programm: Victor Ruiz und Florentino Pertejo
Grafiken: Victor Ruiz
Musik: Ignacio Bergareche
Gestaltung: Alfonso Azpiril
Übersetzung: AGC

Camelot Warriors

Aladdin has got himself into trouble having been trapped in a Labyrinth by the evil Wizard. Each location in this Labyrinth has various animated dangers, including falling rocks, spiders, birds, snakes etc....

Aladdin has the power to pick up various objects, some of which allow Aladdin to transform into other lifeforms once a complete set has been collected. Each lifeform has different powers, which may be used in those locations that are not effected by the wizard's prohibiting spells.

These transformations include: A Monkey; A Bird; A Genie and A Dolphin.

The Wizard will try to retain all the objects on a screen. Once you have collected all the objects from a screen you may keep them. Should you leave a screen before collecting all the objects, the Wizard will regain and replace them. You must then try to collect them ALL again!!

You must escape from a labryinth of caves, down a precipice, along a river and across a desert to the walls of the CITY, in which the Wizard has taken refuge.

TIP. You can enter the city by bribing the guard.

You must then find your way to the Wizard's lair, having collected all the correct weapons and spells to overpower him.

GAME CONTROLS:

You may control the game with:
1 JOYSTICK (0)
2 CURSOR KEYS
3 KEYBOARD

CURSOR KEYS
Movement as indicated by cursor
JUMP — COPY

KEYBOARD

UP	— A
DOWN	— Z
LEFT	— /
RIGHT	— \
JUMP	— SHIFT
PAUSE	— SPACE BAR

To transform from one life form to another (when you have collected the correct objects)

USE:

UP & JUMP ——— MAN
DOWN & JUMP ——— MONKEY, BIRD, GENIE
The change into a DOLPHIN is done automattcally when you go into and out of water.

ADDITIONAL CONTROLS

DEL	— ABORT
1	— SOUND ON
2	— SOUND OFF

GOOD LUCK

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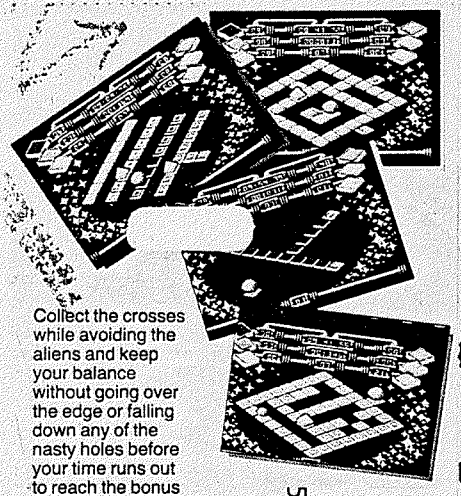
Aladdin's Cave



Collect the crosses while avoiding the aliens and keep your balance without going over the edge or falling down any of the nasty holes before your time runs out to reach the bonus and complete the level.

A game of s and strategy.

Joystick or Keyboard.
One Player Only.

WRITTEN BY MR. CHIP SOFTWARE.

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MANUFACTURED IN THE U.K.

ROLLAROUND

RECORDED ON BASF TAPE

AMSTRAD/SCHNEIDER

ROLLAROUND

·MASTERTRONIC·

THE GAME

The object of the game is to collect the correct number of coloured crosses within the time limit, while avoiding the aliens. You must not collect too many crosses only the correct number will do. Just to make your life even more difficult there are holes to fall down and edges to drop over, both of which kill you. You can move around by rolling, or you can jump, to avoid being killed by aliens or falling down holes.

On each level there are nine screens laid out as a 3 by 3 grid, on each screen there can be up to a hundred individual squares. There are seven different types of squares. They are:-

Plain Squares Used for moving around on, no other purpose.
Holes Watch out for these, falling down them is detrimental to your health.
X Squares These are squares with crosses on them, move over these to collect the crosses, and thereby complete the level. The squares come in a variety of colours, you need to collect just the right number of crosses from each colour.
Flip Squares Grids There are two types of these, both alter the other squares on the level. Marked with a grid pattern. These change plain squares into X squares, and vice versa. You need to use these to complete some of the higher levels.
H Squares These turn plain squares into holes, and the other way round, useful for killing aliens.
Clock Squares These stop the clock for a limited time and slow the aliens down.
? Squares These are mystery squares, they can either award you 1000 points or a bonus life or they can kill you.

Aliens
There are several types of aliens, each of which can come in a variety of guises, so keep your eyes peeled! They range from the simplest type, who have exactly the same abilities as you, up through various vicious types that turn squares into holes, to a really mean type that can jump over holes. There are also aliens that sit and guard a single square, and bombs that home in on the square you are occupying.

If you get into an impossible situation you can abort the level at the cost of a life. After you successfully complete a level you will have the chance to improve your score on a bonus level.

Controls
Use a joystick using the fire button to jump or the cursor keys and COPY to jump or –

Left	Bottom Row	Z, C, B, M, or
Right	Bottom Row	X, V, N, ; or /
Down	Second Row	A-;
Up	Top Row	Q-@
Jump	Number Row	1-0, ↑
CLR	Pauses Game	
DEL	Aborts level, costs one life	

Loading Instructions
Amstrad 464
Press CNTRL and small ENTER.

Amstad 6128
Type | TAPE and press RETURN.
Press CNTRL and small ENTER.

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Made in Great Britain
Design: Words & Pictures Ltd., London

MASTERTRONIC



Your quest is split into 3 parts, with a password gained at the completion of one part allowing entry to the next. Parts 1 & 2 are on side A, part 3 and "Sceptical" are on side B. All programs are loaded with **RUN " B ENTER**

*The computer will accept commands in ordinary English such as "***SHOOT PIG WITH ANTIAIRCRAFT GUN***", but allows you to shorten this to a simple verb + noun instruction like "SHOOT PIG". The speech format is name + phrase, for example "GRANDALF GREETINGS O HAIRY ONE".*

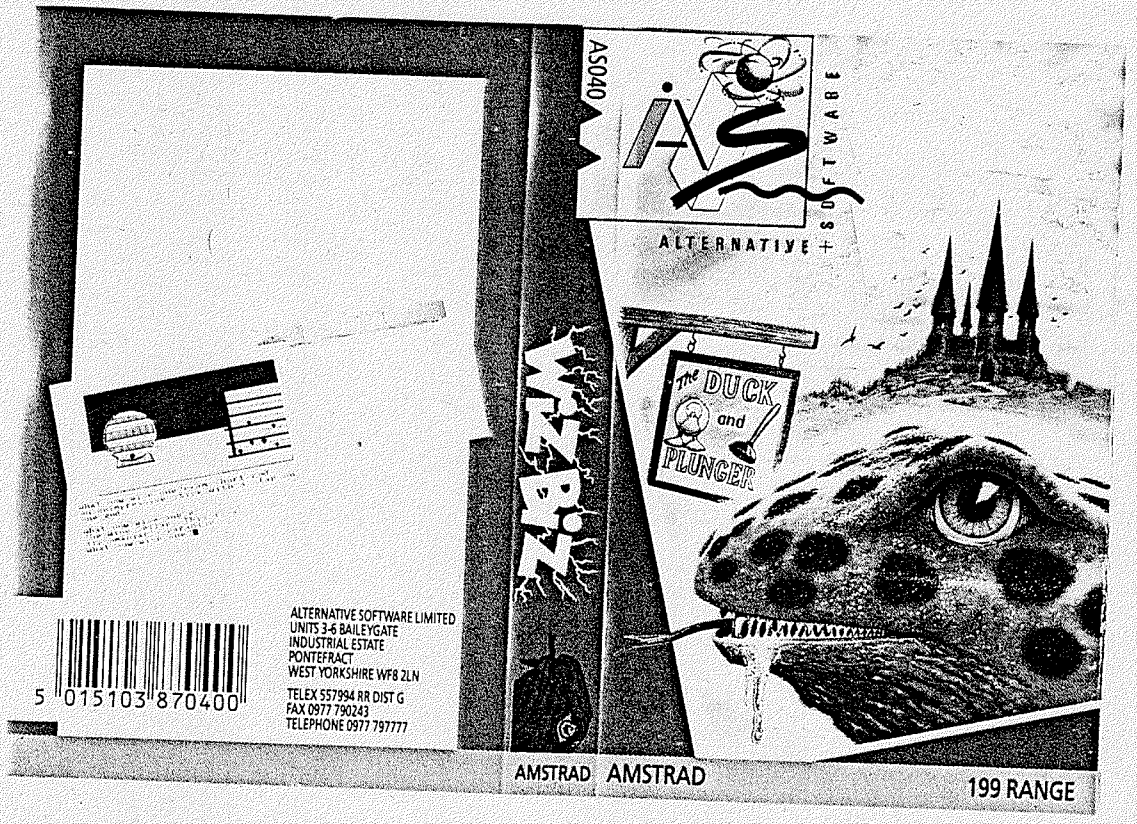
*Typing "***INVENTORY***" or "***I***" will list what Fordo is carrying.*

*Game positions can be stored to and restored from tape using the commands "***LOAD***" and "***SAVE***".*

*To end the game, type "***QUIT***".*

BORED OF THE RINGS was written by Fergus McNeill. **AMSTRAD conversion** by Jason Sommerville

Bored of the Rings



Full colour graphic and text adventure.

Loading instructions:—
Hit CTRL ENTER together, then press PLAY then any key.

So . . . . you've woken up then Ralph?

I don't suppose you remember much about last night?, how you took part in a particularly alcoholic session at the 'Duck and Plunger'? It appears you were drinking with some of your 'WIZARD' buddies when you performed your usual party piece by turning one of them into a pink and black spotted Salamander . . . . . That was Mike.

When the spell wore off the chap in question wasn't too pleased. That's how you ended up in his Castle. You are NOT his favourite person. Only your familiar spirit can help you now . . . If you can remember his name that is, you dozy old goat.

Not too wierd a story line for you we hope. Quite a nightmare really so we'd better give you a few clues to help you on your way. Just a selection of command words from over one hundred available to you: DISTURB—UNDRESS—SMASH—BOIL—CUDDLE —WAND—VACUUM—SUCK—DRINK—PUFF, as well as the usual commands such as Go N S E W, HELP etc. That's all the help your getting, but if you get completely stuck then send us a stamped self addressed envelope and we'll send you the complete cheat list, only failures do that though don't they. Ha ha ha . . . Ralph . . Ralph where are you Ralph AAAAAggghh . . .

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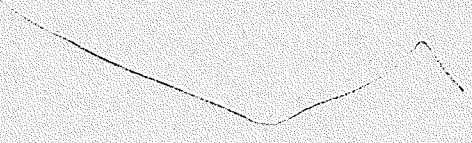
Nodes of Yesod



DEUTSCH

DIE GESCHICHTE

Irgendwo auf der Mondoberfläche...

Der ehrenwerte Karl der Große, auch 'Charlie' genannt, Fotheringham-Grunes, der weithin bekannte Forschungsreisende und Abenteurer, der sich als Retter des Universums in der Lehre befindet, saß einmal wieder ganz schön in der Patsche, wie seine Großmutter zu sagen pflegte.

Als er den Familiensitz beim Lachssprung, Mittelmordsmäßig, an einem schönen, windigen Sonntagmorgen verließ, nachdem er ein köstliches Frühstück von leicht gegrillten, von Butter triefenden Räucherheringen, die mit dem Saft einer gut ausgedrückten Zitrone einen starken Nachgeschmack hinterließen, eingenommen hatte, bemerkte Charlie bei den Rhododendronbüschen herumschleichend einen merkwürdig hinterhältig und fremdartig aussehenden Kerl. "Heda, holla!" rief unser Held und versuchte es mit einem frohgelaunten Grinsen in die allgemeine Richtung des Eindringlings. "Ach Meester Jrüne, ick hav hier uff se jewartet", Charlie kam plötzlich zum Stillstand. Das frohgelaunte Grinsen wich einem besorgten Stirnerunzeln, als er die Stimme des Sekretärs der Internationalen Kommission der Universellen Lösung von Problemen (auch unter seiner Abkürzung IKULP bekannt, klingt so'n bißchen wie SCHLUCKAUF) erkannte. "Dat Problem, dat wer nu ham, da müssen Se sich man sofort drum kummern", die Stimme war durchdringend. Schmidt, das war der angebliche Name des Eindringlings, fuhr fort, "ick wer Se nejenaue Lajebeschreibung von unsre jeheimste Hoopquarter jeben."

Wenige Minuten später schoß Charlie in Begleitung dieser Schmidt Type mit dem alten Aston-Martin in Richtung des obengenannten "Hooplquartiers", das unter den Überresten des alten Denkmals des 20. Jahrhunderts "Plastik Furt" begraben war, "da sehn Se Meester Jrune, dat Se unbedingt dat Objekt finde müsse, dat diese Schnaale abjibt", sagte Schmidt, aber Charlie hatte diesen Schluß bereits gezogen, mit messerscharfem, aufs äußerste geschliffenem Verstand, war er sich der Tatsache bewußt, daß dies möglicherweise die gefährlichste Situation war, in der er sich je befunden hatte. Es schien, als ob Spezialisten der großen wissenschaftlichen Einrichtungen chiffrierte Signale vom Zentrum des Monds an einen unbekannten Empfangsort in den äußersten Reichweiten der Milchstraßenspirale abgetangen hätten. Diese Signale würden bei der Entschlüsselung die schwachen Punkte in der Erdverteidigung preisgeben, daher müssen sie gestoppt werden, und zwar schnellstens. Schneller als man im Hamburger Hof ein Mittagessen bestellt, befand sich unser Held auf einem Raumschiff im Pendelverkehr zum Mond. In seinem Gehirn bilden sich Vorstellungen von Lebewesen, die so ähnlich wie Maulwürfe aussehen, und die Kernsubstanz des Mondes auffressen. "Das Einfangen eines dieser Lebewesen muß das erste Ziel sein", sagt Charlie laut vor sich hin, (in der Hoffnung, daß er mit Hilfe solch eines Tieres von Höhle zu Höhle unter dem Mond reisen kann,) aber solche Lebewesen sind manchmal launisch, wurden sie beispielsweise alles fressen, auf das er hindeutet, oder ist ein Teil des Mondes für sie ungenießbar? Und wie ist es mit den anderen Bewohnern in den Tiefen des Satelliten, wenige Leute hatten die tiefen Höhlen des Mondes erforscht, und niemand war je von einer solchen Forschungsreise zurückgekehrt.....

"Himmel!" rief Charlie aus als die automatische Kurssteuerung den letzten Ansatz zur Landung auf dem Mond machte, "es sieht so aus, als ob wir da unten Gesellschaft hätten!", denn da – auf der Mondoberfläche – stand ein rotes Raumschiff!

Das Pendel-Raumschiff landet, das Abenteuer beginnt.

EINSATZBESPRECHUNG

"Nach den letzten Übersichten gibt es maulwurfartige Lebewesen auf dem Mond, die die Wände der unterirdischen Höhlen fressen. Am besten ist es für Dich, wen Du einen von ihnen fängst, um Dir die Reise durch die Höhlen zu ermöglichen, versuche möglichst, Dich mit einem von ihnen anzufreunden. Du mußt die Schlüssel zu der Höhle finden, die einen großen, monolithartigen Gegenstand enthält, diese Schlüssel haben die Form elementarer Alcheme, davon mußt Du 8 finden. Unterhalb der Mondoberfläche zu reisen, ist mit Gefahren verbunden, Dein Schutzanzug wird Dich bei leichtem Herfallen schützen, aber sei vorsichtig, denn wenn Du zu weit fällst, wirst Du mit Sicherheit sterben.

Also Charlie, Du wirst wahrscheinlich feststellen, daß in manchen der tieferen Strudellöcher ein stürmischer Aufwind herrscht, der Dich an die Oberfläche bringt. Sei vorsichtig, wir wissen nicht, welche Lebensformen in einigen dieser Höhlen vorkommen. Wir verlassen uns auf Dich, Charlie, mach's gut und viel Glück!"

Diese Worte klangen in Charlies Ohren (selbstverständlich nach einer Übersetzung aus der scheußlichen Sprachverschandelung von Schmidt).

MERKMALE

Kristallwolken Staubwolken Rampen zum Draufspringen, Ein böiger Wind Mondkabbernde Maulwürfe die Deine Feinde auffressen Weggeworfene Helme Nochmals zusätzlich vorgehen, Schwerkraft-Knüppel Zu findende Alcheme Extra Geschwindigkeit Eine tickende Uhr, Ein (steht) gefiedertes Ungeheuer under eines aus Felsen, Lover-Vögel, Feuerkugeln, und eine Küchenschabe. Eine rensge Karte, eine Wanze und ein Fisch, Elfbare Wände, Herzschläge, Kurzer Aufenthalt zum Ausruhen. Ein gehörnter Dämon. Und ein Wurm im Bergwerk, Ein fremdes Lebewesen aus dem All, der die Alcheme stehlen wird. Dinge zum Sammeln, Dinge, die zu vermeiden sind, Verwirrheit, Und ein geiziger Pflanzenbold Und Dein Ziel Denk am besten immer daran, daß in den Tiefen des Monds, ein Monolith gefunden werden muß.

ANWEISUNGEN ZUM LADEN

Kassette

Lege die Kassette in Deinen Datenrekorder ein und spule das Band zurück. Den Computer wieder einstellen, indem Du die Tasten CTRL, SHIFT and ESC. hinunterdrückst. CTRL und die kleine ENTER Taste zusammen drücken, dann die 'PLAY' Taste auf dem Datenrekorder und irgendeine beliebige Taste auf der Tastatur drücken. Das Spiel wird nun automatisch laden und ablaufen.

Diskette

Die Diskette in den Diskettenantrieb einschieben und 'RUN' "NODES" tippen.

STEUERUNG DEINES RAUMFAHRERS

Steuerung mit der Tastatur

Z = Links
X = Rechts
K = Maulwurf freisetzen
M = Abwärts-Schwerkraftknüppel einpflanzen

SPACE = Springen/Maulwurf sprengen
RETURN = Pause
CTRL/SHIFT/ESC = Spiel beenden
Das Spiel läßt sich auch mit einem Steuerhebel spielen

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As the storm clouds gather and the rain begins to fall, the time has come for you, Varwield to attempt the ritual of Decairn. Only you have the knowledge to defeat the evil Arthemin and to restore the Shard of Inovar to its rightful place.

Program by Clive Wilson
Joystick or Keyboard

PUBLISHED BY MASTERTRONIC

"The Best of British"

5 012967 800444

BULLDOG SOFTWARE

AMSTRAD/SCHNEIDER

SHARD of INOVAR

RECORDED ON BASF TAPE

BA 0198



BULLDOG SOFTWARE

THE STORY

Many centuries ago when the Earth was still evolving, a plague as the Nagroma would descend upon the land every year as winter approached, and devour every living thing in sight. The people lived in dread of the winter months and every year they prayed that spring would arrive early and drive the pestilence away for good, but every year without fail it returned.

About this time an ancient Elfin race known as the Eharin from the realm of Mantierion, fashioned a beautiful and powerful starform elfstone which they named the Inovar. Aided by the power from this multi-coloured stone the Eharin were able to create the Cairnrue, a protective barrier which covered the land and kept out the Nagroma. When spring arrived, the Cairnrue had to be lowered to allow the rain to fall and this task was the duty of Varwield.

And so Varwield Arthemin carried out his duties throughout his years but now grows old. You are commissioned by your people to become Varwield Secunda – apprentice to Arthemin. You learn that Inovar is kept within the chest of Kiron the Protector, a mighty statue of awesome power. To take Inovar you must utter the ancient Ritual of Release known only to the Varwields, then go to the Dais of Cairnrue and utter the Ritual of Decairn at the appropriate time in spring.

For many years you served under Arthemin but he began to change. In his dotage he became bitter and disillusioned. At the last time of Nagroma, Arthemin raised the Cairnrue with his sceptre but sought thereafter to take the power of Inovar to himself and corrupt it to his own uses. However, Kiron the Protector came to life and wrested Inovar from Arthemin but in the battle a shard was split from Inovar and Arthemin managed to drain much of its power. Kiron placed Inovar in his chest and fled westwards. The Shard of Inovar was placed upon the Dais of Cairnrue.

Arthemin retreated to his fortress, Caernast and created the Naslava to protect him. They were creatures from the Earth's core – pure laval states – but they had no mobility.

Rimariion, Daughter of Earth, battled with Arthemin as he attempted to create the Naslava. She was defeated and cast into rock in the Oasis of Rest. Before she was imprisoned there she cast her Amulet into the hands of the Laryx – a goatlike people who inhabit Mount Hiakron and the shores of Adklaart Mire. They entrusted it into the safekeeping of Sunquat, Leader of the Eharin, People of Light.

Kiron fled over the Adklaart Mire. Rumour hasit that he stands immobile in the land but the Singard, evil soldiers in Arthemin's power, have found him and stand guard over him.

The storm clouds gather overhead. The rain is absorbed into the Cairnrue as it falls. The time has come for the Ritual of Decairn, you, Varwield Secunda, must attempt the Decairn.

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BULLDOG SOFTWARE

THE GAME

THE ICONS

LOAD'SAVE	allows a save or load to memory or cassette. Memory save is a quicksave feature. Any previously memory-saved position is overwritten. Similarly, load from memory overwrites the current position with a previously saved one.
INVOKE	this is a special command to invoke any of the three Rituals. Move the joystick left and right to scroll in the Rituals. Pressing fire selects.
INVENTORY	scrolls in your possessions and redescribes your current location.
ARROWS	for movement.
QUIT	restart from the beginning.
LOOK AT	this examine command operates on objects in your possession.
EXAMINE	examines objects described in the text.

The following icons operate on objects in your possession and display a graphic in the right hand graphic window. Move joystick left or right to scroll through the objects. Pressing fire selects.

GET, DROP, LOOK AT, USE, PLACE, THROW, GIVE

All the remaining icons place you into the text window. The first word in the text window is highlighted. Move the joystick to move the highlight. The highlighted word is also reprinted further up the screen so that you can see what you are trying to do. Pressing fire selects the highlighted word.

Note that the Icons GIVE, PLACE AND THROW put you into the text window also. You must throw the object AT something or place the object IN something.

The scrolling window is used for exits, objects and many other messages.

If the Blind of Death falls, press FIRE to restart. If at any time the 'Cet' icon colours in as well as the icon you are over, this means there is an object to pick up in that location.

CONTROLS

Joystick or Keyboard
Cursor Arrows and SPACE to FIRE

The game is divided into three sections loaded separately from tape. During the initial loading of the game the Amstrad's loudspeaker will sound at the point where these sections start. Reset your tape counter to this point and when the program later asks you to play. The program automatically searches out the correct one of three sections to load.

LOADING INSTRUCTIONS

464: Press CNTRL and small ENTER
664/6128: Type | TAPE and press RETURN
Press CNTRL and small ENTER

BULLDOG SOFTWARE

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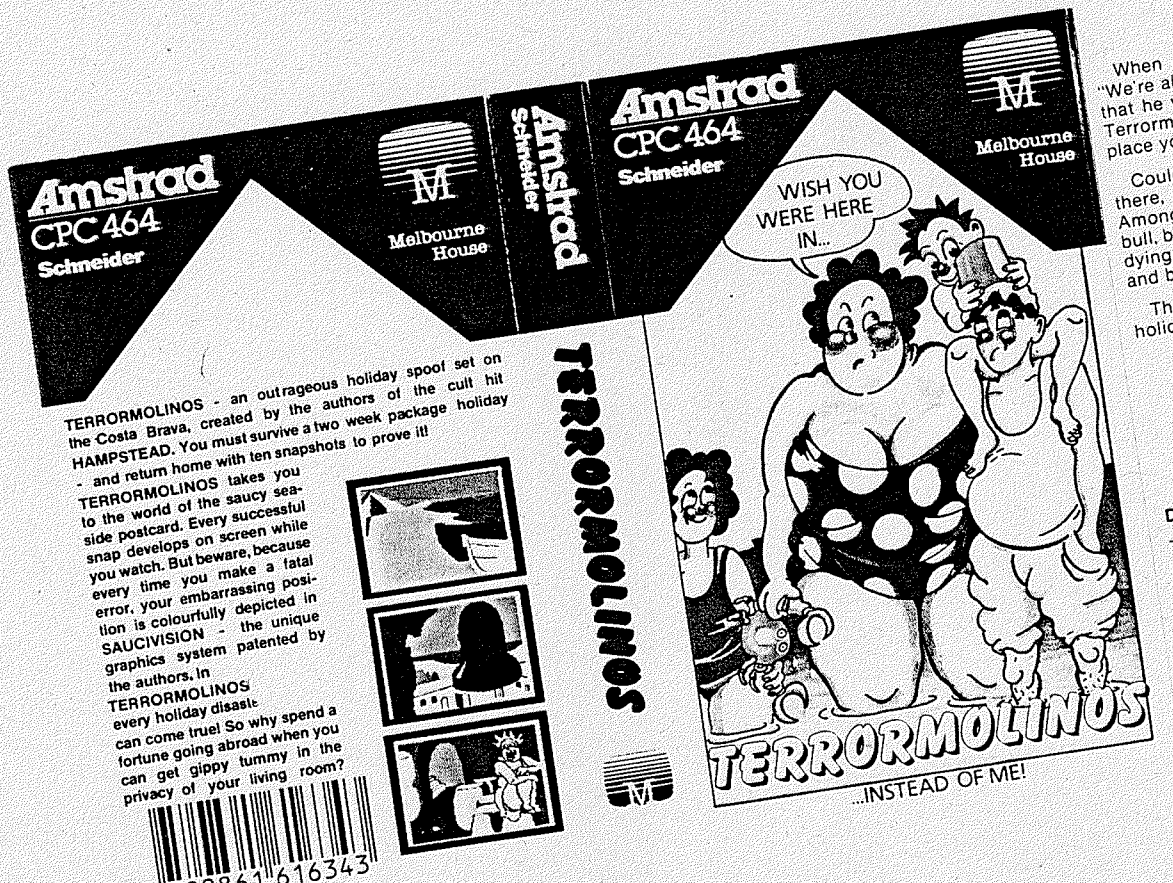

TERRORMOLINOS!

When chubby-cheeked Cliff Richard first sang "We're all going on a summer holiday" it's unlikely that he was referring to the Costa Brava resort of Terrormolinos, because Terrormolinos is the kind of place you only visit once.

Could you survive a two-week package holiday there, with wife Beryl and kids Doreen and Ken? Among the many perils, you risk being gored by a bull, buried up to your neck in sand, being poisoned, dying of heatstroke, losing an argument with a shark and being run over by a Euro-juggernaut.

The object of the game is not merely to survive the holiday, but to take ten snapshots to prove you did it.

DEATH AND PHOTOGRAPHY

TERRORMOLINOS! features a unique use of graphics. In most adventures the graphics serve just to illustrate the locations. In TERRORMOLINOS! however the graphics appear either when you make a fatal error, or when you take a successful photograph.

The graphics were created using a special process called Saucivision, patented by the authors. The system enables the essence of saucy seaside postcards to be transferred to the computer screen.

LOADING INSTRUCTIONS

1. Place the cassette in the tape deck and ensure that it is fully rewound.
2. Press the CTRL key and the small ENTER key simultaneously.
3. Press PLAY on the tape deck.
4. The game will now load and run automatically.
5. In the unlikely event of a loading error, please rewind the tape slightly and press PLAY. If errors persist your tape deck may need re-aligning.
6. In the most unlikely event of a genuine fault please return the complete package to Melbourne House Publishers at the nearest to you of the addresses shown. We will gladly replace it. PLEAS DO NOT RETURN IT TO THE PLACE O PURCHASE.

(This notice does not affect your statutory rights)

MOVING OFF

When the program is fully loaded the messa WELCOME TO TERRORMOLINOS! will appe followed by some initial instructions.

As the game begins you are not in Spain bu home in Slough. Beryl has booked a taxi to take all to the airport. The taxi is now on its way and c arrive at any minute!

Since you have typically left all the packing the last minute, you must quickly scoot arour house collecting everything you will need to ta holiday. In particular, don't forget your pas

tickets, camera and suitcase. They are all somewhere in the house, and there are other things to be found, too, which you will also need.

BASICS

To move around, use the normal compass directions N,S,E,W,NE,SE,NW,SW. You can also sometimes go up (U) or down (D). When using a stepladder, remember to specify UP STEPS or DOWN STEPS.

Apart from movements, most of your commands will be in the form of VERB NOUN. You will often want to pick things up or put them down, e.g. GET SNORKEL or DROP HANKY. If you want to look at something more closely, EXAMINE SETTEE, EXAMINE STEPS, or whatever.

Members of the family, and also certain other characters you will meet later, can sometimes be summoned if you CALL them.

Other useful commands are SCORE, which speaks for itself; I for Inventory, i.e. what you are carrying and wearing; R for Re-describe, in case you've forgotten where you are and what objects are visible; QUIT, when you've done enough holiday-making for one day; and SAVE GAME/LOAD GAME, to enable you to save the adventure up to the point you've reached and resume later. Check your computer manual for instructions.

HAPPY SNAPS

Don't forget that your primary task, apart from keeping the family together, is to take those ten photographs. You must use your judgement as to where and when these are to be taken. Your film will have only 12 exposures, so there can be only two duds.

When you take a correct photo, it will develop itself on screen while you watch! If you take a dud, all you will get is a sarcastic message. Make sure you don't take the same photo twice! Finally, you will have to make special arrangements for locations where there isn't much light.

Another unique feature of TERRORMOLINOS! is the review facility, which enables you to examine each snap you have managed to take. Just press any key to bring up the next photo. You can even do this after making a fatal error in the game.

You can also see on the screen during the game how many correct snaps you have taken.

EXCURSIONS

One of the joys of going on holiday is sitting in a clapped-out bus and being jolted down a hundred miles of cart track on your way to visit some site of interest. TERRORMOLINOS! boasts three such excursions. We suggest you go on all of them - after all, some of the best snaps are taken on sightseeing trips.

SCORING

It is possible to complete the adventure with a score of less than 100%: the extra points come from the other various activities you can engage in - which you will have to discover for yourself!

WANDERING OFF

Be prepared for members of the family - and others - wandering off. You must retrieve them when they do this, otherwise who knows what could happen?

IN TERRORMOLINOS

On arrival, check immediately into your hotel. Only then can you really start to "enjoy" your holiday.

Some Spanish phrases may come in useful from time to time: HOLA means "Hello", SI means "Yes", NO means "No", if you want a room, ask for UNA HABITACION. That should do!

You may also be asked such questions as QUE QUIRE USTED? ("What do you want?") and HAY EN EL GRUPO KWIKHOL TOURS? ("Are you with the Kwikhol Tours party?")

SOME USEFUL VERBS

GET	ADD	FIT	REMOVE	WIPE
TAKE	SWIM	RUB	RING	LEAVE
OPEN	EAT	ORDER	APPLY	KILL
JUMP	DROP	CALL	KNOT	HIRE
EXAMINE	READ	CLIMB	ENTER	GO
WAVE	WEAR	LOCK	FIRE	BOARD
LOAD				

Peter Jones & Trevor Lever - Game concept and storyline
Mike Robinson - Graphics and cover illustration
Roger Taylor & James Byrne - Programming

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Published by
Melbourne House
Castle Yard House, Castle Yard,
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LES PETERS
Le Peter rouge vous donne un POWER UP qui vous transforme en MACHOMAN invincible.

Le Peter bleu augmente votre vitesse. La capture en deux coups de deux Peter bleus vous permet d'atteindre la vitesse maximum.

Le Peter blanc vous permet de marquer des points.

Le Peter vert vous donne un vie supplémentaire.

LES CARACTERES-CHRONO

La Chauve-Souris
Quand MAC reste dans une salle pendant trop longtemp, elle vient l'attaquer.

L'Abeille
Comme la Chauve-Souris, elle vole à l'attaque de MAC quand il s'attarde dans une salle.

LES CARACTERES BONUS

Qui ont transformés quand ils ont détruit le TELEPHONE... En les capturant, vous marquez des points.

Ange
Les frères Deburacho et Gaburacho se transforment en un ANGE. En le capturant, vous devenez invincible.

Panda
Dom se transforme en PANDA.

Chat
PARJO et les ZOMBIES se transforment en un CHAT.

L'Enfant du Diable
Si vous le capturez, vous perdrez le POWER UP que vous avez gagné.

Tous les caractères et éléments qui suivent sont disponibles sur tous les formats, à moins qu'il soit indiqué autrement:

KAIROS, le Grand SATAN
Seule sa tête apparait à l'ETAPE 1 et un KAIROS multiple à l'ETAPE 2 peut vous attaquer de plusieures manières. Vous pouvez facilement le détruire en devinant ses mouvements à l'avance.

BAJO, la mère de KAIROS (CBM 64/Atari ST seulement)
Manipule les ZOMBIES à l'ETAPE 3 et PARJO à l'ETAPE 4. Elle se déplace rapidement et lance des flammes avec se canne. La seule manière de l'abattre et d'anticiper l'endroit où elle va se déplacer, de lui y tendre une embuscade et de la frapper au moment où elle s'y attend le moins.

ACOLYTES 1
Un acolyte de bas rang qui, au contact avec MAC, absorbe son énergie. Vous pouvez lui donner des coups de poing facilement. celui qui porte une uniforme bleue nécessite un seul coup et celui qui est en uniforme vert, deux coups.

PARJO, la fille de KAIROS (CBM 64/Atari ST seulement)
A un panier plein de pommes qu'elles jette sur MAC. S'enfuit lorsqu'elle est poursuivie. Si vous arrivez à la coincer, donnez-lui un seul coup de poing et elle s'envolera en hurlant.

JIDAN, le garde du chateau
Se cache dans le paille et les caisses et attaque rapidement lorsque MAC [illegible]

DESOLATOR™
HALLS OF KAIROS

STARTANLEITUNG UND KONTROLLE

Commodore 64/128 Kassette: Drücken sie die **SHIFT**-Taste gemeinsam mit der **RUN/STOP**-Taste. Drücken Sie beim Kassettengerät auf **PLAY**.

Joystick-Anschluß #1.

Behalten Sie die **PLAY**-Taste gedrückt – jede Level lädt aufeinander. Wenn das Spiel geendet ist, zurückspulen das Band um die erste Stufe zu wiederspielen.

Commodore 64/128 Diskette; Tippen Sie **LOAD""",8,1** ein und drücken **RETURN**. Das Spiel lädt sich selbst und läuft automatisch.

Joystick-Anschluß #1.

Level 1 und 2 – Seite 1.

Level 3 und 4 – Seite 2.

Spectrum 48/128K: Tippen Sie **LOAD""** ein und drücken Sie **ENTER**. Drücken Sie bei Ihrem Kassettengerät auf **PLAY**.

Wenn Sie auf dem Bildschirm dazu aufgefordert werden, das Band zu stoppen, halten Sie das Band an, warten bis die Musik spielt und drücken dann **ENTER**. Wenn der Bildschirmrand weiß wird, dann drücken Sie **PLAY**.

Spectrum 48K die Spielphasen auf Seite 2 erfordern mehrfache Ladevorgänge.

Spectrum 128k alle Spielphasen auf der Seite zwei werden mit einem Ladevorgang geladen.

Spectrum +3 Diskette: Schieben sie die Diskette in das Laufwerk, schalten den Computer ein und drücken Sie **ENTER**. Das Spiel lädt und läuft automatisch.

Schneider CPC Kassette: Drücken Sie **CTRL** und die kleine **ENTER**-Taste. Drücken sie auf dem Kassettengerät **PLAY**. Wenn das Zählwerk auf dem Bildschirm bei Null angelangt ist, dann haben Sie folgende Möglichkeiten.

1. Stellen sie das Zählwerk am Kassettengerät auf Null. Wenn das Spiel zu Ende ist und sie das Spiel wiederholen wollen, dann können Sie das Band einfach bis auf Null zurückspulen.
2. Spulen sie Seite 2 zurück und drücken Sie **PLAY**.

In beiden Fällen lassen Sie die **PLAY**-Taste gedrückt, denn jede Spielphase lädt sich automatisch.

Schneider CPC Diskette: Tippen Sie **RUN"DISK** ein und drücken Sie **ENTER**. Das Spiel lädt und läuft automatisch.

Atari ST Disk: Schalten Sie Ihren Computer ein und legen sie die Diskette in das Laufwerk. Das Spiel lädt sich un läuft automatisch.

KONTROLLEN

SPECTRUM
Sie können die Tasten nach Ihren Wünschen neu belegen. Unterbleibt die Belegung, dann ist:
Z – herunter
A – hoch

SCHNEIDER
Joystick:
LEERTASTE – Sprung
FIRE – Schlag
Tastatur:
M – links
. – rechts

TIMEKEEPER CHARACTERS (Die Zeitüberwacher)

Bat – wenn MAC zu lange in einem Zimmer sich aufhält, dann wird er von Bat angegriffen.

Bee – Genau wie bei Bat, wenn MAC sich zu lange in einem Zimmer aufhält, kommt es auf ihn zugeflogen.

DIE BONUS-CHARAKTERE

Diese Charaktere wurden transformiert, als sie das TELEFON zerstört hatten. Wenn Sie diese Gegenstände fangen, gewinnen Sie Punkte.

Angel (Engel) : Die Brüder Deburacho und Gaburacho verwandeln sich in einen Engel. Wenn Sie ihn fangen, dann werden Sie unverwundbar.

Panda: Dom verwandelt sich in Panda.

Cat (Katze): PARJO und die ZOMBIES verwandeln sich in CAT eine Katze.

Devil's Child (Kind des Teufels): Wenn sie so eines fangen, verlieren Sie ihren wohlverdienten Energiestoß.

Alle anderen Charaktere und Erscheinungen im folgenden erscheinen auf allen Rechnern, sofern nichts anderes angegeben ist.

KAIROS, der große SATAN.
Auf STAGE 1 (Stufe 1) erscheint nur sein Kopf und mehrfache KAIROS können Sie in STAGE 2 (Stufe 2) angreifen. Sie können ihn mit Leichtigkeit zerstören, wenn Sie seine Bewegungen voraussehen.

BAJO, KAIROS Mutter (nur für CBM 64 und Atari ST)
Sie beherrscht die ZOMBIES in STAGE 3 (Stufe 3) und PARJO in STAGE 4 (Stufe 4). Sie bewegt sich sehr geschwindt und feuert Flammenstösse von ihrem Stab. Nur wenn sie es schaffen vorherzusagen, wohin sie sich bewegt, können Sie sie herunterzuholen. Dann warten sie in einem Hinterhalt und schlagen zu, wenn sie es am wenigsten erwartet.

HENCHMEN 1 (Spießgesellen 1, schwächer)
Ein niedriger eingestufter Spießgeselle, der die Energie von MAC absorbiert, wenn er mit ihm Kontakt aufnimmt. Sie können ihn leicht schlagen. Derjenige im blauen Anzug braucht nur einen Schlag, der im grünen Anzug braucht zwei.

PARJO, KAIROS Tochter (nur für CBM 64 und Atari ST)
Sie hat einer Korb voller Äpfel, die sie auf MAC wirft, rennt aber weg, sobald man sie verfolgt. Wenn Sie sie in die Enge treiben, müssen Sie sie nur einmal schlagen. Dann flüchtet sie mit Geschrei.

JIDAN, Wächter des Schlosses
Er versteckt sich im Stroh und in Kisten und greift MAC schnell an, wenn er ihm zu nahe kommt.

FIREMAN (Mann mit dem Feuer)
Er taucht unerwartet auf oder legt einen Hinterhalt für MAC auf der Brücke. Er feuert Flammenstöße aus und versucht MAC zu behindern. Man kann ihn mit einem Schlag in die Flucht schlagen.

ARMOR
Er attackiert, indem er sein Schwert wirft.

GEGENSTÄNDE

Barrel (Faß)

LE POMPIER
Apparait tout d'un coup ou tend une embuscade à MAC sur le pont. Il lance des flammes pendant qu'il fait obstruction à MAC. Vous pouvez l'envoyer en l'air d'un coup de poing.

ARMOR
Attaque en lançant son épée.

ELEMENTS

Le Baril
Roule sur vous. En lui lançant un coup de poing, vous pouvez le transformer en une de vos armes.

Le Pot
Si vous le manipulez habilement, il peut devenir une de vos armes. Sous le pot, vous trouverez le signe ?. L'ennemi peut changer selon votre score au moment où vous capturez le signe.

L'Horloge
Arrête les mouvements de l'ennemi momentanément.

La Mine
Si vous marchez sur elle, vous perdez une vie.

La Poupée
Quand vous détruisez la tête de la poupée qui émet des rayons au laser, les ennemis disparaissent de l'écran.

La Tête de Cerf
Les ennemis disparaissent de l'écran quand vous la détruisez en lui donnant un coup de poing seulement pendant qu'elle nemet pas de flammes.

Le Masque
Juste comme dans la Poupée, la Tête de Cerf et la Conduite de Gaz, les ennemis disparaissent de l'écran si vous le détruisez.
(La Conduite de Gaz – Atari ST seulement)

La Chaîne
En montant dessus, elle vous emmène instantanément à un endroit complètement différent.

L'Energie
En la capturant, vous augmentez votre énergie.

Le Sac d'Argent
Vous augmentez votre score en le capturant.

La Bombe
(Spectrum et Atari uniquement)
En appuyant sur le bouton COUP DE POING, vous lancez des bombes avec le bout des doigts sur l'ennemi qui vous fait face.

Boomerang
(C64, Amstrad et Atari ST uniquement)
Il peut détruire vos ennemis aux tournants.

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C – rechts
X – links
LEERTASTE – Sprung
V – Schlag
P – Pause

ATARI ST
Joystick: **LEERTASTE** – Sprung
FIRE – Schlag
Tastatur: Cursor-Tasten
ENTER – Schlag
LEERTASTE – Sprung
F1 – Spiel neu starten
F2 – Pause

A – herunter
LEERTASTE – Schlag
ESC – Sprung

CBM 64/128
RUN/STOP – Pause
LEERTASTE – Sprung
FIRE – Schlag (Joystick)

CHARAKTERE

MAC, der Held (Spieler)
(Nur für Atari ST)
Er tritt in das Schloß ein, um die PETERS zu retten und sobald RED PETERS in Sicherheit ist, erhält er einen Energiestoß, der aus ihm einen unbesiegbaren MACHOMAN macht.

MAC, der held (Spieler)
(CBM 64/128, Schneider, Spectrum Versionen)
Er tritt in das Schloß ein, um PETERS zu retten. In dem Moment in dem er die notwendige Zahl erreicht, (9 bei Amstrad, 6 beim CBM 64/128), erhält er einen Energiestoß, der aus ihm einen unbesiegbaren MACHOMAN macht.

Wegen der begrenzten Speicherkapazitäten der anderen Rechner, erscheinen dei folgenden Charaktere und Szenen nur auf dem Atari ST:

DOM, KAIROS Sohn
Er formt sich zu einen Ball, rollt auf MAC zu und wenn er in seiner Nähe ist steigt er auf und versucht, ihn zu kicken.

HENCHMEN 2 (Spießgesellen): Deburacho und Gaburacho Brüder.
Sie versuchen, MAC zu fangen und sobald sie Kontakt mit ihm aufnehmen, beginnen sie, ihn niederzuhalten. Sie können sie abschütteln, indem Sie den Griff nach der Seite bewegen.
Gaburacho trägt blaue Hosen und Deburacho grüne. Gaburacho ist der stärkere von den beiden.

ZOMBIE
Tritt alleine auf und wird manipuliert von BAJO: ZOMBIES sind die Mädchen, die vor langer Zeit von den KAIROS entführt worden sind und eine Reihe von ihnen versucht, mit einem Haltegriff MAC niederzuhalten.

GEGENSTÄNDE

Telefon
Wandelt alle Feinde um, wobei einer von ihnen heimlich ein unbesiegbarer Charakter ist.

Gas Pipe (Gasleitung)
Ihre Feinde verschwinden, wenn Sie die Spitze der Gasleitung zerstören.

Energy Bomb (Energiebombe)
Kann die Feinde auf einen Schlag zerstören.

PETERS
Von Red Peter (Roter Peter) erhalten Sie den Energiestoß, der sie zum unbesiegbaren MACHOMAN macht.
Von Blue Peter (der blaue Peter) bekommen Sie die Geschwindigkeit. Wenn sie zwei davon in zwei Schritten fangen, dann erhalten Sie die höchstomögliche Geschwindigkeit.
White Peter (Weißer Peter) versetzt Sie in die Lage, Punkte zu machen.
Und Green Peter (Grüner Peter) gibt Ihnen zusätzliches Leben.

Es rollt auf Sie zu, wenn Sie es aber schlagen, dann wird es zu einer Waffe für Sie.

Jar (Krug)
Wenn man ihn geschickt handhabt, wird er zu einer Ihrer Waffen. Unter ihm finden Sie ein Fragezeichen ?. Wenn Sie das Fragezeichen einfangen kann sich Ihr Feind, abhängig von Ihrer Punktzahl, ändern.

Clock (Uhr)
Stoppt vorrübergehend die Bewegungen des Feindes.

Mine
Wenn Sie drauftreten werden Sie ein Leben verlieren.

Doll (Puppe)
Die Feinde auf dem Bildschirm werden verschwinden, wenn Sie den laseraustoßen Kopf der Puppe zerstören.

Deer's Head (Der Hirschkopf)
Die Feinde auf dem Bildschirm verschwinden, wenn Sie ihn mit Schlägen zerstören, solange keine Flammen ausgestoßen werden.

Mask (Maske)
Ebenso wie bei der Puppe, dem Hirschkopf und der Gasleitung, verschwinden die Feinde auf dem Bildschirm, wenn Sie die Maske zerstören. (Gasleitung ist nur für Atari ST)

Warp (Transformierung)
Wenn Sie das erklimmen, dann werden Sie umgehend in eine völlig neue Umgebung gebracht.

Energy (Energiequelle)
Sie erhöhen Ihre Energie, wenn Sie an die Energiequelle kommen.

Money Bag (Geldtasche)
Mit der Geldtasche erhöhen Sie Ihre Punktzahl.

Bomb (Bombe)
(nur für Atari ST und Spectrum)
Wenn Sie den PUNCH Knopf drücken, feuern Sie die Bomben mit Ihren Fingerspitzen auf die Feinde, denen Sie gerade gegenüberstehen.

Boomerang (Bumerang)
(nur für C64, Schneider und Atari ST)
Der kann Ihre Feinde in den Kurven zerstören.

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SPYTREK ADVENTURE

AUTHOR: Peter Torrance.

Setting the Scene

9 a.m. Secret Spybase, London.
Top Secret letter:
As our top spy and ace secret agent, the government in their infinite wisdom have decided to give you this urgent mission.

Bad News

2 weeks ago one of our best agents was killed whilst trying to bring back some SECRET PLANS into Britain. It seems however, that he managed to hide the plans "somewhere" in Europe, when he realised his life was in danger.

Bad News

Your extremely dangerous mission is to FIND THOSE PLANS AT ANY COST!

Bad News

In order to try and throw the enemy off your trail, we have decided to "STAGE" YOUR DEATH! and give you a new identity.
Your new name is "MIKE RODOT".

Question?

Is there any good news?

Answer

Yes, you can have fun doing the whole mission without even leaving the comfort of your home computer!

Playing the Game

SPYTREK – At last, a truly original and amusing adventure featuring colourful high res' graphics and brain teasing problems for you to overcome!
The Adventure begins with you lying flat in a COFFIN! But later you will find yourself in an AEROPLANE, a mountain CABLE-CAR and even punting a GONDOLA along a VENICE CANAL!

Playing Instructions

To move around and perform any actions in the game, you must enter instructions in the form of sentences.
"Spytrek" has a large vocabulary and is very flexible in understanding your commands. i.e.:

Simple commands:
"NORTH" moves you north. "EXAMINE THE TRAMP" will give you a closer look at the tramp, etc.

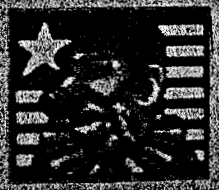
More complex commands:
"TAKE THE PILL AND SWALLOW IT". or perhaps "TAKE THE WIG, WEAR IT THEN ENTER THE HOLE".

Sentences may be strung together using "AND", "THEN" or simply a comma ",".
Note that the game will automatically interpret "IT" as meaning the last noun you typed. i.e.: In the above example – The WIG.
During your mission you will meet some other mostly helpful characters. Try communicating with them by asking or talking to them. I.e. – "TALK TO THE DRIVER" or maybe if you can't do something yourself, ask one of the characters to do it for you! Typing "HELP" may sometimes give a useful clue. Typing "WORDS" will switch graphics off. "PICTURES" will turn them back on.
Note that you do not need to type the "speech marks" when entering commands.

Above all have fun and try to imagine that you are really there . . .
But then you ARE! . . .

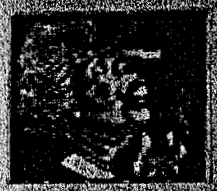


Gorbachev has great fun "getting on down man". Favourite hobbies include dressing up in the latest in flared jeans and kipperties. Watch out though, because Gorbie has turned John Travolta's dance moves into a deadly martial art that he uses to violent effect. Keep an eye out for wife Raisa while fighting this radically hip world leader.



Ronald Reagan has had to stand down from being President of the US. His new job? Promoting the latest hamburger chain "Ronnie's". Dressed up in his clown outfit, Ronnie is back pulling the punches and inviting to all to large fries and a milk shake. A real Ronnie's "Hamburgers" is around to make your life a real misery. Please call again.

*100% anything except beef.



Thatcher is a particularly vicious leader. Armed with her boxing gloves she'll biff her way through the toughest opponents. Dennis pops in to lend a hand so keep your eyes out for low flying gin bottles. But contrary to popular belief Maggie is not invincible. Nevertheless, definitely not an opponent for the faint hearted.



"A busy day can take it's toll, so when I get home I let my beard down. Messing around with glove puppets is great fun unless, of course you have been caught for shoplifting a couple of times. All in all, I get great job satisfaction - I'd hate to be stuck on a prayer mat all day."



The Pope is quite jolly as usual. He really isn't intending to hurt anyone, its just that with all the frantic banjo playing he can get a little clumsy. He has a few Cardinals in the band so watch out! Remember to get 'tuned up' before giving JP a hard time.



"President Botha is a very nice man."

*Report compiled under the South African Reporting Restrictions.

name above yours which would be really embarassing if your friend saw it and you'd have to keep making excuses if they came round to your house and wanted to play the game because you'd have to say something like "Oh it's broken" and they'd say "it doesn't look very broken to me" and switch it on and see your friend's mum's name above yours and you'd have to pretend it was a joke but they wouldn't believe you and they'd go round telling everyone what a lousy score you got and your parents would be so ashamed they'd pretend to be dead just to get you put in an orphanage where they wouldn't have to see you. And if you take our advice, then you'd throw the game away and pretend you'd never played it.

4 Incredible Bits

If however you win the series then the target leader will have lost all credibility. You will then be sped back to the map screen where a skull will be sitting in place of the leader you have just beaten. From there you must once again pick two more leaders and providing you keep winning then the show goes on! You may be wondering what happens when you are left with one leader. Well we are not going to tell you.

On some cassette versions of the game, you may be asked to load world leaders before the fight starts. Follow the on screen prompts.

Two Player Game.

If you wish to have a bash with a friend then move the pointer on the map screen to the '2' icon and press fire. You can then choose which leaders each will use. The fight works as the usual best of five - however you cannot save the world.

Loading Instructions

Spectrum 48K Cassette: Load "" and press Enter, then start tape.

Spectrum 128K + 2 Cassette: Use "Tape Loader" option from start up menu, then start tape.

Spectrum +3 Cassette: Use "Loader" option from start up menu, ensure disk drive is empty, then start tape. Disk: Place disk in drive, and use "Loader" option from start up menu.

Commodore 64/128 Cassette: Hold down SHIFT and press RUN STOP key, then start tape. Disk: Insert disk, type LOAD "*",8,1 and press RETURN.

Amstrad Cassette: Hold down CTRL and press the small Enter key. Disk: Insert disk, type | CPM and press Enter. (| is obtained by holding down SHIFT and pressing @).

Amiga/Atari ST Reset machine and insert disk.

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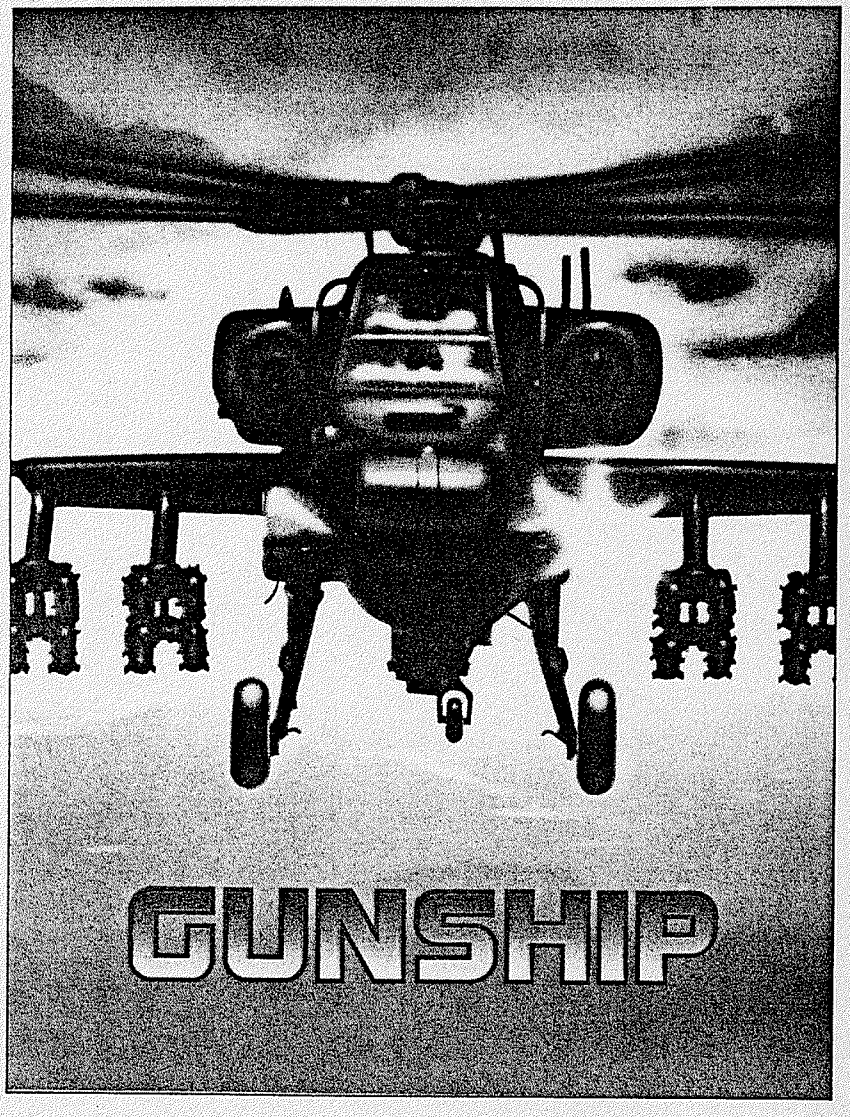
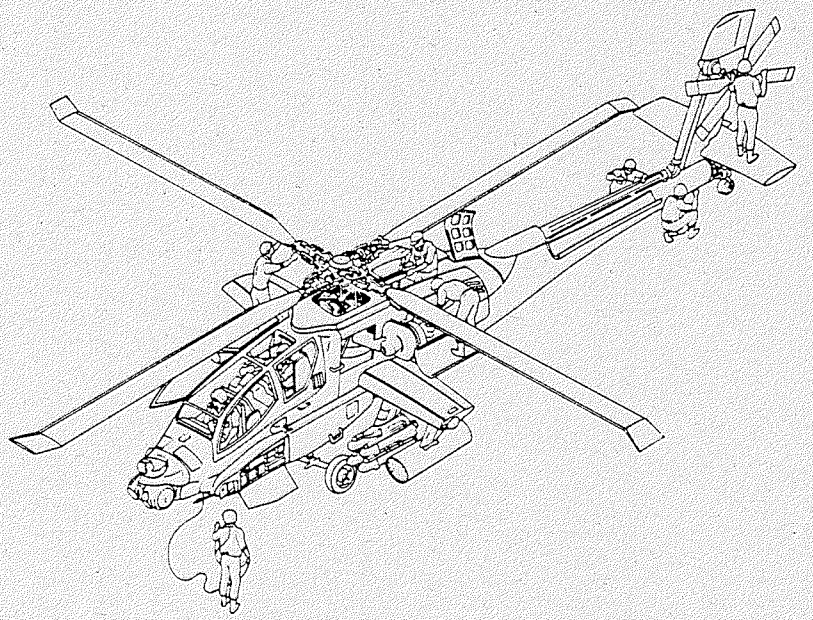
CHANGE 1



OPERATIONS MANUAL

GUNSHIP

The Helicopter Simulation



OPERATIONS MANUAL
64-H-029A

Change 1, November 1986

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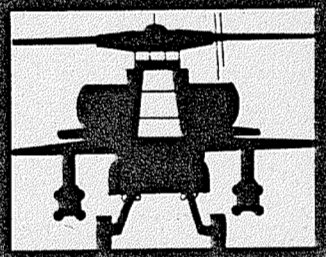


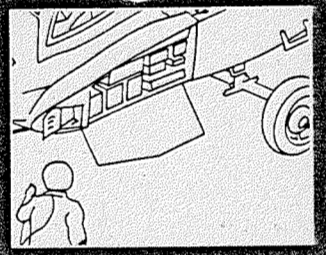
INTRODUCTION

In the early days of flying "barnstormer" pilots flew by the seat of their pants — following roads and rivers, even dipping down to read roadsigns! That grand tradition of individual flying is found today among helicopter pilots. They love getting down among the hills and trees to do some "interesting" flying.

Just flying a helicopter is loads of fun, but here at MicroProse we wanted more. We wanted to fly a **combat** helicopter in simulated battle conditions. All kinds of battles: from guerilla wars to a hypothetical USA-USSR war in Europe. Pop over a hill, launch a Hellfire, dodge a SAM, jam a ZSU's radar, then duck behind cover again. GUNSHIP™ is a simulation of everything we wanted.

Now you can experience the danger, excitement, courage, and agony of real combat helicopter flying — without the bloodshed and suffering that occur in real warfare. GUNSHIP portrays actual ground scales, flight speeds and weapons systems. The AH-64A is the "highest tech" helicopter flying today, replete with lasers, cameras, night viewers, infra red and radar warnings, jammers, computers, composite materials, engine signature suppressors, and a plethora of weapons. The TADS (Target Aquisition & Designation Sight) system is a computerized fire control system, also simulated within your computer! Faithfully reproducing the AH-64A systems, capabilities, and limitations was an enormous undertaking. Creating GUNSHIP took much longer than we expected.

We're sure you'll agree our time was well spent. GUNSHIP is the most detailed and realistic simulation of combat helicopter flying ever for home computer. For us, it's the next best thing to joining the US Army and flying the real aircraft. So grab your IHADSS helmet, jump into the cockpit, and swing into action with our AH-64A Apache gunship!

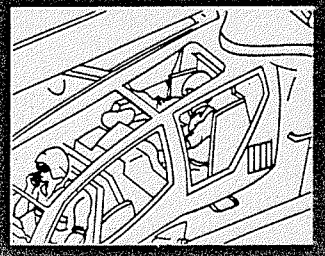


CONTENTS

Introduction 2
Quickstart 4

Part I — Operating Instructions 5
Loading 6
Preparing to Fly 9
Cockpit & Status Panels 13
A Practical Guide 20
Controls 25
Controls Summary 29
Beginner's Tutorial I 30
Beginner's Tutorial II 34
After the Mission 38

Part II — Apache Pilot's Manual 40
Aerodynamics 41
Weapons & Tactics 48
Military Equipment 58
Regional Deployments 73
Glossary 80
Notes 82



QUICKSTART

BEWARE: GUNSHIP is an accurate simulation of a combat helicopter. Do not attempt to jump in and fly by instinct. Helicopters are similar to other aircraft, but have important differences. Unless you've flown real helicopters, read Part I ("Operating Instructions") carefully and learn to fly using the tutorials.

1. To load GUNSHIP in your computer, read the appropriate section of "Loading" in Part I. Get out the overlay and place it on the keyboard.

2. Skim the "Cockpit & Status Panels" and "Controls" sections to familiarize yourself with the helicopter. Also glance through "A Practical Guide to Helicopter Flying".

3. Follow the tutorials: First turn to "Beginner's Tutorial I — Learning to Fly a Helicopter." Follow this step by step. You'll refer frequently to both "Cockpit" and "Controls" sections. Then follow "Beginner's Tutorial II — Gunnery & Defenses."

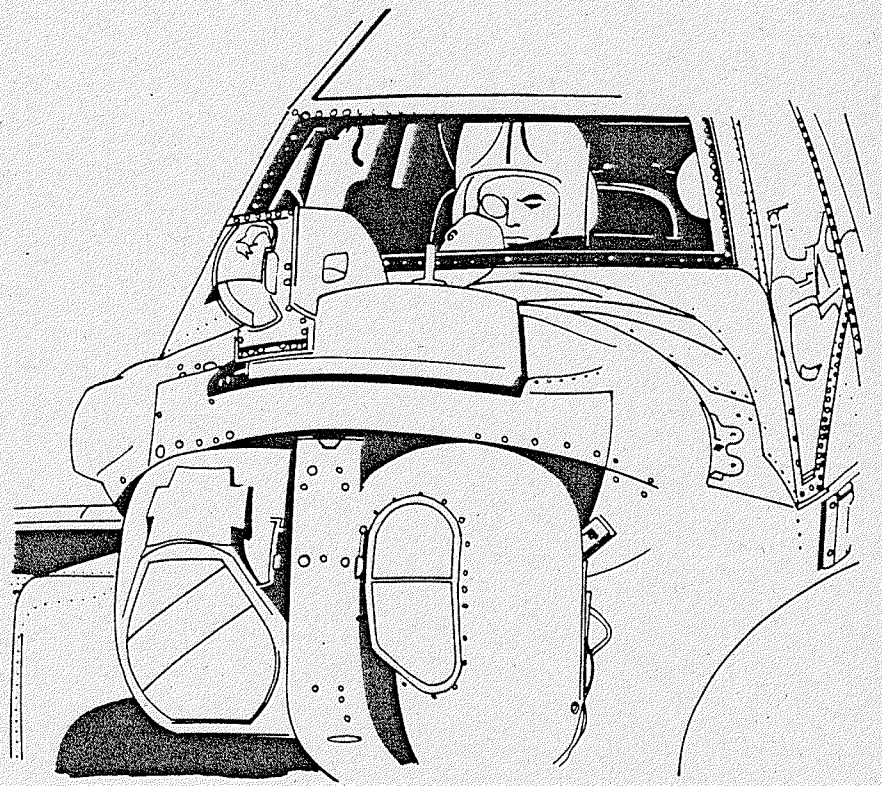
If you are still uncertain about flying after both tutorials, continue flying the USA training area. Refer to "A Practical Guide to Helicopter Flying" and "Aerodynamics" for a better understanding of flight. Then fly the tutorials again.

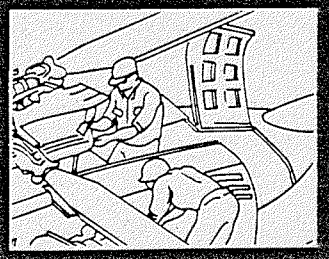
4. Begin combat flying in Southeast Asia, just like thousands of other American helicopter pilots. Turn to "Regional Deployments" in the back of this manual for tips and suggestions about that region.

5. Don't Volunteer for Western Europe: Watch the risk level as you adjust your starting options. Keep your risk low at first. Above all, avoid the 1st Line in Western Europe. The Warsaw Pact is the most formidable enemy on this planet.

PART I

OPERATING INSTRUCTIONS





LOADING the AH-64A Apache Simulation

Commodore C-64/C-128 Computers

This version requires a C-64, C-64C or C-128 with a 1541 or 1571 disk drive and a joystick.

The C-128 GUNSHIP uses the C-64 emulation mode. However, it does take advantage of the greater speed and processing power of the C-128 where appropriate.

1. Turn off your computer and disk drive.

2. Attach one joystick at port #2. Do NOT leave a joystick in port #1 (a joystick there can scramble your controls).

3. Turn on your disk drive. WARNING: do not leave a disk in the drive when you turn your computer or disk drive on or off — your disk could be damaged.

4. Remove any cartridges from your computer. GUNSHIP has a "fast load" routine built into its software for use with the 1541 drive. Remove all fast load cartridges before attempting to load the game.

5. Insert the GUNSHIP disk, label upward, into the disk drive. Close the drive door latch.

6. Turn on your computer. On a C-128 the simulation begins loading automatically. If you have a C-64, you must type the following:

LOAD "*", 8, 1

and then press RETURN. After loading leave the disk in the drive.

Apple II family Computers

This version requires an Apple II+ with 64K RAM, and Apple IIe (with either 64K or 128K RAM), or an Apple IIc. The computer must have APPLESOFT BASIC in ROM, a disk drive, the disk drive controller in slot 6 (its normal position), and a joystick.

1. Turn off your computer.

2. Plug in your joystick. GUNSHIP requires a joystick.

3. Insert the GUNSHIP disk in the disk drive, label upwards, and close the latch.

4. Turn on your computer. The simulation loads automatically. After loading leave the disk in the drive.

Atari 800XL/XE Computers

This version requires an Atari 800XL, 1200XL, 130XE or 65XE with a disk drive and a joystick.

1. Turn off your computer and disk drive.

2. Remove all cartridges.

3. Plug in your joystick into port #1.

4. Turn on your disk drive.

5. Insert the GUNSHIP disk, label upwards, into the disk drive and close the latch on the disk drive door.

6. Turn on your computer. The simulation loads automatically from disk. After loading leave the disk in the drive.

IBM PC, PCjr, XT, and AT; Tandy 1000, 1200 and 3000; 100% PC Compatibles

This version requires an IBM compatible computer, a disk drive, and a color monitor using either CGA (Color Graphics Adapter) or EGA (Enhanced Graphic Adapter) graphics. A joystick is optional, but strongly recommended.

This simulation is NOT compatible with a Hercules monochrome graphics card or other monochrome graphics devices. The simulation does NOT use PC DOS or MS DOS, and therefore cannot use hardware or software that requires a DOS environment.

1. Turn off your computer.

2. Plug in your joystick if you are using one.

3. Insert the GUNSHIP disk, label up, into the "A" disk drive. Then close the drive door latch.

4. Turn on your computer. The simulation loads automatically. After loading leave the disk in the drive.

Atari 520 ST or 1040 ST

This version requires an Atari 520 or 1040 ST with a disk drive, a color monitor, and either a mouse or a joystick. TOS can be in ROM or loaded from disk.

1. Turn off your computer.

2. Plug in your mouse or joystick. The mouse must be plugged into port #1 (the normal port). The joystick must be plugged into port #2.

3. Turn on the computer.

4. TOS in ROM. All 1040's and all recently built 520's have TOS in ROM. If you have such a machine, simply **insert the GUNSHIP disk** into the disk drive. The simulation loads automatically.

4. NO TOS in ROM. If your computer is an early-version 520 ST without TOS ROM chips, insert your Atari TOS disk into the drive. When the desktop appears, eject the TOS disk and insert the Gunship disk. Press the ESC key to display the contents of the Gunship disk. When these appear, use the mouse to point to the AUTO folder and double-click with the **left** mouse button.

This folder will open and show a file called GUNSHIP. PRG. Point to this with the mouse and double-click again to load the game. After loading leave the disk in the drive.

Commodore Amiga

This version requires an Amiga with at least 512K RAM. A mouse or joystick can be used.

1. Turn off your computer.

2. Plug in your mouse or joystick. The mouse must be plugged into port #1 (the normal port). The joystick must be plugged into port #2.

3. Turn on the computer.

4. Insert the Amiga KICKSTART disk into the disk drive.

5. When the "Workbench" icon appears on the screen, press the eject button and remove the KICKSTART disk.

6. Insert the GUNSHIP disk into the disk drive. It loads automatically. After loading leave the disk in the drive.

GUNSHIP:
Special Instructions for the C64 Tape Cassette Version

GUNSHIP is a very large C64 program, designed for computers with disk drives (the standard American practice). It has about 300K of code and data. In creating the tape cassette version, MicroProse has adjusted a few minor details to minimize tape loading times. No essential feature of the game has been removed. For reference the differences are described below.

LOADING
(page 6)

To load the tape cassette version requires either a C-64 or C-128 computer with a cassette tape drive.

1. Turn off your computer, then remove all cartridges from the computer.

2. Attach one joystick at port #2. Do not leave a joystick in port #1 (a joystick there can scramble your controls).

3. Insert the GUNSHIP cassette into the cassette tape drive, label upward. This is SIDE 1 of the tape. Close the tape drive.

4. Turn on your computer. If you have a C-128, hold down the Commodore key while turning on the computer.

5. Load Tape: hold down the Commodore key and tap the RUN STOP key. Your C64/C128 will ask you to press PLAY on the tape drive. Do it. The tape will search for GUNSHIP, report finding it, and begin loading.

Note: As in most tape cassette programs, once you press PLAY, leave it down until some other instruction (such as REWIND) is given. The program cannot access the tape unless PLAY is down.

PREPARING TO FLY
(page 9)

AH-64A PILOT ROSTER ("SERVICE RECORD"): The tape cassette version only holds information on ONE pilot. If you point to "SAVE" and press the fire button the pilot is saved to a separate tape cassette (you cannot save it to the game tape cassette). If you point to "RELOAD" and press fire you can recall a pilot saved on a separate cassette. Remember, you cannot save a pilot unless you have a blank tape to store his service record data. NEVER attempt to save pilot data on the GUNSHIP game tape cassette.

COCKPIT & STATUS PANELS
(page 13)

STORES STATUS DISPLAY (pg 18): This display is not available in the tape version. Use information on the main cockpit display instead, as described in the middle of page 15.

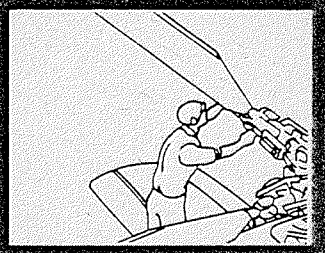
SYSTEMS DAMAGE DISPLAY (pg 18): This display is not available in the tape version. Use the "idiot lights" across the top of the cockpit instead, as described on the bottom of page 15.

AFTER THE MISSION
(page 38)

RETRY OPTION: Whenever you land, shut down the engines and the rotor stops turning, you have the option of either "retrying" the same mission again, or continuing. If you retry, you are able to fly the very same mission again, from the start. If you do not retry, your mission is summarized and then your after-landing options are presented. Note that this is different from the disk version, where only pilots who crash while at low rank can retry.

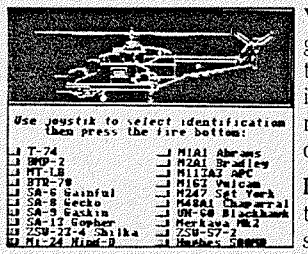
TOP SCORES: The comparison of your score to the two all-time top scoring missions (described in fourth paragraph) is not available in the tape version.

SAVE PILOT: One of your replay options is to "Go on extended R&R (Save Pilot)". This returns you to the pilot roster, where you can save your pilot's name and record on a separate tape (see Preparing to Fly, AH-64A Pilot Roster, above).

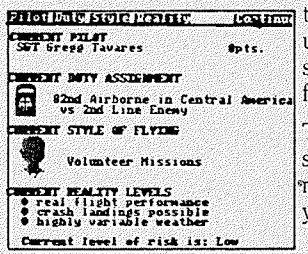


PREPARING TO FLY
the AH-64A Apache

On most screens you'll see a small arrow pointer. Your joystick, mouse, and cursor control keys (depending on your computer) move the arrow. To make a selection, move the arrow onto the picture or box and then press the joystick fire button, mouse click button, or the return key on the keyboard.

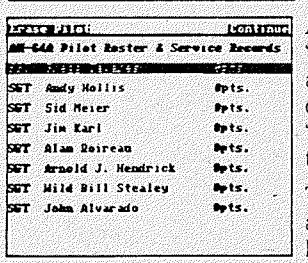


VEHICLE IDENTIFICATION: Telling the good guys from the bad guys takes practice. Examine the vehicle drawing and compare it to the drawings in the "Military Equipment" section of this manual. Move the pointer to the box beside the correct name and press fire/click/return.



DEFAULTS: Here you see the last mission flown: the pilot, his duty assignment (region of the world), style of flying, and reality levels. To change any of the defaults point to the appropriate box in the upper left and press fire/click/return. If the defaults shown are fine, point to "Continue" and press fire/click/return.

The combination of duty assignment (region), style, and reality determines the overall level of risk for your next mission. The level of risk affects your scoring, promotion, and decorations.

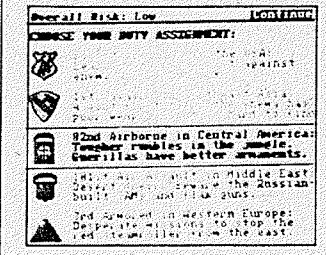


AH-64A PILOT ROSTER: This summarizes the "service records" of pilots on the disk. To select a name, point to the name itself and press fire/click/return. This highlights the name. Point to "Continue" and press fire/click/return to return to the defaults.

To enter a new name (such as your own!), select a name you wish to replace, then point to "Erase Pilot" and press fire/click/return. Type the new name and press RETURN. This new name appears in the roster. The old name is erased, permanently.

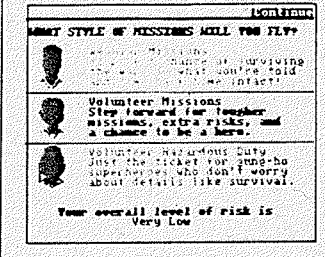
Each pilot's service record includes a list of awards, decorations, and reprimands, followed by a number indicating the quantity of each. The letter abbreviations are: **ACM**-Army Commendation Medal, **AM**-Air Medal, **BSV**-Bronze Star, **CAC**-Central America Campaign Ribbon, **CMOH**-Congressional Medal of Honor, **DSC**-Distinguished Service Cross, **KIA**-Killed in Action, **MEC**-Middle East

Campaign Ribbon, **MIA**-Missing in Action, **NDS**-National Defense Service Medal, **PH**-Purple Heart, **SEAC**-Southeast Asia Campaign Ribbon, **SR**-Service Reprimand, **SS**-Silver Star, **WEC**-Western Europe Campaign Ribbon.



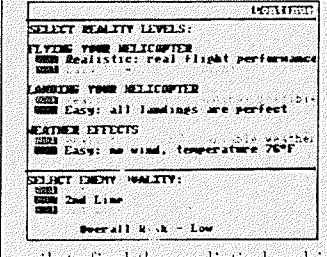
DUTY ASSIGNMENT: You can select five different areas of the world for combat flying. Point to the badge representing the area you desire and press fire/click/return. Point to "Continue" and press fire/click/return to return to the defaults.

Beginners should select Flight Training in the USA and follow the two tutorials. Combat regions are listed in order of difficulty, from Southeast Asia (the easiest) to Western Europe (the most difficult). Regions powerfully affect difficulty. Don't expect success in Western Europe until you do well in the other regions.



STYLE OF FLYING SELECTION: Within a region, some areas and missions are more dangerous than others. Here you select the level of danger you prefer. Point to the appropriate face and press fire/click/return.

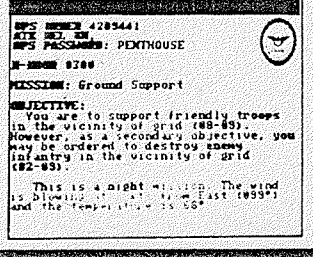
Volunteer missions, especially hazardous duty, mean you're facing tougher, more accurate, and faster-reacting opponents. Regular missions pit you against "garden variety" Russian-trained troops with lesser combat skills. This choice has a powerful effect on mission difficulty.



ENEMY & REALITY SELECTION: Wherever you fly, you can select between a "realistic" simulation and an "easy," simplified version. Point to the box beside the option you prefer and press fire/click/return.

"Easy" reality levels may help you learn to fly. Beginners often prefer "easy" *landings* and *weather effects*. However, use "realistic" *flying* as soon as possible, since experienced GUNSHIP pilots find the realistic level is actually easier to fly in combat.

Enemy quality determines the "newness" of enemy equipment. Soviet-equipped First Line troops have modern equipment (for that region). The Second Line rear area and allied forces use older equipment. The Third Line reservists have obsolete equipment.



BRIEFING: Here are your flight orders. They include IMPORTANT information you should memorize or write down. Above all, note the **password**, look up the **countersign** in this manual and write it down. Passwords and countersigns appear at the bottom of each page in alphabetical order, starting on page 12.

Also make a note of your primary and secondary

objectives. You'll probably want to check the map to see where they are in relation to your bases. It's also wise to note the wind speed and direction (only present if you picked realistic weather conditions).

When you're through examining the orders and related information (map, intelligence reports, and or sick call) point to "continue" and press fire/click/return.

NOTE: When flying "Training in the USA" duty the subsequent options are greatly abbreviated. No intelligence report or sick call option exists, and no reminders are necessary.

THE SECTOR MAP: This shows the entire battle area, friendly bases and forces in white, your objectives are in violet. It's purely for reference, and to help you plan your mission.

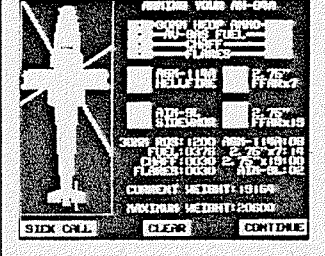
The map coordinates are read military fashion, "right and up." That means the first number is the horizontal scale, the second the vertical scale. For example, 01-12 is the upper left corner.

INTELLIGENCE REPORT: This report gives additional details about enemy forces and equipment. You may wish to read the "Military Equipment" section about these weapons, and/or the "Weapons & Tactics" section about how to deal with them.

SICK CALL: If you decide this mission is too difficult or dangerous, you can go on sick call to avoid it. Read the advice on the screen carefully.

As a rule, pilots decide to be "on sick call" if the objectives are distant from friendly base and the enemies are truly formidable. Objectives near a friendly base are always easier, since you spend less time in "hostile" airspace.

REMINDERS: It's important that you know the password, countersign, and both objectives (primary and secondary). Check your notes to make sure you have the correct information. Point to the appropriate box and press fire/click/return.



ARMING: A standard armament appears here for your region. However, you can adjust the stores on your helicopter to suit your preferences.

To add or subtract cannon ammunition (30mm HEDP), fuel, chaff, and/or flares, point to the "+" or "-" box and press fire/click/return. You'll see the appropriate quantity change, along with your current weight.

To remove armament from the weapons wings, point to the weapon on the wing itself and press fire/click/return. To add a new or different armament to a wing, point to the box representing the weapon and press fire/click/return to "pick up" the weapon. The weapon is now attached to your pointer. Move it to the wing and fire/click/return to release it. If there is already a weapon at that position, the new one replaces the previous one.

Weapons must be balanced. Whenever you add or subtract a weapon to one wing, the other automatically changes too. The wingtips carry AIM-9L Sidewinders only (anything else is too heavy). The interior wing stations can carry any weapon. The maximum weight figure near the bottom is the maximum

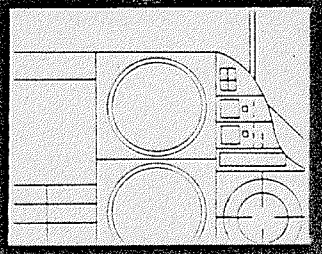
takeoff weight for the region and weather. You can **never** add weapons that exceed this limit.

Point to "Continue" and press fire/click/return to begin flying. Select "Clear" to eliminate all stores from your helicopter. Press "Sick Call" if you've got cold feet and want to back out of the mission. Sometimes even experienced pilots do this if unfavorable weather causes an impossibly low maximum weight on a dangerous mission.

IMPORTANT!
KNOW YOUR PASSWORD & COUNTERSIGN!

The briefing and reminder screens (above) tell you the password for this mission. YOU MUST KNOW THE COUNTERSIGN. At the page bottoms in this manual you will see a password followed by a countersign. Find the page with the briefing's password, and then write down the countersign that follows.

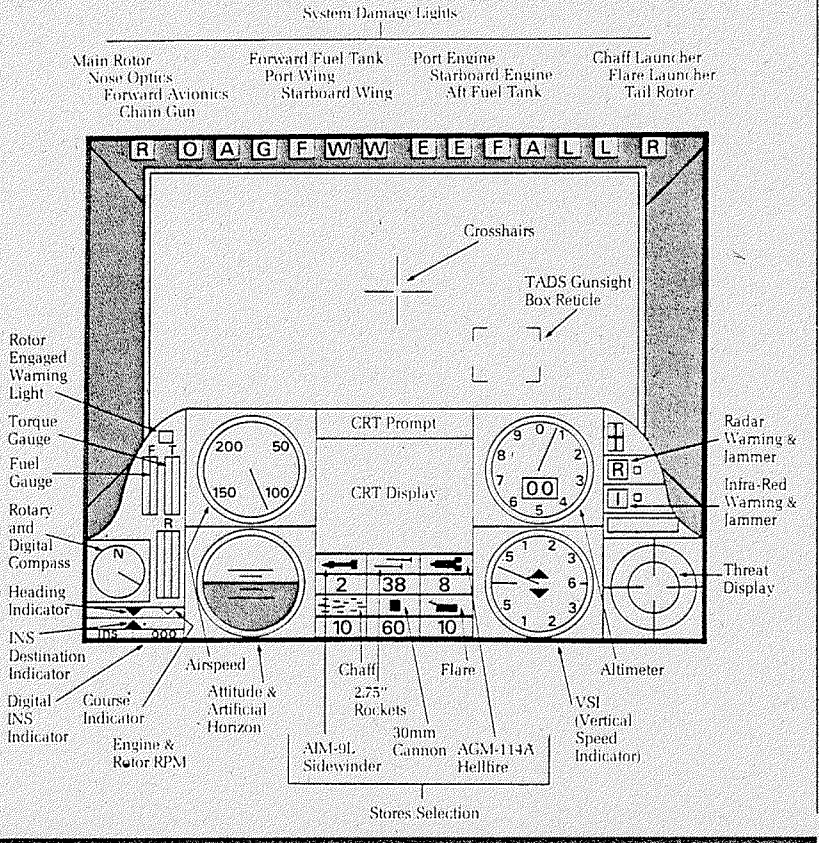
When you approach any friendly heli-base, you will get a radio message giving the password and asking for the countersign. If you do not type in the proper countersign and press "RETURN", base defenses will presume you are an enemy and shoot you down!



COCKPIT & STATUS PANELS of the AH-64A Apache Simulator

COCKPIT INSTRUMENTATION

The cockpit is the main control panel used in flight. You "see" the *landscape* through the armored glass as you fly. A fixed crosshairs sight aids in pitch orientation and firing FFAR unguided rockets. A moving box (reticle) represents your IHADSS helmet gunsight (TADS). This box changes from dark to light color, depending on the current accuracy of your selected weapon (dark is low accuracy, light is higher accuracy). Below the cockpit glass are the dials, gauges, and displays of the helicopter cockpit.



AIRSPEED: This dial shows your horizontal speed through the air in knots. A speed of 100 knots equals about 114 mph, or about 167 feet/second.

ALTIMETER: This dial shows your altitude in feet. The rotary needle is marked in tens of feet (i.e., if the needle points to "1", read it as 10 feet). The digital readout in the center shows your altitude to thousands (left digit) and hundreds (right digit) of feet. For example, a digital readout of 13 and needle at 6 means one thousand, three hundred, and sixty (1360) feet.

ATTITUDE & ARTIFICIAL HORIZON: This ball-gauge shows your pitch (nose up or down) and your roll (left or right). The blue part represents the sky, the black part the ground.

CRT DISPLAY: This small display screen has three separate modes of operation.

The *TADS Target Mode* shows a zoom-camera view of the target on which TADS is "locked". The display also shows the range to target (in kilometers) in the upper left corner and the zoom magnification in the upper right. For example, "1.2" and "x32" indicates the target is 1.2 kilometers (1200 meters) away and that your CRT view is magnified 32 times.

The *Map Mode* shows a small detail of the large sector map. This detail is centered on your helicopter. The only exception is when your helicopter is flying near or along the edge of the combat area.

The *Radio Message Mode* shows a radio message you just received. Once a message is displayed, it disappears. The display does not "remember" previous messages.

CRT PROMPT: This line prompts you whenever new information is available. For example, when a radio message arrives, "RADIO MSG" appears here. "TARGET" means a new potential target is present — you can use the TADS to find the new target. If your TADS is locked on a target, the name of that target appears here. Once TADS is locked onto a target and displaying its type, the "TARGET" message no longer appears, even if another target is available.

ENGINE & ROTOR GAUGES: The left and right yellow strips show the RPMs of the port (left) and starboard (right) engines. The center yellow strip shows the main rotor RPM (revolutions per minute).

FUEL GAUGE: The two yellow strips titled "F" show the amount of fuel remaining in the forward and aft tanks. The forward tank is the left gauge, the aft tank is the right gauge.

HEADING & COURSE INDICATORS: The white arrow represents your current heading (facing), and always remains centered. The green arrow represents your current course. Normally it is aligned with the white arrow, but will shift left or right if you're skidding sideways. The red arrow beneath represents the course to your current destination. When the green, red and white arrows are superimposed, you are on course.

INFRA RED (IR) WARNING & JAMMING LIGHTS: The "I" warning light turns red whenever an infra red (IR) signature weapon is approaching your helicopter. If you turn on your IR jammer, the neighboring light turns green while the jammer is running. If the jammer is successful, the red warning light turns off.

There are no enemy IR searching devices, and therefore no flashing red IR warning.

INS DESTINATION INDICATOR (INS = Inertial Navigation System): This digital readout indicates the course to your current destination. When the INS readout matches the digital compass readout, you are on course.

RADAR WARNING & JAMMING LIGHTS: The "R" warning light flashes red whenever enemy search radar "sweeps" over your helicopter. When enemy tracking (firing) radar for either guns or missiles locks onto you, the light turns solid red. If you turn on your radar jammer, the neighboring light turns green while the jammer is running. If the jammer is successful, the solid red warning light turns off.

Note: Your jammer cannot discourage radar searches, so flashing red warnings may continue even if your jammer is successful in stopping a tracking (firing) radar.

ROTARY & DIGITAL COMPASS: The needle on this compass indicates your current heading, with a digital readout directly below. Note that the compass shows the heading your helicopter *faces*. During a sideways skid or backwards flight your actual course is different.

ROTOR DISENGAGED WARNING LIGHT: This light shows red if the rotor is disengaged (i.e., spinning freely, unconnected to the engines). The light is off when the rotor is engaged.

STORES SELECTION: The AH-64 Apache can carry up to six different types of dispensable stores (offensive and defensive expendables). Each has a different colored light, with the number of "units of fire" shown beneath (a unit of fire is how often you can use that item before you run out). Inactive stores are unlighted.

Only one offensive weapon can be armed at a time. The weapon currently ready is lighted. Offensive weapons can include:

AIM-9L Sidewinder air-to-air guided missiles
2.75" FFAR unguided air-to-ground rockets
AGM-114A Hellfire air-to-ground guided missiles
30mm Chain Gun Cannon (in 20-round bursts)

Defense stores light up when used. The light remains on as long as the defense is functioning (about 10-20 seconds). Defensive stores can include:

Flare decoys to use against IR-guided weapons
Chaff decoy to use against radar-guided weapons

As a point of information, each defensive store unit of fire is a group of three cartridges.

SYSTEMS DAMAGE LIGHTS: These lights show the status of major systems on board your helicopter. A green light means the system is functioning correctly, a colored light means the system is malfunctioning. Reading from left to right, the systems are:

R ..... main rotor
O ..... nose optics (controls TADS)
A ..... forward avionics bay (gauges)
G ..... chain gun (30mm cannon)
F ..... forward fuel tank
W ..... port weapons wing
W ..... starboard weapons wing

E ..... port engine
E ..... starboard engine
F ..... aft fuel tank
A ..... Aft avionics bay (jammers)
L ..... chaff decoy launcher
L ..... flare decoy launcher
R ..... tail rotor (controls rotation)

THREAT DISPLAY: This screen shows nearby enemy weapons that threaten your helicopter. Red dots are enemy guns and launchers tracking or firing on your helicopter. White dots are missiles in flight. This includes both enemy missiles AND your missiles. A red-and-white flashing dot is an enemy helicopter. The top of the threat display represents your heading (i.e., "ahead").

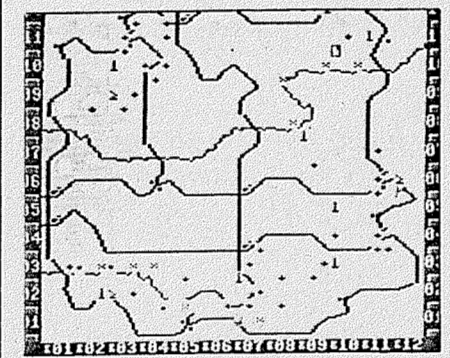
The threat display operates at two ranges: long and short. Normally the display shows "long" range with two concentric circles. The inner circle shows local enemies (closer than 3 kilometers), the outer circle distant enemies (who are generally beyond your maximum visibility).

If an enemy missile or helicopter approaches within a few hundred meters, the threat display automatically switches to "short range" while the threat is close. This aids you in maneuvering against enemy helicopters, and/or to evade missiles.

TORQUE GAUGE: The two yellow strips titled "T" show the amount of torque in the port (left) and starboard (right) jet turbine engines. This is proportional to the collective control and rotor lift. The higher you set the collective, the higher the torque, and the greater the lift.

VSI (Vertical Speed Indicator): This dial shows the rate you are changing altitude (ascending or descending). If the needle is horizontal, you are maintaining a constant altitude. If the needle dips downward, you're descending toward the ground; if it points upward, you're ascending. The dial is marked in thousands of feet per minute. For example, if the needle points down at "1", then you are descending at 1000 feet per minute.

SECTOR MAP



You can "look away" from the cockpit view to a large sector map. This map shows the local combat or training area, including all major terrain features, friendly troops, installations and your objective. Enemy troops and installations appear only as you spot them using the TADS gunsight. Enemy helicopters never appear on the map. They move too quickly for accurate marking. Remember that maps are never 100% accurate. Troop and base positions are especially prone to error.

STILL IN FLIGHT: You are still in flight while examining this map. Be sure to look up periodically. Otherwise you might fly into a mountain or come under attack. It's wise to hover in a safe place if you spend long periods examining this map.

INS CURSOR (INS = Inertial Navigation System): The white crosshairs on this map represents your current destination. Move the joystick to move the crosshairs. When you return to the cockpit, the INS indicators will help you fly to this destination.

GRID COORDINATES: The map uses a military grid coordinate system. To describe any position, read "right and up". That is, the first two digits are from the horizontal scale, the last two from the vertical scale. Therefore, 01-01 is the lower left corner, 01-12 is the upper left corner, 12-01 is the lower right corner, and 12-12 is the upper right corner.

ACCELERATED TIME: The accelerated time option is available only while viewing the sector map. Time passes at double the normal rate, thus halving your flying time between points.

MAP TERRAIN SYMBOLS include the following:


Road


Stream


Building


Hill


Cultivated Area (Field, Rice Paddy, Plantation, etc.)

MAP TROOP SYMBOLS are in white for friendly forces, red for enemy, and purple for objectives.


Infantry on foot and/or in foxholes


Armored vehicle (tank, personnel carrier, etc.)


Bunker (made of earth, steel and/or concrete)


Anti-aircraft (AA) gun sites or vehicle

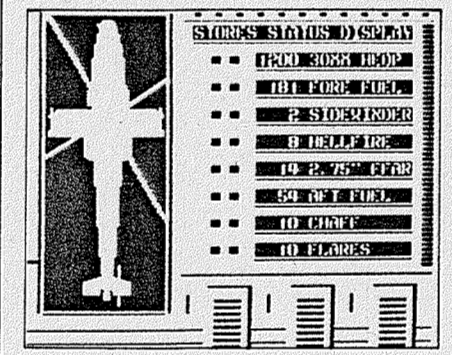

Surface-to-air missile (SAM) vehicle


Helicopter base


Supply depot


Headquarters

STORES STATUS DISPLAY



This console displays the stores on your helicopter. Status lights are green if the system is functioning correctly, yellow if damaged, red if destroyed. The view of the helicopter on the left side of the console shows each system appropriately colored.

STILL IN FLIGHT: You are still in flight while examining this display. Be sure to look up periodically. Otherwise you might fly into a mountain or come under attack. It's wise to hover in a safe place if you spend long periods examining this display.

30mm HEDP: Ammunition for the 30mm Chain Gun cannon. It uses HEDP (high explosive dual purpose) ammunition that is effective against all targets except bunkers which it can destroy only occasionally. The number indicates the actual number of rounds left. (Each cannon burst is 20 rounds, therefore with 1200 pounds you have 60 units of fire.)

FORE FUEL: This is the 156-gallon forward fuel tank.

AIM-9L: These are air-to-air "Sidewinder" infra red guided missiles.

AGM-114A: These are air-to-ground "Hellfire" laser-guided missiles. The Hellfire has an armor-piercing warhead for use against vehicles and bunkers.

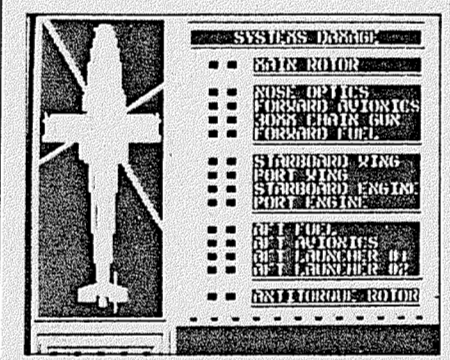
2.75" FFAR: These are air-to-ground unguided rockets. The FFAR has a high explosive warhead for use against infantry, AA gun sites and installations.

AFT FUEL: This is the 220-gallon rear fuel tank.

CHAFF: This is the number of chaff decoy cartridges in the tail-boom launchers. Decoys are launched in groups of three.

FLARES: This is the number of flare decoy cartridges in the tail-boom launchers. Decoys are launched in groups of three.

SYSTEMS DAMAGE



This console displays the major systems on your helicopter. The indicator lights show green if the system is functioning correctly, yellow if damaged, red if destroyed. The view of the helicopter on the left side of the console shows each system appropriately colored.

STILL IN FLIGHT: You are still in flight while examining this display. Be sure to look up periodically. Otherwise you might fly into a mountain or

come under attack. It's wise to hover in a safe place if you spend long periods examining this display.

AFT AVIONICS BAY: This compartment contains the INS navigation computers, and the IR and radar jammers. Damage can make some of this equipment erratic or unreliable; destruction could eliminate it all.

AFT FUEL TANK: This is the rear 220-gallon fuel tank. Damage often causes fuel leaks. If the tank is destroyed all fuel is lost and the helicopter may explode.

ANTI-TORQUE (TAIL) ROTOR: This rotor keeps the helicopter from spinning uncontrollably. If the tail rotor is damaged the helicopter may wobble or rotate, making flight control difficult. If the tail rotor is destroyed the helicopter spins out of control.

CHAFF & FLARE LAUNCHERS: The chaff and flare decoy launchers are housed in the tail boom. If a launcher is damaged some or all decoy cartridges may not function correctly. If a launcher is destroyed all cartridges are lost.

FORWARD AVIONICS BAY: This compartment contains computers and monitoring equipment for flying the helicopter. Damage or destruction can cause the strip gauges and/or round dials to disappear or freeze.

FORWARD FUEL TANK: This tank contains up to 156 gallons of fuel. Damage often causes fuel leaks. If the tank is destroyed all fuel is lost and the helicopter may explode.

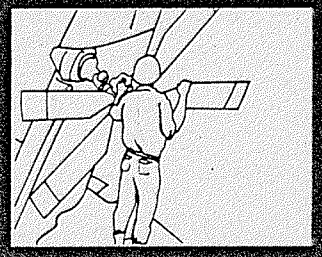
30mm CHAIN GUN: This is the automatic cannon mounted beneath the nose. If the cannon is damaged it may fire erratically; if destroyed it cannot fire at all.

MAIN ROTOR: This keeps your helicopter airborne. Damage causes the helicopter to vibrate and wobble while flying. If the rotor is destroyed, or a damaged rotor comes apart, the helicopter will crash.

NOSE OPTICS: This is the heart of the TADS gunsight system. Damage can cause the TADS gunsight to work erratically. Loss of the nose optics destroys TADS, making it impossible to fire accurately.

STARBOARD & PORT WINGS: All rockets and missiles are mounted on these weapons wings. Damage causes the weapons to function erratically; if destroyed the weapons on the wing are lost.

STARBOARD & PORT ENGINES: Normally the rotor is powered by both engines combined. However, the helicopter can fly with one engine out. If an engine is damaged or destroyed it automatically shuts down and cannot be restarted until repaired (this minimizes the risk of fire or explosion).



A PRACTICAL GUIDE to Flying Helicopters

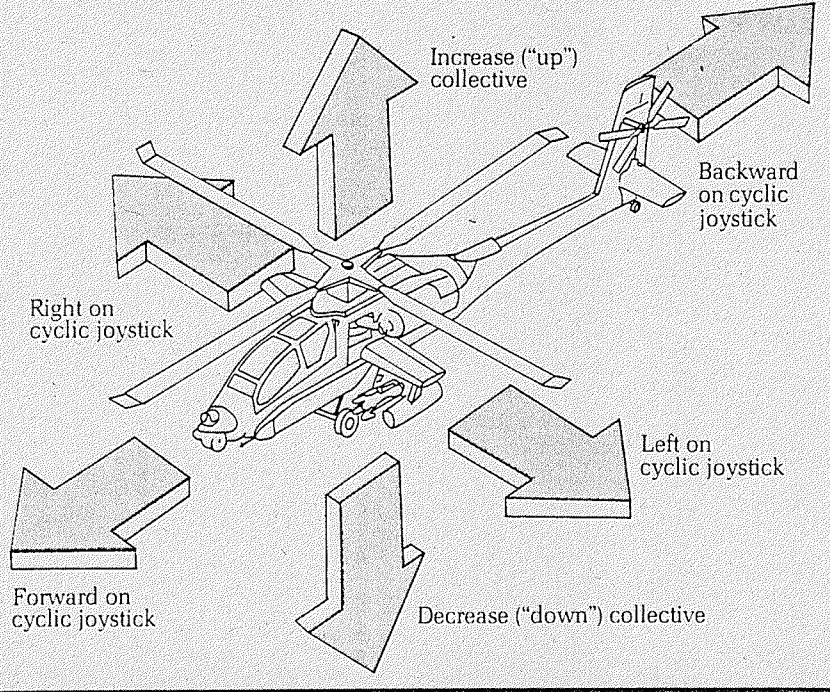
AN INTRODUCTION TO HELICOPTER CONTROLS

When learning to fly use this description in conjunction with the section "Beginner's Tutorial 1 — Learning to Fly a Helicopter". See "Aerodynamics" for a more precise and detailed discussion of controlling helicopter flight.

BASIC CONCEPTS: The two main flight controls are the *cyclic joystick* and the *collective*. The *cyclic joystick* controls the pitch ("nosing" up and down) and roll ("leaning" left or right) of the helicopter. The *collective* changes the angle of attack of the rotor blades (see "Aerodynamics" for details). This changes the lifting force of the blades.

The *cyclic joystick* is controlled with your joystick except on computers using mouse control (where the mouse can move the cyclic joystick). Keyboard control of the *cyclic joystick* is available on the IBM PC.

The *collective* is controlled from the keyboard. On computers with a mouse, the mouse can be used to move the collective up and down as desired.



Pushing the *cyclic joystick* forward pitches the helicopter downward ("nose down"). This causes the helicopter to gain forward speed. The helicopter will NOT dive until it reaches a steep pitch downward, then it dives like a normal aircraft.

Pulling the *cyclic joystick* back pitches the helicopter upward. If the helicopter's pitch is upwards (the crosshairs are above the horizon) the helicopter will go backwards. Pitching upward does not necessarily mean you will climb! A common mistake of novices is to assume that the harder they pull back on the *cyclic*, the faster they will climb. Instead of climbing fast, they end up flying backwards! Watch the crosshair/horizon position to avoid this error.

Pushing the *cyclic joystick* left or right rolls the helicopter in that direction. At low speeds (under 40 knots) the helicopter skids sideways. At faster speeds it performs a banking turn like an aircraft. In either case, the further you roll, the more your lift decreases. Novices in level flight are often surprised by the loss in altitude as they roll left or right.

Moving the *collective* up increases the amount of lift in the rotor. If you are in level flight, the higher *collective* causes you to ascend. The torque will increase as you raise the *collective*. When torque reaches the maximum value on the gauge you are at maximum lift.

Moving the *collective* down decreases the amount of lift in the rotor. If you are in level flight, the lower *collective* causes you to descend. The torque decreases as you lower the *collective*. Except in unusual conditions, you cannot maintain level flight, much less ascend, if torque is below 50%.

Anti-torque (tail) Rotor Controls: These controls function *only* if the helicopter is moving very slowly (just a few knots) or hovering. Each tap on *rotate left* speeds up the tail rotor and causes the nose to swing left. Each tap on *rotate right* slows down the rotor and causes the nose to swing right. Tap *stop rotation* to return the tail rotor to normal speed, ending all rotation.

EASY vs. REALISTIC FLIGHT

When you start GUNSHIP, one of the reality options is a choice between "easy" simplified flight and "realistic" flight. MicroProse recommends realistic flight because once you learn it controls are more flexible and useful, especially at high speeds. However if realistic flying is too frustrating, try easy flight instead.

EASY FLIGHT: Here neither the pitch, roll, altitude nor airspeed of the helicopter has any effect on lift. This means that regardless of how you maneuver the *cyclic joystick*, lift is unaffected. Power dives are prohibited.

The *collective* is the only control that affects lift in easy flight. Anytime you want to add lift (to climb, slow your descent, etc.) tap the *collective up* fast or slow, as appropriate. Anytime you want to reduce lift (to slow your ascent, begin or increase a descent, etc.) tap the *collective down* fast or slow, as appropriate.

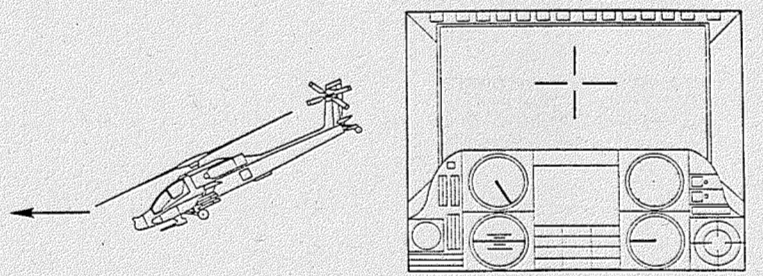
REALISTIC FLIGHT: Here the pitch, roll, altitude, and airspeed affect lift as in a real helicopter. **Ground Cushion Effect:** At altitudes of 25' or less you gain a little extra lift at low speeds. The lift gained varies with altitude, and disappears entirely if you're flying too fast. **Translational Lift:** At speeds of 30 to 90 knots you

gain considerable extra lift. The amount varies with the speed. **Roll & Lift:** With any significant amount of roll, the helicopter loses some lift. The lift loss increases as the helicopter rolls further left or right. **Altitude:** At higher altitudes you have less lift due to the thinner air. The lift loss increases as you get higher and higher. This loss is only noticeable above 1,000 feet.

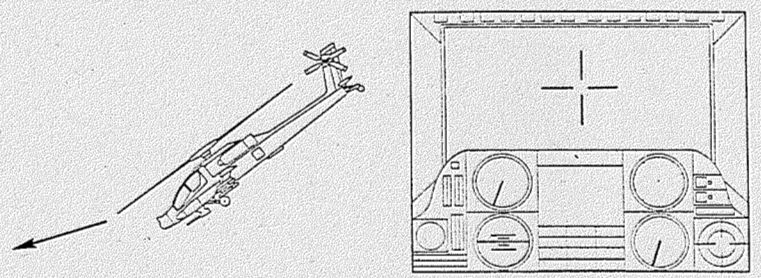
Among other things, the use of realistic flight means that at high speed you can fly the helicopter not unlike an airplane. A slight pitch up slows the helicopter and causes a climb (by reducing speed into the 30-90 knot area for maximum translational lift), while a steep pitch down puts the helicopter into a fast power dive.

INTRODUCTION TO HELICOPTER FLIGHT

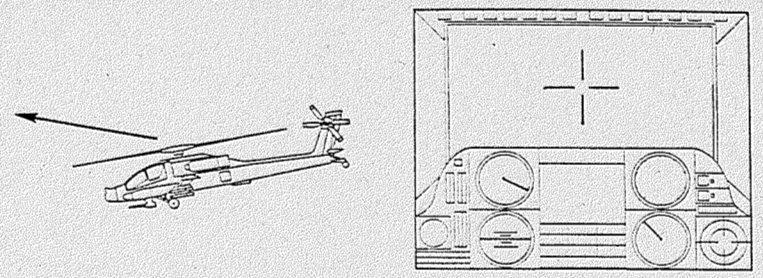
This section gives a rudimentary view of common concepts in helicopter flight. For a more complete and detailed description of how and why helicopters fly, see the "Aerodynamics" section.



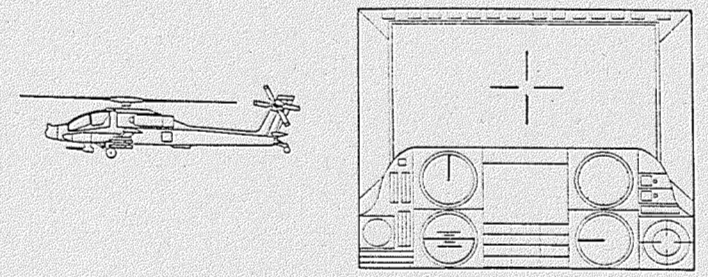
LEVEL FLIGHT FORWARD: In level flight the helicopter is pitched down ("nose down"). The greater the pitch, the faster the forward flight. Note that in forward flight the crosshairs are *always* below the horizon line. The VSI gauge is horizontal (reading zero), indicating flight is level. In combat flying, typical level flight speed is 100 to 150 knots.



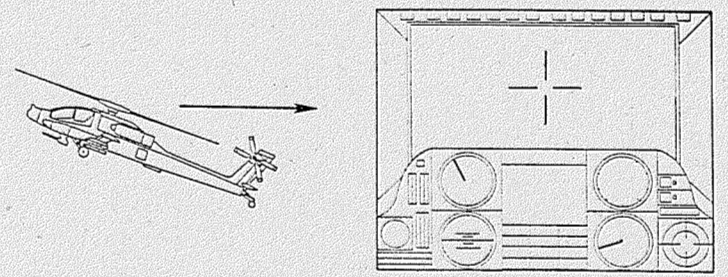
POWER DIVE: In a power dive the helicopter is pitched down steeply. The crosshairs are significantly below the horizon line, and the VSI gauge needle is pointing downward. Power dives usually require speeds greater than 160 knots.



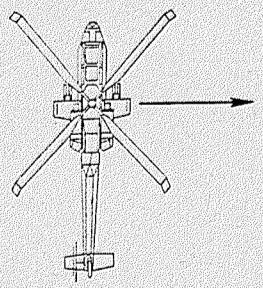
FORWARD CLIMB: When climbing in forward flight, the helicopter is travelling slower than normal (pitch is still present, but smaller than normal), or the *collective* control (and engine torque) is higher than normal, or both. The VSI gauge needle is pointing upward. Forward climbs are easiest at speeds of 30 to 90 knots.

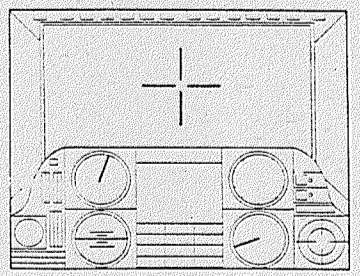


HOVER: Here the helicopter is truly level, with no pitch down or up. Note that the crosshairs are on the horizon line and airspeed is zero (needle is vertical). The *collective* is adjusted so the VSI gauge is horizontal (zero). From a hover a helicopter can ascend straight upwards or descend straight downwards by changing the *collective*.

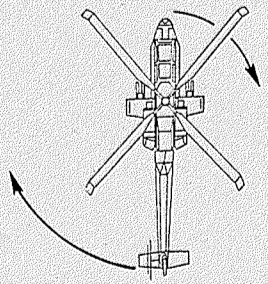


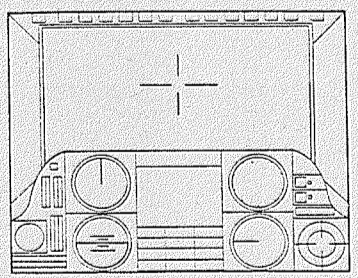
BACKWARDS FLIGHT: When flying backwards the helicopter is pitched upwards. Note that the crosshairs are *above* the horizon — which only occurs when flying backwards. The airspeed gauge shows the speed backwards. Depending on the speed and amount of *collective*, the helicopter could be ascending, flying level, or descending while moving backwards.



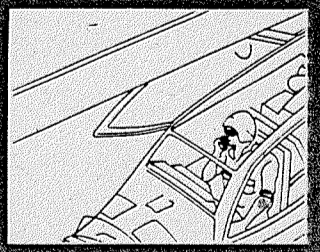


SKID SIDEWAYS: This is only possible at low speeds (under 40 knots) or when hovering. The *cyclic joystick* is moved left or right to roll the helicopter. Due to a lack of airspeed, the helicopter skids left or right without forward motion. Unless the *collective* is adjusted appropriately, a skidding helicopter loses some lifting power.





ROTATE LEFT OR RIGHT: This is only possible at *extremely low* speeds or when hovering. The *anti-torque* (tail or "rudder" controls) rotates the helicopter left or right. Rotation does not affect airspeed or VSI. The *cyclic joystick* and *collective* are not used when rotating.



CONTROLS on the AH-64A Apache Simulator

FLIGHT CONTROLS

This section defines how each countrol works. Do not use this section as a guide to flying a helicopter. To learn to fly, follow "Beginner's Tutorial #1 — Learning to Fly a Helicopter".

THE KEYBOARD OVERLAY: An overlay appropriate to your computer keyboard is included with the simulation. The control placement is designed for use with this overlay — don't lose it!

Note: Computers sometimes misread multiple key inputs. Unless otherwise indicated, do not press two keys simultaneously. Do not push the joystick while holding a key. Pushing the joystick while holding a key may cause weird effects on C64/C128 computers.

CYCLIC JOYSTICK: Pushing forward pitches down the helicopter ("drops the nose"). Pulling back pitches up the helicopter ("raises the nose"). Pushing left or right rolls the helicopter in that direction ("tilts" the rotor and body left or right).

A pitch below horizontal moves the helicopter forward. A large pitch down causes a power dive. Pitch up above horizontal moves the helicopter backward. Rolling left or right at low speed causes a skid (or "sideslip") left or right. At medium and high speeds it causes a banking turn left or right.

The artificial attitude and horizon indicator shows the current pitch and roll of the helicopter.

Summary: for C64/C128
Forward = *pitch down* ("nose down")
Backward = *pitch up* ("nose up")
Right = *roll right* (bank or skid right)
Left = *roll left* (bank or skid left)

COLLECTIVE: This control can be moved *up fast* (increases lift by large amounts) or *down slowly* (decreases lift by small amounts). When you raise or lower the collective, the engine torque changes appropriately. To move the collective a large amount, tap it repeatedly and quickly.

Lift keeps the helicopter airborne. If you start in level flight or hover, then increase lift, the helicopter ascends. If you start level and decrease lift, the helicopter descends.

Summary: for C64/C128
F1 = *up fast*
F3 = *up slow*
F5 = *down slow*
F7 = *down fast*

ANTI-TORQUE (TAIL) ROTOR: These function only when hovering or moving extremely slowly (just a few knots). Tap *rotate left* to swing the nose left. Tap *rotate right* to swing the nose right. Multiple taps on the key increase the rate of rotation. Tap *stop rotation* to eliminate all rotation.

Summary: *CRSR up/down = rotate left*
for C64/C128 CRSR left/right = *rotate right*
RETURN = *stop rotation*

PORT or STARBOARD ENGINE ON/OFF: Tap the appropriate key to turn on (if currently off) or turn off (if currently on) each engine. You must turn off the engines to finish your flight.

If an engine is damaged or destroyed it turns off automatically. You cannot restart the engine until it is repaired.

Summary: 1 = *port engine on/off*
for C64/C128 2 = *starboard engine on/off*

ROTOR ENGAGE/DISENGAGE: Tap this key to either engage the rotor (cause the engines to turn the rotor), or disengage the rotor (cause the rotor to spin freely, unconnected to the engines). When the rotor is disengaged, the collective is automatically "bottomed" (dropped to zero).

Summary: 3 = *rotor engage/disengage*
for C64/C128

VIEWING CONTROLS

CHANGE CRT: The CRT has three display modes. Each tap on this key switches the CRT to the next mode. These modes are:

(1) TADS target mode
(2) Map mode
(3) Radio message mode

If no target is ahead of the helicopter, the TADS target mode does not appear. If no new radio message is available, the radio mode does not appear. If neither a target nor a radio message is available, then the CRT is always in map mode.

Summary: Space Bar = *change CRT*
for C64/C128

MAP: Tap this key to see the full sector map. You continue flying, so beware of flying into something while examining this display. Tap this key again to return to the standard cockpit view.

Summary: Z = *map*
for C64/C128

STORES: Tap this key to see the stores display. It shows the status of systems with stores, including the amounts remaining. You continue flying, so beware of flying into something while examining this display. Tap this key again to return to the standard cockpit view.

Summary: Commodore logo = *stores*
for C64/C128

DAMAGE: Tap this key to see the systems display. It shows each system and whether it's functional, damaged, or destroyed. You continue flying, so beware of flying into something while examining this display. Tap this key again to return to the standard cockpit view.

Summary: SHIFT (left side) = *damage*
for C64/C128

VIEW: The *view center* key shows your view directly ahead. The *view left* key shows your view diagonally ahead to the left. The *view right* key shows your view diagonally ahead to the right. Due to the engines, transmission, and rotor shaft your rearward view is blocked. Note that the crosshairs are present only on the center view.

Summary: £ = *view left*
for C64/C128 CLR HOME = *view center*
INST DEL = *view right*

COMBAT CONTROLS

GO TO TADS TARGET MODE: If the CRT is not displaying a TADS target, but the prompt "TARGET" is showing, tap the *fire button* to switch the CRT to TADS. You can also use the standard *Change CRT* control.

NEW TADS TARGET: Tap this key to move the TADS gunsight box from one target to another, showing the new target in the CRT. If no other targets are present directly ahead TADS remains on the original target.

Summary: SHIFT (right side) = *new TADS target*
for C64/C128

WEAPONS: Tap the appropriate key to select one of the four possible weapons: *AIM-9L Sidewinder* missiles, *2.75" FFAR* rockets, *AGM-114A Hellfire* missiles, or the *30mm cannon*.

Summary: 4 = *AIM-9L Sidewinder missiles*
for C64/C128 5 = *2.75" FFAR rockets*
6 = *AGM-114A Hellfire missiles*
7 = *30mm cannon*

FIRE: Tap the *fire button* on the cyclic joystick to fire the weapon currently selected. Each tap fires one missile (Sidewinder or Hellfire), a pair of rockets, or a burst of 20 cannon rounds.

Summary: joystick fire button = *fire*
for C64/C128

DROP CHAFF or FLARE DECOY: Tap the appropriate key to release the appropriate decoy. The cockpit indicator remains lighted as long as the decoy is functioning.

Summary: 9 = *drop chaff decoy*
for C64/C128 - = *drop flare decoy*

RADAR or IR JAMMER ON/OFF: Tap the appropriate key to turn on (if currently off) or off (if currently on) the jammer. When the *radar jammer* is running you see a green light beside the "R" warning light. When the *IR jammer* is running you see a green light beside the "I" warning light.

Summary: 0 = *radar jammer on/off*
for C64/C128 + = *IR jammer on/off*

JETTISON STORES: To jettison all ammunition for a particular weapon hold down the select weapon key and tap *Jettison*. This dumps all the Sidewinders, rockets, or Hellfires, depending on which weapon you select. For example, to jettison all your FFAR rockets in the C64/C128 version, hold down the "5" key and tap "RESTORE".

Summary: 4 [+] RESTORE = *jettison Sidewinders*
for C64/C128 5 [+] RESTORE = *jettison 2.75" FFAR*
6 [+] RESTORE = *jettison Hellfires*

SIMULATION CONTROLS

ACCELERATED TIME: This key doubles the speed of time, thus shortening flight time from one point to another. This function works ONLY if you are viewing the sector map. It automatically turns off when you return to the standard cockpit view.

Summary: Left Arrow = *accelerate on/off*
for C64/C128

PAUSE: This key freezes the simulation. Tap any key to resume the simulation.

Summary: RUN STOP = *pause*
for C64/C128

RESET: Hold down these keys to restart the simulation. On the C64/C128 hold down the RUN STOP key and then tap RESTORE. In effect you are "jettisoning" the entire mission.

Summary: RUN STOP [+] RESTORE = *reset*
for C64/C128

ANSWER THE RADIO!

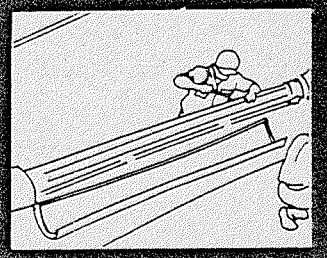
When you see the prompt "MESSAGE" above the CRT, tap the *Change CRT* once to read the incoming radio message. Ignoring messages can be detrimental to your health!

PASSWORD & COUNTERSIGN: As you approach your friendly base, you will get a radio message. It's *VITAL* that you read and answer this message! Tap *Change CRT* to display the message on the CRT. You will be radioed the password and asked for the countersign. You must type the proper countersign at the keyboard and press "RETURN".

Passwords and corresponding countersigns are listed (alphabetically) at the bottom of selected pages in this manual. Look up the countersign and type it onto the screen. Press RETURN when you are done. If you don't, your base will assume you're hostile and shoot you down!

Controls Summary

Category	Action	C64/C128
Cyclic	Pitch down	Stick forward
	Pitch up	Stick back
	Roll left	Stick left
	Roll right	Stick right
Collective	Up fast	F1
	Up slow	F3
	Down slow	F5
	Down fast	F7
Anti-torque (tail) rotor	Rotate right	Horizontal cursor
	Rotate left	Vertical cursor
	Stop Rotation	RETURN
View	View Left	£
	View Forward	CLR HOME
	View Right	INST DEL
Engines	Port on/off	1
	Starboard on/off	2
	Rotor eng. diseng.	3
Weapons	Sidewinder	4
	2.75" FFAR	5
	Hellfire	6
	30mm cannon	7
Fire	Fire weapon	Stick button
Jettison	(with weapon)	(weapon) and RESTORE
Counter-Measures	Chaff decoy	9
	Flare decoy	-
	Radar jammer	0
	IR jammer	+
Viewing Other Displays	Map	Z
	Damage	[left] shift
	Stores	Commodore
CRT	Change CRT	space bar
TADS	New TADS Target	[right] shift
Simulation	Accelerated Time	left arrow
	Pause	RUN STOP
	Reset	RUN STOP and RESTORE



BEGINNER'S TUTORIAL I
Learning to Fly a Helicopter

This tutorial teaches you how to take off, control the helicopter in basic flight maneuvers, and land again. Refer to "Cockpit & Status Panels" to understand what's appearing on the screen. Refer to "Controls" and the keyboard overlay to find the appropriate controls. Glance over "A Practical Guide to Helicopter Flying" for additional insights and illustrations.

This tutorial is for use with the "realistic" flight mode, not the "easy" flight mode. MicroProse recommends that you learn and fly in the realistic mode from the start (you'll appreciate the advantages later). You can always "fall back" on the easy mode if the realistic mode becomes too frustrating.

The second tutorial will cover your weapons and defenses. For more detail about how a helicopter flies and how to perform advanced tactical maneuvers, see the "Aerodynamics" and "Weapons & Tactics" sections.

WARNING - DON'T OVERCONTROL: Helicopter controls are SLUGGISH (ask any helicopter pilot!). That is, they react slowly. Even a frisky thoroughbred like the Apache takes one to two seconds to respond to your control movement. Therefore, just tap a key and see what happens. When using the joystick, move it a little, then let it go. The most common error in flying is to overcontrol by pulling hard on the stick or pressing too long and hard on a key.

In short, be gentle with the controls. After each control movement watch for the result before you do anything else. Numerous fast, radical control movements will produce incomprehensible results and probably a crash!

STARTING: Take the vehicle identification test, enter your name on the pilot roster, and make sure the region is set to "Training in the USA" duty assignment. Reality defaults should be set to "Realistic Flying", "Easy Landing" and "Easy Weather." Read the briefings and armament options, but don't bother to change them. See "Preparing to Fly" for details on how to control the starting options.

PAUSE WHILE LEARNING: As you work through the tutorial, tap the *Pause* key whenever you want to read about the next maneuver or explanation. Then tap any key to resume, try the maneuver, then pause again as you read the next part of the tutorial, etc.

ATTACKS: Don't worry about enemy attacks and firing while learning to fly. In training situations the enemy always fires "blanks" — you cannot be damaged or destroyed by enemy fire. On your first training flights you should ignore enemy activity. In the next tutorial you'll learn how to respond to enemy attacks, and how to hit targets.

POWER UP: Turn on the port and starboard engines by tapping *Port Engine On/Off* and *Starboard Engine On/Off*. Wait until the engine RPM strip gauges climb to normal (about the 80% point). Then tap *Rotors Engage/Disengage* once.

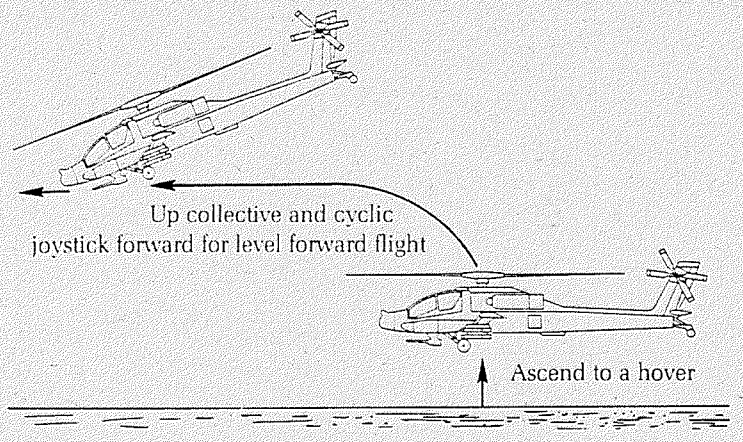
The rotor engaged warning light, previously red, should turn off. You'll hear the rotors come up to speed. Wait until the middle strip gauge (rotor RPM) climbs to normal (slightly above the engine RPM levels).

CLIMB TO A HOVER: Now repeatedly tap *Collective Up Fast*. Watch the torque rise as you "raise" the collective. Note that if you "lower" the collective, the torque drops. Once the torque reaches 75% use the *Collective Up Slow* key until you rise off the ground (at about 80-95% torque, depending on how close your weight is to the maximum). You should be hovering at about 12 feet altitude.

ROTATING IN A HOVER: Tap the *Rotate Right* once. Your helicopter begins to rotate to the right. Tap *Stop Rotation* once and you'll stop turning. Tap the *Rotate Left* to rotate in that direction. If you tap either rotation key repeatedly, the helicopter rotates faster in that direction. You can only use rotation when you are moving just a few knots, or stationary.

Now stop the rotation. You're ready to begin flying.

Takeoff and Forward Flight



FORWARD FLIGHT: Add a little more *collective up slow*. As you begin climbing push forward lightly on the *cyclic joystick* to "pitch down" the helicopter. You'll begin to move forward. At about 30 knots you'll begin to climb. You can see this on your altimeter (upper right dial) and your VSI (lower right dial) gauges. This is because forward motion in a helicopter adds extra lift (termed "translational lift"), especially at 30-90 knots.

The further you pitch down, the more your speed increases. As your speed exceeds 100 knots, translational lift decreases. The VSI gauge will move toward the negative end of the scale. More pitch downward will push you into a power dive at 160-200+ knot speeds.

LEVEL FLIGHT: Move the joystick forward or back until the airspeed gauge reads 100 to 150 knots. Now look at the VSI. If you're descending (the needle is below horizontal) add some *Collective Up Slow* until the needle is on "0" (horizontal). Alternately, if you're ascending, put in some *Collective Down Slow*. When the VSI needle is horizontal (reading zero), you are in level flight.

Remember, due to the slow responses of helicopter controls, it's easy to over-correct and put in too much collective. This results in you "chasing the needle". After each change in the collective, wait a second or two for the VSI needle to stabilize.

CHANGING ALTITUDE: When flying level at 100-150 knots, the easiest way to descend is to push the *cyclic joystick* forward (pitch down) into a power dive. As you approach the altitude you desire, gently pull the *cyclic joystick* back (pitch up) until the VSI again stabilizes at zero (needle is horizontal). Similarly, the easiest way to ascend is to pitch up slightly, reducing your airspeed to 50-100 knots. When you reach the desired altitude, pitch down again until the VSI stabilizes.

This technique of flying is not unlike an airplane. You can change altitude without disturbing the collective. A second way to change altitude, applicable at *any* speed, is to raise or lower the *collective*. When you reach the new altitude, input an equal and opposite amount of *collective* to regain level flight (VSI of zero). This technique is the only way to change altitude from a hover.

Regardless of which technique you use, don't try to control the helicopter by constant "fiddling" with the collective. Learn to "feel" the right collective setting, then fly with your cyclic joystick. Don't expect to gain this ability on the first flight. Be patient. After a number of flights and landings you'll find collective adjustments come naturally — just like a real helicopter pilot.

LOW ALTITUDE TURBULENCE: While flying under 100', you may feel air turbulence. You will tend to bounce up and down, or sometimes roll from side to side. Air turbulence and "wind shears" vary with your speed and your distance from the ground: the faster and lower you fly, the more difficult it is to keep the craft under control.

TURNING: Return to level flight at 100-150 knots. Next push the stick left slightly and release it. Your helicopter rolls into a banking left turn. As you turn, observe the change in your digital heading readout (in the lower left of the cockpit display, just under the compass). If you continue to push the stick left and bank into a steep turn, you'll lose some lift. Notice that your altitude is dropping and the VSI is below horizontal. If you roll back to the right and level out, you'll return to level flight.

To maintain your altitude in a steep bank (important if you're flying low) add a bit of *Collective Up Slow* just before you start to turn, then put in a bit of *Collective Down Slow* just before you come out of it. Change the collective first because the collective controls react more slowly than the cyclic joystick.

NAVIGATION: Tap the *Map* key to see the full sector map. Your objective is to find your way home to base! Move the crosshair cursor to the central white helibase, then switch back to your cockpit view. Quite probably your heading and the INS heading are different. Make a banking turn toward the INS heading until the two numbers match. Notice that the INS arrowhead marker below your own course arrowhead will also match. You're on course, flying back to base. Descend until you're in level flight at 50 to 100 feet altitude. It's easier to learn to land if you come in slow and low, although "officially" a constant descent is preferred by air controllers.

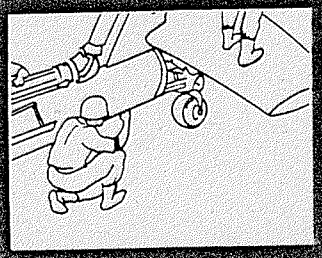
LANDING: As you approach the base it first appears as an outline on the horizon. Reduce your speed to 60 knots by pulling back slightly on the *cyclic joystick*. You'll need to put in some *collective down slow* to maintain your 50' altitude. Now wait until the detailed buildings and landing "T" come into view. Your goal is to land directly on the "T", but anywhere within the larger rectangle is fine.

Just before you cross the outside edge of the base, begin slowing down to a hover by pulling up on the *cyclic joystick*. Be sure to put the crosshairs on the horizon — it's easy to pitch up too far and end up going backwards. Note that as your speed falls from 70 to 0 knots, your lift will decrease. Use the *collective up slow* to stabilize your altitude with zero VSI. By the time you accomplish all this and are hovering at about 50' altitude, you should be near the center of the base.

Finally, use the *cyclic joystick* carefully to move your helicopter toward the "T". Come back to a hover, and tap the *collective down slow* once to begin your final descent. At about 20' and or 10' altitude you may need another tap to continue descending to a touchdown.

SHUT DOWN: When you land (altitude is zero) turn off both engines. This ends the flight; your postflight options will appear.

MISSION: After this first flight, your debriefing will show mission not yet accomplished. To satisfy your instructors, you must learn how to hit the target too. Go to "Beginners Tutorial II" to finish your training.



BEGINNER'S TUTORIAL II
Defense & Gunnery

This tutorial teaches you how to recognize and deal with various enemy missile (SAM) and gun (AA) attacks. It also gives you practice in using your own weapons against appropriate targets.

STARTING: If you have just finished the first Tutorial, you can use the same defaults again (same region, style of flying, and reality levels). The region should be "Training in the USA," style should be "Regular Missions," and reality should be "Realistic Flying," "Easy Landing" and "Easy Weather."

Note: When training in the USA, all missiles and gun shells fired at you are "blanks." You can never suffer damage from "enemy" fire while training. However, don't forget that everywhere else the enemy plays "for keeps."

MAKE A PLAN: Before takeoff examine the sector map of the traning area. Pick one of the three dummy installations (HQ, Russian Heli-base, or the Depot) as your objective. Move the INS marker to that objective. Notice the "enemy" forces along or near the line of flight from your base to the objective. These are the "opponents" you will engage.

TAKEOFF: Take off and get into level flight at 100′ altitude (digital readout on altimeter is "01").

THREATS: As you fly, watch the threat display on the lower right. A red dot means an enemy with AAA (anti-aircraft artillery) or SAMs (surface-to-air missiles) have detected you. A flashing red and white dot means an enemy helicopter is approaching. A white dot means a missile is flying (yours or an enemy's — the threat display cannot distinguish one missile from another). Also watch your warning lights. When the "I" turns red an IR homing missile is being launched. When the "R" is red radar-guided missiles or guns are either searching for or tracking you.

When enemies appear on your threat display they are also plotted on the map. If you have the time, you can look at the map to learn what type of enemy is attacking you. Though virtually every enemy has some sort of light guns or shoulder-launched missile (the SA-7, SA-7B or SA-14), the most dangerous are the AA gun sites and vehicles, or the SAM vehicles.

USING A JAMMER: When a warning light comes on, the standard response is to turn on the appropriate jammer (press the IR or Radar *Jammer On/Off* once). A small green light beside the warning light turns on, showing your jammer is running. If the warning light turns off, the jamming was successful. Now turn onto a new course. Jammed missiles often continue flying on their old course, and will hit you unless you change your course.

Keep your jammer running until you destroy or fly away from the enemy launcher or gun. In concentrations of enemies some pilots will turn on both

jammers and constantly fly a "jinking" zig-zag course to confuse missiles and enemy gunnery.

USING A DECOY: If the warning light does not turn off by jamming, try using a decoy. Tap *Drop Chaff* or *Drop Flare* to deploy decoys. The decoy symbol below the CRT will light up. While the symbol is lighted the decoy should be drawing the missile or gunnery control toward it.

Decoys are launched in three-cartridge "units of fire". Although your cockpit control panel shows units of fire for convenience, the pre-flight arming and stores readout displays show actuall cartridges available. If you check your stores display after launching a chaff of flre decoy, you'll see the amount remaining has decreased by three.

EVASIVE FLYING: Another way to avoid a threat is to dive to a lower altitude while turning parallel to or away from the threat. If you get lower and avoid closing the range an enemy often loses sight of you. Enemy weapons aimed by eyeball (many AA guns and a few SAMs) cannot be jammed or decoyed. Against these threats evasive flying is your only defense. Another evasive technique is to slow your speed once you're low. Slow movement at low altitude is very hard to spot at a distance. It is possible to "sneak up" on enemy positions with a helicopter.

Evasive flying is also superior to jammers and decoys because it doesn't broadcast your position. Both jammers and decoys, not to mention firing, reveal your presence to the enemy.

DAMAGE: If you don't respond in time to a threat, the gunfire or missile will hit you. You'll see the flash of explosions around the edge of the cockpit. In training that's all you'll see — your helicopter cannot be damaged. In real battle, the explosion may penetrate your armor. If a system across the top of the cockpit is no longer green, something is malfunctioning. Check the damage display for details. Sometimes you'll want to fly home for repairs before continuing your mission.

If you suffer too many damaging hits, the structural integrity of your helicopter will fail, causing a general power failure. The only way to survive this is to successfully "autorotate" to a landing (see "Aerodynamics" for details on autorotation). The actual number of hits varies with the situation and enemy weaponry, but a good rule of thumb is expect the worst after you've suffered three or four damaging hits.

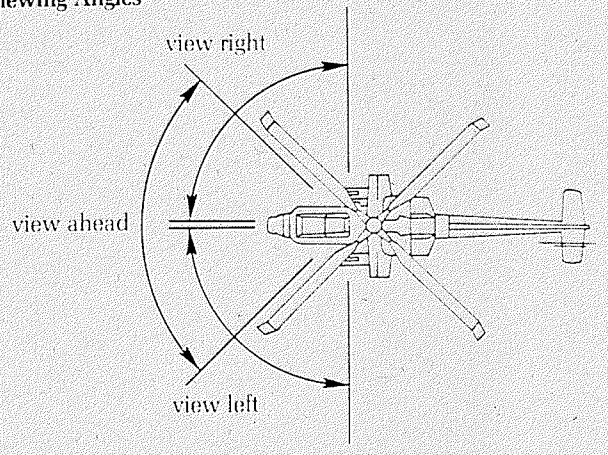
USING TADS (Target Acquisition & Designation System): Look on your map and find a large concentration of red targets near your flight path. Fly in that direction. When you're close pull up into a hover. Now use the *rotate right* and *rotate left* keys to turn your nose left and right. When the crosshair is close to a target, the prompt "TARGET" appears above the CRT. Press the *fire button* on the joystick. The TADS gunsight box will appear around the target while the zoom camera shows the target on your CRT. The range to target in kilometers appears in the upper left (for example, if the range is "0.8", the target is 0.8 kilometers — 800 meters — away).

Tap *next TADS target* to shift the TADS to another target near the crosshairs. If there is no other target near the crosshairs, TADS remains on the original target. After TADS is locked onto a target you can rotate left or right and watch TADS track the target for you. As the box gets near the edge of your cockpit view tap the

View Right or *View Left* key as appropriate. Your view switches to the side. Notice that TADS continues to follow the target. As long as you can see the target TADS will follow it.

If the target leaves your field of view, TADS loses it and automatically unlocks. Unless there is another target near your crosshairs for TADS to lock onto, the CRT switches back to the map.

Cockpit Viewing Angles



TADS can only lock onto targets you can spot. At low altitude (such as under 100') you can't see very far. Targets appear at very short ranges (just a few hundred meters away). The higher you are, the further you can see; TADS can lock onto targets at further and further ranges. Of course, the higher you are, the easier it is for enemies to spot you. As a result, helicopter pilots tend to fly low and occasionally "pop up" to locate enemies. A favorite maneuver is to "pop up" from behind a hill.

The 30mm Chain Gun cannon and the 2.75" FFAR rockets have varying accuracy, depending on range and whether the weapon faces ahead. The TADS box changes color from dark (poor accuracy) to light (good accuracy) with these weapons. The Sidewinder and Hellfire always have good accuracy, and therefore the TADS box is always light colored if one of these weapons is selected.

RADIO MESSAGES & MAP VIEWS DURING BATTLE: If the CRT target view interferes with your navigation, or you want to read a radio message, tap *Change CRT*. TADS turns off and the CRT switches the next available mode (see "Controls" for details).

FIRING WEAPONS: To fire you must first select a weapon. When you press the appropriate *Select Weapon* key, that weapon lights up beneath the CRT and the ammo supply appears in white. Cannon ammo is shown in 20 round bursts. Once a weapon is selected, to fire simply press the *Fire Button* on the joystick.

The **30mm Chain Gun** cannon is automatically aimed at the target designated by TADS (the AH-64A has a ballistic computer that aims the cannon for you). However, the cannon is more accurate firing straight ahead. The TADS box will

turn a brighter color as accuracy improves. Cannon maximum range is 1.5 kilometers, but the effective range is about 0.7 kilometers firing ahead, and only 0.3 to 0.4 kilometers in a "deflection shot" to the side.

The **AGM-114A Hellfire** anti-tank missile is guided by laser at the TADS target. As long as you keep TADS locked on target the Hellfire flies toward it. The Hellfire has a minimum range of a few hundred meters — it takes time for the missile to lock onto the TADS laser. The maximum range of the Hellfire is 6 kilometers. Furthermore, once beyond minimum range, Hellfire accuracy is unaffected by range.

The **2.75" FFAR rockets** are completely unguided. You must line up the crosshairs in the center of the TADS box, then fire. The rockets fly straight ahead at whatever was in the center of the crosshair when you fired. After the rockets are launched you need not keep the target in the crosshairs. The maximum range of FFAR rockets is about 1.8 kilometers, but accuracy improves at shorter ranges. As with the cannon, the TADS box will become brighter as your accuracy improves.

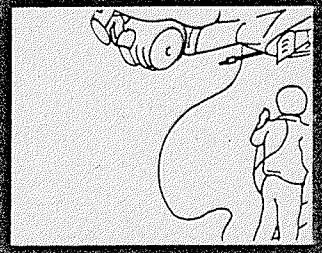
The **AIM-9L Sidewinder** is a "fire and forget" air-to-air homing missile. Lock the TADS onto a flying target and make sure the target is generally ahead (fairly close to the crosshairs). Then fire the missile. Once you fire, you can switch the TADS to something else and/or fly away. Enemy aircraft may have jammers or decoys that could cause a Sidewinder to miss. Maximum range of the L-model Sidewinder is 18 kilometers. Effective range against a helicopter is virtually equivalent to the maximum range.

WEAPON RESTRICTIONS: Certain weapons are only effective against certain targets. The 30mm cannon is effective against anything except bunkers which it can destroy only occasionally. The AGM-114A Hellfire is effective against "hard" targets (all vehicles and bunkers, but not other installations). The 2.75" FFAR rockets are effective against "soft" targets (infantry, AA gun sites, and installations — such as the HQ, Depot, and Russian Heli-base). The AIM-9L Sidewinder is effective only against flying targets. It is useless against any ground target.

RECOIL: When you fire a cannon or guided missile the helicopter bucks and recoils upwards. Be prepared to regain control quickly.

HITTING THE OBJECTIVE: Eventually you'll reach your objective. Lock the TADS onto the HQ, Heli-base or Depot and select the 30mm cannon. In actual combat, you'd fly straight in and open fire at 0.7 kilometers (closer if you're short of ammo). However, in training try "buzzing" over the target at 30' first. This will show you what the target looks like. Then circle around, lock on the TADS once more, and make a second pass with cannons blazing. If you want a real test of skill, don't use the cannon. Instead make a rocket attack at 1.5 kilometers or so. You'll probably need to fire lots of rockets.

RETURNING TO BASE: After destroying the objective go back to the sector map and set your INS for your home base. Fly home, land, and shut down both engines. You can either rearm and refuel for another round of target practice, or you can call it quits here. A successful flight may qualify you for the *National Defense Service Medal*.



AFTER THE MISSION: Succeeding as Gunship Pilot

DEBRIEFING & SUBSEQUENT OPTIONS

ENDING A MISSION: You end a mission by landing, turning off both engines, and waiting for the rotor to stop. You then are told your status, and if you crash as a Sergeant or Warrant Officer you get the option to "retry" the flight instead of continuing. If you retry, you fly the same mission again. If you "continue" (this is automatic at higher ranks) you receive normal results.

Next you can decide whether to examine your craft, leave it, or (if at a friendly base) ask for more fuel, armament and/or repairs. If you select repairs the enemy will have time to bring up reinforcements. In some cases your situation or damage will prevent certain options.

After landing you are "debriefed" and may receive promotions or decorations appropriate to your performance. If you ignored your orders and failed to perform the mission assigned you could find yourself peeling potatoes for a while! (Your commanding officer dislikes being ignored!)

Finally, you'll see your current rank, decorations, and score compared to the two all-time top scoring pilots of the game. These all-time top scorers are saved on disk independently of the current roster, and can only be erased here.

REPLAY OPTIONS: If you decide to try another mission you can either remain in the same region, flying the same type of missions, or you can change your style of flying, or you can request a transfer to a new region. Alternately, you can put your career on "hold" and go on R&R (rest and recuperation). Pilots on R&R remain on the roster until you deliberately erase them.

ENDING THE SIMULATION: On the replay options screen you can end the simulation by removing the disk and turning off your computer. To ensure accuracy in your pilot roster and records, you should turn off the computer *only* when the replay options are showing.

SUCCESS

THE MISSION: If you leave the helicopter somewhere other than a friendly base, you could be captured by enemy troops. The chances naturally increase if you're deep in enemy territory.

As a good soldier, your duty is to complete the assigned mission. This means destroying the primary target. Destroying the secondary target as well is a definite plus. Sometimes your commander will change his mind during a mission and reassign the secondary target as your new primary target. Many missions have multiple targets spread over a range of map coordinates.

If you finish the mission without achieving either objective your commander will not be pleased, no matter how many other targets you hit. Flying around blasting the closest enemy does NOT guarantee promotions and decorations. On the other hand, targets hit in addition to the assigned objectives definitely help toward decorations and faster promotion.

Your commander will rate your performance based on time elapsed. If you are flying over 20 minutes, he will reduce the credit given for your achievements. If you accomplish both primary and secondary missions, he will automatically insist the mission is over when you return to base.

RANKS: Successful completion of your assigned missions improves your record. A good record leads to promotions. Even on the battlefield promotions take time. Don't expect a promotion after every mission.

You start with the rank of *Sergeant* — just like real helicopter pilots entering flight training. When you successfully complete a mission (usually flight training) you'll be promoted to *Warrant Officer* (WO1). After that, success leads to *2nd Lieutenant, 1st Lieutenant, Captain, Major, Lieutenant Colonel* and finally *Colonel*. Although higher ranks exist in the U.S. Army, the highest conceivable rank where an officer could still perform combat flying is Colonel.

Each reprimand you "earn" goes into your record and makes promotion more difficult. Reprimands occur when you use "Sick Call" to evade a mission, or when you achieve no assigned objectives. On the other hand, each heroism decoration (the Army Commendation Medal, Bronze or Silver Star, Distinguished Service Cross, or Medal of Honor) makes promotion easier.

DECORATIONS: If you do exceptionally well on a mission, you may be awarded a medal for heroism and bravery above and beyond the call of duty. Unlike rank, these decorations are based purely on your performance during a single mission. Your rank and prior record have no effect on your chance of getting a decoration (just like the real army).

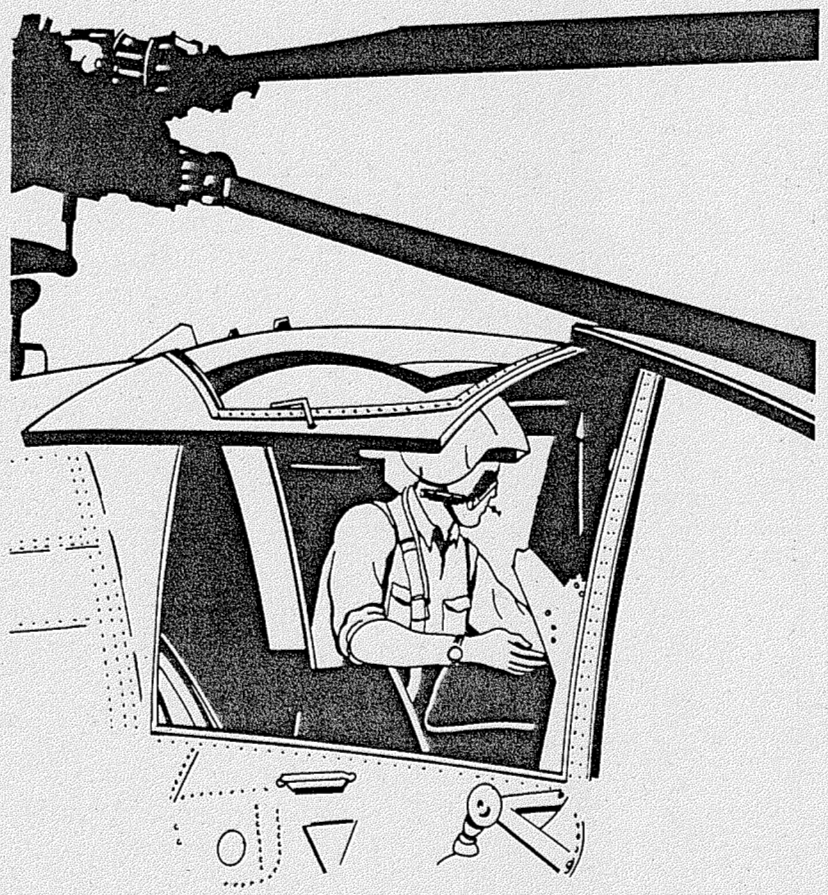
The decorations for heroism and valor are (from least difficult to achieve upwards): *Army Commendation Medal, Bronze Star, Silver Star, Distinguished Service Cross*, and the *Congressional Medal of Honor* (America's highest military award).

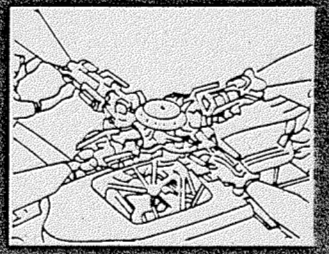
In addition to decorations for heroism, additional medals and ribbons are awarded for regions of service, wounds, etc. The *National Defense Service Medal* is traditionally given for successfully completing training. The *Purple Heart* is awarded for wounds in combat. *Campaign Ribbons* for a particular region are awarded for completing a tour of duty (multiple successful missions) in that region. After a campaign ribbon, additional tours give you the *Air Medal*, which recognizes exceptional flying time.

WORLD'S GREATEST GUNSHIP PILOT: The ultimate Apache pilot is a Colonel with ribbons and air medals for every region. In addition, he holds the Congressional Medal of Honor along with a one or more lesser decorations for heroism and gallantry. Can you meet this challenge once? How many such Colonels can you have on your pilot roster?

PART II

APACHE PILOT'S MANUAL





AERODYNAMICS and the AH-64A Apache

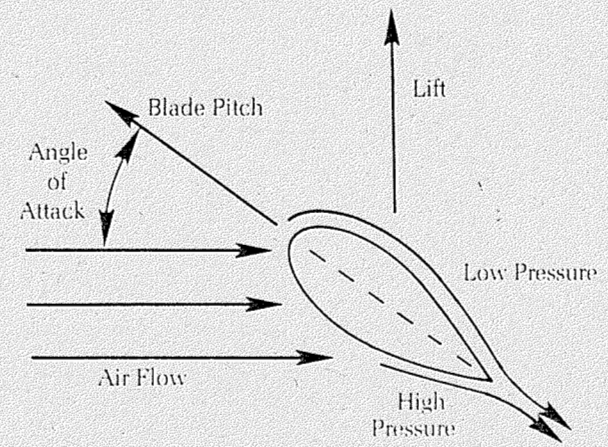
HELICOPTER AERODYNAMICS

This discussion of lift and flight is not intended to be rigorous or precise in a scientific sense. Its purpose is to provide a rudimentary understanding of the physics involved in helicopter flight. For a more detailed and accurate discussion of flight and lift, consult a textbook.

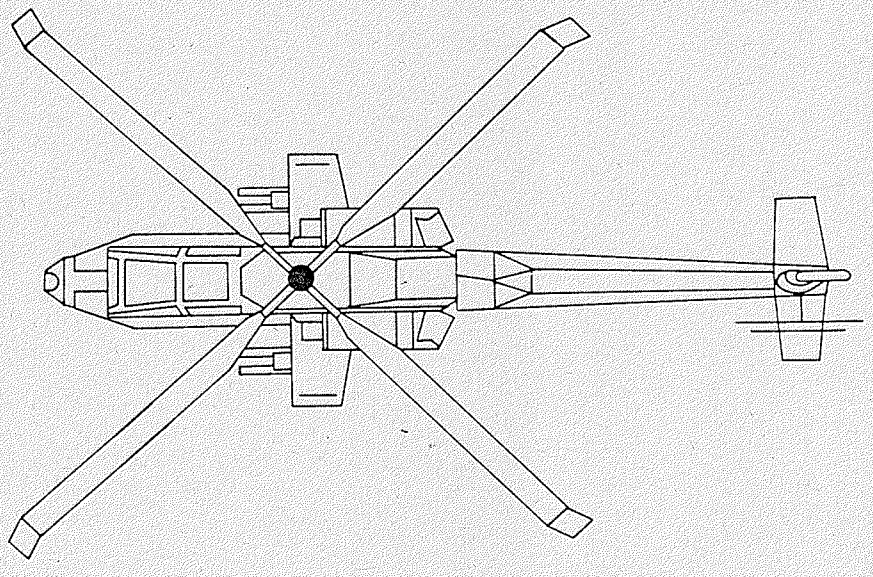
LIFT: Helicopters fly because the individual blades of the rotor are airfoils – objects that produce lift (force upwards) as they pass through the air. On normal planes the wings are airfoils. Helicopters rotate their "wings" (the rotor blades) to generate lift.

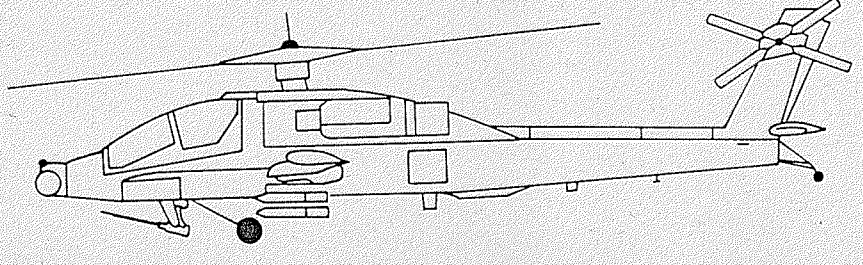
Lift is caused by the flow of the air OVER the blades, NOT the downwash of air from the rotor. The air flowing over the blade travels a shorter distance on the underside and a longer distance over the top. Bernoulli's Principle states that there is less pressure on the upper side of the blade, more pressure on the lower side. The result is a force upwards from the high pressure to the low pressure region.

LIFT from ROTOR BLADES



The AH-64A Apache was designed and built by Hughes Helicopter Inc., a subsidiary of McDonnell Douglas Aircraft. Phase I development in competition against Bell Helicopter began in 1972. After a "fly-off" Hughes was awarded the Phase II full-scale contract in 1976. Final prototypes were approved and manufacturing began in 1982. The first of over one thousand AH-64's rolled off the production line on September 30, 1983. It will serve in most major U.S. Army units, as well as selected Army Reserve and National Guard units. Its primary function is close ground support, especially against enemy front-line armored vehicles and anti-aircraft weapons. The craft is armored to withstand hits from 23mm cannon. Cost per machine is based on a price quoted to West Germany in spring of 1986.





AH-64A APACHE SPECIFICATIONS

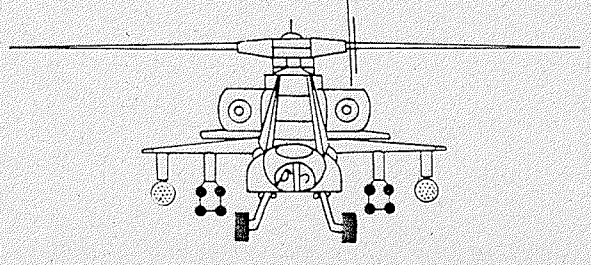
Overall Length: **58'2"**
Overall Width: **48'0"**
Overall Height: **15'3"**
Weight Empty: **10,268 pounds**

Engines: **two T700-GE-701 turboshaft jets**
Nominal Engine SHP: **1,649 per engine**
Maximum Engine SHP: **1,896.4** (running on one engine)
Rotor Speed: **280 RPM**
Fuel Capacity: **376 gallons**

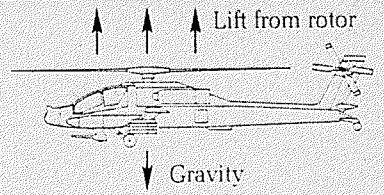
Maximum Horizontal Airspeed: **162 knots** (184 mph)
VDL "never-exceed" Maximum Airspeed: **197 knots** (224 mph)
Rated Maximum Climb: **2,880 feet per minute**
Service Ceiling: **20,500 feet**
Avionics: **VHF, UHF, IFF, PNVS, TADS, DASE, Doppler Nav.**

Maximum AGM-114A Hellfires: **16 missiles**
Maximum 2.75" FFAR Rockets: **four 19-rocket pods (76 total)**
Maximum 30mm Rounds: **1200 rounds**
Maximum AIM-9L Sidewinders: **6 missiles**
Maximum FIM-92A Stingers: **6 missiles**

Production Cost in 1986 dollars: **$7.3 Million each**
Amortized R&D Cost in 1986 dollars: **$1.1 Million each**



HOVERING



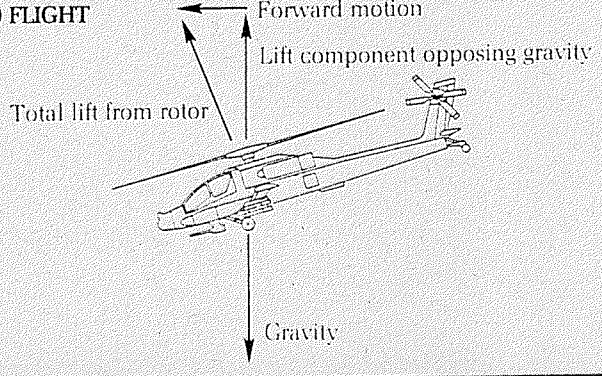
The amount of lift a moving blade generates depends on its angle of attack. This is the angle between the relative wind in the blade system and the blade's pitch. Pulling up (increasing) the collective increases blade pitch (the angle of attack), which increases the pressure differential, and thus gives more lift. In GUNSHIP an automatic delimiter exists that prevents you from increasing the pitch too far. However, in many helicopters you can raise the collective too high, causing the blades to "stall".

In addition to the lift created by blade pitch, helicopters also gain lift from forward motion. This lift is called "translational lift." In forward flight the rotor system as a whole acts like a fixed wing. The effect is increased lift, and therefore increased performance. On the AH-64A this increase is most notable in the 30-90 knot speed range, and includes some small extra lift generated by the weapons wings on the fuselage.

A helicopter hovering or moving very slowly at extremely low altitude creates a "ground cushion" of air beneath the rotor. This improves lift slightly. For the AH-64A Apache the ground cushion effect is strongest at roughly 12 feet off the ground. When you take off into a low-altitude hover, you are rising onto the ground cushion. However, at speeds beyond a few knots the helicopter out-distances the ground cushion effect. Pilots often refer to this as "sliding off the cushion."

CONTROLLING FLIGHT: When hovering, the lifting force of a helicopter rotor is directed straight upwards (counteracting the downward force of gravity). To move forward, you tilt the rotor so that the lifting force is now diagonally upwards – a combination of vertical and horizontal forces. The horizontal component of the force produces forward motion. Of course, the vertical component is now somewhat less, so you'd expect the helicopter to descend. This is exactly what happens – until the craft gains enough speed for translational lift to make up the difference.

FORWARD FLIGHT



Similarly, to turn left or right, or to fly backwards, the pilot tilts the rotor in the appropriate direction. In the case of left or right turns, at very low speeds tilting the rotor causes the helicopter to sideslip ("skid") without turning. At higher speeds the entire craft turns left or right, like the banking turn of an airplane.

Once a helicopter picks up speed, the flow of air into the rotor system has an effect on lift. The blade moving backwards toward the rear of the craft (the "retreating" blade) is moving with the wind, and therefore is generating less lift than the blade moving forwards ("advancing") into the wind. To compensate, the rotor blades automatically change their pitch as they go around, maintaining an equal lifting force.

VDL (Velocity Design Limit): As a helicopter moves faster and faster, the retreating blade needs more and more pitch to generate its share of the lift. Eventually the amount of pitch required becomes too great and the blades begin to stall (cause air turbulence instead of lift) as they retreat. In short, helicopters have a maximum forward speed — beyond that speed the retreating blade ceases to be an airfoil and the helicopter loses lift. As lift decreases, so does the force creating forward motion.

The theoretical maximum speed of a helicopter is normally achieved in a sloping dive. In forward flight helicopters typically lack the power to get beyond 75-80% of their VDL. The maximum horizontal speed possible for the AH-64A is 162 knots. Officially the "never-exceed" VDL is 197 knots.

ANTI-TORQUE CONTROL: Newton's Third Law of Motion states, "To every action there is an equal and opposite reaction." In helicopters, as the rotor turns in one direction, the fuselage housing the engine(s) and transmission wants to rotate in the other direction. The tail ("anti-torque") rotor exists to counteract this tendency. It produces just enough horizontal force to prevent unwanted fuselage rotation.

On the AH-64A the blades rotate counterclockwise. The tail rotor produces force counteracting the clockwise torque on the fuselage. In a hover, or at very low speeds, a pilot can safely vary the pitch of the anti-torque tail rotor. The foot pedals (often called "rudders") are used to change the tail rotor pitch, thus changing its thrust. Reducing the pitch and thrust (pressing the right pedal) causes the fuselage to rotate clockwise (the nose swings to the right), while adding pitch (pressing the left pedal) causes the fuselage to rotate counterclockwise. On GUNSHIP the *rotate right* and *rotate left* simulate these foot pedals.

FLYING TECHNIQUES AND ADVANCED MANEUVERS

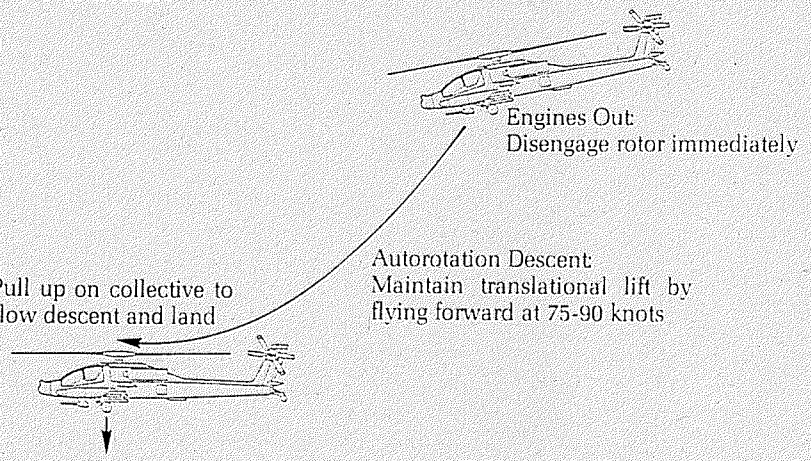
FANCY TURNS: A high speed banking turn is easy. However, in such turns your lift decreases, causing you to lose altitude. If you don't want to lose altitude, pull your nose up slightly in a turn, then drop it back down to normal as you come out of the turn. With practice you can make a fast, banking turn without changing altitude or fooling with the collective.

Very tight turns require that you stop in midair, spin, and then accelerate away in the new direction. To do this move the collective down fast, pull back hard on the stick until you're level, hit the tail rotor to rotate right or left, then raise the

collective back to normal and pitch down your nose. With practice you can even skid sideways while the tail rotor is turning your craft (a helpful maneuver if you're trying to avoid an enemy helicopter or missile).

AUTOROTATION: Helicopter crewmen don't have parachutes. You can't bail out. Fortunately, the AH-64A is an exceptionally crashworthy machine with a good probability of crew survival. However, the loss of both engines does not mean you must crash. Helicopters have an equivalent of an airplane's "dead stick" (or "flameout") landing. This unpowered descent is called "autorotation."

AUTOROTATION



To begin an autorotation, disengage the rotors from the engine. Usually the pilot must bottom the collective, but in GUNSHIP the collective is automatically bottomed when the rotors are disengaged. In an emergency where you have both engines out, do this *immediately*. If you don't, the rotor will slow to a stop (it's still engaged to the now-dead engines). If the rotor stops turning before you're safely down, you're a dead duck.

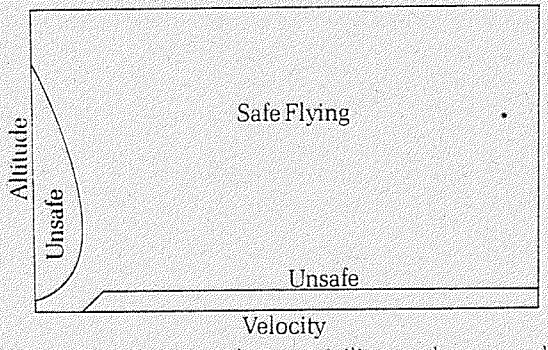
Now pitch the nose so you're travelling at about 75 to 90 knots (for maximum translational lift). The rotor is spinning freely because the airflow keeps the blades turning. The descent becomes quite fast and a little frightening to the inexperienced. As you get close to the ground, raise the nose and pull up on the collective. The blades will "bite" into the air, giving you lift and slowing the descent. Unfortunately, as the blades bite, air resistance slows them down and the rotor RPM drops.

You must time the "up collective" so that the helicopter lands gently before the rotor slows too much. If you raise the collective too soon, the rotor will get below airfoil speed while you're still above the ground. Without the lift from the blades, you'll fall like a rock! If you raise the collective too late, you won't slow your descent fast enough and the machine will crash land.

UNSAFE FLYING: It takes time to disengage the rotors, get the craft under control, and then "up collective" to land. As a result, there are speed-altitude situations

where an engine failure results in the craft hitting the ground before you can perform an autorotation. Hovering at altitudes above 25 feet up to about 500 feet is unsafe, as is high-speed flying under an altitude of 20-30 feet.

HEIGHT-VELOCITY DIAGRAM



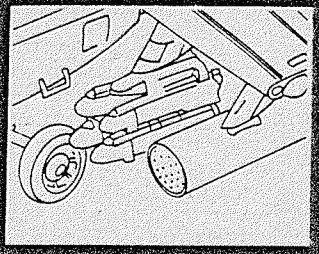
"Unsafe" as described above applies to civilian and non-combat flying. In combat situations unsafe flying may be "safer" than taking a missile or cannon hit! In the AH-64A normally unsafe flight practices aren't quite so dangerous. If one engine dies, the other can keep the helicopter aloft. In single-engine flight, the surviving engine can run at 110% power continuously (this power increase is automatic in GUNSHIP), or at 115% for six minutes. The engines and rotor can keep turning for at least 30 minutes even if the lubrication system fails. In comparison, oil lubrication system failures and fires are a major weak point of the Russian-built Mi-24 HIND helicopter. Overall, the Apache is a forgiving machine designed for daredevil pilots, unlike the less forgiving single-engine UH-1 and AH-1 helicopters of the Vietnam war.

OPEN FIELD LANDINGS: The nice thing about helicopters is their ability to land without a paved airstrip. However, helicopters cannot land on sloping ground. Any slope greater than 5 degrees causes so much rotor tilt that the helicopter flies, skids or turns away from the slope, making a landing impossible. Never try to land on a hillside — you'll crash.

WIND & WEATHER: Ideally, all takeoffs and landings should be into the wind. However, a helicopter can take off and land in crosswinds or tailwinds. As the helicopter rises to a hover (in takeoff), or slows down to hover (in a landing), the cyclic joystick should be moved slightly toward the wind, producing just enough skid to counteract the wind velocity. This maintains the hover against the wind.

When flying in windy conditions, the same considerations apply as flying a normal airplane. Namely, the wind will increase your speed, slow you down, and/or push you sideways, depending on your flight path in relation to the wind direction. This is most noticeable on long-distance flights.

Temperature also affects helicopter flight. As air gets warmer, it expands and becomes thinner, providing less lift. If the air gets too cold, icing on the rotor becomes a problem. Similarly, in humid conditions the air is composed increasingly of water, reducing lift. Finally, as altitude above sea level increases, air gets thinner, reducing lift. For the AH-64A, ideal flying conditions are 76 degrees Farenheit (24.4 degrees centigrade) on a dry day at sea level.



WEAPONS & TACTICS of the AH-64A Apache

AH-64A WEAPONRY

THE TARGET ACQUISITION & DESIGNATION SYSTEM (TADS): The AH-64A uses a novel and very effective gunsight system called TADS. Both the pilot and gunner wear an IHADSS helmet which includes a monocle in front of the right eye. The cockpit and helmet have IR diode sensors that track the helmet's position in three dimensions. When the crewman turns his head and looks through the monocle at a target, the TADS computers "know" what direction he is looking. The nose TV camera, laser, FLIR optics (forward-looking infra red for vision in low visibility) and Chain Gun all point in the direction he looks.

In GUNSHIP the TADS gunsight is a small box that appears in the upper cockpit glass. When you lock it onto a target, a zoom TV camera view appears on the CRT below, including the range in kilometers and magnification of the camera. Once TADS is locked onto a target, it tracks while you maneuver and fly the helicopter. As long as the target remains in your field of view TADS will track it.

TADS includes a laser rangefinder and ballistic computer that automatically aim the 30mm Chain Gun cannon at the target. In addition, when the AGM-114A Hellfire is armed for firing, the laser acts as a designator that "calls out" the target for the missile.

The 2.75" FFAR rockets and the AIM-9L Sidewinder operate independently of the TADS. The rockets are unguided ("dumb" weapons) that fly straight ahead. The AIM-9L Sidewinder has its own built-in IR seeker. If you aim it toward an enemy aircraft or helicopter and then fire, it should find its own way to the target.

Note that TADS is a "line of sight" system built into the nose of the helicopter. As a result, the greater your altitude, the further TADS can see. Conversely, as you descend, TADS range is reduced. It's not uncommon to lose targets in a power dive. If another target is available, TADS switches to that. Otherwise it switches off.

THE 30mm CHAIN GUN: This automatic cannon is beneath the nose on a mount that swivels and elevates under control of the TADS ballistic computer. It is NOT aimed manually. The computer aims the gun at whatever target is designated by the wearer of the IHADSS helmet, and then computes deflection using the laser rangefinder.

The cannon fires 625 rounds per minute. Traditional machineguns and automatic cannons use the recoil of one shot to load the next. If a shot misfires or the belt jams there is no more recoil and the gun is useless until a mechanic disassembles the weapon and clears it. Since 1916 jamming in aircraft machineguns and cannons has been a serious problem. The "Chain Gun" does not use this principle. Instead an electric motor pulls the ammo belt through the gun (hence the term "chain gun").

Even if a shell misfires or is a dud the motor continues pulling the ammo belt. This greatly reduces the probability of a disabling jam.

The 30mm Chain Gun cannon normally fires HEDP (high explosive dual purpose) rounds that are effective against both unarmored and armored targets. The rounds are not powerful enough to pierce the thick frontal armor of a main battle tank. They are effective against the thinner top and rear armor of tanks. The cannon can use European 30mm DEFA ammunition if American-made HEDP is unavailable.

The main disadvantage of the Chain Gun is its enormous recoil, despite the relatively low muzzle velocity. No other helicopter carries such a heavy weapon. As a result, although the cannon may be aimed "on target" after a few rounds it could be off target again. This problem is especially serious when the cannon is firing left or right, and minimized if the cannon is firing ahead.

The cannon's maximum range is approximately 1.5 kilometers. However, its low muzzle velocity and recoil problems suggest that effective range for reasonably accurate shooting (i.e., at least a 50% change of hitting a target dead ahead) is perhaps half that, or about 0.7 kilometers.

On the "plus" side, the 30mm cannon is an enormously valuable weapon against enemy helicopters and slow-flying aircraft. The IHADSS and TADS system allows it to "track" and engage enemy targets to either side and below the helicopter — the pilot need not point his helicopter at the target to fire. Helicopters with manually controlled turrets (such as the Mi-24 HIND-D) or fixed weapons (such as the Mi-24 HIND-E) lack this advantage. However the slow rate of fire makes the cannon ineffective against fast jets, which can literally fly between the shells.

AGM-114A HELLFIRE ANTI-TANK MISSILES: The Hellfire is a semi-active laser-homing missile with a HEAT armor-piercing warhead.

The missile's guidance system homes on the scattering frequency of a laser hitting a target. In other words, the missile does not "see" the laser beam. Instead, when the laser beam hits a target and breaks up the missile "sees" the beam breakup. If the laser beam is switched from one target to another, the missile will "see" the target spot change, and fly toward the new target. This allows "ripple fire" tactics where the Apache launches two or more missiles, one behind another. When the first missile hits, the laser is switched to another target, and the second missile (already in flight) homes on the new target.

Laser designators are not as effective in rain, snow, fog, or smoke. The beam breakup "spot" cannot be "seen" as easily. A favorite defense against laser designated weapons is a quick smoke screen. Many tanks now carry multiple smoke projectors for just this purpose. In bad weather conditions aircraft are often grounded, making the laser designation problem moot.

The disadvantage of the laser system is that the helicopter must remain exposed, laser shining, to guide the missile to target. Fortunately, the Hellfire can be guided by standard U.S. Army laser designators, carried on various scout helicopters and by ground troops. They can designate a target for a missile launched by the Apache. This means the Apache could fire from a hidden position, just like an artillery piece. Of course, such tactics require excellent radio communication and superb timing. The more common "scenario", portrayed in GUNSHIP, is the Apache designating its own targets "on the fly".

The Hellfire's warhead is a 177.8mm diameter HEAT design: High Explosive Anti-Tank. This burns through virtually any steel armor as well as most modern composites and spaced armor. The armor-penetrating ability of HEAT is proportional to the warhead diameter. The Hellfire has a 177.8mm diameter warhead; America's previous top-quality anti-tank missile (the TOW), still greatly respected, has a 152mm warhead.

Unfortunately, this warhead design is ineffective against "soft" targets such as groups of men, building complexes, or AA gun sites. In the simulation, this means a Hellfire cannot destroy a Headquarters, Depot, Helibase, or a AA gun site (such as the 23mm ZU-23 or the 57mm S-60). However, it is extremely effective against vehicles. It can also penetrate and destroy bunkers.

The Hellfire is an extremely long-ranged missile. Most ATGMs (anti-tank guided missiles) have a range of three kilometers. The Hellfire can fly up to six! Range does not affect accuracy; as long as the Hellfire can find the spot designated by laser, it will hit it.

2.75" FOLDING FIN AERIAL ROCKETS (FFAR): The 2.75" FFAR rockets, in pods of varying sizes and weights, are a venerable weapon dating back to the 1950's. The rockets themselves are completely unguided, with a reputation for erratic flight, and sometimes not firing at all! Maximum range is about 1.8 kilometers, but a wise gunner waits until he's much closer before firing. The 7- and 19-rocket pods for the AH-64 are a new lightweight design that minimizes the "dead weight" of the launcher pod.

The standard rocket warhead is a typical "HE" high explosive/fragmentation type that is quite effective against ground troops, AA gun sites, and installations. Men on the receiving end of a full pod volley can feel the ground shake and buck beneath them, like an earthquake, while deadly metal fragments fill the air. The shock effect alone can daze men for minutes. Near-misses and shock effect is not enough to disable an armored vehicle or bunker, although a lucky explosion could immobilize a vehicle.

Despite their drawbacks, the FFAR rockets are a good compliment to the Hellfire missiles. They are most effective against targets the Hellfire can't really hurt. They can be fired at a longer range than the cannon. Even if the rockets miss they often "suppress" soft targets. The helicopter can then close for the kill using cannon fire. FFAR rockets are also extremely cheap to build and a common item of resupply throughout the Western world.

It is relatively easy to build FFAR rockets with special warheads, such as White Phosphorous (WP), which burns intensely and gives off a cloud of smoke, or even various chemicals such as tear gas. Although such weapons are rare today, there is considerable fear that the Warsaw Pact plans heavy use of chemical warfare if involved in a European conflict.

AIM-9L SIDEWINDER AIR-TO-AIR MISSILES: The AIM-9L is an all-aspect infra red homing air-to-air missile. It was combat-proven in the Falkland Islands, where most of the "kills" accomplished by British Harriers against Argentine jets were with "Niner Limas". The British pilots were quite satisfied with the performance of this weapon.

The Sidewinder was originally created in the early 1950's by a small team on a shoestring budget. The early models proved difficult to use in the Vietnam air war. The Sidewinder homes on heat: early models homed on the heat of a jet exhaust. They would also home on the sun, common distress flares, or even hot ground or rocks during a summer day! In the 1970's the seeker was dramatically redesigned to be much more sensitive (through cryogenic cooling) and less vulnerable to spurious heat sources (through the use of filters). The missile's speed, maneuverability and range (now almost 18 kilometers) were all improved. The warhead was redesigned to explode into destructive spinning rods, and gained a new ultra-high-tech proximity fuse.

The "L" model combines all of these improvements and is being manufactured in gigantic quantities by various American and European firms. Many older versions are being rebuilt to "L" standards. The "L" model can home on surfaces heated by air deflected across metal (such as the upper surfaces of aircraft wings or rotor blades). This means the missile does not need to "fly up the tailpipe" of a jet to hit the target, but can instead attack from a variety of angles. This dramatic new capability is termed "all aspect" attack. The AIM-9L is probably the best missile for air-to-air dogfighting in the world today.

The missile is only effective against aircraft targets, especially unarmored jets. It is reasonably effective against helicopters, especially since warhead rods can break rotor blades (an immediately fatal event for any helicopter). Sidewinders are generally unable to home on ground targets, and even if they could, would only damage small, soft targets.

Currently no U.S. Army AH-64A Apaches carry Sidewinders. According to "the book" Apaches are intended for ground attacks, not air-to-air combat. Reluctantly the Army is recognizing the threat of opposing helicopters. However, due to a bad case of interservice myopia, it is considering arming the AH-64A with the designed-for-the-Army FIM-92A Stinger, a much smaller and less destructive missile intended for use by infantrymen.

Fortunately American servicemen in combat conditions often ignore "the book" and acquire whatever weapon does the job best. In this case, the plentiful and effective AIM-9L Sidewinder, despite being an Air Force weapon, is likely to find its way into the arsenals of Apache attack helicopter squadrons. Wiring up Apache weapons wings for Sidewinders is easily done "in the field." For all of these reasons, the AH-64A portrayed in this simulation is armed with Sidewinders, not Stingers.

ATTACK TACTICS

THE APPROACH: The vast majority of AH-64 flights are ground-attack missions. You are to knock out hard or soft targets in a certain area — often an area protected by SAMs and AA guns.

Your first task is to make sure you know where on the sector map to find the primary and secondary targets! Setting your INS on the sector map to the primary target and flying full speed at a few hundred feet of altitude toward the target may work on training missions or in Southeast Asia, but it's pure suicide against well-equipped enemies in the Middle East or Western Europe.

The standard U.S. Army technique is to fly in quick dashes ("bounds"). Fly from the base of one hill to another. Before making a dash, hover and pop up briefly to 100-200'. Scan around and use TADS to identify potential enemies. Drop low

again and examine your sector map. It shows all enemies you sighted, or who sighted you. Pick your next dash, set the INS, rotate to face that direction, then pitch down and zoom forward. Stay as low as possible in a dash. When selecting routes, use hills to screen yourself from enemy fire.

FIRING: Use the right weapon for the job. At longer ranges (over 0.7 kilometers) use the Hellfires against vehicles and bunkers, the FFARs against infantry, AA gun sites, and buildings, and the Sidewinder against enemy helicopters. If you are brave enough to get in close your best all-around weapon is the 30mm cannon. Beyond 700 meters or when making side shots the cannon consumes large amounts of ammunition for each hit (due to its poor accuracy at longer ranges).

"POP UP" ATTACKS: The "pop up" technique is simple. Hover behind a hill that screens you from suspected enemy positions. Climb up over the hill until you're just above the crest. Scan around and watch your threat display. If you recognize an important target immediately, open fire. If not, drop down behind the hill again and examine your sector map. You can now consider your situation and decide if you want to pop up again and attack those targets, or whether you should bound on, avoiding them. If you decide to attack, pop up again just long enough to knock out your selected target, then drop down again.

FLAK & SAM BUSTING: Because a helicopter can sneak up on targets, taking full advantage of terrain cover, it is much better suited to attacking AAA and SAM batteries than traditional fixed-wing aircraft. Army/Air Force cooperation tactics plan on Apaches attacking anti-aircraft weapons while A-10 "Thunderbolt II" jets bombard ground targets.

The key to eliminating enemy SAMs and ZSU AA tanks is engaging them quickly. Enemy anti-aircraft defenses have a 5 to 20 second reaction time, depending on the quality of the equipment and skill of the crew. You must destroy them during this time. Enemy SAMs give you a little extra time and warning because you can see the missile coming on the threat display. Enemy AA guns are tougher because you can't see the shells coming (they fly too fast), and because guns can use optical gunsights you can't jam or decoy! Unfortunately, some of the newest Soviet-built SAMs also have optical guidance systems for missiles. However, night gives you an advantage against optical systems because Soviet-made night-vision aids are much inferior to your high-tech FLIR viewers.

TANK HUNTING: The Apache was designed to kill tanks. It's just a matter of loading up with Hellfires and heading out to the happy hunting grounds. At a kilometer or two it's like shooting fish in a barrel. If you prefer, you can come closer and cut them apart with the 30mm cannon. The U.S. Army expects a 14-1 kill ratio (i.e., when you kill your 14th tank, the helicopter has paid for itself as a cost-effective weapon). In your eagerness to create scrap metal, make sure you don't blast friendly tanks by accident!

Russian tanks don't carry an AA weapon larger than a 14.5mm machinegun. The BMP mechanized infantry vehicles are nastier because most carry an SA-7, SA-7B or SA-14 "Grail" missile inside. However, these are lightweight IR homing missiles. The SA-7 and SA-7B are easily confused by jamming or decoys. Warheads are small: even if one hits you, you'll probably survive it. The brand new SA-14s are believed to be more potent and less easy to fool. The biggest problem in tank hunting is that Russian AA tanks and SAM carriers have a nasty habit of traveling with the tanks and BMP's. Whenever you see a large concentration of T-74's or BMP's, keep an eye out for a ZSU-23-4 (or ZSU-30-2) AA tank, or the SAM carriers, such as the SA-9 and SA-13 IR missile carriers, or the more formidable SA-8 and SA-11 radar missile carriers.

INFANTRY TARGETS: Infantrymen in open ground are difficult to see with the naked eye. TADS has similar problems — on the CRT an infantry position doesn't look like much. Infantry may carry machineguns and other light weapons, or sometimes the SA-7, SA-7B or SA-14 "Grail" IR homing missiles. You can attack infantry with FFARs or the 30mm cannon. If you charge in fast and low you might get them before they're ready to get you!

Infantry are tricky because it's hard to tell the good guys from the bad guys. Again, check your map to avoid making costly and painful mistakes. On the plus side, bunkers are easy. They don't have Grails and can be destroyed using the Hellfire. However, most bunkers have thick roofs nearly impervious to cannon fire.

STRUCTURES: Rear area structures, such as headquarters, heli-base, or supply depot, pose problems similar to infantry. Although bigger and easier to see, most have "Grail" IR homing missiles sited for air defense. In addition, extra AA gun sites are often emplaced in the area. Try to locate these defenses as well as the base itself before you charge in. The AA gun sites are a nuisance because Hellfires are ineffective against them.

When attacking structures, be sure you have the right one. It's embarrassing to wipe out your own heli-base. In guerilla warfare environments such as Central America or Southeast Asia, your TADS will lock onto local farm buildings as well as military bases. Unless you actually see enemies firing from the building, don't destroy it. Remember, you're trying to win the people's hearts and minds.

DEFENSIVE TACTICS

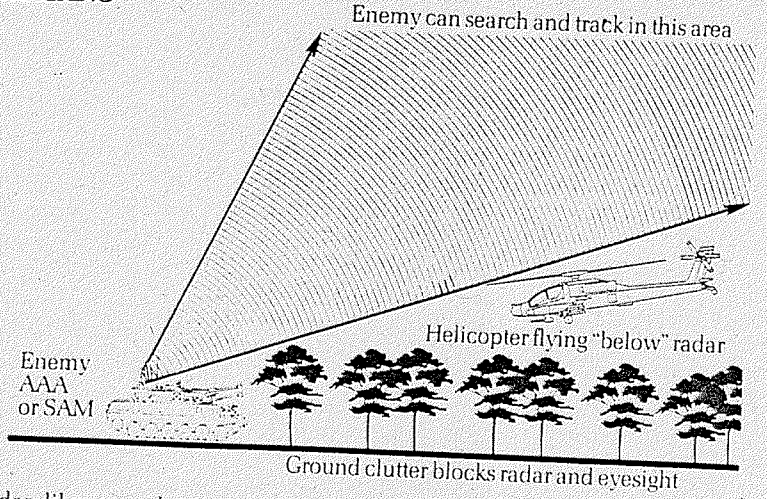
The most common problem you'll have is surviving enemy ground fire. This includes enemy anti-aircraft artillery (AAA or "flak") and surface-to-air missiles (SAMs). From a pilot's point of view, some of these are radar-guided threats, some are IR threats, and some are optically guided (and therefore don't warn you at all!).

WHEN THEY SEE YOU: Only the higher quality AAA and SAMs use radar-guided systems. Among AAA weapons this includes the ZSU-30-2 and ZSU-23-4 vehicles, plus more advanced versions of the S-60 57mm gun. Among SAMs it includes all except the hand-carried SA-7, -7B, -14 series and the early SA-9 Gaskin.

These weapons have "search" radars which can "see" you at long ranges in day or night. If you see a distant red dot on the threat display, it's probably a search radar looking at you. Most search radar "sweeps," causing the radar warning light to flash on and off. Since the purpose of search radar is to detect your presence, jammers and decoys are counter-productive, as both announce your presence!

All other enemies lack long-range search radar. Many use eyesight and binoculars to search. They can't "see" you until you are much closer. At night their eyesight is especially limited. However, if you open fire, you'll certainly attract their attention, causing many additional enemies to "notice" you.

TRACKING



Radar, like normal eyesight, is blocked by objects on the ground. As a result, ground-based radar has a "dead zone" it cannot see. Above this dead zone the radar "eyes" will find you. The dead zone becomes smaller and lower as you approach the radar.

HOW THEY TRACK YOU: If an enemy search is successful, they switch to a "tracking" mode. If using radar, they constantly illuminate you with a beam. This sets off your radar warning and causes the light to shine solidly "on." As with searching, tracking radar as well as eyesight has a "dead zone" near the ground that varies with distance. Therefore, if you're being tracked by radar, or suspect you're being tracked visually, fly lower and away from the enemy to break the track. Ducking behind a hill will also break a track — enemy eyes and radars cannot look through hills!

Another way to break the radar tracking is to use your radar jammer or drop a load of chaff. If jamming is successful the radar warning light turns off. If it fails, the warning light remains on — you should definitely use chaff or try evasive flying. Using chaff decoys the enemy radar into locking on the chaff — as long as the chaff cloud persists. The chaff light on the cockpit turns off when the chaff cloud disperses.

A few advanced enemy weapons have visual backups for tracking systems. These may be TV cameras, lasers, or simply optics. Therefore, even with the best jamming or decoys, they could still open fire. The only way to defeat these is evasive flying. All AA guns and probably the new SA-11 fall into this category.

SURVIVING AA GUNFIRE: After tracking you for sufficient time, enemy AA guns will open fire, and continue firing until they knock you down. You must either break the track or destroy the weapon. There are no other options. If the gunfire is radar controlled (your radar warning light will be on) you could temporarily break the track with radar jamming or chaff. However, all guns have optical backup systems, and some only have optics. The best way to survive gunfire is skillful evasive flying.

SURVIVING SAMS: After a SAM battery has tracked you for a few seconds, they launch a missile. Missiles come in three flavors: IR-guided, radar-guided, and visually-guided. When the enemy fires a missile, you'll see a white dot moving toward you on the threat display. Bear in mind that IR-guided missiles have their "seeker" on board the missile, while radar and visual guidance missiles are controlled from the launcher vehicle.

IR-guided missiles are the most frequent threat. Your IR warning light will turn on when they approach. If you turn on the jammer, and it succeeds in jamming the missile, the missile's "brain" becomes confused and it flies mindlessly straight ahead. You should change course to avoid colliding with it! If the IR jammer fails, try dropping a flare decoy instead. The missile will aim for the decoy instead of you. It's important to wait a bit before launching decoys, since they burn out after a while and the missile will home on you again. "Poor" IR guidance systems are vulnerable to either decoys or jammers. "Fair" systems are vulnerable to decoys, and sometimes to jammers. "Good" systems are vulnerable to either decoys or jammers, but almost never both, and sometimes are vulnerable to neither! Finally, very modern and sophisticated IR missiles may have a visual or laser backup system. Don't assume that defeating the IR guidance will always confuse a missile.

Radar-guided missiles are primarily designed for use against jet aircraft, but could threaten you too. A radar beam shining on your craft guides the missile at you. Using your jammer will break the beam, causing the missile to fly straight (therefore you should dodge). Using a chaff decoy will cause the missile to fly toward the chaff instead of toward you. The problem with radar-guided missiles is that they have back up systems. The SA-8 and SA-8B become IR guided missiles if their radar fails. The SA-11 has an unknown but probably visual-type backup system if the radar is jammed or decoyed. Therefore, defeating the radar is just the first step in defeating the missile.

Visually- or laser-guided missiles are the worst threat. You have no jammer or decoy defenses against these. Your only weapon is evasive flying. Putting a hill between you and the missile is the best bet. Getting low enough to become invisible to the launcher (and therefore breaking the visual or laser track) is the only other hope. Remember, successful evasive flying requires that you fly lower AND away from the enemy. If you continue flying toward the launcher, flying lower may not help.

All missiles have a universal weak point: they have a huge turning radius. If you let one get close, then dart off perpendicular to its flight path, it will be unable to turn fast enough to hit you. This tactic is fairly easy in a high-speed jet aircraft, but far more difficult to accomplish in a relatively slow helicopter trying to avoid a missile flying at 1,000 mph or faster! It takes enormous skill, split-second timing, and steady nerves to "turn inside" a missile with a helicopter.

The chart on the following page summarizes the various Soviet-built AAA and SAM systems, with a description of the search, tracking, and guidance (for missiles) systems. Read your intelligence briefings before each mission, then look up each weapon on this chart. Learn what missiles have backup guidance systems, and which ones do not.

THREAT CHARACTERISTICS

Weapon	Type	Search Technique	Main Tracking	Backup Tracking	Main Guidance	Backup Guidance
SA-7 (*) Grail	SAM	optical	optical	(none)	poor IR	(none)
SA-7B (*) Grail	SAM	optical	optical	(none)	fair IR	(none)
SA-14 (*) Grail	SAM	optical	optical	(none)	good IR	(none)
SA-9 Gaskin	SAM	optical	optical	(none)	poor IR	(none)
SA-9B Gaskin	SAM	optical	radar	optical	fair IR	(none)
SA-13 Gopher	SAM	optical	radar	visual	good IR	uncertain
SA-8 Gecko	SAM	radar	radar	optical	radar	fair IR
SA-8B Gecko	SAM	radar	radar	optical	radar	good IR
SA-11 Gadfly	SAM	radar	radar	unknown	radar	unknown
ZSU-57-2	AAA	optical	optical	(none)	n/a	n/a
ZSU-23-4	AAA	optical	radar	optical	n/a	n/a
ZSU-23-4M	AAA	radar	radar	optical	n/a	n/a
ZSU-30-2	AAA	radar	radar	unknown	n/a	n/a
S-60 57mm	AAA	varies**	varies**	(none)	n/a	n/a
ZU-23 23mm	AAA	optical	optical	(none)	n/a	n/a

*hand-held missiles carried in BMPs, carried by infantry, and used to defend headquarters, heli-bases, and depots.

**radar or optical, depending on the sophistication of the army using the weapon.

n/a = not applicable: gun shells do not need to be guided to target.

AIR-TO-AIR COMBAT

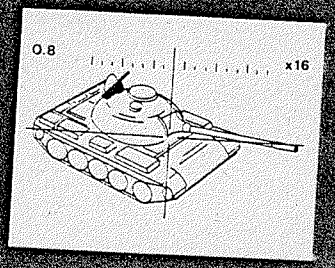
Russian-built Mi-24 HIND helicopters are your air-to-air combat problem. They are somewhat faster than your AH-64 (you'll never outrun them!), but much less maneuverable. The "E" model with four 23mm cannons is the most common threat. HINDs are unable to fire accurately sideways in a dogfight, although some do have rotating turrets able to hit stationary targets. You, however, don't suffer that restriction. Therefore, your goal is to prevent them from heading toward you. The worst possible situation is to have a HIND approaching from the rear. They can fire at you, but you can't even see them!

A typical HIND tactic is to sit behind a hill waiting for you, then charge forward, guns blazing. They also tend to circle around, trying to get on your tail.

If you have a HIND charging you, you can either nail him at long range with a Sidewinder, or evade him until you're ready to use your cannon. The best evasion technique is hiding behind a hill. Failing in that, fly off to the left or right. As he turns toward you and lines you up in his sights again, turn the other way fast. Take advantage of his slow turning rate. As he gets closer, circle around him. Keep your TADS on him throughout this process (you'll probably need to use the left or right view while circling around). When the reticle box brightens, show him what a 30mm cannon can do.

If you have a HIND on your tail, you'll take rapid and heavy damage as his cannons pound you. You've got to shake him off, fast. Break right or left hard. Pitch up to cut your speed. "Up" collective to "elevator up" or "down" the collective to "elevator down". If your speed drops below 50 knots use the tail rotor to spin you around while skidding sideways, then pitch down and bank away. HINDs are poor dogfighters, so once you shake him, he'll probably fly past to the right or left and start circling around. Getting on his tail and teaching him a lesson should be easy.

A new model Russian helicopter with air-to-air IR homing missiles is believed to exist. Whether you call it an "F" model HIND or the Mi-28 Havoc, it's still a serious threat. Keep an eye out for missile-firing helicopters when facing first line units in Western Europe.

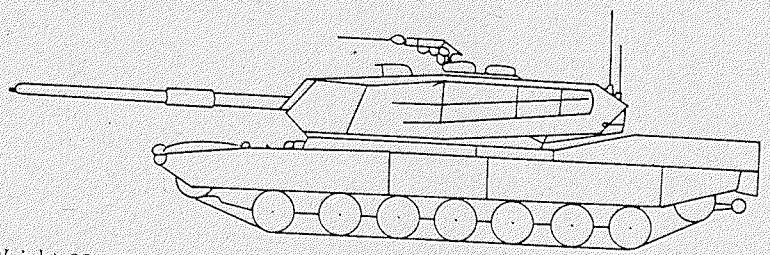


MILITARY EQUIPMENT on the Modern Battlefield

Use the illustrations in this section as a guide to answering the vehicle identification quiz when GUNSHIP begins. The notes on Soviet AA guns and SAMs are especially useful in understanding the strong and weak points of enemy weaponry.

WESTERN BLOC EQUIPMENT

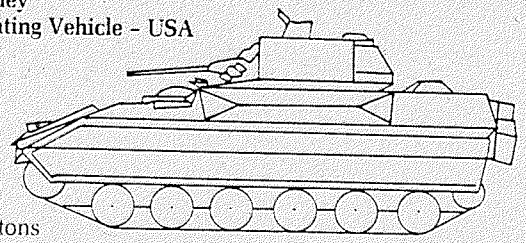
M1 and M1A1 "Abrams"
Main Battle Tank - USA



Weight: 62.9 tons
Main Weapon: 105mm Rifled or 120mm Smoothbore Cannon
Secondary Weapon: three machineguns
Armor: Heavy (Chobham)
Crew: 4
Hull Length: 7.9 meters
Hull Width: 3.7 meters
Height: 2.9 meters
Engine: 1500 hp gas turbine
Maximum Road Speed: 41.5 mph

This is the new standard tank of the U.S. Army, with the latest engine, armor, and in the A1 model, a new West German-made smoothbore gun, not to mention lots of high-tech hardware. It is considerably superior to all known Russian tanks, but suffers from having a novel engine design that needs to work more reliably. Unlike the Soviet T-74, the M1 Abrams is an entirely new design that actually works. It's a curious twist that the Soviets, generally viewed as creative and innovative tank designers, have been "one-upped" by the U.S. Army, who formerly lacked a reputation for "state-of-the-art" tank design.

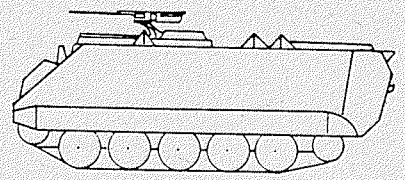
M2A1 "Bradley"
Infantry Fighting Vehicle - USA



Weight: 24.8 tons
Main Weapon: 25mm Auto-Cannon
Secondary Weapon: two TOW missiles
Armor: Light (aluminum laminate)
Crew: 3 + 7 passengers
Hull Length: 6.5 meters
Hull Width: 3.2 meters
Height: 3.0 meters
Engine: 500 hp diesel
Maximum Road Speed: 41.0 mph

This is the new armored personnel carrier of the U.S. Army, designed to compete with the Russian BMP while keeping pace with speedy M1 tanks. It is heavily armed, lightly armored and crowded inside. Although superior to the M113A3, it must be cautious when engaging enemy tanks. The TOW missile is no longer an invincible tank-killer.

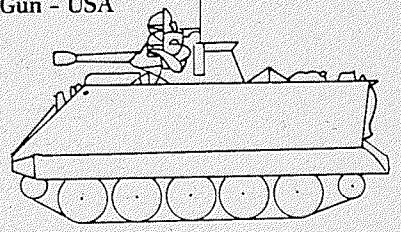
M113A3
Armored Personnel Carrier - USA



Weight: 12.5 tons
Main Weapon: one or two machineguns
Secondary Weapon: none
Armor: Light (aluminum steel)
Crew: 2 + 11 passengers
Hull Length: 4.9 meters
Hull Width: 2.7 meters
Height: 2.5 meters
Engine: 275 hp diesel
Maximum Road Speed: 42.0 mph

This is the latest variant of the U.S. Army's venerable "battle taxi" for infantry. It can carry and protect infantry from incidental fire, and is fairly useful against poorly armed Third World troops. Against well-outfitted opponents it should stay out of the line of fire.

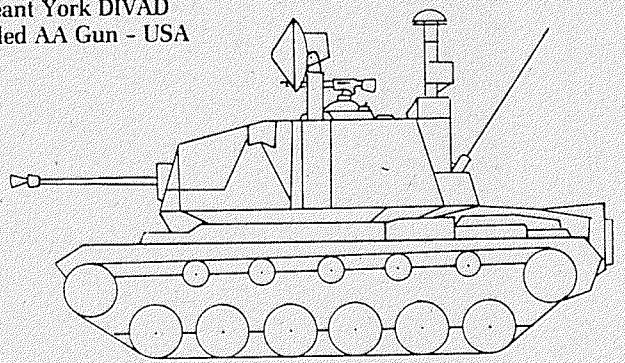
M163 Vulcan PIVADS
Self-Propelled AA Gun - USA



Weight: 13.5 tons
Main Weapon: 20mm Gatling Gun
Secondary Weapon: none
Armor: Light (aluminum/steel)
Crew: 4
Hull Length: 4.9 meters
Hull Width: 2.9 meters
Height: 2.8 meters
Engine: 215 hp diesel
Maximum Road Speed: 40.5 mph

The Product Improved Vulcan Air Defense System married a six-barrel 20mm Vulcan cannon with the ubiquitous M113 chassis. The gun is aimed by a gunner, who is aided by a radar rangefinder and tracking fire-control computer. Although useful against unarmored helicopters and slow-moving planes, it is ineffective against distant or high-speed targets (such as low-flying jets).

M247 Sergeant York DIVAD
Self-Propelled AA Gun - USA

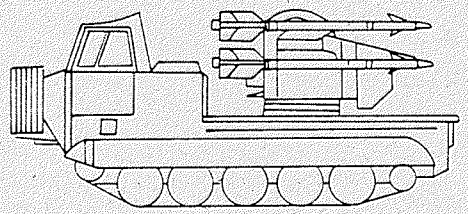


Weight: 60 tons
Main Weapon: twin 40mm Cannon
Secondary Weapon: one machinegun
Armor: Light (steel)
Crew: 3
Hull Length: 7.1 meters
Hull Width: 3.6 meters
Height: 4.6 meters (including antennae)
Engine: 750 hp diesel
Maximum Road Speed: 29.8 mph

The Sergeant York gun was designed to provide medium range rapid-fire AA gun defenses for US troops. The U.S. Army has lacked a long-range, effective AA gun for decades. This design was cobbled together from an old M48 tank chassis, standard 40mm AA guns, and a fighter plane's radar system.

Unfortunately, the Sgt. York repeatedly failed combat trials. Only after 146 had been produced was the U.S. Congress able to close down production of this remarkably expensive boondoggle.

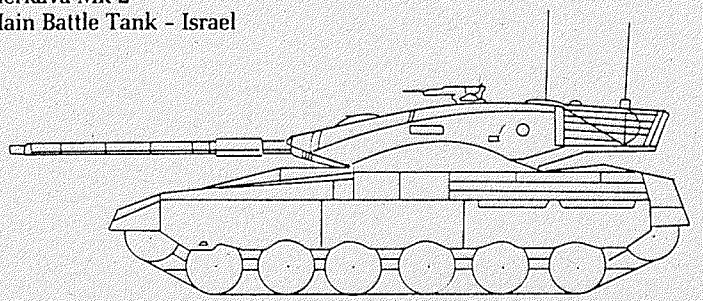
M48A1 Chaparral
Surface-to-Air Missile (SAM) System - USA



Weight: 12.7 tons
Main Weapon: four MIM-72C IR homing missiles
Secondary Weapon: none
Armor: Light (steel) for crew only
Crew: 4-5
Hull Length: 6.1 meters
Hull Width: 2.7 meters
Height: 2.7 meters (including antennae)
Engine: 202 hp diesel
Maximum Road Speed: 38.0 mph

The Chaparral combined a modified Sidewinder air-to-air missile with the U.S. Army M548 carrier. It is designed to work as a team with the Vulcan AA vehicle. The Chaparral uses its IR homing missiles at targets too fast for the Vulcan. Like the Vulcan, it has no integral search radar. Therefore it cannot engage targets until the gunner sees them.

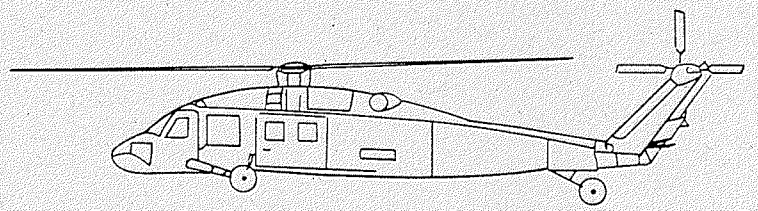
Merkava Mk 2
Main Battle Tank - Israel



Weight: 66.0 tons
Main Weapon: 105mm Rifled Cannon
Secondary Weapon: three machineguns
Armor: Heavy (steel/composite)
Crew: 4
Hull Length: 7.5 meters
Hull Width: 3.7 meters
Height: 2.8 meters
Engine: 900 hp diesel
Maximum Road Speed: 28.6 mph

The Merkava is Israel's first "home grown" battle tank, and a very original design. It is heavily armored, slow and carries the traditional 105mm NATO cannon designed 25 years ago. This philosophy is directly contrary to USSR design concepts, and fairly different from most western nations. However, Israel is designing from the greatest successful tank battle experience of any nation in the post-WWII world. Perhaps they know something we're ignoring?

UH-60 Blackhawk
Transport Helicopter - USA

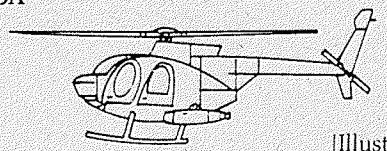


[Illustration half scale]

Weight: 8.1 tons
Main Weapon: varies (often none)
Secondary Weapon: none
Armor: Light (Kevlar & composites)
Crew: 3 + 11-14 troops
Length: 15.3 meters (excluding rotor)
Width: 5.5 meters (excluding rotor)
Height: 3.8 meters
Engine: two turboshaft jets, 2828 total shp
Maximum Level Speed: 184 mph

The Blackhawk is the U.S. Army's new general-purpose helicopter and a worthy successor to the classic but aging UH-1 "Huey". The twin-engine design, light armor, and high crashworthiness make it a safe, reliable machine in combat conditions. Ground attack, night flying and ECM/ESM variants exist, as well as many other special-purpose designs. However, the Blackhawk lacks sophisticated fire control systems, so even the armed versions are nowhere near as potent in combat as the AH-64 Apache.

Hughes 500MD Defender
Attack Helicopter - USA



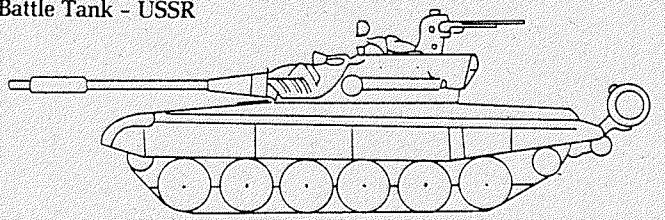
[Illustration half scale]

Weight: 1.6 tons
Main Weapon: four TOW missiles
Secondary Weapon: varies
Armor: none
Crew: 2
Length: 7.6 meters (excluding rotor)
Width: 3.2 meters (excluding rotor)
Height: 2.7 meters
Engine: one turboshaft engine, 425 total shp
Maximum Level Speed: 140 mph

The Defender is not used by the U.S. Army. It is an inexpensive attack helicopter for export to smaller Western nations. It currently serves in the Israeli, Kenyan, and South Korean air forces. Instead of the TOW anti-tank missiles as shown it can carry a three-barrel 7.62mm minigun (a gatling machinegun), 40mm grenade launcher, or 2.75" FFAR rocket pods. Options include a mast-top sight for the TOW (instead of the nose sight shown), FLIR night vision for the pilot, air-to-air missiles, and various computerized flying and combat aids.

EASTERN BLOC EQUIPMENT

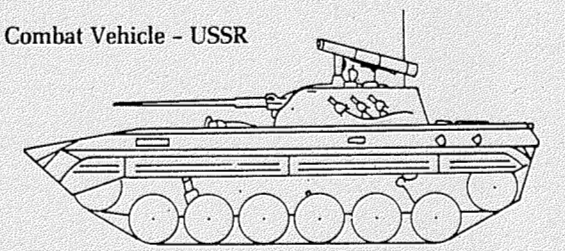
T-74
Main Battle Tank - USSR



Weight: 45.1 tons
Main Weapon: 125mm Smoothbore Cannon
Secondary Weapon: two machineguns
Armor: Medium (steel & laminate/composite)
Crew: 3
Hull Length: 7.0 meters
Hull Width: 4.8 meters
Height: 2.4 meters
Engine: 780 hp diesel
Maximum Road Speed: approx. 37 mph

This vehicle is still called the T-80 by the U.S. Defense Department, even though most other nations and sources (including Jane's) indicate the Soviet designation is T-74. Like all Soviet post-WWII MBTs it is low, rounded, and fast ("drives like a sports car" according to Israeli tankers). The 125mm cannon has a mechanical loader that eliminates the need for a fourth crewman. Sights and night-fighting equipment aren't up to Western standards. The armor is predominantly traditional steel plate, since the Soviets haven't discovered the secret of Chobham armor. The T-74 is an evolutionary improvement in a family that reaches back through the T-72 to T-64, T-62 and ultimately to the ancient T-55 of the 1950's.

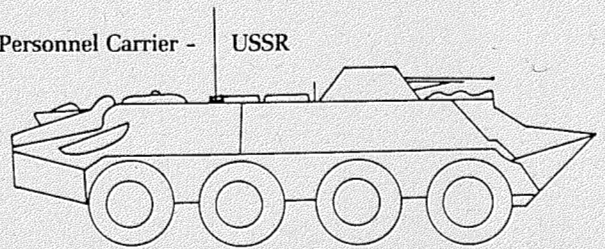
BMP-2
Infantry Combat Vehicle - USSR



Weight: 16.1 tons
Main Weapon: 30mm Rifled Cannon
Secondary Weapon: AT-5 Spandrel Missile
Armor: Light (steel)
Crew: 3 + 7 passengers
Hull Length: 6.7 meters
Hull Width: 3.1 meters
Height: 2.1 meters
Engine: approx 350 hp diesel
Maximum Road Speed: approx. 37 mph

The BMP-1 was a seminal concept in AFVs: an amphibious armored vehicle with a light cannon and anti-tank missile that carried an infantry squad. The BMP-2 is an improvement on the original. It has a new 30mm high-velocity gun and better anti-tank missile, but reduced infantry space (normally only six infantrymen are carried). According to Soviet doctrine, each BMP should carry a "Grail" (SA-7, SA-7B, or SA-14 surface-to-air missile) for defense against air attack. In action one of the infantrymen opens a top hatch on the rear deck, stands up, aims the Grail from his shoulder, and fires.

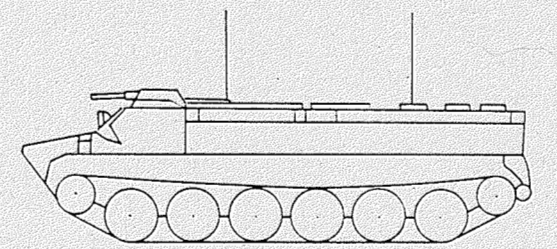
BTR-70
Armored Personnel Carrier - USSR



Weight: 12.7 tons
Main Weapon: two machineguns
Secondary Weapon: 30mm grenade launcher
Armor: Light (steel)
Crew: 2 + 9 passengers
Hull Length: 7.8 meters
Hull Width: 2.8 meters
Height: 2.5 meters
Engine: two 115 hp gas reciprocating
Maximum Road Speed: approx. 37 mph

This 8-wheeled carrier is an upgrade of the ancient BTR-60, designed prior to the BMP. Although a useful troop carrier, especially on roads or flat, firm ground, it has trivial armament, very weak armor, and an extremely poor transmission (due to the twin engines). Infantry must enter and exit the passenger compartment through two small roof hatches (most APCs use large rear doors). If the USSR had a Congress and/or a free press, ridiculous vehicles like this would be taken out of production (see the M247 Sergeant York DIVAD).

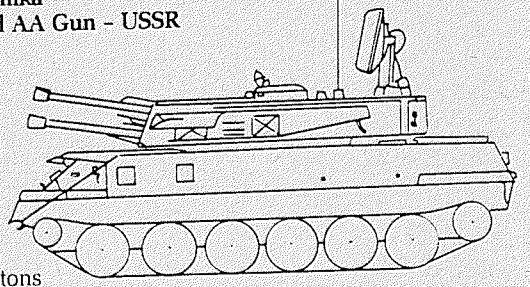
MT-LB
Armored Carrier - USSR



Weight: 13.1 tons
Main Weapon: one machinegun
Secondary Weapon: none
Armor: Light (steel)
Crew: 2 + 11 passengers
Hull Length: 6.5 meters
Hull Width: 2.9 meters
Height: 1.9 meters
Engine: 240 hp diesel
Maximum Road Speed: 38 mph

This general-purpose carrier was based on an unarmored tractor designed for use in swamps and arctic areas. It is an excellent cheap transporter with superior cross-country mobility. It has both roof hatches and rear doors for easy loading and unloading. Unlike the BMP, the MT-LB is not designed for fighting in the front lines.

ZSU-23-4 "Shilka"
Self Propelled AA Gun - USSR



Weight: 20.9 tons
Main Weapon: four 23mm Auto-Cannons
Secondary Weapon: none
Armor: Light (steel)
Crew: 4
Hull Length: 6.5 meters
Hull Width: 3.0 meters
Height: 3.0 meters
Engine: 280 hp diesel
Maximum Road Speed: 27 mph

The "Zoo" is another seminal design integrating powerful, rapid-fire AA guns with computerized radar fire control on a light tank chassis. The guns overheat quickly, and so are fired in 3 to 5 second bursts. Still, each burst puts 200 shells into the air! The original ZSU-23-4 design had mediocre radar that had trouble finding targets below 200' altitude. The newer ZSU-23-4M has a much improved radar system with better search and resolution capabilities. The guns can fire using optical sights if the radar is jammed. The ZSU-23-4 has been greatly feared by Western pilots.

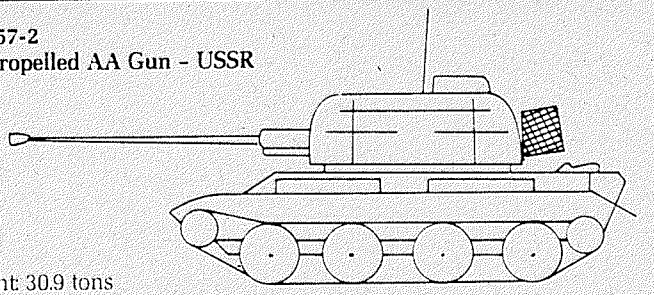
ZSU-30-2
Self Propelled AA Gun - USSR

Weight: probably 20-30 tons
Main Weapon: two 30mm Auto-Cannons
Secondary Weapon: probably none
Armor: probably Light (steel)
Crew: probably 3-4
Hull Length: probably 6.2-6.7 meters
Hull Width: probably 3.0 meters
Height: unknown
Engine: probably a diesel
Maximum Road Speed: probably 27-37 mph

[No illustration available]

Although it has not been displayed on parade, diverse sources suggest that the Soviet Union has a new and improved AA tank with twin 30mm guns. Details are not yet available. This design replaces the ZSU-23-4, now more than 20 years old. The heavier caliber 30mm guns should be able to do more damage at longer ranges against armored helicopters such as the AH-64.

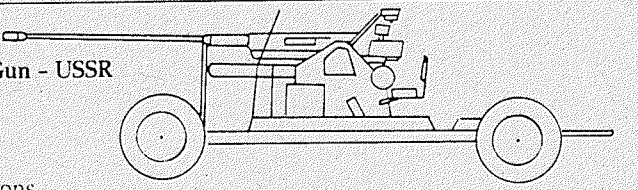
ZSU-57-2
Self Propelled AA Gun - USSR



Weight: 30.9 tons
Main Weapon: two 57mm Auto-Cannons
Secondary Weapon: none
Armor: Light (steel)
Crew: 6
Hull Length: 6.2 meters
Hull Width: 3.0 meters
Height: 3.0 meters
Engine: 280 hp diesel
Maximum Road Speed: 31 mph

This obsolete AA weapon uses an early 1950's tank hull and two late 1950's AA guns. The guns track slowly and lack radar ranging or control (everything is done optically or manually). However, the shells are quite powerful — a direct hit can seriously damage a plane or helicopter, even the armored A-10's and AH-64's. Large numbers were supplied to Soviet client states, who now use it primarily against ground targets.

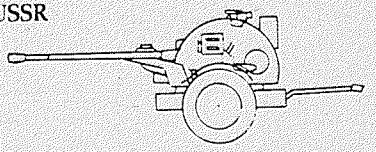
S-60
57mm AA Gun - USSR



Weight: 5.0 tons
Main Weapon: one 57mm Auto-Cannon
Secondary Weapon: none
Armor: none
Crew: 7
Length: 8.5 meters traveling
Width: 2.1 meters traveling
Height: 2.6 meters traveling
Engine: none
Maximum Road Speed: towed

This old but effective medium AA gun is still used worldwide by Soviet-equipped states. The gun can be fired using optical control. For greater accuracy a SON-9A fire control radar with a PUAZO-6 60 director can be attached. One or more guns can be tied into a search radar system for long-range accuracy. During the Vietnam War this system is believed to have been the single most effective destroyer of American aircraft.

ZU-23
23mm AA Gun - USSR



Weight: 1.1 tons
Main Weapon: two 23mm Auto-Cannons
Secondary Weapon: none
Armor: none
Crew: 2-3
Length: 4.6 meters traveling
Width: 1.8 meters traveling
Height: 1.9 meters traveling
Engine: none
Maximum Road Speed: towed

This cheap, rapid-fire, short-range AA gun is used extensively by Soviet-supplied armies. It is relatively light for easy transportation and sets up quickly. The gun is considerably superior to machineguns and other ad hoc AA defenses, but is not designed for use with radar. Therefore its range is low and its accuracy against fast-moving targets is totally dependent on the gunner's skill.

SA-7, SA-7B or SA-14
Portable Surface-to-Air Missile - USSR

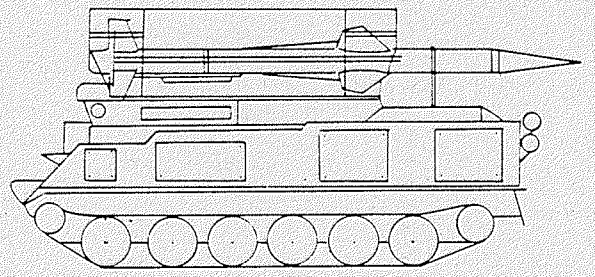


Weight: 20.3 lb missile (tube extra)
Main Weapon: 5.5 lb fragmentation warhead
Secondary Weapon: none
Armor: none
Crew: 1
Length: 1.35 meter missile
Width: 70mm missile diameter
Height: (shoulder launched)
Engine: Mach 1.5 solid fuel
Maximum Road Speed: manpack

This IR-homing missile has been popular among Soviet-supplied armies and terrorists for years. The original SA-7 had an IR homing head that needed to fly up a jet exhaust, and was easily decoyed by flares and jammers. The SA-7B has an improved seeker that is less easily jammed, but still uses a small 5.5 lb. warhead. The new SA-14 is believed to have an even better seeker and larger warhead. The maximum range and altitude of these missiles is consistently underestimated in the West. For example, although an altitude limit of 1,500' is widely quoted, an SA-7 hit an Omani jet (in 1974) at 11,500 feet!

The SA-7, -7B, or -14 is carried by infantry units, used to defend ground installations, and carried inside BMP vehicles as their aircraft defense.

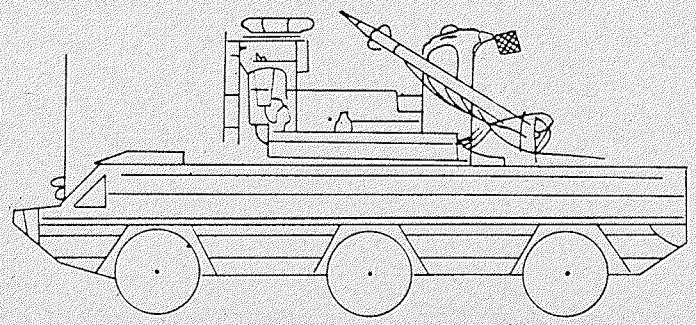
SA-6 "Gainful"
Self Propelled Surface-to-Air Missile Launcher - USSR



Weight: 15.4 tons
Main Weapon: three SA-6 missiles
Secondary Weapon: none
Armor: Light (for crew only)
Crew: 3
Hull Length: 6.8 meters
Hull Width: 3.2 meters
Height: 3.5 meters
Engine: 280 hp diesel
Maximum Road Speed: 27 mph

This medium-range SAM system is commonly used by poorer Soviet-supplied nations against aircraft at low to medium altitude. The launcher vehicles travel and fire in cooperation with separate radar vehicles. One radar system searches for targets, then hands them off to a second fire-control radar that tracks the target, plus the missile once it is fired. The fire-control radar then sends commands to the missile that guide it to the target. If the radar control is jammed or destroyed the missile flies "blind" and is unlikely to hit anything. The SA-6 system is popular because the missiles and radar can move forward with combat troops, or be positioned where threats are greatest. However the radar and control technology are 1960's vintage and easily jammed. The missiles themselves are slow (Mach 1.5) and not very maneuverable.

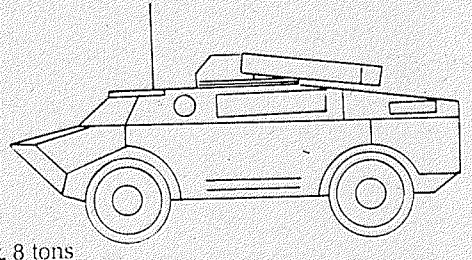
SA-8 "Gecko"
Self Propelled Surface-to-Air Missile Launcher - USSR



Weight: approx. 25 tons
Main Weapon: four or six SA-8 missiles
Secondary Weapon: none
Armor: Light (for crew only)
Crew: 3
Hull Length: 9.0 meters
Hull Width: 2.9 meters
Height: 4.1 + meters
Engine: no reliable data
Maximum Road Speed: approx 37 mph

This sophisticated system was front-line equipment in the Warsaw Pact forces until recently. Exports have begun to select Soviet client states (including Syria and Iraq). The vehicle mounts its own tracking radars, but can work with separate search radar systems to acquire targets beyond visual range. The target is normally tracked with radar, but optical TV tracking is available if the radar is jammed. In early flight the missile is guided toward the target by the controller. As it closes in, an IR homing warhead switches on, providing another backup in case the radar guidance system fails. The missile can reach speeds over Mach 2 and is fairly maneuverable, but burns out rather quickly (maximum range is 12 kilometers). The vehicle can launch and control two missiles simultaneously and on different frequencies. The SA-8B system has six improved and more sensitive missiles cased in protective boxes.

SA-9 "Gaskin"
Self Propelled Surface-to-Air Missile Launcher - USSR



Weight: approx. 8 tons
Main Weapon: four SA-9 missiles
Secondary Weapon: none
Armor: Light (steel)
Crew: 2-3
Hull Length: 5.8 meters
Hull Width: 2.4 meters
Height: 2.2 + meters
Engine: 140 hp gas reciprocating
Maximum Road Speed: approx. 60 mph

This light armored vehicle is armed with short-range IR homing missiles. The missiles are aimed by the gunner using visual sights. The SA-9B has a simple radar to aid the gunner in locating targets. The missile itself is barely equal to the

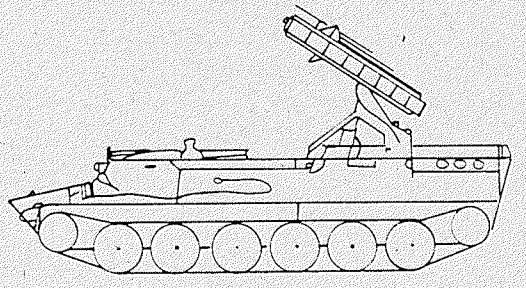
SA-7. It has an even smaller warhead, but a larger minimum range and minimum altitude. The questionable value of this system was demonstrated in the 1981-82 Israeli air raids over Lebanon, where Israeli planes inflicted massive losses on entire Syrian batteries of these vehicles.

SA-11 "Gadfly"
Self Propelled Surface-to-Air Missile Launcher - USSR

Weight: approx. 20 tons
Main Weapon: four SA-11 missiles
Secondary Weapon: none
Armor: Light [No illustration available]
Crew: 3-4
Hull Length: 6.5 meters
Hull Width: 3.0 meters
Height: 3.0 meters
Engine: 280 hp diesel (probably)
Maximum Road Speed: approx. 27 mph

This is the latest Soviet medium-range missile, designed to replace the SA-6 system. It can use the same or improved search and tracking radars. The missile homes on reflected radar signals, flies very fast (Mach 3) and is reasonably maneuverable. Because this system is quite recent, some sources believe it has a backup TV or laser tracking system as well as IR homing for terminal guidance.

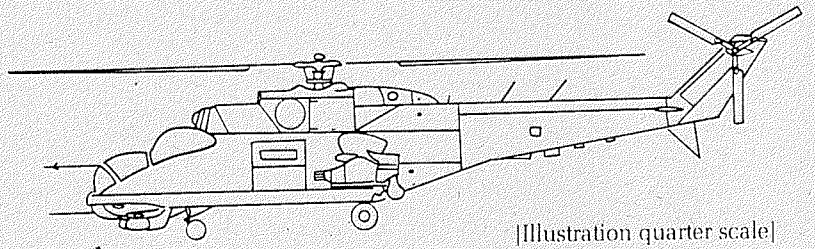
SA-13 "Gopher"
Self Propelled Surface-to-Air Missile Launcher - USSR



Weight: 13.8 tons
Main Weapon: four SA-9 or SA-13 missiles
Secondary Weapon: one machinegun
Armor: Light (for crew only)
Crew: 3-4
Hull Length: 6.6 meters
Hull Width: 2.9 meters
Height: 2.3 meters (travelling)
Engine: 240 hp diesel
Maximum Road Speed: approx. 34 mph

This is a completely redesigned successor to the SA-9 Gaskin. It has a small search radar and fires IR homing missiles from a converted MT-LB vehicle. These missiles are new, improved designs that jump between two IR frequencies to counteract jamming and flares. The homer is sensitive enough to find "hot spots" on aircraft skin caused by air friction, rather than simply chasing the exhaust. Introduced in 1980, the SA-13 missile is the USSR's best ground-launched IR homing weapon now in active service. Versions of the vehicle have been supplied to the Warsaw Pact and selected Soviet allies, but often the actual missiles are the poor SA-9s, rather than the state-of-the-art SA-13s!

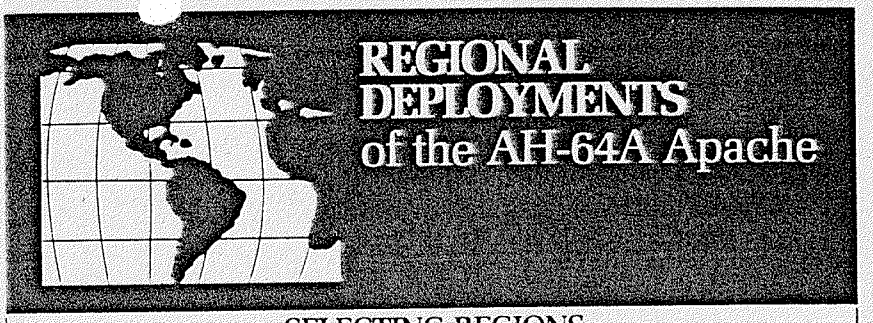
Mi-24 "Hind"
Attack Helicopter – USSR



|Illustration quarter scale|

Weight: 12.1 tons
Main Weapon: Varies
Secondary Weapon: 2,800 lbs of bombs, rockets, etc.
Armor: Light (titanium?)
Crew: 3
Length: 33.7 meters (excluding rotor)
Width: approx. 16 meters (excluding rotor)
Height: 3.2 meters
Engine: two Lotarev D-136 turboshaft jets, 11,400 total shp
Maximum Level Speed: 183 mph

This large, fast, heavy, armored helicopter is literally a "flying battlecruiser." The D model has a 12.7mm gatling gun turret beneath the nose as its main weapon. The E model has four fixed 23mm cannons while the turret houses laser guidance for AT-6 "Spiral" anti-tank missiles. An F model carrying IR homing missiles for air-to-air combat may exist (the U.S. Defense Department calls it the Mi-28 Havoc). The "Hind" is faster than any western helicopter, but much less maneuverable. Although the D model (illustrated above) has a nose turret, it lacks an equivalent to IHADSS and TADS. Therefore, in swirling air-to-air combat it is limited to forward firing, like the E model. No information exists on the guns and cannons of the "F" model, much less the fire control system used.

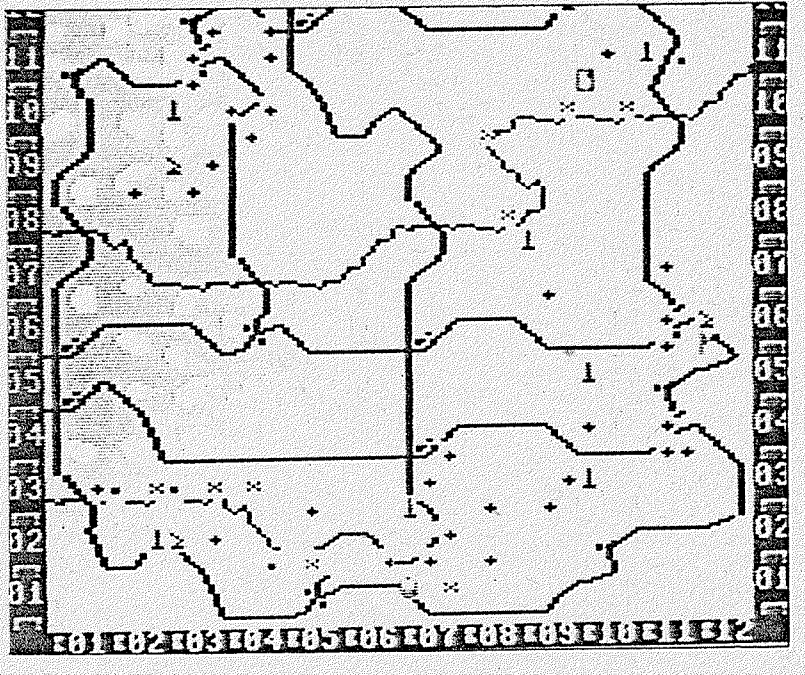


REGIONAL DEPLOYMENTS of the AH-64A Apache

SELECTING REGIONS

The five flying regions are listed in order of difficulty, from the easiest (Training in the USA) to the most difficult (Western Europe). U.S. Army regulations require that all new pilots first report to the training area in the USA. This is only sensible. If you're new, follow those orders and work through both "Beginner's Tutorials." Only then are you ready for combat duty. Southeast Asia or Central America should be first, then the Middle East or Western Europe.

TRAINING IN THE USA



Background: This area is designed to help teach you flying, how to use weapons, and how to use defenses. All enemies fire "blanks." You can experiment and learn without worrying about damage. LEARN TO FLY HERE FIRST. Even experienced combat fliers occasionally return here to experiment with new tactics or try out new flight maneuvers.

The Apache flight training area has a central heliport with various dummy targets surrounding it. A comprehensive combat simulation environment exists to give pilots realistic practice flying in battle conditions, but without suffering any battle damage. This area is ideal for learning to fly, learning to identify Soviet-built equipment and installations, and to gain skill on both the attack and defense.

Mission Profiles: Use the "Beginner's Tutorials" on your first flights. Then continue to practice until flying, attacking, and avoiding threats is second nature. The heliport does not use passwords and countersigns.

Opposing Equipment: This training area includes dummies and simulations of most Soviet-made equipment. It has SA-7, SA-8, and SA-9 missile launchers, ZSU-23-4 AA tanks and S-60 57mm anti-aircraft guns, T-74 and BMP tank targets, infantry and bunker targets, and three typical Soviet installations: an HQ, a supply depot and a forward heli-base. None of these have active weapons. You cannot be shot down.

Advice from the Sergeant Major: "I've seen many good pilots go to war too soon. It's like lambs to the slaughter. Take my advice, sir, and get lots of practice hours. Flyin' a gunship is a tricky job at best, and downright difficult when a dozen bad guys are tryin' to toast you. No disrespect intended, sir, but the better you are on the practice range, the better your chances of living through your first battle."

"Don't be too upset if your first flight ends badly. Everybody has trouble with choppers at first. Give it time and you'll get the hang of it."

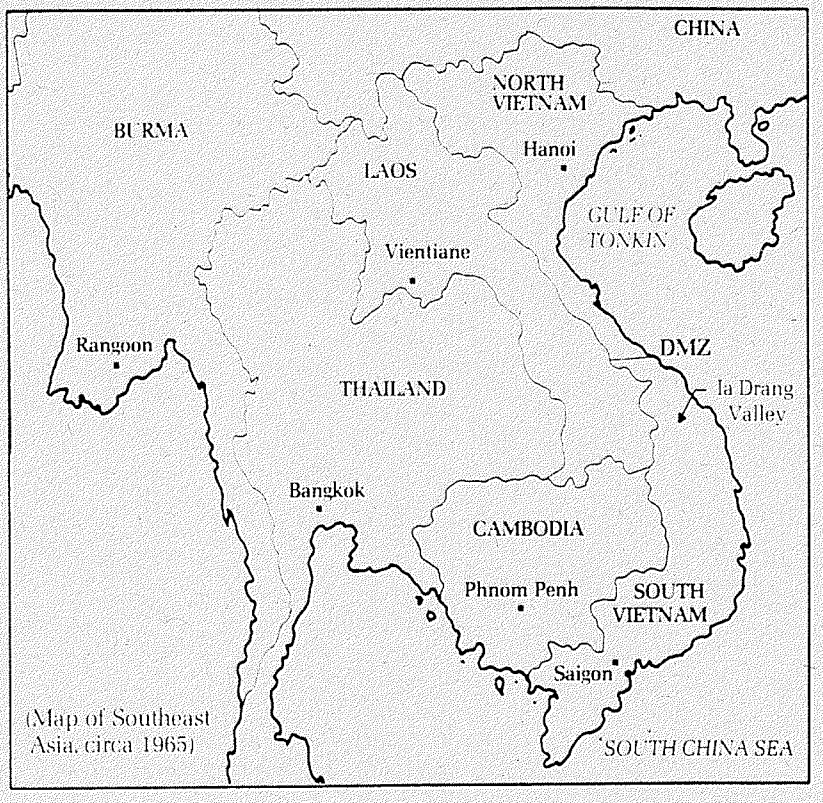
SOUTHEAST ASIA

1st Air Cavalry Division

Background: In 1965 U.S. combat troops are sent on active duty to fight communist guerilla forces in Southeast Asia. The first heliborne unit in history swings into action in the Ia Drang Valley. Helicopter transports and gunships are invaluable in finding the elusive enemy. Communist regular and guerilla forces lack sophisticated weapons, but the early UH-1 and AH-1 choppers lack armor protection — a stray bullet could and did disable a million-dollar flying machine. Fortunately, the AH-64A Apache is armored.

Mission Profiles: Your main problem is finding the enemy. Only occasionally will you encounter strong AA guns and SAM defenses. Mission targets are mostly enemy troops and installations, sometimes a bunker complex. Hellfires are only needed against the bunkers. Otherwise cannon and rockets are perfectly adequate.

Opposing Equipment: Enemy AA weapons are primarily 23mm and 57mm gun sites. Third line guerilla forces have no radar, while second and first line NVA troops have radar for their 57mm, S-60 sites. The only SAMs in use against



(Map of Southeast Asia, circa 1965)

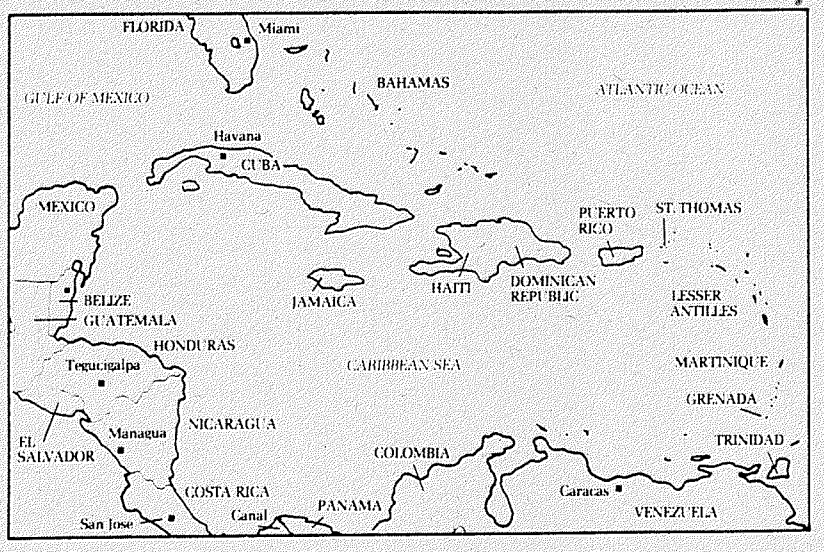
helicopters are outmoded SA-7s. Most of these are used to defend enemy bases. Intelligence reports no enemy helicopters in the region, and will update you if the situation changes.

Advice from the Sergeant Major: "Be glad you've got an armored chopper — baddies in the bush aren't a serious danger. On the other hand those 23's and 57's can be nasty. The ones without radar are especially irritating — they don't trip your warning lights. If you start collecting flak, get low quick and dodge. Then decide whether you want to hunt them down or take another route."

CENTRAL AMERICA

82nd Airborne Division

Background: In October, 1983 America mounted an air-land-sea invasion of Grenada to eliminate a gradual communist takeover. The government of El Salvador, an American ally, is struggling to remain coherent. Haiti has just eliminated a hated dictator but has huge internal troubles. The anti-American government of Nicaragua is under guerrilla attack by "Contras" based in Honduras and Costa Rica. Border clashes with U.S. allies could lead to calls for

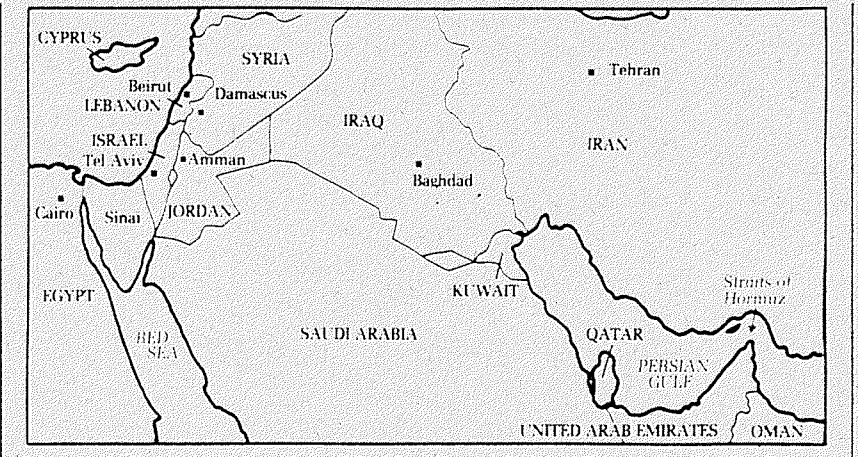


American military assistance. Cuba, a strong Soviet client-state for decades, still fears an American invasion. In all cases, the unit ready to move fastest is the 82nd Airborne Division. Men and supplies can be parachuted into action while mobile fire support (the AH-64A Apache) flies to freshly-cleared firebases and heli-pads.

Mission Profiles: Here the enemy has a conventional army, but the battlefield is irregular and confused. You won't find a well-defined front line, but you will find organized groups of regular enemy troops, supported by AA guns, SAMs, and Hind helicopters. Beware the high daytime temperatures and humidity, which greatly reduce carrying capacity.

Opposing Equipment: The enemy forces are primarily infantry, supported by a few BMP armored vehicles and ZSU-23-4 or ZSU-57-2 AA tanks. The SA-9 Gaskin missile carrier is the standard "heavy" SAM vehicle, with a few improved SA-9B's available to first grade troops. Virtually all enemy infantry and installations have SA-7 Grails, some have the improved SA-7B. Both 23mm and 57mm guns are commonly used for air defense. All 57mm guns use search radars, and all but the worst-equipped have fire control radar too. None of the 23mm guns have radar. Mi-24 Hind helicopters are available in small numbers to most communist armies, and will probably make an appearance on the battlefield.

Advice from the Sergeant Major: "Sir, these guys are *not* primitive villagers from the boondocks. They've got decent weapons and know how to use them. If you get a radar warning, it's probably a ZSU-23-4 or a 57mm AA gun. Don't just jam them, hit them before they switch to optical and hit you! Like Southeast Asia, beware of the 23mm's and older ZSU's that use optical control — they don't warn you before they fire! When loading up, carry lots of 30mm. Hellfires are useful at times, but don't go crazy with them."



101st Air Assault Division

Background: The Middle East is still the world's trouble spot. Israel and Syria duel in desultory fashion over southern Lebanon and their common border, the Golan Heights. The Iran-Iraq war continues to hold the danger of a losing Iran seeking revenge by closing the Straits of Hormuz to oil traffic. Worse, Iranian-style religious radicalism might surface in any nearby Moslem state, triggering a civil war. If an American friend calls for aid, or international straits need to be cleared, in America's "Central Command" reaction force the key unit is the 101st Air Assault Division. Formerly a parachute division, it's now an experimental hybrid practicing the "Air-Land 2000" mobile warfare of the future. Naturally, the AH-64A Apache is a key player on this new team.

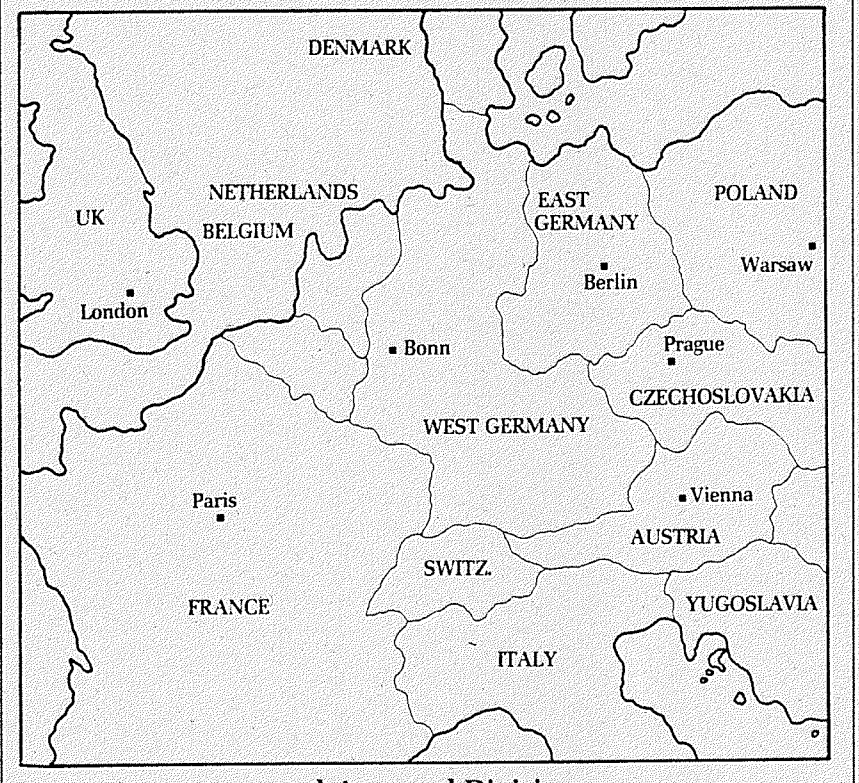
Mission Profiles: Here you face modern armored forces lavishly equipped by the Soviet Union. Fortunately, this is the enemy the Apache was designed to destroy. Careful weapons loading is paramount because high ground level and very high temperatures conspire to reduce your carrying capacity. The majority of enemy targets will be armored vehicles, making the Hellfire an extremely important weapon.

Opposing Equipment: Most opponents have numerous tanks and personnel carriers, protected by ZSU's, SA-8's and SA-9's. Enemy first line forces use the ZSU-23-4M AA tank, SA-8B and SA-9B SAM vehicles, S-60 57mm guns with full radar, and outfit their infantry with SA-7B improved Grails. Enemy second line forces have the older ZSU-23-4 with poorer radar, the older SA-8 and SA-9 SAMs, no fire control radar on the 57mm gun sites, but still have the SA-7B improved Grails. Enemy third line forces are lucky to field the ancient ZSU-57-2 (with no radar), only have the SA-9 SAM vehicle, use older SA-7 Grails, and also lack fire control radar for the 57mm guns. Enemy air forces have a few Mi-24 Hind helicopters, so you may see some occasionally.

Advice from the Sergeant Major: "Sir, these fellows can be nasty, especially the first and second line troops with those SA-8 Geckos. Only the third line ZSU-57-2 and occasional 57mm gun site relies on optical control. However, their modern

equipment does set off your warning lights. So the enemy's better weaponry works in your favor too. Probably the tough part is the weight limit, especially on a hot day. Therefore, I advise against Sidewinders. If you meet a Hind, get him with the trusty 30mm. Hellfires will be useful against all those armored vehicles. Some guys I know don't carry FFARs, but that may be going too far . . . Sorry, sir, humor ain't my strong point."

WESTERN EUROPE



3rd Armored Division

Background: For over 40 years NATO forces across Germany have faced the Warsaw Pact. Both sides are armed to the teeth, ready for war. A number of U.S. Army divisions are stationed on this line, including the 3rd Armored of the U.S. V Corps. Trouble anywhere could lead to escalating tensions. When tensions are high, one itchy trigger finger could start a conventional war between the two superpower alliances. It is imperative that NATO stop the Russian steamroller without using nukes. Otherwise the President could be reduced to a choice between Russians in Paris, or nuclear winter for all!

Mission Profiles: Anything and everything can and will happen in this desperate free-for-all. The only sure thing is that the enemy is fully armored and moving fast

under an umbrella of sophisticated flak, SAMs, and helicopter gunships. Soviet military forces may not be very creative, but they are numerous and brave. They will keep coming until you stop them!

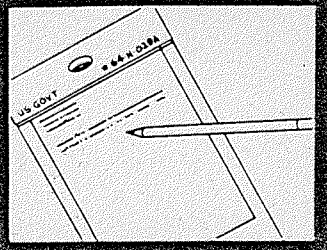
Opposing Equipment: The Warsaw Pact 1st Line Soviet Divisions have the very latest equipment: ZSU-30-2 AA tanks, SA-11 and SA-13 SAMs, and SA-14s for all the infantry and BMPs. The 2nd Line allied troops from East Germany, Poland and Czechoslovakia have the best of the previous generation: the ZSU-23-4M, SA-8B and SA-9B, and the SA-7B improved Grails for BMPs and infantry. Third line troops are mainly found in quiet areas, since they're Soviet reserve divisions or hastily organized allied troops. They have older ZSU-23-4's, unimproved SA-8's, SA-9's, and SA-7s. A few S-60 57mm guns can be found near important installations in all cases, and all but the third line troops have both search and fire control radar for these gun sites.

Advice from the Sergeant Major: "Well sir, this is the big time. We're up against the first team here. They've got everything including the kitchen sink, and they'll use it. Anywhere else is a piece of cake compared to this. But our boys on the ground are badly outnumbered and need us to even up the odds. Your best chance is at night, since their night vision stuff isn't as hot as ours. Load up on Hellfires — the Pact has hordes of armored vehicles out there. On a good night you might bag your fourteen in one sortie! Don't forget Sidewinders either. Hinds are as thick as flies around here."

GLOSSARY

AAA (Anti-aircraft Artillery): A gun designed to shoot down flying craft.
AA (Anti-aircraft): A popular shortening of "AAA".
Aft: Alternate term for "after" or "behind", originally nautical
AFV (Armored Fighting Vehicle): Any armored vehicle designed for use on the battlefield. Includes tanks, personnel carriers, self-propelled artillery, self-propelled anti-aircraft guns, etc.
AGM-114A (Air-to-Ground Missile, Type 114, Version A, "Hellfire"): Standard U.S. Army laser-homing armor-piercing missile.
AIM-9L (Air Interception Missile, Type 9, Version L, "Sidewinder"): Standard U.S. Air Force IR-homing air-to-air missile.
Anti-Torque Rotor: Also known as the "tail" rotor, used to stabilize yaw on a helicopter.
APC (Armored Personnel Carrier): An armored vehicle designed to carry and protect infantrymen. It may have wheels or tracks, and it may or may not be armed.
Avionics: All electronic equipment that either informs a pilot about his flying craft, or helps him control that craft.
Autorotation: A technique for landing a helicopter without engine power.
Ballistics: Study of projectile performance; i.e., the hows and whys of bullets and shells flying through the air.
BMP (Boevaya Mashina Peknota — Infantry Fighting Vehicle): Russian armored personnel carrier with a powerful armament. It permits an infantry squad to fight while riding the vehicle, or fight on foot with the vehicle providing fire support not unlike a tank. Popularly known as the "Bump" by American serviceman.
Bunker: A fortification to protect ground troops and weapons. It generally has a very thick side and roof made of earth, concrete, and/or steel.
Chaff: Thousands of tiny strips of metal, designed to reflect radar waves. Chaff is scattered in a "cloud" to confuse radar.
Collective: Hellicopter flight control that changes the angle of attack of the rotor, and thus indirectly changes the lifting force of the rotor.
CRT (Cathode Ray Tube): Generic term for any TV and/or computer display screen.
Cyclic: Helicopter joystick flight control that controls pitch and roll.
FFAR (Folding Fin Aerial Rocket): Abbreviation for lightweight unguided rockets commonly used by ground attack planes and helicopters.
Flak: Nickname for anti-aircraft guns or their exploding shells, derived from the German word for anti-aircraft gun.
Flares: A generic term for a heat source designed to mimic the heat signature of a flying craft, and thus confusing IR-homing weapons.

Fore: Alternate term for "forward" or "ahead", originally nautical.
HEDP (High Explosive, Dual Purpose): A type of high-explosive ammunition that includes an armor-penetrating capability.
Hellfire: Standard U.S. Army nickname for a type of air-to-ground missiles.
HIND: NATO code-name for the Russian-built Mi-24 series of helicopters
IFV (Infantry Fighting Vehicle): Western equivalent of the Russian BMP: an armored personnel carrier with a powerful armament. It permits an infantry squad to fight while riding the vehicle, or fight on foot with the vehicle providing fire support not unlike a tank.
IHADSS (Integrated Helmet and Display Sighting Sub-System): Pilot and gunner's helmets that include position sensors and display monocle.
INS (Inertial Navigation System): A device that computes the current location of a craft and displays this position to the pilot. It generally includes a system for selecting a destination point and displaying the proper course to reach that point.
IR (Infra Red): An area of the electromagnetic spectrum where sensors detect heat instead of visible light.
Knots: A measure of velocity, in nautical miles per hour. 1 knot = 1.14 statue miles per hour.
Kilometers: Metric measure of distance, 1.609344 kilometers = 1 mile.
LZ (Landing Zone): An area of ground where airborne troops will land, including paratroop drops and/or helicopter assaults.
Port: Left side of a craft, originally nautical.
SAM (Surface-to-Air Missile): A missile designed to destroy flying craft.
Sidewinder: Standard U.S. Air Force nickname for a type of IR-homing air-to-air missiles (all AIM-9 missiles).
Skid: For a helicopter, "sideways" motion — motion not parallel to the fuselage of the craft.
Starboard: Right side of a craft, originally nautical.
TADS (Target Acquisition & Designation System): An integrated system for sighting and tracking targets that interfaces with weapons themselves.
Torque: Rotational force in a turbine engine.
TOW (Tube-launched, Optically-guided, Wire-controlled): Standard U.S. Army armor-piercing missile system of the 1960's and 1970's.
Translational Lift: Lift caused by motion of the entire helicopter, as opposed to lift caused by blades within the rotor.
VSI (Vertical Speed Indicator): Cockpit dial that shows the rate of ascent or descent. If the craft is travelling level, the VSI is zero (level).
ZSU (Zenitnaia Samokhodnaia Ustanovka — Self-propelled anti-aircraft mount): Russian armored vehicle armed with anti-aircraft guns. Popularly known as a "Zoo" by American servicemen.



NOTES

At MicroProse GUNSHIP was an enormously long and complex project that took triple the estimated time and quadruple the original number of people. Simulating low-level helicopter combat, especially on 8-bit computers such as the C-64 or Apple II, was an outrageously complex job. Each member of the design team played a crucial role in developing this amazing simulation. Andy Hollis worked his optimizing magic to create a 3-D graphics system that made hills "solid" and yet ran fast enough for smooth real-time flight, not to mention his realistic handling of helicopter flight mechanics. Expert artists Michael Haire and Michele Mahan worked with programmer Gregg Tavares to conjure up a superb cockpit and the many attractive starting and ending screens. Gregg also contributed the missile flight logic. Sid Meier pulled his usual rabbits out of hats when it came to handling weapons logic and the "artificial intelligence" of the enemy. Credit (or blame) for the concepts, research, game scenarios, and overall coordination goes to Arnold Hendrick.

MicroProse could have taken the easy way out, like most software publishers now jumping onto the "flight simulator" bandwagon. However, we didn't want GUNSHIP to be another unrealistic arcade-style "shoot 'em up" that bears little resemblance to actual planes or helicopters. For example, one "helicopter simulation" from a well known firm even has the cyclic and collective controls reversed!

Instead, we spent the time and effort to make GUNSHIP a faithful and realistic representation of the actual AH-64A, the most sophisticated combat helicopter in the world. Unfortunately, this means GUNSHIP cannot be played like an arcade game. Don't expect to immediately fly around Western Europe blasting top quality Soviet troops off the map.

This simulation includes all the major systems and capabilities of the actual AH-64A. The only major concession to playability we added was the INS mapping system. The current AH-64A only has a simplified INS system. On the actual machine the pilot does not have a computerized map. He keeps a paper map in his lap, looks up coordinates on it, and punches them into his digital unit. However, the latest AH-1 variants have a more sophisticated INS system similar to one shown here. It's not unlikely that this will be added to the Apache too. As you can see, it's extremely convenient!

In GUNSHIP the tasks of pilot and gunner are combined into one activity and a single cockpit layout. The battle area is about 80 square miles in size. In addition to showing the major terrain features, such as hills, roads, and streams, the visibility logic includes incidental ground cover such as bushes, trees, small rolls in the ground, etc. in its internal calculations.

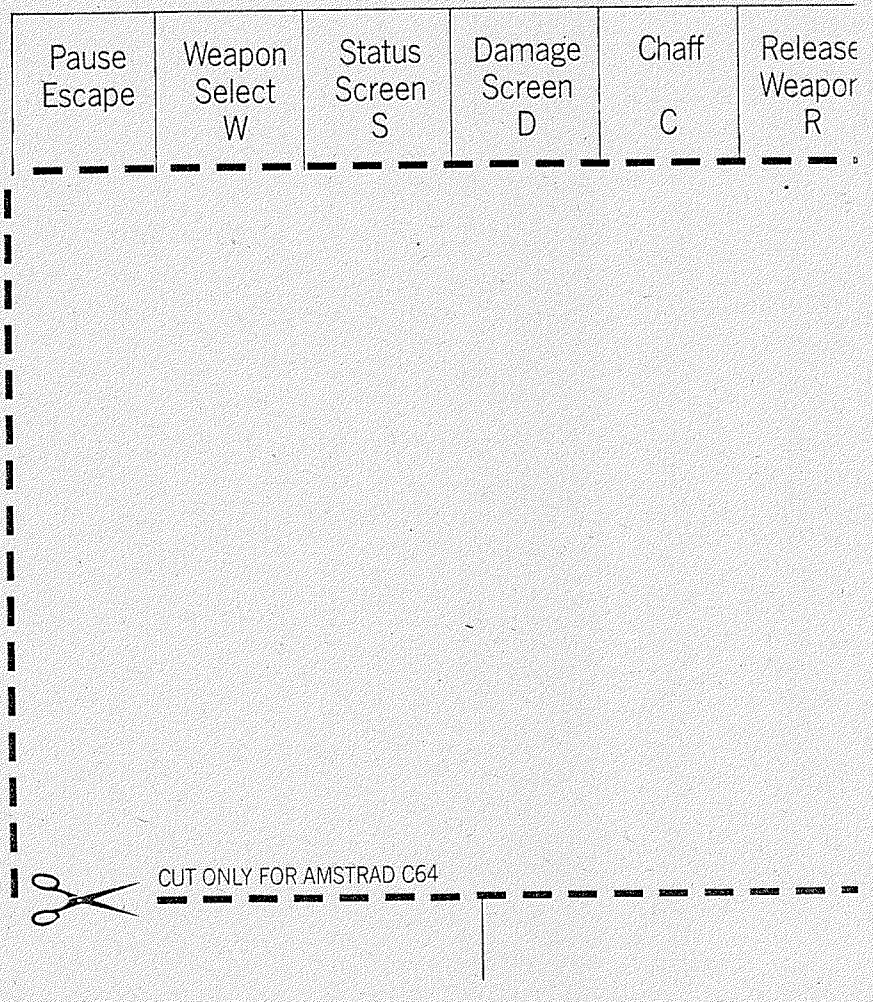
The actual AH-64A helicopter is quite new. Parts of it are still secret. MicroProse does not wish to compromise military security and needlessly endanger the lives

of gunship crews. We were careful to research all information from unclassified sources. Although we talked to real helicopter pilots, we did not solicit or use any classified information. In some cases this forced us to make educated guesses, rather than using hard data. However, a vast array of material about modern weaponry and warfare has been published in the USA and abroad, especially in England. In some cases our conclusions differ with the public position of the United States Department of Defense and/or the U.S. Army.

We're sure you'll enjoy the challenge of flying GUNSHIP, a "real" combat simulation. Spread the word if you prefer the authenticity of GUNSHIP, rather than unrealistic fast-action games. Let us know and let your software dealer know. Your purchasing dollar is your "vote" for future products. Each enthusiast who buys GUNSHIP helps us create more great simulations. This "dollar vote" is the real importance of software piracy. People who use pirated copies literally discourage us from producing future products of that type. Naturally we try to discourage piracy, but your help and support is much appreciated.

Good flying in the Apache's happy hunting grounds. May you win the Congressional Medal of Honor!

— the Gunship design team:
Arnold Hendrick, Andy Hollis, Gregg Tavares and Sid Meier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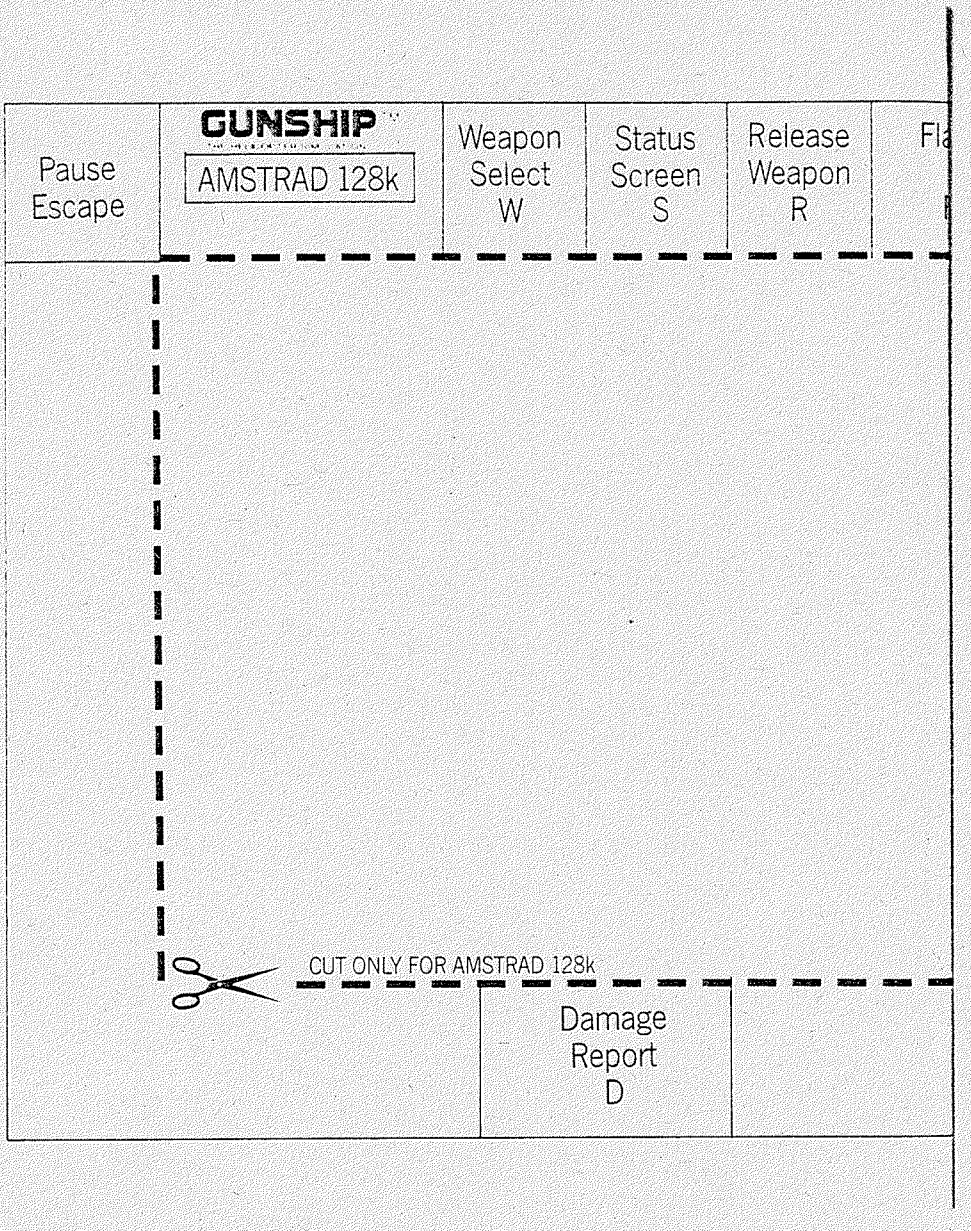
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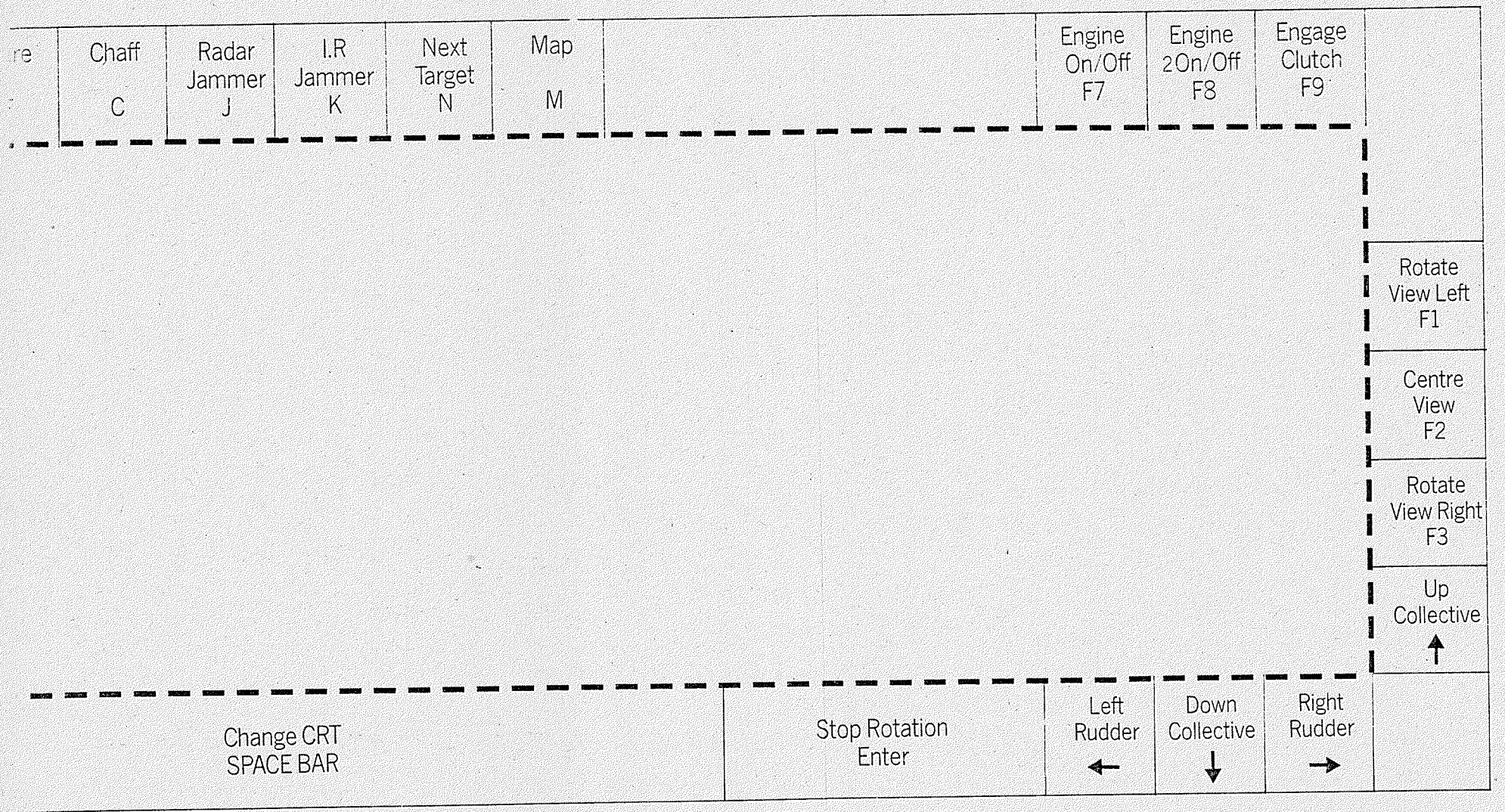
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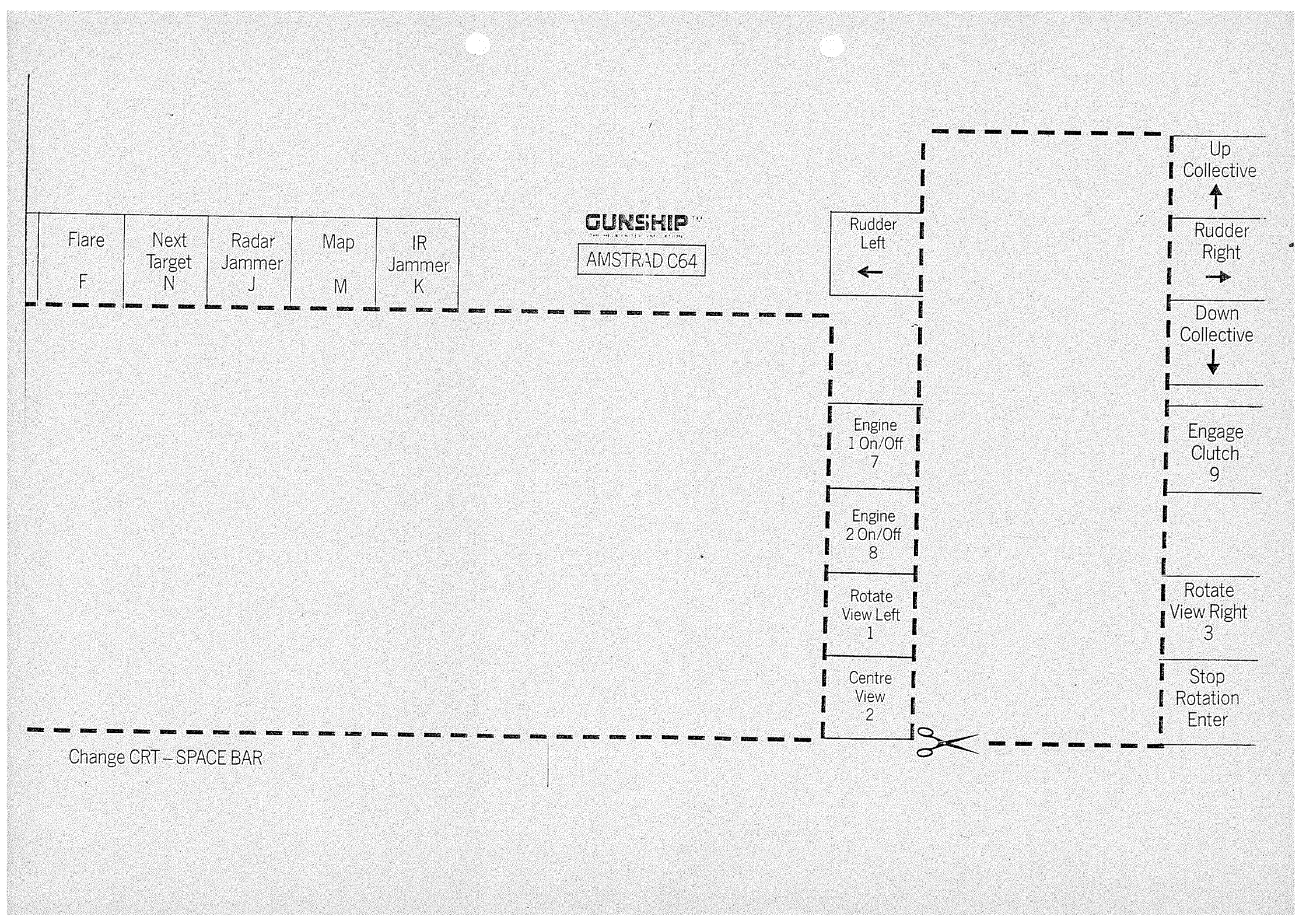
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1 On/Off
7
Engage
Clutch
9
Engine
2 On/Off
8
Rotate
View Left
1
Rotate
View Right
3
Centre
View
2
Stop
Rotation
Enter
Change CRT – SPACE BAR

GUNSHIP

Variations from manual for Amstrad version.

1. Screen shots of flight operations in manual are C64 and will differ on Amstrad.
2. Keys of flight operations in manual refer to C64 and will be different from Amstrad keys.
3. Vehicle identification is not included.
4. Pilots are saved to a blank disk or cassette.
5. Amstrad version does not give primary and secondary target locations in mission briefing.
6. Accelerated time is not included.
7. Abort mission is not included.
8. The enemy appears as only one colour on the radar screen.
9. To arm the helicopter move the cursor up and down to select the weapon you wish to change, then left or right to decrease or increase the weapon load as required. When you have finished arming the helicopter press fire to continue.
10. A special cheat option is available after crashing to allow you to try again in the same scenario. The use of this will, however, be shown on your pilots record.

GUNSHIP

PASSWORD	COUNTERSIGN
ACCENT	TRAMPOLINE
BILLBOARD	KICKBACK
CROMAGNON	MELODRAMA
DAKOTA	ONSTAGE
ELECTRA	VERTICAL
FOOTHOLD	INSOLENT
GRENADIER	NOCTURNE
HEDGEHOG	LOCKSMITH
IVORY	WILLOW
KNOCKOUT	PUREBRED
LOZENGE	ROMANTIC
MAZURKA	YELLOW
NEBULA	QUAKER
OVATION	UPSTAGE
PENTHOUSE	SYMPHONY
QUARTZ	ZEBRA

MICRO PROSE

SIMULATION • SOFTWARE

CREDITS — AMSTRAD CPC GUNSHIP

PROJECT LEADER
Roy Gibson

SOFTWARE DEVELOPMENT
Darrell Dannies

SCREEN GRAPHICS
Michael Haire

PROJECT CO-ORDINATOR
Roy Gibson

QUALITY ASSURANCE
Diarmid Clarke, Larry Martin, Alan Roireau

Cockpit Diagram

GUNSHIP

AMSTRAD CPC464
AMSTRAD CPC6128

TECHNICAL SUPPLEMENT

Introduction

This supplement provides specific instructions and information for using the GUNSHIP simulation with an Amstrad CPC. Your package should include 1 disk or 2 cassettes, an operations manual, a keyboard overlay, technical supplement, game variation card and a helpline warranty card.

Computer Systems

This version of GUNSHIP will operate only with the following computer systems:

- AMSTRAD CPC464
- AMSTRAD CPC6128

System Requirements

COLOUR MONITOR/TV
GREEN SCREEN MONITOR

AMSTRAD CPC is a registered trademark of Amstrad plc.

QUICKSTART INSTRUCTIONS

Caution GUNSHIP is an accurate simulation of a combat helicopter. Do not attempt to jump in and fly by instinct. Unless you've flown real helicopters, read Part 1 (Operating Instructions) in the OPERATIONS MANUAL and learn to fly using the tutorials.

Load Disk Load Cassette To load GUNSHIP, read the appropriate section of this supplement. Place the overlay on your keyboard.

Skim Operations Manual Skim the "Cockpit & Status Panels" and "Controls" sections of the OPERATIONS MANUAL to familiarize yourself with the helicopter. Also glance through "A Practical Guide to Helicopter Flying." Specific controls for your machine are included in this supplement; detailed descriptions are found in the OPERATIONS MANUAL.

Follow the Tutorials Turn to "Beginner's Tutorial I – Learning to Fly a Helicopter." Follow it step by step, referring to the "Cockpit" and "Controls" sections as needed. Then follow "Beginner's Tutorial II".

Begin Combat Flying If you are still uncertain about flying after both tutorials, continue flying the USA training area. Refer to "A Practical Guide to Helicopter Flying" and "Aerodynamics" in the OPERATIONS MANUAL and try the tutorials again.

Do Not Volunteer Don't volunteer for Western Europe. Watch the risk level as you select your options. Keep your risk low at first. Above all, avoid the 1st line in Western Europe. The Warsaw Pact is the most formidable enemy on this planet.

LOADING INSTRUCTIONS – DISK DRIVE

1. Plug the joystick into port.
2. Turn on your computer.
3. Insert GUNSHIP disk side A up in disk drive.
4. Type RUN "GS then press return. The game will now load.

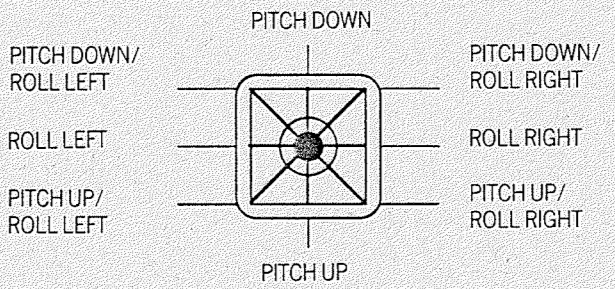
LOADING INSTRUCTIONS – CASSETTE DECK

1. Plug the joystick into port.
2. Turn on your computer.
3. Insert GUNSHIP cassette 1 side 1 in deck.
4. Press CTRL and small enter and then follow on screen instructions.

SPECIFIC CONTROLLER INFORMATION

Joystick

- Your joystick can be used in 8 different positions to control flight.
- When a target first appears, you can press the joystick button to lock on. Press again to fire a selected weapon.



AMSTRAD CPC DISPLAY COLOURS

Introduction Due to a revised cockpit configuration, the instrumentation and other cockpit display colours differ from those outlined in the OPERATIONS MANUAL. This section details the colours that are different in the Amstrad cockpit.

Strip Gauges The engine, rotor and fuel gauges are displayed in YELLOW.

Rotor Gauge
- The rotor gauge is illuminated BLUE when one rotor has been disengaged.
- The rotor gauge is RED when the rotor is engaged.

System Damage Lights (Cockpit)
- A slightly damaged system is illuminated YELLOW.
- A non-functioning system is illuminated RED.
- An undamaged system is GREEN.

INS Cursor The current destination is designated by BLUE map crosshairs.

Map Troop Symbols
- Target objectives are FLASHING RED.
- Other enemy forces are RED.
- Friendly forces are BLUE.

KEYBOARD FLIGHT CONTROLS

CATEGORY	ACTION	CONTROL
Collective	Up fast	shift ↑
	Up slow	↑
	Down slow	↓
	Down fast	shift ↓
View	View left	KP1/f1
	View ahead	KP2/f2
	View right	KP3/f3
Anti-Torque Rotor (tail)	Rotate left	←
	Stop rotation	Enter/return
	Rotate right	→
Engines	Port on/off	KP7/f7
	Starboard on/off	KP8/f8
	Rotor on/off	KP9/f9

NOTE: KP=KEYPAD

KEYBOARD COMBAT CONTROLS

CATEGORY	ACTION	CONTROL
Weapons	Sidewinder	W
	FFAR	Cycles
	Hellfire	Through
	30mm cannon	Weapon
Jettison	Jettison weapon	R
Counter measures	Chaff Decoy	C
	Radar Jammer	J
	IR Jammer	K
	Flare Decoy	F
View Displays	Map	M
	Damage	D
	Stoves	S
CRT	Change CRT	Space bar
TADS	New TADS target	N

OTHER KEYBOARD CONTROLS

Pause	Pause Game	Escape

TIPS UND HINWEISE

Die Arche des Captain BLOOD hält zu Beginn des Spieles vor einem bewohnten Planeten. Man muß wissen, daß die Galaxis Hydra aus 32 768 auf der Karte verzeichneten, bewohnbaren Planeten besteht. Alle sind aber nicht bewohnt, und es kann leicht vorkommen, daß Sie sich verirren. Der Spieler sollte sich vorsichtshalber die Koordinaten der bewohnten Planeten merken, bevor er sich dem Zufall anvertraut. Es ist allgemein bekannt, daß dem Zufall im Universum nicht zu trauen ist.

Kleines Detail am Rande: Das Programm baut bei jedem Wiederbeginn des Spieles die Galaxis neu auf. Die Koordinaten aller Planeten (bewohnt oder nicht) ändern sich bei jeder Reinitialisierung.

Vergessen Sie nicht, daß BLOOD sich mit der Zeit zersetzt. Es soll Sie daher nicht wundern, wenn seine Hand manchmal etwas zittert, was ein schlechtes Omen ist. ER MUSS UNBEDINGT LEBENSFLUIDUM FINDEN, das ihn regeneriert. Deshalb muß er nach den NUMMERN suchen, die er dann im FRIGATORIUM der Arche desintegriert.

Diese Software hat ein neues Konzept entwickelt: das BIOGAME. Die Wesen können evolvieren, geboren werden, sterben, auf unvorhersehbare Weise Informationen austauschen: sie sind autonom. Es können Ereignisse stattfinden wie Verschwinden oder Erscheinen von Planeten auf Grund von Zusammenbrüchen oder Auftauchen von Materie. Sie können Wesen von einem Planeten zum andern bringen.
Aber... Sie müssen Ihr Vertrauen gewinnen, sie studieren wie ein Ethnologe, denn sie können Ihnen behilflich sein oder Sie auch ins Verderben stürzen...

DIE ARCHE DES CAPTAIN

BLOOD

SZENARIO
PHILIPPE ULRICH
AUSARBEITUNG
DIDIER BOUCHON

ADAPTIERUNGEN

SCHNEIDER ..... Yves LAMOUREUX
PC ..... François LIONET
AMIGA ..... Sylvain TINTILLIER

Die Arche des Captain Blood 3
Anleitung 28

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DIE ARCHE DES CAPTAIN BLOOD

KAPITEL 1

Eine seltsame Begegnung unter besonderen Bedingungen

Diese schmutzige Geschichte begann an einem schmutziggrauen und regnerischen Wintertag. Paris troff vor Nässe im täglichen Hupkonzert. Der Lärm der Stadt kletterte bis in den 20. Stock des Hauses Nr. 10 in der Rue du Vaisseau, bis zur Tür Nr. 7, an der geschrieben stand:

BOB MORLOK
UM RUHE WIRD GEBETEN

«Als ob der Lärm lesen könnte», dachte der Briefträger geringschätzend. Er klopfte an. Die Tür öffnete sich einen Spalt breit:
«Sind Sie Monsieur Morlok?» sagte er zweifelnd.
«Glosp! Worum geht's?» antwortete der Angesprochene, der offensichtlich aus einem tiefen Schlaf gerissen worden war.
«Ein eingeschriebener Brief, unterschreiben Sie hier.»
Indem er dies sagte, hielt ihm der andere ein fettiges Heft und einen an einer Schnur befestigten Kuli hin. Bob Morlok machte ein Kreuz auf den Schein und nahm den Brief. Zum Zeichen des Danks gab er einen unverständlichen Laut von sich und schloß die Tür hinter sich.

Er öffnete den Brief und las:

«Abrechnung ihrer Royalties für das zweite Trimester: 3,50 FF.

Herzlichst
Ihr Herausgeber»

Bob überlief ein kalter Schauder; er zündete seine erste Craven des Tages an.
Drei Francs fünfzig, das war herzlich wenig, um drei Monate zu leben. «Ich muß unbedingt einen neuen Hit programmieren», dachte er. «Ein Bombenspiel mit einem stichfesten Szenario, das ist unumgänglich...»
Bob Morlok tötete seinen Stummel ab und warf einen langen Blick durch die Luke seiner Garçonniere. An den Pariser Dächern rann das Regenwasser herunter: Ein schwerer Seufzer entfuhr ihm...
Bob wußte nicht mehr weiter.
Nicht die geringste Idee kam ihm in den Sinn, es war zum Kotzen... Er zerdrückte seine letzte Craven im Aschenbecher, der langsam aber sicher überging. «Blood ist tot, mausetot», dachte er. «Blood wird keine Spiele mehr schreiben; sein Pseudonym wird nicht mehr auf den Softwareregalen der FNAC am Montparnasse prangen.» Er seufzte ein zweites Mal...
Er ging hinaus Luft schnappen.
Am Boulevard des Italiens war eine Bar offen, und die Musik hörte sich super an. Er ging hinein und verlangte einen starken Espresso wie üblich. Neben ihm schlachtete eine Schar lauter Rangen eine Horde von Invasoren auf einem Videospiel hin. Bob gesellte sich dedankenlos hinzu. Die intergalaktischen Roboter explodierten mit ohrenbetäubendem Geschrei; ihr Blut spritzte auf den Bildschirm. Das Kind am Joystick brach in Triumpfgeheul aus, der Score war gefallen.

Bob lachte höhnisch:
«Das ist schwach...»
Die Beleidigung wirkte wie eine kalte Dusche rund um den Automaten.
«Hast du was gesagt?» antwortete der Bengel, während er ihm einen drohenden Blick zuwarf. «Mach's mir doch nach, Alter!»
Darauf hatte Bob nur gewartet, er ergriff den Hebel und drückte auf «PLAY».
Es folgte ein richtiges galaktisches Gemetzel von Metall, Feuer und Blut. Nach einigen Sekunden waren die Verluste des Feindes so arg, daß der Score auf 99999 Punkten stecken blieb. Gelassen schrieb Bob in den HI-SCORE:

«B L O O D».

«B...Blood, du bist das?» stotterte der Junge, als ob er einen Pac-Man verschluckt hätte.
«Ja, Kleiner, BLOOD, das bin ich...» Indem er dies sagte, blickte er den Bengel kalt an; dann machte er kehrt, und vor den bewundernden Augen der verblüfften Kinder verließ er die Bar.
«Hehe», lachte er spöttisch in Gedanken. «Die hab' ich schön drangekriegt.»
Er ging, ohne genau zu wissen wohin, als er plötzlich mit einem entgegenkommenden, alten Mann zusammenstieß. Dieser rutschte auf dem nassen Gehsteig aus und fiel auf die Straße.
«Oh, Verzeihung! Haben Sie sich weh getan?» fragte er, indem er ihm beim Aufstehen half.
«Nicht der Rede wert, nicht der Rede wert, junger Mann. War ja nicht Ihre Schuld», sagte der alte Mann, während er seinen Regenmantel abklopfte. «Ich bin so zerstreut.»
Plötzlich leuchteten Bobs Augen auf:»Aber... aber Sie sind... Sie sind ja Jean Rostand, der Biologe!»
«Sie haben mich erkannt, hehehe, jaja. Ich bin's...»
«Wissen Sie, ich bewundere Ihre Forschungsarbeit, die Kaulquappen...

Einfach irr! Ich lade Sie auf ein Glas ein, als Entschädigung. Doch, doch, ich bestehe darauf.» Noch während er dies sagte, geleitete er den alten Mann zur nächsten Bar.
Sie setzten sich an einen Tisch neben einem Flipper. Der Kellner kam.
«Eine Halbe», bestellte Bob.
«Äh, ein Glas frisches Wasser für mich, Leitungswasser halt», sagte der alte Biologe.
Der Kellner runzelte die Stirn und verschwand.
«Sie interessieren sich also für Biologie, äh...»
«Blood, ich heiße Blood», sagte Bob.
«Ah, Blood, das ist originell. Blood, ja warum eigentlich nicht?» Die Aufmerksamkeit des alten Mannes war vollkommen auf das Videospiel gerichtet; er betrachtete die Maschine mit seltsamem Argwohn.
«Kennen Sie sich mit Computerspielen aus?» fragte Bob verwundert.
Der Blick des alten Mannes flammte auf.
«Es ist zum Verrücktwerden, seit Monaten studiere ich nichts anderes; ich bin deshalb nach Paris gekommen. Aber niemand will mich anhören; sie glauben alle, ich verkalke. Glauben Sie an die Außerirdischen, ahem, Monsieur Blood?»
Diese alberne Frage verdutzte Bob. Er stammelte etwas wie: «Ja, nein, ich weiß nicht so recht», und klang dabei nicht sehr überzeugend. Jean Rostand fuhr fort:
«Nun gut: Sie sind da!» Währenddessen zeigte der alte Mann auf das Videospiel und redete weiter, indem er Blood scharf ins Auge schaute:»SIE SIND DA... DIE PAC-MANS EXISTIEREN... WIRKLICH, SIE EXISTIEREN, VERSTEHEN SIE MICH RICHTIG...»
Bob-Blood durchfuhr es wie ein Blitz.
Der alte Mann stand auf und ging eilig hinaus. Bob war so baff, daß er nicht die Geistesgegenwart besaß, ihn zurückzuhalten. Er sollte ihn nie mehr wiedersehen...

KAPITEL 2

Und Bob schuf Blood

Nach diesem Zwischenfall ging Bob nach Hause. Seine Gedanken schwirrten im Kopf herum. Rostand, die Pac-Mans, die Kaulquappen und die Außerirdischen, alles schien so irreal...
Plötzlich hatte er eine Idee: «Verdammt nochmal! Wenn die Pac-Mans und die Außerirdischen existieren, muß man sie aus dem Innern bekämpfen», dachte er laut. Er schlug sich mit der Faust in die Hand: «Da hab' ich ja die Idee für mein Programm. Ich muß ein Wesen schaffen, das dem Menschen abgeschaut ist: einem begabten Menschen, einem kompetenten Menschen wie... wie mir.»
Er setzte sich an sein Gerät, ließ die Finger krachen, und begann, hektisch auf der Tastatur herumzuhacken...

Tage und Monate vergingen. Die Listings stapelten sich in Bobs Zimmer; die Aschenbecher gingen über... Bob programmierte...
Sechs Monate später, hatte er ein Raumschiff namens ARCHE geschaffen, das mit einem Bordcomputer ausgestattet war, den er Biohirn nannte...
Noch etwas später hatte er an die Schalthebel der Arche seinen informatischen Doppelgänger gesetzt: Captain BLOOD. Seine Mission:

gegen das ÜBEL in der Informatikwelt zu kämpfen...
Und schließlich schuf er ein Biobewußtsein, dessen Aufgabe es war, die gewagte Mission bis ins kleinste Detail zu erzählen...

Dann kam der große Tag. Über die Tastatur gab er den letzten Befehl ein: «RUN»...

Genau in diesem Augenblick geschah etwas Unvorstellbares: Bob löste sich auf, er hörte auf, PHYSISCH zu existieren...

KAPITEL 3

Bericht des Biobewußtseins der Arche

Sternzeit 4567
Koordinaten 14,17
Erster Solartag

Die Arche materialisierte sich vor Andromeda. Ihre Form entsprach genau den Anweisungen von Bobs Programm. Es war unmöglich, sie von einem gewöhnlichen Asteroiden zu unterscheiden. Ihre ungeheure Masse untersagte ihr jegliche Landung, aber dies wurde durch die wunderbare, biomechanische Technologie ausgeglichen, die alle Systeme verwaltete. Im Innern, in einem vom Programm ausgestatteten Konapt saß eine Mumie, die Bob ähnelte, in einem gepolsterten Lehnstuhl. Vor ihr schimmerten zahlreiche Kontrollampen im blauen phosphoreszierenden Licht, das durch einen riesigen, dreidimensionalen Bildschirm gebrochen wurde, der eine ganze Wand des Konapts ausfüllte.
Die Arche wurde durch die Magnetdrift sanft gewiegt. Der Zeitmesser zeigte «000» an, als der Bildschirm aufleuchtete und den Konapt bis ins Unendliche verlängerte, an dessen Ende der Andromedanebel glänzte wie Diamantenstaub.
Blood erwachte mit einem Mal zum Leben. Der erste Schmerz war schrecklich; es krachte unheimlich in seinem Kopf, als ob sein Schädel entzwei gespalten wäre. Er ließ nach und wurde von einem seltsamen Gefühl abgelöst. Der erste Gedanke seiner Existenz erfüllte ihn sofort mit

Wohlbehagen: von nun an war es möglich, vom Nichts zu einem höheren Wesen überzugehen.
Er prüfte sein Gedächtnisgefüge. Sein Geist fand verschwommene Eindrücke eines Strandes mit feinem Sand voll der Nostalgie eines Spätsommers wieder: der salzige Wind, der methylenblaue Himmel, Kindheit, Biarritz, die Kolonnen...
«HIER HONK. Check sum implant: 10/10.
Medizinische Untersuchung im Gange.»
Die Stimme des Biohirns der Arche riß Blood aus seiner Lethargie.
«Ordnungsruf», bellte es. «Ich erwarte Befehle!»
«Neutrinoscanner aktivieren», sagte Bob mühselig, «und reden Sie etwas leiser. Versuchen Sie, normale Sätze zu machen, Alter. Und dann sprechen Sie mich mit meinem Namen an, verstanden?»
«Sehr wohl, Monsieur Blood. Der Scanner ist in Betrieb.»
«Sie sehen, Sie können ja, wenn Sie wollen», sagte Blood. «Und jetzt, Monsieur Honk, aktivieren Sie die Karte der Gegend.»
Die Karte erschien augenblicklich auf dem Bildschirm des Konapts. Blood betrachtete geduldig die geringsten Details.
«Und jetzt legen Sie das Radarbild darüber», befahl er.
Eine Unmenge von Punkten fing auf der Karte zu blinken an. Sie konvergierten rasch zum Mittelpunkt, der die Position der Arche darstellte. Wie versteinert rief Blood aus:
«Aber es wimmelt hier ja nur so! Es wimmelt!»

Es wimmelte in der Tat, und der Angriff erfolgte erschreckend plötzlich. Blood sah auf dem 3D-Bildschirm eine Meute von bis zu den Zähnen bewaffneten Jägern vom Typ Invader der fünften Generation.
Im Handumdrehen traf Blood die einzig richtige Entscheidung: DIE FLUCHT!
Gleichzeitig hörte er ein fantastische Explosion loskrachen. Die Archle

wurde an Stleuerborld von einer Ralklete mit melhrflacher Spiltze getroffen.
«Hylperlraum; soflort, Schleiße...» brüllte Blood.
«Sehr wohl, Monlsieur Bllood, mlöchten Sie einen Zlustandslbericht in dlei Exlemplaren?» fraglte das Bliohiln mit walmer und zarter Stimme.
«Geheln Sie zlum Tleufel!» Er hatte kaum Zeit, seinen Satz zu belenden, als eilne ungeheule Kraft ihln in den Lehnstuhl drüclkte. Die Arche tlauchte in den Hlyperraulm ein.
«Hlahla», lachte Blood. «Sie sind reinglefalllen!»
«Hiel mein Blericht, Claptain. Das Raumschliff hlat keilnen Schladeln. Nur das Bilobewußltsein hat wlas abblekommen. Ich welde els repalieren. Dochl der Lübergang in den Hylperrauml gling ungewöhnlich vor silch, ich... ich... aber der Prozeß wurldle nilcht unterblrochen. OH! ... MEIN GLOTT! ...»
«Was? Redeln Sie! Wlas ist llos?» schrie Bood. «Relden Sie.» Er fühlte, wiel ihm die Anglst die Kehle zluschnülte.
«Der Multiplexlor hat während des Üblergangs ausgesetzt... Oh Schrleck, der Beamer hat mlindestens dleißig Klone von Ihnen in der Ankunfts-galaxie anglefertiglt.»
«Waks! Sie sind verrkückt!»
«Kleider nein, Kaptain, kaber was schlimmer ist, Sie werdken nickt genug Lebensfluidkum haben, und der Degenerierungsprozeß Ihres Orkanis-mus hat bereits bekonnen...
Kl kl kl kl kl kllkklklllklkll...k...ll.

KAPITEL 4

Die Klonierung

Dkr Krack Syktsem dks Bikobekwußktseins reaktivierte sich, sobald das Bordbiohirrrn es endgültig rrrepariertt hatte...

TEST BIOBEWUSSTSEIN:

AUFSATZ

Thema: Beschreiben Sie ein Raumschiff, das im intergalaktischen Raum schwebt.

STERNZEIT 45372.

Aufsatz:

Das Raumschiff wurde durch die Magnetdrift sanft gewiegt. Rundherum glänzte die Galaxie wie Diamantenstaub.

Note:7/10

Gut, könnte besser sein. Ihre Lyrik ist etwas zu romantisch.

TEST ENDE: Befund: tauglich.

Blood war noch einmal gut davongekommen. Während des Übergangs in den Hyperraum hatte sich etwas Schreckliches ereignet, der Alptraum aller Astronauten: die KLONIERUNG...

(Die Auswirkungen der Klonierung sind entsetzlich. Tatsächlich gibt es nicht mehr nur einen Blood, sondern eine Vielzahl falscher Bloods. Selbstverständlich bleibt Blood das Original, aber die Klonierung löst einen progressiven, unaufhaltsamen Zellverfall des letzteren aus... Die einzige Abhilfe gegen diesen Prozeß ist, die in der Ankunftsgalaxie verstreuten Klone wiederzufinden, um das Lebensfluidum zurückzugewinnen.)

Die Aufgabe war mühsam. Die NUMMERN (das war die Bezeichnung, die Blood seinen Klonen gab) in diesem Sternenhaufen wiederzufinden, würde sicher kein Honigschlecken sein.
Währenddessen erarbeitete Honk, das Biohirn der Arche, einen komplexen Prozeß von Biomechanismen, die den geschwächten Organismus des mutigen Captains unterstützen sollten. So wurden nach und nach die Lungen, das Herz, die Milz, die Leber, die Nieren durch künstliche Organe ersetzt.

Blood kämpfte tapfer gegen eine ungeheure Macht, die ihn allmählich zu einem endgültig synthetischen Wesen, einem ROBOTER machte...

KAPITEL 5

Der Legefisch von OORXX

Einige Sternzeiteinheiten später wurde Blood in der Nacht plötzlich aus seinem postoperativen Schlaf geweckt, (man hatte ihm gerade das Kleinhirn entfernt).
«Captain, ich empfange ein eigenartiges Signal. Der Neutrinoradar ist gesättigt; irgend etwas schießt auf uns zu», rief das Biohirn.
«Glubb, schluck, ah», antwortete Blood. Es fiel ihm schwer, sich klar auszudrücken. Er spürte, daß sein Atem immmer fauler schmeckte, und sein Schädel schmerzte, obwohl er aus reinem Teflon war. «Na, dann gehen Sie eben wie üblich vor», fügte er in zweifelndem Ton hinzu.
«Sehr wohl, Captain, zu Befehl», sagte das Biohirn mit einem Tropfen Wehmut in der Stimme.
Plötzlich sprang Bob auf:
«Was?» brüllte er. «Hätten Sie das nicht früher sagen können? Verdammt nochmal! Aktivieren Sie den Magnetschild, stoppen Sie die Maschinen, schalten Sie den Radarschirm ein!»
Der Radarschirm flimmerte einen Moment lang, bis das Bild erschien. Tatsächlich näherte sich ein eiförmiges Ding mit großer Geschwindigkeit der Arche. Gleichzeitig wurde ein Alarm ausgelöst, eine Mitteilung erschien

am Bildschirm des.universellen Kommunikationsprotokolls UPCOM*.
«SOS BIN IN NOT GL GL HOC...»
«Na, das is' ein Ding! Wer sind Sie?» fragte Blood mit weit aufgerissenen Augen.
«ICH OORXX WEIBCHEN SOS SCHNELL...»
«OORXX, was ist denn das?» fragte Blood, indem er seine neuen Augenbrauen aus silbrigem Biometall hochzog.
«Das ist, wenn ich mich nicht irre, eine Art seltener Raumfisch, Captain. Die OORXXE sind seit dem Jahre Schnee ausgestorben. Meinen Informationen nach, dürfte es sich wohl um eine OORXX handeln. Ja, ja, eine trächtige OORXX, die obendrein ihre Eier verliert», antwortete gelassen das Biohirn.
«Was? Das darf doch nicht wahr sein!» rief Blood aus.
«NA WIRD'S BALD?» Die Mitteilung der OORXX erschien auf dem UPCOM mit schlecht unterdrückter Ungeduld.
«Jaja, gleich», sagte Blood leicht gereizt. «Und eilig hat sie's auch noch. Also was machen wir, Honk?»
Das Biohirn dachte eine Weile nach.
«Die Anweisungen sind diesbezüglich sehr strikt. Seit der Angelegenheit mit NOSTROMO ist es untersagt, Captain, einen Fremden an Bord zu beamen, außer wenn er sich vorübergehend in kryogenem Koma befindet. Ich schlage vor, wir beamen sie ins Frigatorium. Jedoch muß sie einverstanden sein, sonst ist das Beamen unmöglich, wie Sie wissen.»
«Ja, ja, ich habe sogar die gute Rippley aufs Kreuz gelegt, bevor sie das Kommando über das Altersheim auf Proxima übernahm. Sie hat mir diese Geschichte erzählt...»
Während er sprach, tippte er auf der Tastatur des UPCOM:
«OK, WIR BEAMEN SIE.»
«DANKE DANKE GL GL HOC.»
Die Tage vergingen, Honk analysierte, studierte und sezierte die OORXX

mit Genuß, als eines Tages...
«Captain, das ist genial, Captain, Captain, verdammt nochmal, Captain!» Honk war ganz aus dem Häuschen.
«Was ist denn? Ihnen geht's wohl nicht gut, und außerdem verbitte ich mir solche Familiaritäten. Was haben Sie?» Blood war sehr aufgebracht.
Es lag vielleicht daran, daß Honk ihm am Vortag eine neue Haut aus Bionylon (waschbar bis 80°C (ohne einzugehen)) verpflanzt und gleich einige Versuche damit gemacht hatte.
«Wenn man die Gene der OORXX ändert, aber nur sehr sehr geringfügig, kann man die Eier kontrollieren und außerordentliche Bioraketen produzieren, die die Eigenschaften der Raumfische und eine unvergleichliche Schußleistung besäßen. Es wäre sehr einfach, die Oorxxbabies völlig unterwürfig zu machen; sie würden sich um Ihretwillen, ohne zu zögern, umbringen. Sie können sie mit einer Radarfernlenkung kontrollieren. Sie würden mit ihren Augen sehen, Sie könnten ohne jedes Risiko alle Planeten der Galaxie besuchen, ohne Ihren Lehnstuhl zu verlassen. Einfach genial...»

Honk schwieg einen Moment, um auf das Urteil seines Meisters zu warten.

«Aber Sie sind ja ABSCHEULICH», brach dieser aus. «Sie sind UNMENSCHLICH!»
«Aber Meister, das sind Oorxxe!» argumentierte das Biohirn beherzt.
«Hmja, natürlich», meinte Blood, während er sich sein neues Kinn aus kompensiertem Silikon rieb. «Es sind ja nur Oorxxe. Sie sind seit dem Jahre Schnee aus diesem Universum verschwunden... In meinem Lehnstuhl ohne Risiko... Natürlich, es ist verlockend. Also gut, OK, versuchen wir's...»

Und so kam es, daß Honk die Oorxxbrüterin reaktivierte, und die ersten Oorxxbabies der zweiten Generation das Licht der Welt erblickten...

KAPITEL 6

Mastochok

Honk vollzog langwierige und zahlreiche Experimente mit den Genen der Brüterin. Einmal waren die Eier zu groß, dann wieder zu lang. Das hatte zur Folge, daß die Oorxxbabies so riesig waren, daß man sie rasch aus der Arche ausstoßen mußte, oder sie waren so lang, daß man Sie auf schwer zu lagernden Spezialspulen aufwickeln mußte. Das alles brachte Captain Blood nicht zum Lachen, denn die Zeit verging und mit ihr seine Überlebenschancen. Es wurde immer dringender, einige NUMMERN zu finden, damit er das Lebensfluidum trinken könne. Jedoch, eines Nachts...

«Captain, Captain, es ist so weit, es funktioniert!» brüllte Honk, wir werden es endlich ausprobieren können!»
«Ah, endlich!» rief Blood, während er seine ursprünglichen, mit Schuppen bedeckten Händen aneinander rieb, was ein Geräusch hervorrief, das dem eines Austernhändlers glich, der seine Austern eifrig putzt. «Übergang in den Hyperraum. Ankunftsgalaxie XUNK07.» Selbstsicher fügte er hinzu: Wenn ich sie wäre, würde ich genau dorthin fliegen.
«Aber Captain, Sie sind sie!» sagte das Biohirn bestürzt.

«Äh! ja, das ist wahr... Aber egal, wir fliegen trotzdem hin!»
Die Arche löste sich mit Donnergrollen. Einige Augenblicke später, brauste sie in den Hyperraum. Auf dem dreidimensionalen Bildschirm bewunderte Blood die märchenhaften, bunten Spiralen des Zeitraums, die wunderbare mathematische Landschaft am Ende des menschlichen Begriffsvermögens, das den Geist in einen durch theoretische Leere geläuterten Rausch saugt, dessen Beschreibung nur ein blasser Schimmer im abgestandenen und übelriechenden Wasser eines grund-losen und fauligen Teiches ist, in dem man versinkt... Dann erschien majestätisch eine runde, grünliche Kugel in einer blauen, endlosen Nacht:
«Mastochok», murmelte Blood, «der Planet der CROOLIS!»

Er schien hellauf begeistert durch die grandiose Ansicht des Planeten Mastochok.

«Sie sind da!» erklärte er mit der Selbstsicherheit desjenigen, der es weiß.
Er atmete schwer, und das pneumatische Geräusch seiner künstlichen Lungen verstärkte sein Röcheln.
Er betätigte mit den Fingerspitzen einige knollenartige Knöpfe auf seinem Armaturenbrett und wählte den Landebefehl. Das Oorxxbaby glitt in die geölte Öffnung des Ejektionsrohres.
«Ejektion!» schrie er, seine Augen quollen vor Aufregung aus den Augen-höhlen hervor.
Der Oorxx verschwand im Abschußrohr mit dem Geräusch einer Flasche, die man entkorkt.
«Hinausgeschleudert!» antwortete Honk. «Ich schalte das Sehsystem ein. Von nun an sind Sie der Oorxx, gehen Sie sachte mit dem Hebel um.»
Auf dem dreidimensionalen Bildschirm erschien das, was der Oorxx sah: die unruhige Oberfläche von Mastochok näherte sich mit schwindel-erregender Geschwindigkeit.

«Guter Gott, ziehen Sie den Hebel zu sich, Sie werden ihn zerschmettern!» brüllte Honk. Dem Biohirn war nicht wohl zumute.

Blood zog den Hebel zu sich, eine Vielzahl von steilen Bergen erschien, der Oorxx streifte die Gipfel des Planeten.
«Gehen Sie langsam hinunter, langsam, so...»
Offensichtlich litt das Biohirn unter dem Mangel an Erfahrung des Captains.
«Achtung! Aaah!» Man hörte einen dumpfen Aufschlag: das Oorxxbaby hatte einen Gipfel gerammt. Es stieß einen schrecklichen Schmer-zensschrei aus, prallte wieder ab und blieb ruckartig vor dem Berg stehen.
«Sie bringen es mir ja noch um!» schrie das Biohirn ganz außer sich.
«He! Ist ja schon gut, kann ja jedem einmal passieren. Übrigens hat es gar nichts abbekommen. Sehen Sie, es funktioniert tadellos.

Blood bewegte den Hebel, und das Bild belebte sich neuerlich. Der Oorxx machte sich langsam wieder auf den Weg und bahnte sich einen Durch-gang durch die unruhige aber trotzdem sehr schöne Landschaft.
Plötzlich sah Blood den Eingang zu einem gigantischen Canyon auftau-chen und wagte sich hinein.
«Der Canyon der CROOLIS», murmelte er.

Der OORXX glitt durch die Luft mit unglaublicher Wendigkeit und gehorchte der leisesten Bewegung von Bloods Hand. Die schroffen Wände flitzten mit Wahnsinnsgeschwindigkeit vorbei, nicht lauter als ein Segelflieger. Blood beherrschte völlig die Situation, und daran erkennt man die großen Helden, deren Anpassungsschnelligkeit bei weitem die der gewöhnlichen Sterblichen übersteigt, besonders wenn sie unsterb-lich sind, und Blood zweifelte in diesem bestimmten Augenblick nicht im geringsten, es zu sein...
Am Ende des Canyons, landete er sanft wie ein Raubvogel, mit der

Erhabenheit, die sich im Moment ziemte, denn er wußte, daß die Croolis ihn beobachteten.
Kaum hatte er den Boden berührt, so erschien der Umriß eines Croolis auf dem Bildschirm.
«UPCOM aktivieren, Honk!» befahl Blood.
Honk gehorchte.
«Pockiger oder Algiger?» fragte der CROOLI mit kaltem Blick.
«Pockiger oder Algiger?» wiederholte der Captain seinerseits, durch die Frage etwas durcheinander gebracht.
«Äh», stotterte das Biohirn. «Antworten Sie nicht, die pockigen CROOLIS sind die Erzfeinde der algigen CROOLIS.»
«ICH MENSCH», tippte Blood. «ICH SUCHEN NUMMERN, SIE KENNEN?»
«(LACHEN) ICH KENNEN, ABER DU BRINGEN MICH AUF PLANET ASCODA, DANN ICH SAGEN.»
«Ascoda! Um Himmels willen, Captain. Das ist der Schlupfwinkel der gefährlichsten MIGRAX des Alls.
«OK», tippte Blood. «WIR BEAMEN SIE.»
Dabei drückte er mit dem Zeigefinger auf einen Knopf links am Armaturenbrett. Der Crooli desintegrierte sich auf dem dreidimensionalen Bildschirm und fügte sich im FRIGATORIUM wieder zusammen. Er bekam eine bläuliche Farbe, er schien wie tot.
«Das können Sie doch nicht machen!» Honk schien durch die an Selbstmord grenzende Entscheidung seines Meisters erschüttert.
«Doch», sagte Blood trocken. «Ich hab' da so meine Idee... Aber wie holen wir den OORXX wieder herein?»
«Äh, nun ja. Ich habe etwas nicht vorhergesehen: ihre Widerstandskraft nach der Landung ist sehr gering; sie zerstören sich ganz einfach», sagte Honk verlegen.
Blood erwiderte nichts, dafür dachte er um so mehr nach. «Hyperraum», brummte er. Man hörte ein eigenartiges Geräusch, ein anderer OORXX

war im Abschußrohr.
«Hyperraum aktiviert», antwortete HonK.
Die Arche brauste los...

Sie materialisierte sich vor einem Asteroiden namens 0X145A(300), dessen Oberfläche von Einschlägen durchlöchert war.
Blood schleuderte den neuen OORXX hinaus, der sich sachte auf 0X145A(300) niederließ. Danach aktivierte er den umgekehrten Beamvorgang. Der CROOLI verschwand aus dem Frigatorium und erschien auf dem dreidimensionalen Bildschirm. Sogleich belebte sich das UPCOM.
«PLANET SEIN NICHT ASCODA (FLÜCHE!)», schrie der CROOLI außer sich vor Wut.
«Hahaha! Ätsch...» jubilierte Blood.
«Ja, wir haben ihn übertölpelt», freute sich auch das Biohirn.
«Gut, versuchen wir, ihm die Würmer aus der Nase zu ziehen. Er muß uns verraten, wo diese verdammten Nummern stecken», sagte Blood.
Er gab über die Tastatur des UPCOM ein:
«WO SEIN NUMMERN? ANTWORTE, CROOLI!»
«(FLÜCHE!) (FLÜCHE!) DU MICH ZURÜCKBRINGEN DANACH?» fragte der Crooli.
«JA», bestätigte Blood.
«PLANET ZULU, KOORDINATEN 124/674», verriet der Crooli wehmütig.
«DANKE, CIAO», antwortete Blood über das UPCOM. «Und jetzt schnell auf Zulu, HYPERRAUM, Monsieur Honk!»
«HYPERRAUM, OK, Captain!» Honk war erleichtert.
Die Arche riß sich los...

Auf dem Asteroiden 0X145A(300) zeterte der Crooli und erging sich in Derbheiten. Er schwor, «diesen Pockensohn bei der Kahlheit seiner Croolas...» wiederzufinden.

KAPITEL 7

Die letzten fünf NUMMERN

800 Jahre später am Rand der Galaxie BABY1...

Der medizinische Befund kam auf dem Telox an.
Ein glühender Komet zerriß den Raum mit dem schneidenden Geräusch einer Schere. Blood las langsam den Bericht, seine Degenerierung war seit der letzten Analyse erheblich vorangeschritten. Er artikulierte mit seiner synthetischen Kehle eine Frage, deren Antwort er befürchtete.
«Honk, wieviel Zeit bleibt mir noch genau zu leben ohne dem Lebens-fluidum der NUMMERN?»
«312 Sternzeiteinheiten», antwortete das Biohirn. «Doch erlauben Sie mir, Ihre Optimismusrate um einige Einheiten zu erhöhen. Ihr Stoffwechsel verträgt nicht mehr die geringste Verzweiflung: ich habe gutartige Selbstmordtendenzen im B-Kortex eines Knollengens in der rechten Gehirnhälfte nachgewiesen.»
«Ist genehmigt», brummte Blood. «Sind die fünf entdeckten NUMMERN lokalisiert?»
«Negativ, diese NUMMERN legen Köder aus, die den Neutrinoradar stören.»

«Es bleiben noch fünf NUMMERN, die sich irgendwo in diesem Sternenpüree verstecken», dachte Blood. «Fünf Schweinenummern, die ganz sicher warten, da die Migrax sie benachrichtigten, nur allzu glücklich, diese grundlegende Information für Gold zu verkaufen.» Fünf Klone seiner Selbst, die bereit waren, ihre dreckige NUMMERNhaut bis zuletzt zu verteidigen: die Eins, die Zwei, die Drei, die Vier und dieser Bastard einer NUMMER 5.
Blood kreischte:
«Über wieviele OORXXE verfügt die Arche?»
«18 Erwachsene, die bionische Brüterin hat 14 Bomben gelegt, die in 5 Zeiten einsatzfähig sein werden», antwortete Honk mit seiner metallenen Stimme.
«Kurs auf Ondoya, volle Kraft voraus», befahl Blood. «Reaktivieren Sie die Brüterin. Konzentrieren Sie den Georadar auf das Ziel. Pumpen Sie den Nuklearschirm mit Energie voll, wir werden's brauchen. Denen brechen wir alle Schrauben.»

Die Arche brach mit Donnergrollen los. In der Krippenzone schrie die Oorxxbrüterin schmerzerfüllt auf; drei gallertartige Bomben rollten auf die Gebärschiene...

Ende der Berichterstattung des Biobewußtseins der Arche.

(*) Das UPCOM, das universelle Kommunikationsprotokoll war ein von Honk allein erfundenes System. Da die Leute, die nicht die gleiche Sprache sprechen, Verständigungsschwierigkeiten haben, hatte Honk ein Simultanübersetzungssystem anhand von Zeichen erdacht, etwa so wie die Gebärdensprache nur mit Symbolen. Das UPCOM besaß die bewundernswerte Eigenschaft, die Zeichen ausfindig zu machen, die das Wesen, mit dem man diskutierte, verstand. Somit konnte man sich mit einem Blick ein Bild über seine Persönlichkeit machen: wenn in seinem Wortschatz nur Zeichen vorkommen, die Nahrung und Schlaf darstellten, war es einfach, sich das geistige Niveau des Diskussionspart-ners auszumalen.

KLEINES GLOSSAR ÜBER DIE FAUNA VON HYDRA

IZWAL: Friedliche und großzügige Wesen; sie bieten eine fast menschlichen Anblick. Sie sind sehr kultiviert und sind in allen Wissen-schaften bewandert.

BUGGOL: Wesen mit einem besonderen sozialen Verhalten, die die Demokratie bis zum Paroxysmus betreiben. Sie sind alle Kandidaten des YATANGE, der einzigen und absoluten Partei, welche eine einzige Idee verteidigt: Demokratie bis zum Äußersten. Das Mandat des gewählten Präsidenten ist zeitlich nicht festlegt: sobald ein BUGGOL die Mehrheit erreicht, ist er gewählt. Nachdem alle wählbar sind, dauern die Mandate nicht lange; sie können einige Minuten nicht überschreiten. Zum Zeitpunkt, wo diese Geschichte beginnt, waren die BUGGOLS dezimiert, und es blieb nur ein einziger Kandidat des YATANGA auf ROSKO, der leider aus Mangel an Wählern nicht gewählt wurde. Und was noch schlimmer ist: ein Hochstapler (ein YUKAS), der nicht einmal auf ROSKO lebt, ließ sich durch Wahlschwindel wählen, was eine noch nie dagewe-sene politische Krise bewirkte.

YUKAS: Kriegerische und niederträchtige Wesen ohne Erziehung. Man weiß nicht sehr viel über ihre Sitten.

CROOLIS: Ganz blitzgescheite Wesen. Sie haben sich in zwei abgesonderte Evolutionszweige geteilt: Die pockigen Croolis und die algigen Croolis. Ein über Jahrtausende vererbter Haß macht die beiden Völker zu erbitterten Erzfeinden.

MIGRAX: Wie die Etymologie ihres Namens es andeutet, reisen sie gerne und viel. Sie sind sehr intelligent, verbreiten die Neuigkeiten in der Galaxie und sind verteufelt begabt im Verhandeln. Ihre Heimtücke ist legendär.

ONDOYANTES: Sie kommen vom Planeten ONDOYA und sind Traumgestalten, die den angenehmsten Anschein annehmen für die Individuen, die sie mögen, und den unangenehmsten für diejenigen, die sie verabscheuen, was ihr Gefühlsleben ganz schön vereinfacht und ihre Freier diesbezüglich nicht im Unklaren läßt.

TRICEPHALE: Sie sind eine echte Laune der Natur. Sie weisen drei androide Köpfe mit je einer überdimensionalen Zunge auf.

ANTENNA: Leichtgläubige, (vielleicht ein wenig zu) liebenswürdige Kreaturen.

TUBULAR BRAINERS: Sie gehören zur heute einzigen bekannten Rasse, die ein röhrenförmiges Hirn besitzt, was ihnen eine ganz eigene, schwer zu erfassende Intelligenz verleiht.

TROMPS: Das sind ungefährliche, dickköpfige und bornierte Wesen, deren Fell den Sinox als Schnupftabak dient.

ROBHEAD: In frühen Zeiten war Hydra von bionischen Armeen androider Roboter besetzt, die die Galaxis durch einige Jahrtausende hindurch okkupieren mußten. Ach, die Revolte der Eingeborenen von Hydra war fürchterlich, und diese Todeskreaturen wurden ausgerottet. Einige geköpfte Kreaturen überlebten jedoch: die ROBHEADS (Roboterköpfe), denen noch ein wenig Platz im Arbeitsspeicher übrigblieb. Diese ganz ungefährlichen Robheads führen ein völlig vegetatives Leben und können sich nicht fortpflanzen, außer ein genialer Genetiker...

KINGPAK: Diese lächerliche Kreatur raucht Trompschwänze (leicht aphrodisisch) und ernährt sich von Pillen. Die Intelligenz des KINGPAK ist sehr beschränkt. Man nimmt an, daß der KINGPAK den berühmten Pac-Mans als Modell gedient hat.

NUMMERN: Das sind die Klone von Blood. Sie sind fünf an der Zahl: die Nummer Eins, die Nummer Zwei, die Nummer Drei, die Nummer Vier und dieser Bastard von einer Nummer Fünf.

ANLEITUNG

KONFIGURATION

CAPTAIN BLOOD ist auf folgenden Computern lauffähig:
- ATARI ST 520 und 1040 mit Colormonitor,
- IBM PC und Kompatible (darunter Tandy 1000 und Schneider PC 1512) mit einer Graphikkarte vom Typ CGA, EGA oder Hercules, (Mouse oder Joystick empfohlen),
- SCHNEIDER CPC 464, 664, 6128 (Joystick empfohlen),
- AMIGA 500, 1000 und 2000 mit mindestens 512 KByte.

LADEN UND INBETRIEBNAHME

Sollte ihr Gerät bereits in Betrieb sein, schalten Sie es aus, warten Sie 5 Sekunden und schalten Sie es wieder ein. Dann folgen Sie den Anweisungen, die Ihrer Konfiguration entsprechen.
Während des Ladens berühren Sie weder die Tastatur, den Joystick noch die Mouse.

ATARI ST:
- Schalten Sie den Computer ein.
- Legen Sie die Diskette Nr. 1 ein.
- Klicken Sie zweimal auf ERE.PRG. (Sollte es sich um ein Programm mit automatischem Start handeln, fällt diese Anweisung weg.)

IBM PC UND KOMPATIBLE:
- Schalten Sie den Computer ein.
- Laden Sie das DOS nach den Anweisungen des Herstellers.
- Installieren Sie den Mouse-Treiber (siehe Handbuch des Herstellers), wenn Sie mit einer Mouse spielen möchten.
- Legen Sie die Programmdiskette ein.
- Tippen Sie ERE, und drücken Sie auf RETURN (bzw. ENTER).

SCHNEIDER CPC:
- Schalten Sie den Computer ein.
- Legen Sie die Diskette bzw. die Kassette in das entsprechende Peripheriegerät ein.
- Kassette: Wenn ein Diskettenlaufwerk angeschlossen ist, tippen Sie |TAPE (für | drücken Sie gleichzeitig die Tasten SHIFT und @), und bestätigen Sie mit ENTER. Danach tippen Sie RUN", und drücken Sie auf ENTER (das gleiche erreichen Sie, indem Sie gleichzeitig auf CTRL und die ENTER-Taste am Zahlenfeld drücken).
- Diskette: Tippen Sie RUN"ERE", und drücken Sie auf ENTER.
- Am Anfang des Spieles wählen Sie die Sprache, indem Sie die Hand von Captain Blood auf die entsprechende Fahne einstellen und mit der Leertaste bestätigen.

AMIGA:
- Schalten Sie den Computer ein.
- Wenn das System nach WORKBENCH verlangt, legen Sie die Programmdiskette ein.
- Falls das Programm nicht automatisch geladen wird, klicken Sie zweimal auf das Diskettensymbol und danach auf ERE.

STEUERUNG - ALLGEMEINE ÜBERSICHT

Auf Atari ST und Amiga spielen Sie mit der Mouse.
Auf IBM PC haben Sie die Auswahl zwischen Tastatur, Joystick und Mouse.
Auf Schneider CPC können Sie zwischen Tastatur und Joystick wählen.

Mouse:
- Die Richtungen werden wie üblich durch Verlagern der Mouse angegeben.
- Die linke Mousetaste kann zwei Funktionen haben:
a) Bestätigen (klicken)
b) Beim Fliegen auf Sicht beschleunigen Sie.
- Die rechte Mousetaste:
a) Wenn Sie beim Übergang in den Hyperraum, beim Überfliegen oder beim Zerstören eines Planeten anstatt mit der linken Mousetaste mit der rechten bestätigen, verkürzen oder vermeiden Sie die graphische Animationssequenz mit den Spezialeffekten.
b) Beim Fliegen auf Sicht verlangsamen Sie die Geschwindigkeit.

Joystick (gilt nur für IBM PC und SCHNEIDER CPC):
- Die Richtungen werden wie üblich durch Neigen des Hebels angegeben.
- Sie beschleunigen beim Fliegen auf Sicht, indem Sie gleichzeitig den Feuerknopf drücken und den Hebel nach oben neigen.
- Sie verlangsamen die Geschwindigkeit, indem Sie gleichzeitig den Feuerknopf drücken und den Hebel nach unten neigen.
- Geklickt (bestätigt) wird mit dem Feuerknopf.

Tastatur (gilt nur für IBM PC und SCHNEIDER CPC):
- Sie klicken bzw. bestätigen mit der Leertaste (beide Versionen) oder mit ENTER bzw. RETURN (nur auf PC).

- Die Richtungen werden mit Hilfe der Cursortasten angegeben.

PC-Version:

Die Taste - ist die sogenannte Paniktaste. Wenn Sie etwa beim Spielen überrascht werden, genügt ein Druck, und der Bildschirm erlischt; ein unschuldiges A> erscheint links oben. Zum Fortsetzen des Spieles drücken Sie nochmals darauf.

CTRL: Damit beschleunigen Sie beim Fliegen auf Sicht.
ALT: Damit verlangsamen Sie die Geschwindigkeit.

ESC: Wenn Sie beim Übergang in den Hyperraum, beim Überfliegen oder Zerstören eines Planeten anstatt mit der Leertaste (ENTER) mit ESC klicken, so vermeiden Sie die graphische Animationssequenz mit den Spezialeffekten.

F1, ... , F10: Wenn der OORXX durch den Canyon fliegt, stoppen Sie und erhalten ein Foto des Reliefs.

SCHNEIDER-Version:

Beim Fliegen auf Sicht beschleunigen Sie, indem Sie gleichzeitig auf die Leertaste und ↑ drücken, und Sie verlangsamen die Geschwindigkeit, indem Sie gleichzeitig auf die Leertaste und ↓ drücken.

ESC: Wenn Sie beim Übergang in den Hyperraum, beim Überfliegen oder Zerstören eines Planeten anstatt mit der Leertaste mit ESC klicken, so verkürzen Sie die graphische Animationssequenz mit den Spezialeffekten.

ABSPEICHERN EINER LAUFENDEN PARTIE

Im Modus ARMATURENBRETT legen Sie eine formatierte, nicht geschützte Diskette in das Laufwerk bzw. eine Kassette in den Recorder (Schneider-Kassettenversion) und klicken das Symbol DISK an, frühestens wenn 5 Minuten auf der Borduhr abgelaufen sind. (NB: Bei der Schneider-Version soll die Diskette außerdem unbeschrieben sein.) Es ist nicht möglich, eine laufende Partie während der ersten 5 Spielminuten abzuspeichern. Das Symbol blinkt eine Weile, wenn das Abspeichern abgebrochen wurde, überprüfen Sie Ihre Diskette, und versuchen Sie es erneut.

Die abgespeicherte Datei wird BLOOD.CPT genannt.

LADEN EINER PARTIE

Im Modus ARMATURENBRETT legen Sie Ihre Diskette (Kassette) mit der Datei BLOOD.CPT in das Diskettenlaufwerk (in den Recorder), klicken Sie auf das Symbol DISK, bevor 5 Minuten auf der Borduhr abgelaufen sind. Es ist unmöglich, nach den ersten 5 Spielminuten eine Partie zu laden. Wenn das Symbol DISK eine Weile während des Ladens blinkt, wurde die Operation abgebrochen; überprüfen Sie die Diskette, und versuchen Sie es noch einmal.

Sollten Sie eine Partie nach den ersten 5 Minuten laden wollen, müssen Sie den Computer reinitialisieren (RESET) und das Programm erneut laden. Allerdings sind wir der Meinung, daß systematisches Abspeichern nach jeder Handlung keine edle Art des Gewinnens ist...

AUSSENANSICHT

Im Modus ARMATURENBRETT genügt es, auf dieses Symbol zu klicken, um auf diesen Modus überzuwechseln.
Um wieder zum Armaturenbrett zurückzukehren, klicken Sie auf einen inaktivierten Knopf (Auge).

WAHL EINES BESTIMMUNGSORTES (GALAKTISCHE KARTE)

Im Modus ARMATURENBRETT klicken Sie auf das Symbol für GALAKTISCHE KARTE, damit die Galaxis Hydra erscheint.

Wahl der X-Koordinate:

Klicken Sie auf die senkrechte, rote Achse, und führen Sie sie auf die gewünschte Position der X-Koordinate. Im linken Fenster erscheinen die Koordinaten von BLOODs Finger, im rechten die Koordinaten des Schnittpunktes der beiden Achsen.

Wahl der Y-Koordinate:

Klicken Sie auf die waagrechte, rote Achse, und führen Sie sie auf die gewünschte Position der Y-Koordinate. Im linken Fenster erscheinen die Koordinaten von BLOODs Finger, im rechten die Koordinaten des Schnittpunktes der beiden Achsen.

Wenn Sie den Bestimmungsort festgelegt haben, lehnen Sie sich zurück, und klicken Sie auf das Symbol ÜBERGANG IN DEN HYPERRAUM.
Um diese Sequenz abzukürzen, drücken Sie zu Beginn oder währenddessen auf den rechten Knopf der Mouse oder auf ESC (PC und Schneider).

LANDUNG UND FLIEGEN AUF SICHT (MISSION OORXX KONTAKT)

Im Modus AUSSENANSICHT klicken Sie zweimal auf das Symbol für MISSION OORXX KONTAKT. Der Oorxx wird gebeamt und landet sofort. Sie steuern ihn mit Hilfe der Mouse, dem Joystick oder den Cursortasten: auf- oder absteigen, Kurven,... Es wird davon abgeraten, Berggipfel zu streifen; wenn jedoch der Planet mit einem Verteidigungssystem ausgestattet ist, muß man so tief wie möglich fliegen. Wenn ein Oorxx vom Feind aufgespürt wurde, erscheinen zwei rote Pfeile beiderseits des Bildschirmes; wenn sie einander berühren, wird der Oorxx zerstört. Um dies zu verhindern, muß man so tief wie möglich hinuntergehen, bis die Pfeile verschwinden.

Das Leben auf den Planeten der Galaxis Hydra hat die merkwürdige Gewohnheit, sich im hintersten Winkel abgründiger Canyons zu verbergen, die es zu entdecken gilt. Zu diesem Zweck besitzt der Oorxx einen Lebensdetektor, der als rotes «Visierkorn» (Kreuz/Rhombus) den Bewegungen der Mouse (des Joysticks, der Cursortasten) folgt und blinkt, wenn der Oorxx in die richtige Richtung fliegt. Erscheint ein Pfeil am Rande dieses Kreuzes, so muß man der angezeigten Richtung folgen, um den richtigen Kurs einzuschlagen.

Während des Fluges erscheinen auf dem Bildschirm zwei Anzeiger:

- der Geschwindigkeitsmesser unten am Bildschirm,
- der Höhenmesser beiderseits des Bildschirmes.

Wird ein Wesen am Ende eines Canyons gefunden, landet der Oorxx

automatisch. Wenn es kein Leben auf dem Planeten gibt, stürzt der Oorxx vor Erschöpfung ab. Wenn Sie ein Lebewesen im Frigatorium der Arche transportieren, aktiviert sich das Symbol für BEAMEN, damit Sie jenes auf diesem Planeten absetzen können; dazu klicken Sie auf das betreffende Symbol.

Während des Fluges kann man ein Foto vom Relief der Fraktallandschaft machen: drücken Sie die Leertaste (eine Funktionstaste auf PC: F1, ..., F10), dann stoppt der Oorxx.

ZERSTÖRUNG EINES PLANETEN (MISSION OORXX DESTROY)

Im Modus AUSSENANSICHT kann man einen Oorxx auf den Planeten ausschicken, damit er diesen zerstört. Klicken Sie auf das Symbol für MISSION OORXX DESTROY. Der Planet wird unwiderbringlich zerstört...

SCANNING DER OBERFLÄCHE (MISSION OORXX GEOFOTO)

Im Modus AUSSENANSICHT können Sie einen Oorxx in die Umlaufbahn schicken, um Luftaufnahmen einzuholen; ein spezieller Detektor warnt Sie vor einem etwaigen Luftabwehrsystem. Klicken Sie einmal auf das Symbol für MISSION OORXX GEOFOTO für Aufnahmen aus mittlerer Höhe, ein zweites Mal für Nahaufnahmen. Klicken Sie auf AUSSENANSICHT, um diese Operation zu beenden.

UPCOM
(UNIVERSAL PROTOCOL OF COMMUNICATION)

Wenn der Kontakt mit einem Lebewesen im Canyon hergestellt ist, oder man es gerade gebeamt hat, wird das UPCOM automatisch in Betrieb gesetzt. Das UPCOM ist ein Konversationssystem anhand von Symbolen, sogenannten Icons. Der Bildschirm des UPCOM beinhaltet mehrere Fenster:

Das Fenster für den «Wortschatz» unten am Bildschirm: Man kann das Verzeichnis der Icons mit Hilfe von zwei waagrechten Scrollings vorbeilaufen lassen: ein schnelles, das man mit einem Klick auf den roten Streifen unterhalb des «Wörterbuches» in Gang setzt, und ein langsames, wenn man mit BLOODs Finger eines der orange gestreiften Kästchen berührt, die sich auf beiden Seiten des «Wörterbuches» befinden. Indem man BLOODs Finger über das «Wörterbuch» gleiten läßt, erscheint über dem UPCOM eine Simultanübersetzung der Icons in die Menschensprache.

Die beiden Gesprächsfenster befinden sich über dem Wörterbuch und werden durch einen Mund in der Mitte getrennt.

a) **Das linke Fenster**: Darin erscheint, was das Wesen Ihnen zu sagen hat. Um diese Sätze zu übersetzen, muß man mit dem «Finger» darüberfahren. Solange sich der Mund bewegt, hat das Wesen seine Rede noch nicht beendet; wenn Sie auf den Mund klicken, erhalten Sie die Übersetzung. Wenn der Mund stille hält, sind Sie an der Reihe:

b) **Das rechte Fenster** ist für Ihre Mitteilungen vorgesehen. Schreiben Sie

Ihre Sätze, indem Sie auf die aufleuchtenden Icons des Wörterbuches klicken.
Ein kleiner Cursor unter diesem Fenster kann verwendet werden, um Zeichen einzuschieben: bei Bedarf klicken Sie darauf. Ein Korrekturzeichen steht ebenfalls zur Verfügung: klicken Sie auf den Pfeil unterhalb des Fensters. Bestätigen Sie Ihre Mitteilung, indem Sie auf den Mund in der Mitte klicken.

Wenn das Lebewesen damit einverstanden ist (das Zeichen für BEAMEN aktiviert sich), können Sie es ins Frigatorium der Arche beamen. Dazu klicken Sie auf das Symbol für BEAMEN.

Ihr Gesprächspartner kann die Unterhaltung aus Gründen, die nur ihn etwas angehen, beenden. Um das UPCOM während des Gespräches zu verlassen, klicken Sie auf das Dreieck rechts am Bildschirm, unter dem Korrekturpfeil.

BEAMEN

Dieses Symbol ermöglicht es Ihnen, ein Lebewesen des Planeten in das Frigatorium der Arche zu beamen. Es kann nur dann aktiviert werden, wenn das Wesen während eines Gespräches seine Zustimmung gibt: dazu klicken Sie auf das Symbol für BEAMEN.

Außerdem ist es möglich, ein Wesen aus dem Frigatorium auf einen unbewohnten Planeten zu beamen: Schicken Sie einen Oorxx in einen Canyon; das Zeichen für BEAMEN aktiviert sich; klicken Sie darauf, und der Beamvorgang wird vollzogen.

DESINTEGRATION EINES GEBEAMTEN WESENS

Wenn sich ein Wesen im Frigatorium befindet, kann man es desintegrieren, was es endgültig das Leben kostet. Handelt es sich dabei um eine Nummer, gewinnt Blood Lebensfluidum zurück und überlebt etwas länger.

FRIGATORIUM

Das Frigatorium ist ein Gefrier-Container, in dem die gebeamten Wesen in künstlichen Winterschlaf versetzt werden. Doch dazu brauchen Sie die Einwilligung der Betroffenen, denn das Beamsystem nutzt die Psychoenergie, die von den gebeamten Wesen ausgeht, etwa so wie bei der Hypnose. Aus Sicherheitsgründen ist es unmöglich, lebendige Wesen in die Arche zu transportieren, deshalb werden diese im Frigatorium tiefgekühlt, wo sich auch ein Desintegrationskrematorium befindet, mit dem man das Lebensfluidum zurückgewinnen kann. Blood kann jedoch nur das Lebensfluidum der Nummern verwerten, da es das einzige ist, das sein Organismus verträgt.

NB: Die Schrittmacher werden automatisch vor der Desintegration entfernt, somit besteht keinerlei Explosionsgefahr während des Vorganges.

OORXX-GEBÄRSCHIENE

Der Legefisch ist der Arche in der Krippenzone (das ist der sterilste Teil der Arche) einverleibt. Die OORXX-Babies werden auf die Gebärschiene ausgestoßen. Der Legefisch kann unendlich viele OORXX-Babies produzieren.

ZEIT

Die Zeit wird auf der Borduhr in Erdenminuten und -sekunden angegeben.

Das UPCOM zieht nur die Minuten in Betracht: 60.45 bedeutet 60 Minuten und 45 Sekunden; im UPCOM wird man nur von UHRZEIT 60 sprechen.

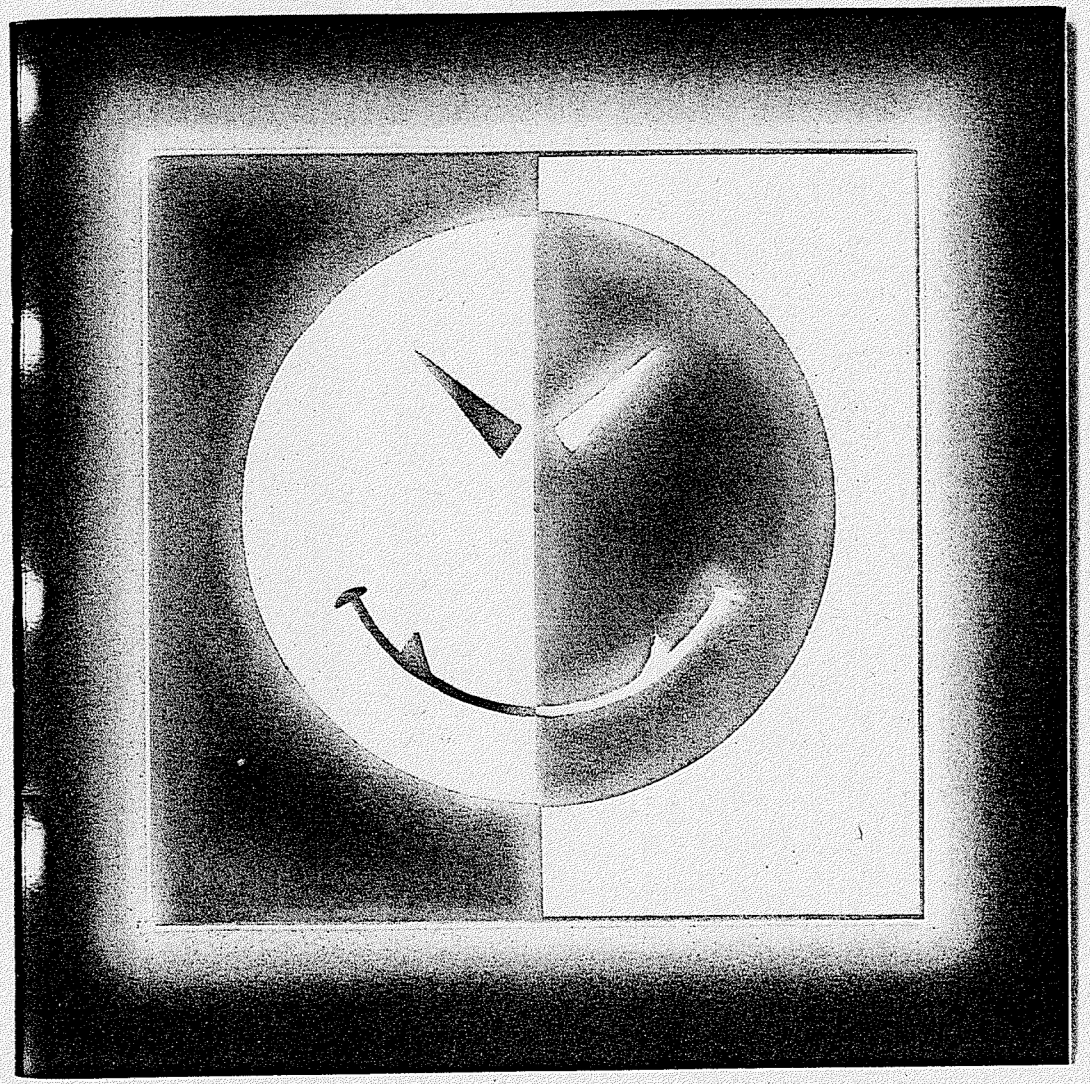
Die Spielzeit beträgt höchsten 45 Stunden (Realzeit).

BEFEHL ?

Wenn man bereits einen OORXX auf einen Planeten gesandt hat, ist es möglich, ihn zu reaktivieren, ohne einen anderen auszusenden: So kann man mit den OORXXen sparsam umgehen und muß nicht noch einmal den Flug über das Gebirge antreten.

Wenn die Arche nach einem Übergang in den Hyperraum in der Nähe eines bereits besuchten Planeten anhält, muß man nur in den Modus ARMATURENBRETT übergehen (Klick auf einen geschlossenen Knopf).

Dann kann man den Befehl ? erteilen, indem man darauf klickt: der Oorxx wird sofort reaktiviert. Trotzdem muß man nach dem Wesen suchen, das sich in der Zwischenzeit im Canyon woandershin begeben haben kann.



ENLIGHTENMENT
DRUID II

After One Hundred and Three years, the Amstrad display has changed...

The Amstrad Display

The display shown in the manual is slightly wrong although the functions of the various parts of the display remain the same.

The red **Constitution Indicator** can be found in the top left-hand corner of the display above the eight **Spell Windows.** To the left of this is the purple **Electrical Bolt Indicator.**

To the right is the **Message Window** and above this is the red **Elemental Strength** window. Below the message window is the green **Rating Bar.**

To the far-right of the display, from top to bottom, you will see the **Elemental Command Mode** window, and two **Elemental Status** windows. One shows a red/green, stop/go light and direction indicator and the other shows the type of Elemental currently in existence (if any).

You should also note that the **Spell Indicator** points from **above** the spell currently selected.

Einhundert und drei Jahre vergehen . . .

Einhundert und drei Jahre nach seiner Vertreibung aus Belorn ist Acamantor zurückgekehrt.

Der Druide Hasrinaxx war im Wald von Argoth auf der Suche nach frischen Misteln für seinen neuen Zaubertrank. In der Ferne sah er einen blühenden Busch, und er machte sich dorthin auf. Als er die kleine Lichtung davor überquerte, schreckte er plötzlich zurück. Ging seine Phantasie mit ihm durch oder hatte sich der Busch gerade wirklich bewegt? Da - wieder!

Zu spät erkannte er das Wildschwein, das auf ihn zugerannt kam. Er stolperte rückwärts und schrie vor Schmerz auf, als das Wildschwein seinen Rüssel unter seine Gewänder wühlte und ihn in das Bein biß, mit dem er versuchte, das Tier zu treten. Geschwind richtete Hasrinaxx seinen Ringfinger auf den Eber und sprach zwei kurze Worte eines mystischen Druidenspruches. Ein kleiner



Blitzstrahl schoß aus seinem Finger hervor und entlud sich im Rücken des Wildschweins. Das Tier quiekte vor Schmerz und verschwand im Gestrüpp.

"Wie dumm von mir, so unvorbereitet zu sein!", dachte der Druide. "Ich habe zu lange in der Sicherheit meines Dorfes gelebt. Die Zeiten sind vorbei, als ich die Acamantors Dämonenfürsten zu den dunklen Ebenen zurücksandte, wo sie hergekommen waren. Seitdem sind über hundert Jahre vergangen, und meine Zauberkraft ist zwar gewachsen, aber meine geistigen Kräfte sind geschwunden. Meine Druidensekte

ich verstoßen, weil ich mit gefährlicher Zauberei experimen-
Ich habe mich von der Natur und den Göttern der Elemente
Wind, Feuer und Wasser abgesondert. Und jetzt lähmt das
meinen Verstand. Was bleibt einem solchen Versager von
en noch im Leben?" Wenn Hasrinaxx nur geahnt hätte, welche
euer auf ihn zukommen sollten.

rinaxx dachte wieder an das Wildschwein, "Seltsam, daß ein
us dem Wald einen Menschen angreift. Und noch dazu einen
en, einen Freund aller Tiere, ja der Natur selbst!" Womöglich
s ein Zeichen der Götter, Mutter Erde persönlich versuchte ihm
teilen, daß er als einer der wenigen verbliebenen Großen
en nachließ.

in, das ist Unsinn", dachte er. "Die Götter würden niemals
für ihren Kamp benutzen. Das wäre wider die geheiligten
e der Natur." Er fragte sich wieder: Warum sollte ein

Wildschwein ihn angreifen? "Es schien Angst zu haben, vor etwas
davonzulaufen. Doch wover? Was nur könnte ein Wildschwein im
Wald von Argoth erschrecken? Menschen?"

Nein! Hasrinaxx hätte gespürt, wenn Menschen in der Nähe
gewesen wären. Doch etwas anderes, nahezu Ätherisches, spürte er.
Ein Gefühl, das er lange nicht mehr gespürt hatte. Nicht, seit er die
Dämonenfürsten aus dem Turm von Acamantor bezwungen hatte.
Doch das lag viele Jahre zurück. Die Wunden, durch die die dunklen
Ebenen Zungang zu dieser Welt fanden, würden sich nie wieder
öffen. Die Sekten der Großen Druiden hatten sie verschlossen,
nachdem die Dämonenfürsten vertrieben worden waren, mit
mächtiger, mystischer Magie.

Hasrinaxx schob diese Gedanken beiseite und begann, sich um sein
verletztes Bein zu kümmern. Es gab nichts, was ein kleiner
Heilkräuterumschlag nicht heilen könnte.

Als er den Weg nach Ishmar entlangstolperte, sah er Edervn

seinen getreuen jungen Lehrling. Wie alle Druidenlehrlinge war Ederyn äußerst ungeduldig, die Zauberkunst zu erlernen und machte sehr viele Fehler. Meist verwendete er die falschen Kräuter oder sprach beim Zaubern den falschen Druidenspruch. Doch wie alle weise gewordenen Druiden würde er mit dem Alter dazulernen.

Doch etwas war merkwürdig. Ederyns Gesicht schien beinahe ausdruckslos, und seine Augen traten hervor. Speichel tropfte aus seinem Mund, und seine Haut schien bläulich. Hasrinaxx befahl ihm, anzuhalten. Einen Moment lang dachte er, er könne ein Zeichen des Erkennens im Gesicht seines jungen Lehrlings sehen, doch das verschwand im selben Augenblick. Der Lehrling ächzte tief und stolperte weiter.

Als er näher kam, fiel ein stechender Gestank über den Druiden, der ihn sofort aus seiner Trance riß. Es war unverkennbar der Geruch des Todes - oder besser gesagt der untoten -, der Seelen, denen ein Leben





in der Nachwelt versagt ist, und die dazu verdammt sind, ewig als wandelnde Tote auf der Erde zu bleiben.

Hasrinaxx erhob seine zitternde Hand und richtete seinen
ngfinger auf den sich nähernden Lehrling. "Es tut mir leid, Ede-
n!", sagte er leise und sprach dann zwei Worte des mystischen
ruidenspruchs. Lange grelle Blitze schossen aus seinen
ingerspitzen hervor und entluden sich in der Brust des Lehrlings.
er sank mit schwelender Brust zu Boden, doch sein Gesicht blieb
usdruckslos. Sein Körper lag zuckend da und versank langsam im
oden, als ob Mutter Natur selbst den Körper in die Erde zurückriefe.
Hasrinaxx wußte aber, daß die Seele noch nicht bezwungen war und
laß sie sich schon in wenigen Stunden wieder aus ihrem
vorübergehenden Grab erheben würde.

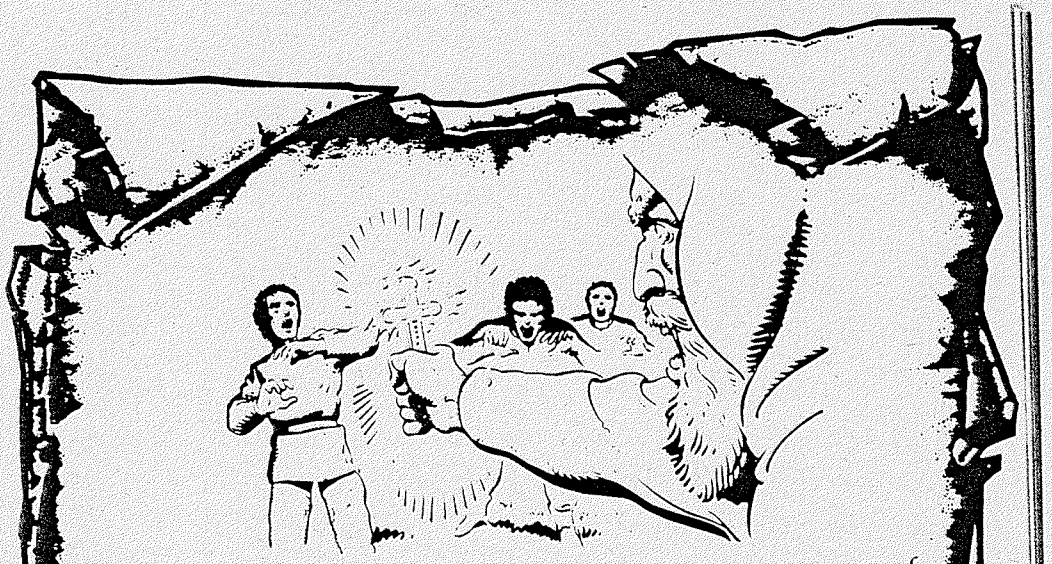
Plötzlich schnellte sein Kopf hoch. Seine Sinne waren nun
geschärft, und er sah um sich herum aus allen Richtungen, durch die
Büsche und zwischen den Bäumen hindurch, die Untoten auf sich zu
kommen. Sie waren überall. Einst waren sie lebendige Menschen
gewesen, die stolzen Bewohner von Ishmar, viele waren Freunde von



Hasrinaxx gewesen. Nun waren sie wandelnde Untote, mußten die
Lebenden angreifen - sie waren eifersüchtig auf diejenigen, die noch
am Leben waren. Hasrinaxx hatte Mitleid mit ihren armen Seelen.



r hörte eine Donnerschlag und sah, wie sich in der Ferne über dem
t friedlichen Land Belorn die Wolken zum Gesicht eines dunklen,
blickenden Magiers zusammenballten. Er wußte, dies war das
k Acamantors und seiner Dämonenfürsten. Er würde nach
nar zurückkehren und von dort aus Rache nehmen, und
ießlich diesem Übel ein Ende setzen - und den Dunklen Magier
önlich vernichten!



Er durchsuchte seinen kleinen Beutel und fand den Gengenstand,
den er brauchte. Er hielt das kleine silberne Kruzifix mit der rechten
Hand hoch. Es leuchtete in der Sonne. Sofort zogen sich die Untoten
in die Büsche und hinter die Bäume zurück, woher sie gekommen
waren, zurück in die Sicherheit der Dunkelheit und fort von dem
leuchtenden heiligen Symbol, das der Druide in der Hand hielt.
Hasrinaxx sprach einen geheimen Druidenspruch und machte sich
auf den Weg nach Ishmar . . .

Spielregeln

Steuertasten

	CBM 64	Spectrum
Zaubersprüche	P,@,*, (oberer Pfeil)	U,I,O,P
	L,:,;,=	H,J,K,L
Zauber wählen	+	Umschalter
Zauber aussprechen	Leertaste	Leertaste
Zauber entkräften	(linker Pfeil)	Symboltaste
Elementarwesen befehlen	C= (Commodoretaste)	A
Spiel unterbrechen wiederaufnehmen	RUN/STOP	ENTER

Amstrad

Zaubersprüche	1,2,3,4,5,6,7,8
Zauber wählen	CLEAR
Zauber aussprechen	Leertaste
Zauber entkräften	DELETE
Elementarwesen befehlen	A
Spiel unterbrechen/ wiederaufnehmen	ESC

Steuerung des Druiden

CBM 64 Steuerknüppel in Port 1.

Spectrum Kempston-Steuerknüppel oder Tasten Z,X,P,L und M.

Amstrad Steuerknüppel oder Tasten Z,X,P,L und M.

Elementarwesen befehlen

Immer wenn Sie ein Elementarwesen zu Ihrer Hilfe erschaffen, läßt sich dieses mit der Elementarwesen-Befehltaste steuern. Sie haben die Wahl zwischen WARTEN, (dem Druiden) FOLGEN und (in die Richtung, in die der Druide blickt) SENDEN. Wahlweise kann ein zweiter Spieler Ihr Elementarwesen zu wählen, unterbrechen Sie das Spiel, drücken die Befehltaste für Elementarwesen und nehmen das Spiel dan wieder auf.

CBM 64 Steuerknüppel in Port 2.

Spectrum Steuerknüppel (Druidensteuertaste bringt Sie zur Tastatur zurück).

Amstrad Steuerknüppel (Druidensteuertaste bringt Sie zur Tastatur zurück).

Der Bildschirm

Der Zustandsindikator zeigt die derzeitige Verfassung Ihres Druiden an. Wenn Sie angegriffen werden oder wenn Sie durch Feuer oder Wasser gehen, sinkt der Pegel. Das Spiel ist zu Ende und Sie sterben, wenn Ihre Verfassung auf Null sinkt.

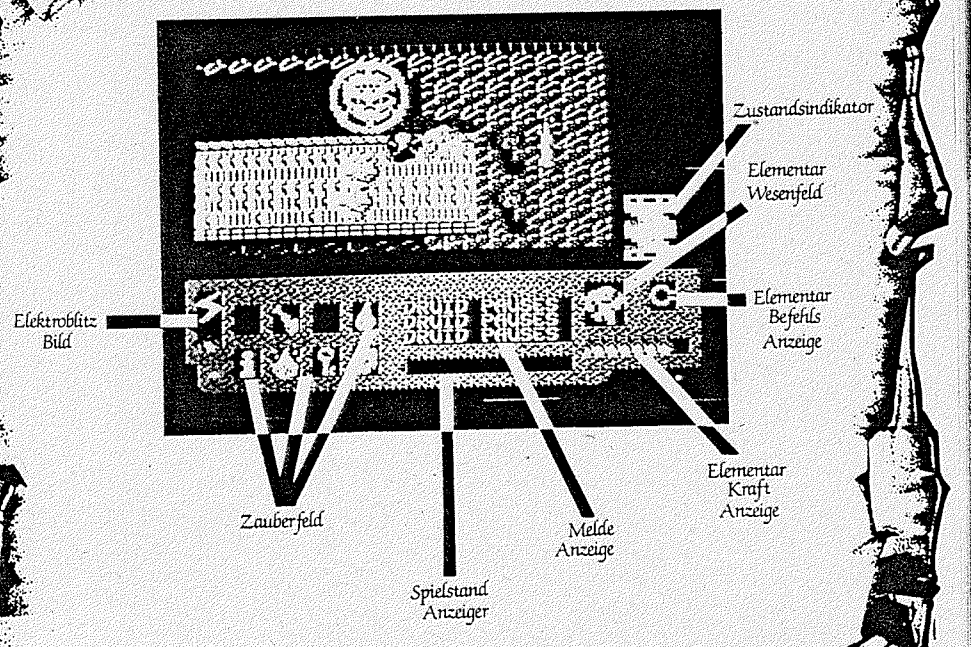
Die Zauberfelder zeigen den gewählten Zauberspruch. Immer wenn Ihr Druide über einen Zauberspruch geht, wird der betreffende Spruch angezeigt. Wenn Sie ihn benutzen wollen, können Sie ihn in Ihrem Zauberbuch speichern, das bis zu 8 Sprüchen aufnimmt. Der Spruch erscheint immer über dem Zauberfeld, außer wenn die aufgefüllt ist. Dann erscheint der Zauberspruch im jeweils nächsten freien Zauberfeld.

Das Elementarwesenfeld zeigt den Zustand Ihres Elementarwesens an, wenn Sie eins gewählt haben. Zuerst erscheint der Typus Ihres

Elementarwesens und in welche Richtung es sich bewegt (das ist besonders hilfreich, wenn sich das Elementarwesen außerhalb des Bildschirms befindet). Der Anzeiger rechts davon zeigt an, welchen Befehl das Element derzeit befolgt und gegebenenfalls manuelle Steuerung. Der rote Balken zeigt die Kraft Ihres Elementarwesens an.

Das Elektroblitzfeld zeigt die derzeitige Ladung der Blitze des Druiden an. Je schneller Sie feuern, desto schneller erschöpft sich die Ladung. Dadurch verringert sich Ihre Feuergeschwindingkeit, bis Sie gar nicht mehr schießen können. Dann müssen Sie warten, bis sich Ihre elektrische Energie wieder aufgeladen hat.

Der grüne Spielstandsanzeiger steigt im Laufe des Spiels, um Ihnen anzuzeigen, wie Sie sich behaupten.



ertung der Großen Druiden

ährend Ihr Druide seine Abenteuer in Acamantors Reich reitet, verlängert sich der grüne Spielstandsanzeiger. Dies zeigt wie Sie sich im Spiel behaupten. Ween Sie sterben (oder innen!), erhalten Sie den Ihrem Druiden am besten angemessenen el. Natürlich ist der beste Titel der des Overlords (Oberherren), h wird nur der beste Große Druide aller Zeiten je damit sgezeichnet. In der Reihenfolge von der schlechtesten zur besten istung gibt es folgende Titel:

Orc Breath (Atem des Orks)
Earth Shaman (Erdschamane)
Air Shaman (Luftschamane)
Water Shaman (Wasserschamane)
Fire Shaman (Feuerschamane)
Earth Lord (Herr der Erde)
Air Lord (Herr der Lüfte)
Water Lord (Herr des Wassers)
Fire Lord (Herr des Feuers)
Keeper of Order (Bewahrer des Ordens)
Druid of Realm (Druide des Reiches)
High Adept (Hoher Eingeweihter)
A-Sanach
Overlord (Oberherr)

Das Zauberbuch des Druiden

Zauber: Beschwörung des Elementarwesens der Erde
Typus: Herbeizurufen/Schutz
Wirkungsdauer: Speziell
Wirkungsbereich: Umgebung des Wesens

Dieser Zauber ist der erste der vier großen Elementarwesen-Zauber. Wenn er auf offener Fläche ausgesprochen wird, wird ein Golem aus Ton aus der Erdebene herbeigerufen. Er dient dem Druiden, bis seine Kraft erschöpft ist. Er versteht nur die drei einfachen Befehle Warten, Folgen und Senden. Der Golem widersteht allen Angriffen der Natur, und er ist sehr stark. Allerdings ist er langsam und schwerfällig, und kann gelegentlich hinderlich sein.

Zauber: Beschwörung des Elementarwesens der Lüfte
Typus: Herbeizurufen/Schutz
Wirkungsdauer: Speziell
Wirkungsbereich: Umgebung des Wesens

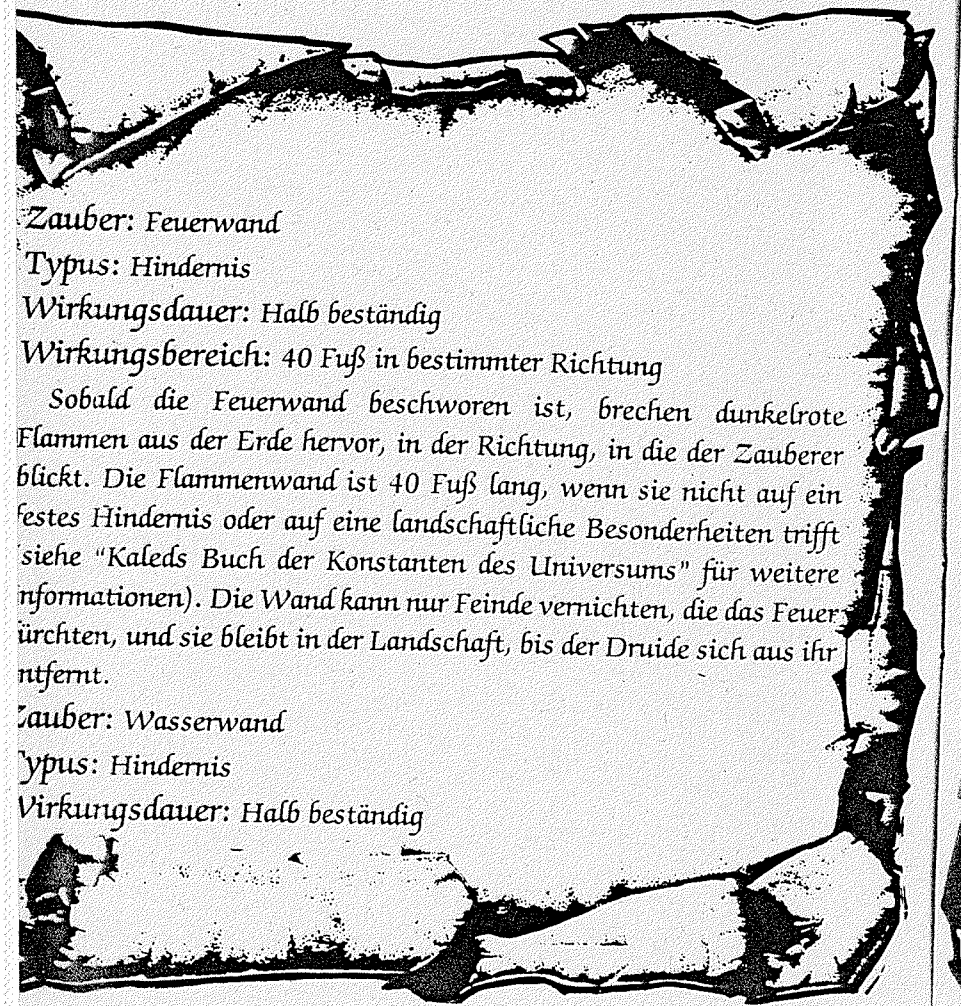
Dieser Zauber wirkt wie der Erdesenzauber, doch wird hier ein Luftzug aus der Luftebene herbeigerufen, der dem Druiden dient, bis seine Kraft erschöpft ist. Der Luftzug ist sehr schnell, aber auch sehr schwach. Runewort, der Große Druide, war dafür bekannt, daß er diesen Zauber für schnelle, fegende Angriffe gegen zahlenmäßig überlegene, doch schwache Feine anwandte.

Zauber: Beschwörung des Elementarwesens des Feuers
Typus: Herbeizurufen/Schutz
Wirkungsdauer: Speziell
Wirkungsbereich: Umgebung des Wesens

Dieser Zauber wirkt wie der Erdwesenzauber, doch wird hier ein Feuerphönix aus der Feuerebene herbeigerufen, der dem Druiden dient, bis seine Kraft erschöpft ist. Der Phönix ist recht schnell, doch verliert er in nassen oder feuchten Gebieten schnell seine Kraft.

Zauber: Beschwörung des Elementarwesens des Wassers
Typus: Herbeizurufen/Schutz
Wirkungsdauer: Speziell
Wirkungsbereich: Umgebung des Wesens

Dieser Zauber wirkt wie der Erdwesenzauber, doch wird hier eine Krake aus der Wasserebene herbeigerufen, die dem Druiden dient, bis ihre Kraft erschöpft ist. Die Krake ist recht schnell, doch verliert sie in heißen oder trockenen Gebieten ihre Kraft.



Zauber: Feuerwand
Typus: Hindernis
Wirkungsdauer: Halb beständig
Wirkungsbereich: 40 Fuß in bestimmter Richtung

Sobald die Feuerwand beschworen ist, brechen dunkelrote Flammen aus der Erde hervor, in der Richtung, in die der Zauberer blickt. Die Flammenwand ist 40 Fuß lang, wenn sie nicht auf ein festes Hindernis oder auf eine landschaftliche Besonderheiten trifft (siehe "Kaleds Buch der Konstanten des Universums" für weitere Informationen). Die Wand kann nur Feinde vernichten, die das Feuer fürchten, und sie bleibt in der Landschaft, bis der Druide sich aus ihr entfernt.

Zauber: Wasserwand
Typus: Hindernis
Wirkungsdauer: Halb beständig
Wirkungsbereich: 40 Fuß in bestimmter Richtung

Sobald die Wasserwand herbeigerufen ist, quillt dunkelblaues Wasser aus der Erde, in der Blickrichtung des Zauberers. Dieser Zauber wirkt wie die Feuerwand, mit dem Unterschied, daß er nur wasserscheue Feinde vernichtet.

Zauber: Berührung
Typus: Offensiv
Wirkungsdauer: Kurz
Wirkungsbereich: Berührtes Wesen

Wenn dieser Zauber ausgesprochen wird, stirbt jegliches Wesen, das der Druide berührt, auf der Stelle. Doch schadet dieser Zauber einigen mächtigeren Wesen nicht.

Zauber: Licht des Todes
Typus: Zerstörung
Wirkungsdauer: Kurz
Wirkungsbereich: 40 Fuß im Umkreis des Druiden

Dieser Zauber vernichtet kurzfristig alle Wesen im Umkreis von vierzig Fuß um den Druiden, wodurch er Zeit gewinnt, seine Gedanken zu sammeln oder dunkle, gespenstische Gegenden zu durchqueren. Einige mächtige Wesen sind allerdings gegen diesen Zauber immun.

Zauber: Land des Todes
Typus: Zerstörung
Wirkungsdauer: Mittel
Wirkungsbereich: 40 Fuß im Umkreis des Druiden

Dieser Zauber wirkt genau wie das Licht des Todes, doch hält er wesentlich länger an. Große Druiden halten ihre unerfahrenen Untergebenen immer dazu an, diesen Zauber sparsam zu verwenden.

Zauber: Finger des Todes
Typus: Offensiv
Wirkungsdauer: Kurz
Wirkungsbereich: 40 Fuß in bestimmter Richtung

Bei diesem Zauber schießen Blitze aus den Fingerspitzen des Druiden hervor. Diese Ströme sind zehnmal so stark wie die von Druiden üblicherweise verschossenen Elektroblitze.

Zauber: Aufladung
Typus: Stärkung
Wirkungsbeginn: Unmittelbar
Wirkungsbereich: Druide

Diesar Zauber lädt die Elektrostrahlen des Druiden wieder auf, sodaß er mit maximaler Kraft feuern kann.

Zauber: Langsam
Typus: Hindernis
Wirkungsdauer: Kurz
Wirkungsbereich: 40 Fuß im Umkreis des Druiden

Dieser merkwürdige Zauber verlangsamt die Bewegungen aller Wesen, die sich im Umkreis von vierzig Fuß um den Druiden befinden, sodaß sie lethargisch und langsam werden. Dadurch kann jeker gewandte Druide schnell zwischen ihnen hindurchschlüpfen.

Zauber: Feuerschild
Typus: Schutz
Wirkungsdauer: Kurz
Wirkungsbereich: Druide

Bei einer Konfrontation mit Flammensäulen braucht der umsichtige Druide nur diesen Zauber zu beschwören. Er verwandelt seine Gewänder und Sandalen für kurze Zeit in zähe Drachenhaut und macht ihn dadurch gegen alle Arten natürlicher Hitze unempfindlich.

Zauber: Unsichtbarkeit
Typus: Tarnung
Wirkungsdauer: Kurz
Wirkungsbereich: Druide

Dieser vielverwendete Zauber ist immer noch einer der

wirksamsten Sprüche, die ein Druide in seinem Zauberbuch haben kann. Der Druide wird für alle Wesen mit normaler Sicht unsichtbar. Einige Wesen sehen jedoch nicht mit den Augen, sondern mithilfe von Wärme oder Magie.

Zauber: Rüstang
Typus: Schutz
Wirkungsdauer: Kurz
Wirkungsbereich: Druide

Dieser Zauber verwandelt die Gewänder des Druiden für eine kurze Zeit in starken Stahl und macht ihn so weniger verwundbar bei einem Angriff.

Zauber: Abwendung
Typus: Abschreckung/Illusion
Wirkungsdauer: Kurz
Wirkungsbereich: 40 Fuß im Umkreis des Druiden

Dieser Zauber läßt den Druiden als mächtiges, verabscheuungswürdiges Wesen erscheinen. Hierbei handelt es sich natürlich um eine Illusion, doch gerät jedes unintelligente Wesen in der näheren Umgebung des Druiden sofort in Panik und versucht, davonzulaufen. Nach kurzer Zeit verliert der Zauber seine Wirkung, und die Illusion verschwindet.

Zauber: Teleport
Typus: Ätherische Reise
Wirkungsbeginn: Unmittelbar
Wirkungsbereich: Druide

Dies ist ein recht mystischer Zauber. Bisher konnten Große Druiden lediglich feststellen, daß dieser Zauber, wenn er in einem magischen Symbol gesprochen wird, den Beschwörer auf eine andere Ebene befördert (die Art der Ebene wird durch das magische Symbol bestimmt).

Zauber: Infravision
Typus: Sicht
Wirkungsdauer: Kurz
Wirkungsbereich: Druide

Dieser Zauber ist im Dunkeln nützlich. Durch ihn werden die Augen des Druiden sowohl licht - als auch wärmeempfindlich. Diese Fähigkeit währt jedoch nur kurze Zeit, und dann finden Sie sich im Dunkeln wieder.

Zauber: Wiederauferstehung
Typus: Wiederauferstehung
Wirkungsdauer: Speziell
Wirkungsbereich: Speziell

Dieser Zauber wurde ursprünglich vom Geister - und Totenbeschwörer Groblar in einem schlauen Versuch, den Tod zu überlisten, geschaffen. Nauürlich wurden sich Druiden auf der ganzen Welt über den Wert eines solchen Zauberspruches klar, und bald war er in den höchsten Rängen der Druidensekten im Umlauf. Wenn er gesprochen wird, entsteht ein Grab. Sollte dem Druiden nun das Mißgeschick widerfahren, zu sterben, so bekommt er neues Leben und volle Kraft, und erhebt sich aus demselben Grab, daß er schuf. Sehen Sie sich aber vor: Sie können nur ein Grab ausheben. Wenn Sie danach einen weiteren Wiederauferstehungs-Zauberspruch sprechen, wird das bei der ersten Wiederauferstehung geschaffene Grab zerstört.

Zauber: Türensprengen
Typus: Zerstörung
Wirkungsbeginn: Unmittelbar
Wirkungsbereich: 5 Fuß im Umkreis des Druiden

Bei diesem Zauberspruch ist eine mächtige Explosion zu hören, die alle Türen im Umkreis von fünf Fuß um den Druiden sprengt und in tausend Stücke zersplittert. Alle dummen Lebewesen im Umkreis von vierzig Fuß um den Druiden herum brechen beim Schall der Explosion vor Schmerz zusammen.

Zauber: Das Sehende Auge
Typus: Sicht
Wirkungsdauer: Kurz
Wirkungsbereich: 80 Fuß in bestimmter Richtung

Mit diesem Zauber kann der Druide das vor ihm liegende Land überblicken und sehen, welche Gefahren ihn erwarten.

Zauber: Weiser
Typus: Sagengut
Wirkungsbeginn: Unmittelbar
Wirkungsbereich: Keiner

Bei diesem Zauber gibt Ihnen der Große Druide Klaven Marr eine kurze, verschlüsselte Botschaft, je nachdem, wo Sie sich aufhalten. Dies hilft Ihrem Druiden bei seiner Suche nach Erleuchtung.

Zauber: Stärkung
Typus: Stärkung
Wirkungsbeginn: Unmittelbar
Wirkungsbereich: Elementarwesen im Umkreis von bis zu 160 Fuß Entfernung vom Druiden.

Dieser Zauber kräftigt Ihr Elementarwesen und zögert so seine Rückkehr zu den Elementebenen hinaus.

Zauber: Bankett
Typus: Stärkung
Wirkungsbeginn: Unmittelbar
Wirkungsbereich: Druide

Dieser Zauberspruch gibt dem Druiden das Gefühl, soeben ein sättigendes Mahl zu sich genommen zu haben und bringt ihn dadurch wieder in Bestform.

Zauber: Wein
Typus: Stärkung/Heilmittel
Wirkungsbeginn: Unmittelbar
Wirkungsbereich: Druide

Dies zaubert eine Flasche Wein herbei, die der Druide sofort austrinken muß. Das stellt einerseits seine Verfassung wieder her, und trägt auch dazu bei, Gift in seinem Körper abzubauen.

Zauber: Licht erschaffen
Typus: Sicht
Wirkungsdauer: Lang
Wirkungsbereich: 5 Fuß im Umkreis des Druiden

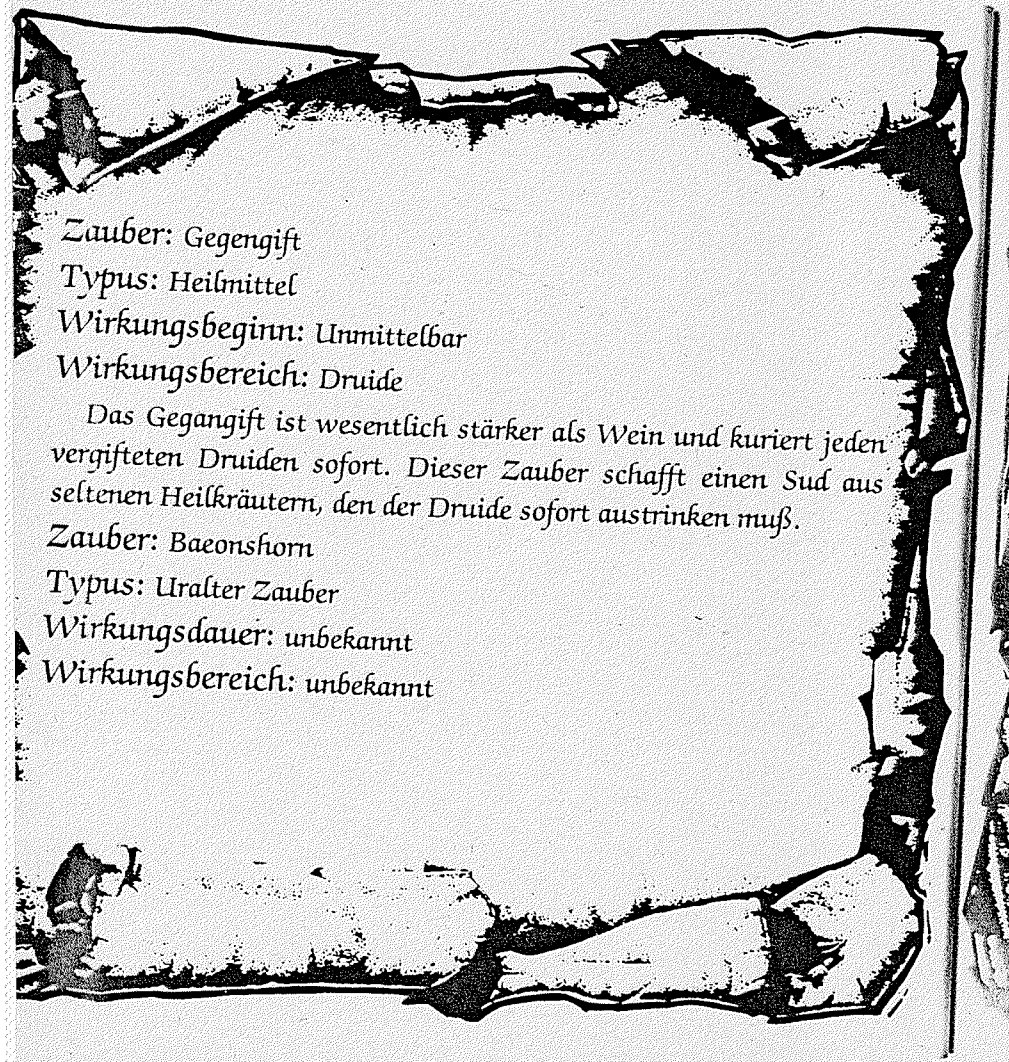
Dieser Zauber schafft einen Lichtkreis wie von einer kleinen Fackel um den Druiden. Das Licht verlöscht jedoch nach einiger Zeit.

Zauber: Kruzifix
Typus: Abschreckung/Illusion
Wirkungsdauer: Kurz
Wirkungsbereich: 40 Fuß im Umkreis des Druiden

Bei diesem Zauber erscheint für kurze Zeit ein heiliges Kreuz in der Hand des Druiden. Alle Untoten und unheiligen Kreaturen rennen aus Angst vor einer solchen heiligen Reliquie sofort davon.

Zauber: Schlüssel
Typus: Aufschließen/Öffnen
Wirkungsbeginn: Unmittelbar
Wirkungsbereich: Kontakt mit einem Schloß

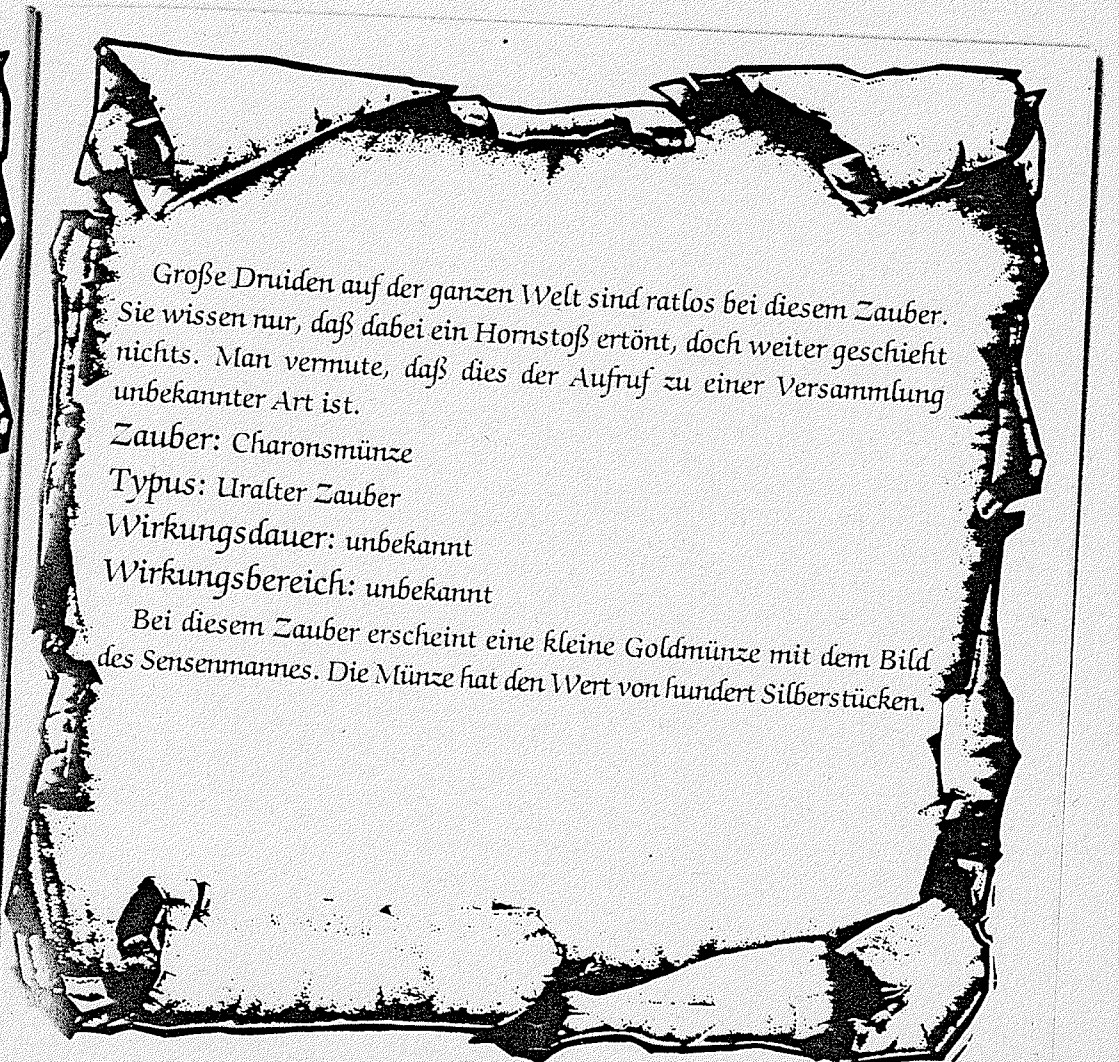
Dieser Zauber ist lediglich Hexerei. Durch ihn öffnen sich verschlossene Türen.



Zauber: Gegengift
Typus: Heilmittel
Wirkungsbeginn: Unmittelbar
Wirkungsbereich: Druide

Das Gegangift ist wesentlich stärker als Wein und kuriert jeden vergifteten Druiden sofort. Dieser Zauber schafft einen Sud aus seltenen Heilkräutern, den der Druide sofort austrinken muß.

Zauber: Baeonshorn
Typus: Uralter Zauber
Wirkungsdauer: unbekannt
Wirkungsbereich: unbekannt



Große Druiden auf der ganzen Welt sind ratlos bei diesem Zauber. Sie wissen nur, daß dabei ein Hornstoß ertönt, doch weiter geschieht nichts. Man vermute, daß dies der Aufruf zu einer Versammlung unbekannter Art ist.

Zauber: Charonsmünze
Typus: Uralter Zauber
Wirkungsdauer: unbekannt
Wirkungsbereich: unbekannt

Bei diesem Zauber erscheint eine kleine Goldmünze mit dem Bild des Sensenmannes. Die Münze hat den Wert von hundert Silberstücken.

auber: Weißer Stern
ypus: Zerstörung/Erleuchtung
irkungsdauer: Ewig
irkungsbereich: Acamantor

Wenn ein Druide diesen Zauber richtig anwendet, hat er erkanntermaßen die höchste Stufe der Erleuchtung erreicht und ist echtigt, in den Kreis der Großen Druiden einzutreten.

Die Länder von Belorn

Es gibt zehn Länder von Belorn, und es gibt Acamantors fünfgeschossigen Turm. Das Spiel beginnt im Dorf Ishmar. Westlich davon liegen die Länder der Wüsten und des Feuers. Im Norden der Wüstenländer liegen die Felsenebenen, und nördlich davon schließen sich die dunklen gespenstischen hhilen der Dunkleheit an. Nördlich von Ishmar liegt der unheimliche Wald, im Osten das Sumpfgebiet und das Land des Wassers, Nördlich das der Weg in die Schnee - und Eisgebiete führt. Ganz im Osten, jenseits des Wassers, steht Acamantors Turm - umgeben von einem Wassergraben, Ober den keine Brücke führt, soweit das Auge reicht.

Die Dämonenfürsten

Acamantor hat die Dämonenfürsten ein weiteres Mal einberufen, und sie helfen ihm, seinen Griff über die Länder von Belorn zu festigen. Die Dämonenfürsten halten sich in den Ländern des Feuers, der Wüste und des Schnees auf, und auch in den zwei Verliesen von Acamantors Turm. Um eine Dämon zu vernichten, müssen Sie viele Male auf ihn feuern und dabei einen der Zauber "Licht des Todes" oder "Land des Todes" verwenden. Wenn fer Dämon seine Kraft verliert, verändert sich seine Farbe, und einige zusätzliche Schüsse sollten ihn endgültig vernichten. Doch sehen Sie sich vor; Der Dämon wird unablässig Feuerkugeln auf Sie spucken, wenn Sie versuchen, ihn zu vernichten.



The Quill

An Adventure System for the AMSTRAD CPC 464 by Graeme Yeandle

Serial A

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Acknowledgment

Many thanks to Liz and Steve of Birchgrove Business Limited (Cardiff) for their invaluable assistance with the production of this manual.

Contents

What is Adventure? Page 5

What is The Quill? Page 5

Getting Started Page 6

Part 1

How to use The Quill Page 7

Part 2

Detailed Description of the Interpreter Page 32
Detailed Description of the Database Page 43
Detailed Description of the Editor Page 46
Error Messages Page 54

Notes Page 55

Summary of Conditions, Actions and Flags Page 59

What is Adventure?

Adventure can be described as a computerised version of the game Dungeons & Dragons. In Dungeons & Dragons one person is nominated as the dungeon master, and he invents a dungeon for other players to explore and try to retrieve hidden treasures which are usually protected by monsters of various shapes and sizes. Each player notifies his proposed actions to the dungeon master who decides on the outcome, sometimes with the help of dice to introduce a random element.

In Adventure the computer takes the place of the dungeon master and the player or players explore a predefined dungeon. Most Adventures will contain a vocabulary of words which the computer 'understands', a variety of locations which a player may wander around and objects which have to be used in the correct way to enable the Adventure to be solved. The computer will describe a situation to the player and invite him to decide on a course of action. The computer then tells the player the result of his action.

Everyone who plays Adventure has the problem of making the computer understand their commands. The computer will only have a limited vocabulary of perhaps a few hundred words and 'finding the right words' can sometimes be a problem, for example, if you are playing Dungeons & Dragons and the dungeon master tells you "There is a lamp nearby" then if you decide to "PICK UP THE LIGHT" the dungeon master should know what you mean. If the same situation occurs when playing Adventure the computer may understand "GET LAMP" but may not know that LIGHT means, on this occasion, the same as LAMP or that PICK UP means the same as GET. Even so, most players will very quickly get the knack of 'finding the correct words'. However, it should be noted that it is up to the Adventure designer to decide which words are included in the computer's vocabulary.

What is The Quill?

The Quill is an adventure writer which allows someone with no programming experience to create a machine code adventure.

Getting Started

The Quill Adventure system is made up of three parts:-

a) A database which will contain all the information relevant to an adventure.

b) A database Editor which enables data to be inserted into, amended in or deleted from the database.

c) An Interpreter (this is the dungeon master) which uses the data in the database to execute your adventure.

To load The Quill reset the computer using CTRL, SHIFT and ESC and then enter RUN"Q

Part 1 of this manual will introduce you gently to The Quill, from simple location descriptions through to complex condition tests and actions. It is strongly recommended that you work all the way through Part 1 before attempting to write your own adventures. Part 2 contains a detailed description of The Quill for reference.

The Main Menu

When The Quill has loaded you will be presented with the Editor's Main Menu A. There is also a Main Menu B and you can switch between the two using option T. Of the other options some, e.g. Bytes Spare, will perform a function and return to the Main Menu while others, e.g. Location Text, will give you a sub menu. The RETURN TO BASIC option is an exception to this as it executes the BASIC NEW command which destroys The Quill. Note that the full range of options (A-T) is available whichever Main Menu is displayed.

The Input Routine

The Quill uses the CPC 464's 40 column screen and has it's own screen editor which is not limited to 255 characters. When you type in on the keyboard the characters that you key are placed into a large input buffer and the contents of the input buffer are then printed on the screen. Colour controls and inverse on/off are entered using the numeric keypad. CTRL (numeric) Ø-3 changes to PAPER Ø-3 while SHIFT (numeric) Ø-3 changes to PEN Ø-3. CTRL or SHIFT (numeric) point will switch inverse off/on. Cursor left and cursor right are used to move the cursor through the input buffer but note that when the cursor is moved over a colour control code the position of the cursor on the screen will not change. When entering text CTRL/ENTER may be used to move the cursor, and everything following it, onto a new line. Cursor up and down are used to move the cursor within the input buffer and will move it up to 40 characters or to the end of the line whichever comes first.

CTRL/CLR will clear the input buffer. Try typing in a few characters and then press CTRL/CLR, then type in a few more characters and press ESC. While in the editor ESC will always return you to a menu. (Press any key after the BREAK error message).

To insert characters simply position the cursor at the appropriate place and type in the characters to be inserted. It is not possible to type over any characters that are already present. If you type in more than 23 lines (1 line when on a menu) subsequent lines will still be present in the input buffer but will not be present on the screen there this is not recommended. Error messages appear at the bottom of the screen and pressing any key will return you to a menu.

Whenever you press ENTER the editor checks that what you have typed in is valid i.e. it checks the syntax. If the editor finds a syntax error it is indicated by a ? following the error. The editor always positions the cursor immediately after the ? so that the cursor is in the vicinity of the error. On the Main Menu the only valid options are A-T and £. Try typing in 3 and pressing ENTER, then delete the 3 and type in ABC followed by ENTER. In each case a syntax error will be detected.

Further information about the input routine is contained in the notes at the back of the manual.

Bytes Spare

Let's now try one of the options on the Main Menu. If you clear the input

buffer (CTLR/CLR), then type 0 for Bytes Spare and press ENTER you will get a display which tells you how many bytes are unused in the database.

Permanent Colours

When the Quill is loaded it behaves as if the BASIC command MODE 1:BORDER 1:INK 0,1:INK 1,26:INK 2,3:INK 3,15:PAPER 0:PEN 1 had been executed. The values of ink and border can be changed by selecting option Q on the Main Menu. Try changing the colours but be careful not to select the same value for inks 0 and 1. If you do, just remember that 'Permament Colours' is still option Q on the Main Menu if if you cannot see the menu.

Disc/Tape

For those of you with a disc drive option J on the Main Menu allows you to choose between using disc and tape.

Save & Load Database

These options on the Main Menu allow the database to be saved or reloaded and in each case you will be prompted to "Type in name of file". When loading, the computer will search for a file of bytes with the name specified and then load it. A null filename may be used when you are using tape but not with disc. Care should be taken when using Load Database with a null filename because it will load any binary file. The ESC key may be used to interrupt a save or load but if it is used to interrupt a load, or an Error is detected during a load, then the database will be corrupt. Be very careful with a corrupt database as it can easily cause the Editor & Interpreter to become corrupt. In fact the only safe Editor command with a corrupt database is Load Database and this should be used until a database is loaded successfully.

CAT

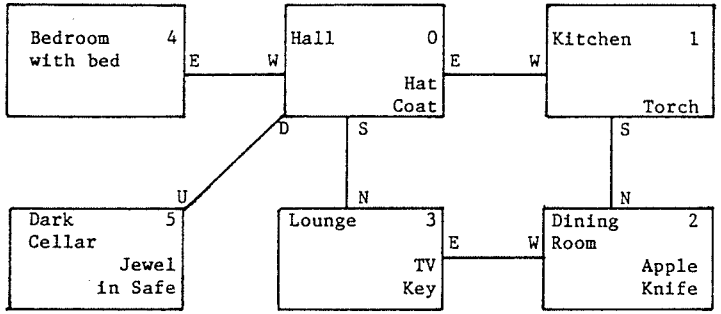
Option N on the Main Menu can be used to catalogue a tape or disc in the same way as from BASIC.

Setting up an Adventure

The following sections of Part 1 of this manual will give you some practical experience of using The Quill to set up an adventure. Each section depends on entries having been made to the database in earlier sections so you have to work through it step by step. If you wish to break off part of the way through, please save the database so that you can continue later where you left off.

A map of the mini adventure we are going to set up is shown in figure 1 and the objective of the adventure is to find the jewel and place it in the Dining Room. The map shows all of the locations in the adventure and how they are interconnected. The locations have all been given a location number, which is shown in the corner, and the position of various objects is indicated.

Figure 1 - Map of the Adventure



Before we start to set up the adventure make sure that the database is in the state it was when The Quill was loaded. The BORDER colour should be set to 1 and the INK colours to 1, 26, 3, 15 respectively.

The Location Texts

The descriptions we will use for each location are as follows:-

Location 0

I am in a Hall. The Kitchen is to the East, the Bedroom to the West and the Lounge to the South. Steps lead Down to the Cellar.

Location 1

I am in the Kitchen. The Hall is to the West and the Dining room is to the South.

Location 2

I am in the Dining Room. The Kitchen is to the North and the Lounge to the West.

Location 3

I am in the Lounge. To the North is the Hall while the Dining Room is to the East.

Location 4

I am in the Bedroom. The Hall is to the East and a bed is against the North wall.

Location 5

I am in the Cellar. Steps lead Up to the Hall.

If you type in C on the Main Menu the Location Text menu will be displayed and you will see that location texts can be Inserted, Amended or Printed. P is used to print on the screen while L is used to print on the printer. P or L by itself will start printing with the text for location 0. P and L can also be followed by a location number (locno.) and if that location exists printing will start with the text for that location. The P or L and the locno. must be separated by at least one space and if the locno. does not exist a syntax error will be detected.

Type in P followed by ENTER on the Location Text menu and you will see that a description is already present for location 0. The only reason for this is that the programming of The Quill was much simpler if location 0 was always present. The text that is present is not important but it does show some of the things that can be entered from the keyboard e.g. INVERSE. Note the use of INK 2 for PAPER (Red) and INK 3 for PEN (Orange).

As a text is already present for location 0 we will have to amend it to the text required for our mini adventure. You will see from the Location Text menu that to amend a location text A followed by a locno. must be entered. Please now enter A 0 and the existing text for that location will be copied to the input buffer and displayed on the screen followed by a cursor.

Ust CTRL/CLR to clear the input buffer and then type in the text we need for our location 0 i.e. the Hall. Use CTRL/ENTER where appropriate and, if you like, put the compass directions in INVERSE. When you have typed it in press ENTER to amend the database. Note that the database is not amended until you press ENTER and that the use of ESC at any time before pressing ENTER will leave the database unchanged.

The texts for the other locations in our mini adventure now have to be inserted by using the I option on the Location Text menu. Notice that the I is not followed by a locno. When you use I the Editor automatically allocates the next location number in sequence. Type in I followed by ENTER and the Editor will tell you which location number has been allocated (1 in this case) and display a cursor. It is important that you realise that a null entry for the location number being inserted has already been made in the database and that if you were to use ESC at this stage (do not do this now) the null entry would still remain.

Type in the text that we need for our location 1 and press ENTER which will change the null entry already inserted to the text you have typed in. You should now be able to insert the texts for locations 2 to 5 and then print them to check that they are correct. If you have made any mistakes then please amend the texts to correct the errors. You might also like to try P followed by a locno. e.g. P 2, to start printing with the text for location 2.

You should have inserted the location texts for locations 0 to 5 and returned to the Main Menu before continuing with the next part.

The Movements

The interconnections between our 6 locations can now be entered into the

database and these are placed in the Movement Table. If you select D on the Main Menu the Movement Table menu will be displayed and you will see that entries can be amended or printed. Notice that entries cannot be inserted. This is because when you insert a location text for a location the Editor automatically creates a null entry for that location in the Movement Table. If you type in P on the Movement Table menu you should see that null entries do actually exist for our locations 0 to 5.

Refer back to the map of our mini adventure in figure 1 and you will see for location 0 that:-

EAST goes to location 1
DOWN goes to location 5
WEST goes to location 4
& SOUTH goes to location 3.

Going back to the Movement Table menu type in A 0 to amend the entry for location 0. When 'Movements from location 0' is printed at the top of the screen, type in (exactly)

EST 1 DOWN 5 WEST 9 SOUTH 3 and press ENTER.

If you did type it in exactly you should get a syntax error after EST because it is not in the database's vocabulary. If you correct EST to EAST and press ENTER again you should get a syntax error after the 9 because the Editor knows that there is no location 9. Change the 9 to 4 and you should then have EAST 1 DOWN 5 WEST 4 SOUTH 3.

Pressing ENTER now will amend the existing database entry.

Now type in P on the Movement Table menu and you will see that the entry for location 0 reads:-

E	TO	1
D	TO	5
W	TO	4
S	TO	3

The Editor knows that E is a synonym of EAST (i.e. E means the same as EAST), D is a synonym of DOWN etc. and it always prefers to use the abbreviation or shorter synonym. We will deal with synonyms in more detail when we get to the section on the vocabulary.

If you now wanted to amend the entry for location 0 it would be displayed at the bottom of the screen as "E 1 D 5 W 4 S 3". Type in A 0 on the Movement Menu to have a look; you can then get back to the menu by using ESC or ENTER. If you use ENTER the Editor will copy the input buffer into the database and tell you it has amended the entry even though it hasn't actually changed. Note that you could have typed in the abbreviations initially.

The Movement Table entries we need for our mini adventure are:-

```
Location 0      E 1 D 5 W 4 S 3
Location 1      S 2 W 0
Location 2      N 1 W 3
Location 3      N 0 E 2
Location 4      E 0
Location 5      U 0
```

Check these with the map and then amend the Movement Table entries for locations 1 to 5 using the Movement Table menu. You can print the entries to check that they are correct if you wish.

Testing the Adventure

Now that you have entered the location texts and the movements it is time to test the adventure, so select L on the Main Menu. You will be asked whether you require diagnostics and you should reply N & ENTER or just ENTER. Note that the adventure always begins at location 0. You should be able to move to all of our locations using the full words e.g. EAST, or the abbreviations e.g. E. When you are in the bedroom try typing in the following commands:-

```
     GO WEST                 will get the reply  I can't go in that direction.
     GET JEWEL               will give           I can't.
     LIE ON THE BED
&    GO TO THE HALL          will give           I don't understand...
     REDESCRIBE LOCATION
or   REDESCRIBE
or   R                       will print the location description again.
     TAKE INVENTORY
or   INVENTORY
or   I                       will give a list of what you're carrying
                             (nothing).
```

To return to the Editor use the word QUIT and if you have found any errors in the location texts or the movements then use the Editor to correct them. If you would like to try out the diagnostics then select L again on the Main Menu and reply Y to the prompt. The diagnostics will not help you much at this stage but you should note that the last number in INVERSE is the number of the current location. The other numbers (mostly 0 at the moment) are the values of, what are called, the user flags and they will be explained in a later section.

The Objects

An object is anything that can be manipulated e.g. a key, or moved from place to place or changed from one thing into another e.g. a torch into a lit torch. Most of the objects in our mini adventure are shown on the map in figure 1 but a full list showing the object number, the description needed and the position of the object at the start of the adventure is as follows:-

objno.	Text	Start location
Object 0	A lit torch.	not created
Object 1	A torch.	1
Object 2	An apple.	2
Object 3	A sharp knife.	2
Object 4	A television.	3
Object 5	A coat.	0
Object 6	A deerstalker hat.	0
Object 7	A key.	3
Object 8	A safe.	5
Object 9	A jewel.	not created
Object 10	An open safe.	not created
Object 11	A walking stick.	carried

So, the (unlit) torch starts out at the kitchen, the walking stick starts off being carried and the jewel (which can't be seen because it's in the safe) starts off as not created. Notice that there are two descriptions for the safe and that it is treated as two separate objects. When the safe is opened Object 8 will be destroyed and Object 10 will be created, while the reverse will happen if the safe is closed. Similarly the torch is really two objects which will be swapped over when the torch is switched on or off.

The Object Texts

The descriptions of the objects are entered in exactly the same way as the descriptions of the locations. If you select E on the Main Menu the Object Text menu will be displayed and you will see that it is the same as the Location Text menu except that locno. has been replaced with objno. i.e. object number. If you print the object texts (P) you may not be surprised to find that an Object 0 already exists. Amend the text of Object 0 so that it reads "A lit torch." and use a different PAPER colour e.g. Red (CTRL/NUMERIC 2). Then insert the texts for objects 1-11 so that all the object texts use the same PAPER colour. After you have printed the texts, checked and corrected them please return to the Main Menu.

The Object Start Locations

Now that the object texts have been inserted into the database we can go about placing the objects where they will be at the start of the adventure. Type in F on the Main Menu to select the Object Start Location menu and you will see that the entries can be amended or printed. Entries cannot be inserted because when you insert an object text for an object the Editor automatically inserts an entry of 'not created' for that object in the Object Start Location Table. If you print the Object Start Location entries you should see that our 12 objects (0-11) are all 'not created'. To amend the entry for object 7 so that it starts the adventure at location 3 type in A 7 3 on the Object Start Location menu. 252, 253 & 254 are some special locnos which mean not created, worn & carried respectively so to amend the entry for object 11 so that it starts off being carried type in A 11 254.

Refer back to our list of objects and their start locations and amend all the other entries that need to be changed. You can then print the entries

again to check that they are correct. Note that if you type A 0 252 (for instance) the Editor will print 'Amended' even though the entry hasn't changed.

Testing Again

It's time to test the adventure again to check that the objects are where they should be and have the correct descriptions so select L on the Main Menu. When you are in the adventure type in INVENTORY or I to check that you are carrying the walking stick and use the map in figure 1 to check that the other objects are at the correct locations.

If you asked for diagnostics you will see that the second number is now set to 1. The Interpreter which is part of The Quill contains 33, of what are termed, user flags and these will be explained in more detail in a later section. However, as a very brief introduction, these flags are numbered from 0 to 32 and may contain values in the range 0-255. When you ask for diagnostics the first 33 numbers printed are the values of these flags. Flag 1 i.e. the second flag, is used to contain a count of the number of objects carried and as one object is carried in this case, Flag 1 has the value 1.

The Vocabulary

One section of the database contains the vocabulary and this will hold an entry for every word that the computer is to understand. The Vocabulary menu is selected by typing in A on the Main Menu and it allows for words to be inserted and deleted, for the vocabulary to be printed and for the synonyms of a word to be displayed. Synonyms were mentioned earlier when we dicovered that the Editor knew that EAST and E meant the same thing. If you print the vocabulary you will see that there are over 30 entries already present and these relate to words which will be needed in most adventures. Each entry consists of up to four letters followed by a number (or word value) and entries with the same word value are synonyms.

The entries in the vocabulary will either hold a whole word e.g. UP, or, if the word has more than four letters, just the first four letters e.g. ASCE(ND). This has the advantage of using up only a little memory and it also reduces the amount of typing the person playing the adventure has to do because he or she will soon learn that only the first four letters of each word are significant. The disadvantage, of course, is that you can't have two words with different meanings which start with the same four letters. This rarely causes problems but note that when you are playing an adventure and want to go NORTHEAST you have to type in NE as the vocabulary says that NORTH is a synonym of N.

Take a look through the vocabulary and you should be able to spot all the words we used when we were doing the Movement Table and in fact the Movement Table can only contain words that are in the vocabulary. Getting back to the Vocabulary menu, type in S ASCEND to see the synonyms of the word ascend (Note that S ASCE is sufficient). Then try inserting the word ORANGE with the value 200 i.e. I ORANGE 200 or I ORAN 200. We haven't an orange in our adventure so delete the entry using D ORAN. Try inserting a word that is already present e.g. I STOP 62 and deleting a word that isn't present e.g. D COMPUTER. We'll come back to the vocabulary after we've

found out what the Interpreter does when a command is typed in.

Decoding the Players command

Each time the player types in a command during an adventure the Interpreter has to decode it. It does this by searching along the command for words which are in it's vocabulary. The word value of the first word recognised is stored in a variable called W1 and similarly the word value of the second word recognised in W2. This means that commands like TURN ON THE TORCH can be reduced to ON TORCH provided the words TURN & THE are not in the vocabulary and that GO TO THE EAST will mean the same as EAST if the words GO, TO & THE are not in the voabulary. Thus it is important to consider which words are excluded from the vocabulary as well as those which are included.

If no words are recognised the Interpreter gives the reply "I don't understand...". If the Interpreter recognises a word or words, but they neither cause movement (due to no entry in the Movement Table) nor cause an action to be performed (to be explained later) then the Interpreter gives the reply "I can't", if the value of W1 is greater than 12 or "I can't go in that direction", if the value of W1 is less than 13. Therefore the words in the vocabulary which relate to directions should have word values in the range 1 to 12.

More Movements

The location descriptions in our adventure include statements of the form "The Hall is to the West" and up to now we have moved to the Hall with the commands WEST, W or GO WEST. We are now going to improve the adventure so that it will also obey commands of the form GO TO THE HALL or just HALL. To do this we will need an entry in the vocabulary relating to each location so insert the following entries into the vocabulary.

HALL	13
KITCHEN	14
DINING	15
LOUNGE	16
BEDROOM	17
CELLAR	18

e.g. to insert the word KITCHEN with a word value of 14 use I KITC 14 on the Vocabulary menu. Print the vocabulary to check the entries are correct and then amend the entries in the Movement Table to include these new words. The Movement Table entries required are:-

```
Location 0 E 1 D 5 W 4 S 3 KITC 1 CELL 5 BEDR 4 LOUN 3
Location 1 S 2 W 0 DINI 2 HALL 0
Location 2 N 1 W 3 KITC 1 LOUN 3
Location 3 N 0 E 2 HALL 0 DINI 2
Location 4 E 0 HALL 0
Location 5 U 0 HALL 0
```

When you have changed the Movement Table, test the adventure again to check that commands such as GO TO HALL are obeyed correctly. While testing the adventure note that when you are in the Dining Room, GO NE gives the reply

"I can't go in that direction" because NE has a word value less than 13, while GO TO THE HALL gives the reply "I can't" because HALL has a word value greater than 12.

More Words

We will shortly get to the stage where we can begin to manipulate the objects in our adventure. Before we can do that though, the words we will use to manipulate the objects have to be inserted into the vocabulary. Please insert the following entries into the vocabulary:-

TORCH	20
APPLE	21
KNIFE	22
TELEVISION	23
TV	23
KEY	26
SAFE	27
JEWEL	28
STICK	29
UNLOCK	30
OPEN	30
CLOSE	31
SHUT	31
LOCK	31
LIGHT	32
ON	32
OFF	33
OUT	33
EAT	34
BED	200
HUNGER	201
FINISH	202
COAT	224
DEERSTALKER	225
HAT	225

The bed is not an object in the adventure and we do not intend to make use of the word BED anywhere else in the database. However, the bed is mentioned in the location description of the bedroom so BED is included in the vocabulary to stop the Interpreter replying "I don't understand..." if a player tries to use the bed.

The Event Table

This table (and the Status Table) form the heart of the database, for it is here that the actions the Interpreter has to take to reply to a player's command are specified. Each entry in the table consists of two word values, a set of conditions and a set of actions. When the adventure is played the Interpreter matches the word values entered by the player (which have been stored in W1 and W2) against each entry in the table. If the word values match and the conditions are satisfied then the actions are performed.

Select G on the Main Menu to display the Event Table menu and you will see

that entries can be inserted, amended or printed. Printing is slightly different to the other menus because you may either enter P by itself, P followed by one word or P followed by two words and printing will start at the appropriate part of the table. The words used must of course be present in the vocabulary. If you type in P now you will find that a few entries, which will be needed for most adventures, are already present.

Action INVEN

This is the action which prints "I have with me:-" etc. The first entry in the Event Table, GET I, has no conditions and a single action called INVEN. What does, this mean? Well if you were playing the adventure and typed in TAKE INVENTORY then, because the word value stored in W1 matched the word value for GET and W2 matched I, action INVEN would be performed. Remember that TAKE & GET and INVENTORY & I are synonyms.

The next entry I _ does the same thing. If the first word recognised by the Interpreter is a synonym of I then action INVEN is performed. The _ (underline) means that the corresponding value in W1 or W2 (W2 in this case) is irrelevant. Please make sure you fully understand the last two sections on the Event Table before reading further.

Action DESC

The third entry in the Event Table R _, means that if R or REDE(SCRIBE) is entered as a command then action DESC will be performed. Action DESC clears the screen and attempts to describe the current location. (If it is dark the Interpreter will print "Everything is dark. I can't see.").

Actions SAVE and LOAD

These are the actions which copy a game position to tape and restore a game position from tape. The last two entries in the Event Table use these actions and mean, for instance, that if LOAD is typed in as a command then action LOAD is performed. Do not be confused by the vocabulary word LOAD and the action word LOAD because they are not related. You can only have an entry in the Event Table of LOAD _ if there is an entry for LOAD in the vocabulary. The action word LOAD is independent of the vocabularly.

Actions QUIT, TURNS and END

Action QUIT is the action which asks "Are you sure you want to quit now?" while action TURNS is the action which prints "You have taken x turn(s).". Action END is a very important action as it prints "END OF GAME Do you want to try again?" and if you reply "N" it returns you to the Editor. Note that the only way to return to the Editor, after testing an adventure, is by action END being performed.

Actions GET, DROP and OK

Actions GET and DROP must be followed by an objno. and are used to carry or put down objects while action OK simply prints "OK". In our mini adventure we want the player to be able to take and leave the walking stick using the commands TAKE STICK and DROP STICK respectively. The entries needed in the Event Table for this are:-

TAKE STICK	Conds		
	Acts	GET	11
		OK	
DROP STICK	Conds		
	Acts	DROP	11
		OK	

To insert the first of these into the Event Table go to the Event Table menu, type in I TAKE STICK and press ENTER. This inserts a null entry for TAKE STICK (i.e. with no conditions and no actions) in the table and displays a cursor to allow you to amend the null entry. When the cursor appears, type in GET 11 OK and press ENTER again. Insert the entry for DROP STICK in the same way and then print the Event Table to check the entries. Notice that the Editor prefers to use the vocabularly word GET instead of TAKE as it is a shorter synonym.

Now test the adventure to see the effect of these entries in the Event Table. In particular try the following commands:-

TAKE STICK	when you are already carrying it
DROP STICK	when you are not carrying it
GET STICK	when the stick is at a different location

Condition PRESENT

The entries we need, to be able to GET and DROP the other objects are:-

Words	Conds	Acts
GET APPLE		GET 2 OK
DROP APPLE		DROP 2 OK
GET KNIFE		GET 3 OK
DROP KNIFE		DROP 3 OK
GET COAT		GET 5 OK
DROP COAT		DROP 5 OK
GET HAT		GET 6 OK
DROP HAT		DROP 6 OK
GET KEY		GET 7 OK
DROP KEY		DROP 7 OK
GET JEWEL		GET 9 OK
DROP JEWEL		DROP 9 OK
GET TORCH	PRESENT 0	GET 0 OK
GET TORCH		GET 1 OK
DROP TORCH	PRESENT 0	DROP 0 OK
DROP TORCH		DROP 1 OK

As you can see the entries for the torch are not quite so simple. The problem is that the torch is really two objects so we have to have two entries. The condition PRESENT, which must be followed by an objno., checks whether the object specified is present at the current location. So the first entry for GET TORCH checks whether Object 0 is present and if it is, tries to GET it. If Object 0 is not present the condition is not satisfied so the Interpreter falls through to the next entry, which has no conditions, and tries to get Object 1. When an entry has conditions and

actions the conditions are typed in in front of the actions e.g. PRESENT 0 GET 0 OK.

When you have inserted the entries print them to check they are correct and that the entries for the torch are in the correct order. Amending entries in the Event Table is similar to amending entries in the other database tables. However, if there is more than one entry present for the same words e.g. DROP TORCH, then each entry is displayed in turn for amending and you simply press ENTER to leave an entry as it is. Try A DROP TORC on the Event Table menu and keep pressing ENTER until you get back to the menu; both entries should be displayed in turn for possible amending.

Entries in the Event Table can be deleted by removing all the conditions and actions i.e. Amend the entry using CTRL/CLR to clear the input buffer and then press ENTER. Before we test the adventure again we'll insert a few more entries.

Actions WEAR and REMOVE

These actions enable objects to be worn and removed and must be followed by an objno. Our adventure has two objects that can be worn and the entries needed in the Event Table for this are:-

Words	Conds	Acts
WEAR HAT		WEAR 6 OK
REMOVE HAT		REMOVE 6 OK
WEAR COAT		WEAR 5 OK
REMOVE COAT		REMOVE 5 OK

Insert these entries and then test the adventure again using diagnostics. The reason for using diagnostics is to enable you to monitor the value of Flag 1 (the second flag) which has a value equal to the number of objects carried. When you are in the adventure try these commands in the order shown:-

Command	Response	Flag 1 value
WEAR HAT	I don't have it	1
REMOVE HAT	I'm not wearing it	1
GET HAT	OK	2
TAKE COAT	OK	3
KITCHEN		3
GET TORCH	OK	4
DINING		4
GET APPLE	I can't carry any more	4
WEAR HAT	OK	3
WEAR HAT	I'm already wearing it	3
GET APPLE	OK	4
REMOVE HAT	I can't. My hands are full	4
DROP HAT	I can't. My hands are full	4
WEAR COAT	OK	3
I	I have with me...	3
DROP HAT	OK	3
REMOVE COAT	OK	4

Also make sure you can GET the key and drop all the objects you are carrying.

As you can see, the actions GET, DROP, REMOVE and WEAR include quite a bit of checking on the objects being manipulated and they can normally be used without being preceded by conditions. These actions are exceptions to the rule as most other actions will need to be preceded by conditions.

Action SWAP

This action is followed by two objnos and simply swaps over the positions of the two objects e.g. if Object 0 is 'not created' and Object 1 is at location 3 then the action SWAP 0 1 would put Object 0 at location 3 and make Object 1 'not created'. In our adventure we are going to use SWAP to switch the torch on and off. The entries we need are:-

Words	Conds	Acts
ON TORCH	PRESENT 1	SWAP 0 1 OK
TORCH ON	PRESENT 1	SWAP 0 1 OK
OFF TORCH	PRESENT 0	SWAP 0 1 OK
TORCH OFF	PRESENT 0	SWAP 0 1 OK

Notice that we have catered for a player giving the command SWITCH OFF TORCH or SWITCH TORCH OFF and that the condition PRESENT 0 means that the torch can only be switched off if the lit torch is present. Insert these entries into the Event table and test them.

The Flags

The Interpreter contains 33 user flags which are really just variables that can hold a value in the range 0-255. Like everything else in The Quill, numbering starts at 0 so the flag numbers (flagnos) are in the range 0-32. There are actions which enable the flag values to be changed and conditions which allow the flag values to be tested. Some of the flags have special purposes while others have an auto-decrement feature. The flags with special purposes are flags 0, 1, 30, 31 and 32. Flag 0 is used to tell the Interpreter whether it is light or dark; if it has any value other than zero the Interpreter thinks it's dark. Flag 1 as we have seen before, holds a count of the number of objects carried. Flag 30 is used to hold the players score as a percentage while Flags 31 and 32 are used to hold the number of turns that the player has taken. Flags 2 to 10 are auto-decrement flags which means they are decreased by 1 under certain circumstances:-

Flag 2 is decreased each time the Interpreter tries to describe a location

Flag 3 is decreased each time the Interpreter tries to describe a location and it's dark

Flag 4 is decreased each time the Interpreter tries to describe a location and it's dark and Object 0 is absent

Flags 5-8 are decreased each time a command is entered

Flag 9 is decreased each time a command is entered and it's dark

Flag 10 is decreased each time a command is entered and it's dark and Object 0 is absent

Flags 11-29 have no special features

Note that a flag cannot be decreased below zero and that Object 0 is a special object because the Interpreter considers it as a source of light.

There is a summary of the flags and a summary of the conditions and actions that can be used, on the last pages of this manual. As mentioned earlier, when diagnostics are requested the values of the flags are printed so that you can monitor them.

Light and Dark

If you take another look at our map in figure 1 you will notice that it says the cellar is dark. To make the cellar dark we will use the condition AT and the actions CLEAR, SET, GOTO and DESC. Condition AT must be followed by a locno. and is satisfied if the player is at that location. The actions CLEAR and SET must be followed by a flagno. and change that flags value to 0 or 255 respectively. Action GOTO is followed by a locno. and causes movement to that location.

If this entry were present in the Event Table (do not insert it).

Words	Cond	Acts
U _	AT 5	GOTO 0 DESC

it would have exactly the same effect as our entry U 0 for location 5 in the Movement Table i.e. if a player gives the command UP when he is at location 5, he is moved to location 0 and the location is described.

The Event Table entries to be inserted to make the cellar dark are:-

Words	Conds	Acts
D	AT 0	SET 0 GOTO 5 DESC
CELLAR _	AT 0	SET 0 GOTO 5 DESC
U	AT 5	CLEAR 0 GOTO 0 DESC
HALL _	AT 5	CLEAR 0 GOTO 0 DESC

When a player moves from the Hall to the Cellar, Flag 0 will be set to 255 (making it dark). When he moves back to the Hall, Flag 0 will be cleared to 0 (making it light again). However, if you were to test the adventure now you would find that the Cellar was still light. This is because the Interpreter checks the Movement Table before it checks the Event Table and if the Movement Table causes movement the Event Table is not checked. So remove the movements between the Hall and Cellar from the Movement Table and then test the adventure. When you are testing the adventure monitor the value of flag 0 and try experimenting with moving between the Hall and Cellar and switching the torch on and off.

Action SCORE

The action SCORE prints "You have scored x%" where x is the value of Flag 30. We are going to use a very simple scoring system in our adventure where the player scores 50% for opening the safe and a further 50% for completing the adventure. If the player QUIT's the adventure he will want to know what score he has achieved so amend the Event Table entry for QUIT _ so that it has the actions QUIT SCORE TURNS END. It is important that you print this entry (use P QUIT) to check it is correct, because the only way back to the Editor from the Interpreter is by action END being performed.

Opening and Closing the Safe

In our adventure the safe can only be opened if the key is carried, the lit torch is present and, of course, the safe is not already open. To close the safe, the key is not needed but the lit torch must be present. The first time the safe is opened we want to create the jewel and give the player a score of 50% but if the player closes the safe and reopens it then we must not create the jewel again or give another 50%.

We will use Flag 11 to show whether the safe has already been opened. As the flags start off with a value of zero we will say that if Flag 11 has the value 0 the safe has not previously been opened. Then if we SET Flag 11 the first time the safe is opened we will be able to tell that the safe has already been opened. The Event Table entries we need are:-

OPEN SAFE	Conds	PRESENT	8	
		CARRIED	7	
		PRESENT	0	
		ZERO	11	
	Acts	DESTROY	8	
		CREATE	10	
		LET	30	50
		CREATE	9	
		SET	11	
		DESC		
OPEN SAFE	Conds	PRESENT	8	
		CARRIED	7	
		PRESENT	0	
	Acts	DESTROY	8	
		CREATE	10	
		OK		
CLOSE SAFE	Conds	PRESENT	10	
		PRESENT	0	
	Acts	DESTROY	10	
		CREATE	8	
		OK		

Condition CARRIED must be followed by an objno. and is satisfied if that object is carried while condition ZERO must be followed by a flagno. and is satisfied if that flag has the value 0. Action CREATE is used to change an object's location to the current location while action DESTROY changes an object's location to 'not created'. Both CREATE and DESTROY must be followed by an objno. Action LET is followed by a flagno. & a value, and

the flag is given that value e.g. LET 30 50 gives Flag 30 a value of 50; a bit like the BASIC command LET FLAG30 = 50.

The order of the two entries for OPEN SAFE is important. The first time the safe is opened the condition ZERO 11 will be satisfied so the actions in the first entry will be performed. If the safe is opened again the condition ZERO 11 will not be satisfied and the Interpreter will fall through to the second OPEN SAFE entry. Insert these entries into the Event Table, then print them (use P UNLOCK SAFE) to check they are correct. Note that the first OPEN SAFE entry ends with action DESC so that the player can see that the jewel has been created. When you have checked the entries test the adventure again and use diagnostics so that you can monitor the values of flags 11 & 30.

The Message Texts

Any messages which are needed in the adventure have to be entered into the Message Text table. The Message Text menu is the same as the Location Text menu with the exeption that locno. has been replaced with mesno. (message number). If you select B on the Main Menu to display the Message Text menu and then print the messages, you will see that a message 0 is already present. The messages we need in our adventure are:-

Message 0

I'm hungry!

Message 1

Ah. That's better!

Message 2

I'm dying of starvation...

Message 3

Well done. You've solved the Adventure.

Amend the existing entry for message 0 and then insert messages 1 to 3.

The Status Table

This table has exactly the same format as the Event Table i.e. each entry has two word values followed by conditions and actions, but the Interpreter uses the two tables in slightly different ways. We have already seen that the Interpreter uses the Event Table after each command given by a player and matches the word values in W1 and W2 with each entry in the table. The Interpreter uses the Status Table in between turns and looks at each entry irrespective of the word values in W1 and W2. Thus the Event Table contains entries which are dependent on the commands entered by the player while the Status Table contains entries which are independent of the commands entered by the player. Note that the Interpreter does not make use of the word values present in the Status Table entries. The vocabulary words used in the Status Table can therefore be used as comments, to remind

you what the entries do, or to position an entry at a particular place in the table because the entries are arranged in ascending order of word value. When you write your own adventures you will find that the order of the entries in the Status Table is very important.

Finishing the Adventure

Our mini adventure is solved when a player is at the Dining Room and the jewel is present. It doesn't matter what commands the player uses to get the jewel to the DINING ROOM so we will use an entry in the Status Table to detect when the adventure is solved. The Status Table entry required is:-

```
FINISH   _    Conds    AT          2
                       PRESENT     9
              Acts     MESSAGE     3
                       PLUS       30    50
                       SOUND      20    47
                       SOUND      20    57
                       SOUND      20    67
                       SOUND      90    77
                       SCORE
                       TURNS
                       END
```

Note that the vocabulary word FINISH is used only as a comment.

Select H on the Main Menu to display the Status Table menu and then insert this entry. Action MESSAGE must be followed by a mesno. and simply prints that message. Action PLUS must be followed by a flagno. & a value, and adds that value to the appropriate flag e.g. PLUS 30 50 adds 50 to Flag 30 (the score). Action SOUND is followed by a duration and a pitch; the duration is in hundredths of a second and is in the range of 0-255. The pitch is in the range 0-96. A pitch of 0 is no sound. A pitch of 1 is a low note while a pitch of 96 is a high note. The numbers refer to semitones. A pitch of 37 is middle C, 49 is C in the next octave up and 25 is C in the next octave down.

When you have inserted this entry in the Status Table test the adventure again and take the jewel to the Dining Room.

Hunger

In our adventure we want the player to become hungry after 6 turns, to remain hungry for the next 7 turns and then to die of starvation. Eating the apple, of course, will ward off the pangs of hunger. We will set Flag 12 when the apple is eaten and we will use Flag 5, which is auto-decremented each turn, to count the 7 turns when the player is hungry. The entries needed in the Status Table are:-


```
HUNGER   _    Conds    EQ          31    6
                       ZERO        32
              Acts     LET          5    8
HUNGER   _    Conds    NOTZERO      5
                       ZERO        12
              Acts     MESSAGE      0
HUNGER   _    Conds    EQ           5    1
                       ZERO        12
              Acts     MESSAGE      2
                       PAUSE      100
                       SOUND       20   77
                       SOUND       20   67
                       SOUND       20   57
                       SOUND       90   47
                       SCORE
                       TURNS
                       END
```

Note that the vocabulary word HUNGER is only used as a comment.

The condition EQ must be followed by a flagno. & a value, and is satisfied if the flag specified has the value specified. Condition NOTZERO must also be followed by a flagno. and is satisfied if the flag specified does not have the value 0. The action PAUSE is similar to the BASIC command of the same name. Insert these three entries into the Status Table but make sure you insert them in the order shown. The first entry waits until the turns count (Flags 31 and 32) is equal to 6 and it then gives Flag 5 a value of 8. The second entry is the one which prints "I'm hungry!" and it does this when Flag 5 is not zero and Flag 12 says the apple has not been eaten. Flag 5 is auto-decremented each turn. The conditions in the third entry are satisfied when Flag 5 reaches 1 and Flag 12 says the apple has not been eaten. Note that when Flag 5 has the value 1 the conditions in both the second and third entries are satisfied so both the messages "I'm hungry!" and "I'm dying of starvation... " are printed.

Eating the Apple

We have already said that we will set Flag 12 when the apple is eaten. However, we only want to print message 1 if the apple is eaten when the player is hungry i.e. if the apple is eaten before the player is hungry we just want the reply "OK". The entries required in the Event Table are:-

```
EAT APPLE        Conds    PRESENT     2
                          NOTZERO     5
                 Acts     DESTROY     2
                          SET        12
                          MESSAGE     1
                          DONE
EAT APPLE        Conds    PRESENT     2
                 Acts     DESTROY     2
                          SET        12
                          OK
```

Action DONE simply stops the Interpreter falling through to the next entry in the table. Insert these two entries into the Event (Not Status) table

in the correct order.

Number of Objects Conveyable

You may remember when you were testing the adventure earlier, that the player was able to carry only 4 objects. This number can be altered by selecting P on the Main Menu. For our mini adventure change the number of objects conveyable to 1 (one) and then test the adventure for the last time (it won't be quite so easy this time).

Save Adventure

This option on the Main Menu allows complete copies of an adventure to be saved in a form that will auto-run when loaded using the RUN command. Note that the files saved are not designed to be reloaded into The Quill.

The Object Word Table

This table is used by the actions AUTOG, AUTOD, AUTOW, and AUTOR (short for Autoget, Autodrop, Autowear, and Autoremove) and its purpose is to enable objects to be manipulated without you making hundreds of entries in the Event table of the form:-

```
GET HAT   Conds
          Acts      GET   6
                    OK
```

As an example, we are now going to change our mini adventure so that it uses the Object Word Table. If you look at the Event table, you will see that we have made the following entries related to manipulating objects:-

Words	Conds	Acts
GET TORCH	PRESENT 0	GET 0 OK
GET TORCH		GET 1 OK
GET APPLE		GET 2 OK
GET KNIFE		GET 3 OK
GET COAT		GET 5 OK
GET HAT		GET 6 OK
GET KEY		GET 7 OK
GET JEWEL		GET 9 OK
GET STICK		GET 11 OK
DROP TORCH	PRESENT 0	DROP 0 OK
DROP TORCH		DROP 1 OK
DROP APPLE		DROP 2 OK
DROP KNIFE		DROP 3 OK
DROP COAT		DROP 5 OK
DROP HAT		DROP 6 OK
DROP KEY		DROP 7 OK
DROP JEWEL		DROP 9 OK
DROP STICK		DROP 11 OK
WEAR COAT		WEAR 5 OK
WEAR HAT		WEAR 6 OK
REMOVE COAT		REMOVE 5 OK
REMOVE HAT		REMOVE 6 OK

Please delete these 22 entries and insert the following 6 entries:-

Words	Conds	Acts
GET TORCH	PRESENT 0	GET 0 OK
GET _		AUTOG OK
DROP TORCH	PRESENT 0	DROP 0 OK
DROP _		AUTOD OK
WEAR _		AUTOW OK
REMOVE _		AUTOR OK

Now select Option S on the Main Menu for the Object Word Menu and you will see that entries can be amended or printed. Entries cannot be inserted because when you insert an object text for an object the Editor automatically inserts a null entry for that object in the Object Word Table. If you print the Object Word entries you should see that 12 objects all have null entries. The Object Word table is where objects are associated with Vocabulary words, e.g. to associate the word HAT with object 6, enter A 6 HAT on the Object Word Menu. In our mini adventure, we need the following associations:-

```
A   1   TORCH
A   2   APPLE
A   3   KNIFE
A   5   COAT
A   6   HAT
A   7   KEY
A   9   JEWEL
A   11  STICK
```

Note that the entries for objects 4, 8 and 10 remain null because the TV and Safe are not to be manipulated and that the Torch (objects 0 and 1) has object 1 handled by the Object Word Table while Object 0 still has to be handled explicitly in the Event table.

If you print the Object Word Table now you should get the following information:-

```
Object   0
Object   1   TORC GD
Object   2   APPL GD
Object   3   KNIF GD
Object   4
Object   5   COAT GDWR
Object   6   HAT  GDWR
Object   7   KEY  GD
Object   8
Object   9   JEWE GD
Object  10
Object  11   STIC GD
```

The GD or GDWR signifies which of the Actions AUTOG, AUTOD, AUTOW, and AUTOR will operate for each object. Whether GD or GDWR is shown depends entirely on the word values of the words used. If the word value is 200 then GD is shown otherwise GDWR is shown. Thus objects which can be worn

should be associated with words which have word values 199.

If you test the adventure now, you will find that it works in exactly the same way as before the Object Word Table was used.

Deleting Words from the Vocabulary

Note that if all the synonyms of a word are deleted from the vocabulary then:-

a) Any entries in the Event and Status Tables using those words are also deleted.

b) Any movements in the Movement table using those words are also deleted.

c) Any entries in the Object Word Table using those words are set to null.

d) Deleting words from the vocabulary can sometimes take a few minutes.

Other Actions

Most of the actions available in The Quill were used in our mini adventure. The other actions are detailed in Part 2 of this manual. One use of the ANYKEY action is to provide an introduction to adventures. If the introduction occupies two screens, then insert it into the database as the texts for locations 0 & 1 and let the adventure proper start at location 2. The following entries in the Status table can then be used to do the introduction:-

```
INTRO   -   Conds   AT       0
            Acts    ANYKEY
                    GOTO     1
                    DESC
INTRO   -   Conds   AT       1
            Acts    ANYKEY
                    GOTO     2
                    DESC
```

More about Event and Status

When the interpreter is processing these tables it considers each entry until it reaches the end of the table or it performs one of the actions INVEN, DESC, END, DONE, OK, SAVE or LOAD. The actions QUIT, REMOVE, GET, DROP, WEAR, AUTOG, AUTOD, AUTOW, or AUTOR can sometimes also stop processing of the Event/Status tables. Full details of all the actions can be found in Part 2 of this manual.

Other Conditions

Our mini adventure made use of only 6 of the 16 conditions available in The Quill. Details of the other conditions can be found in Part 2 of this manual but it is worth mentioning the condition CHANCE here as it can

introduce a random element into an adventure. Condition CHANCE must be followed by a percentage, in the range 0-99, e.g. CHANCE 25 would have a 25% chance of being satisfied.

Designing your own Adventure

The suggested procedure of writing your own adventure is:-

a) Read Part 2 of this manual

b) Draw a map of your adventure and allocate locnos. (make your first adventure a small adventure)

c) List the location texts you will use

d) List the Movement table entries you will need

e) List the objects in the adventure showing where they will start the adventure. Allocate objnos giving objects that can be worn objnos 199

f) List the messages needed in the adventure and allocate mesnos

g) List all the words and synonyms you will use and allocate word values

h) Decide which flags will be used and what they will be used for

i) Write out all the Event table entries showing the conditions and actions to be used. If you have more than one entry with the same word values check that you have the entries in the correct order

j) Write out all the Status table entries and plan the order of the entries. You might need to add further entries to the vocabulary which will be used as comments in the Status table

k) Insert the entries into the database and save the database regularly (you might get a power cut)

l) Thoroughly test your adventure

As you can see you need to do a lot of planning before you start to type your adventure into The Quill.

Selling your Adventure

If you intend to sell adventures then they need to be very thoroughly tested by as many people as possible. In particular:

a) Check the spelling of every word

b) Check it is impossible to get a score of over 100%

c) Try to move in every direction from every location

d) Try to GET, DROP, WEAR and REMOVE each object

e) It should be possible to solve the adventure each time it is played provided the correct commands are used e.g. poison gas which has a 1% chance of appearing and killing the player should be avoided unless you also provide a gas mask.

A great deal of time has been spent testing The Quill but it is possible that a few well hidden bugs still remain within the 8K of machine code. If you do have any problems please let us know so that they can be corrected. We would also be pleased to hear of any comments or criticisms about The Quill or any suggestions for improvements.

If you intend to sell an adventure written with The Quill we would be grateful if you could mention somewhere in it, that it was written with The Quill.

We would be pleased to look at adventures you have written with a view to marketing them. If you are interested please send a fully tested copy together with a map, step by step solution, a short description of the story, a database, and £1 to cover costs to:-

GILSOFT
30 Hawthorn Road
Barry
South Glamorgan

Part 2

Detailed Description of the Interpreter

The structure of the Interpreter is shown in flowchart 1. The numbers shown on the flowchart relate to the following paragraphs:-

1 Initialise

All the flags are set to zero except for Flag 1 which is set to the number of objects initially carried. The current location and the two word values W1 & W2 are set to zero.

2 Describe Current Location

The screen is cleared. If Flag 2 is non zero it is decremented. If it is dark (Flag 0 is non zero) and Flag 3 is non zero it is decremented. If it is dark and Flag 4 is non zero it is decremented if Object 0 is absent.

If it is light (Flag 0 is zero) or Object 0 is present the location text for the current location is printed. Then, if any objects are at this location, SM1 "I can also see:-" is printed followed by the object texts. SM1 refers to System Message number 1.

If it is dark (Flag 0 is non zero) and Object 0 is absent, SM0 "Everything is dark. I can't see." is printed.

3 Consider 1st Entry in Status Table

A pointer is set to the first entry in the Status table.

4 Words & Conditions Satisfied

The 1st word & 2nd word in the entry being considered are matched with W1 & W2 as shown in flowchart 2. Each condition in the entry is checked as follows:-

4.1 AT locno.

Satisfied if the current location is the same as locno.

4.2 NOTAT locno.

Satisfied if the current location is different to locno.

4.3 ATGT locno.

Satisfied if the current location is greater than locno.

4.4 ATLT locno.

Satisfied if the current location is less than locno.

4.5 PRESENT objno.

Satisfied if Object objno. is carried or worn or at the current location.

4.6 ABSENT objno.

Satisfied if Object objno. is not carried and not worn and not at the current location.

4.7 WORN objno.

Satisfied if Object objno. is worn.

4.8 NOTWORN objno.

Satisfied if Object objno. is not worn.

4.9 CARRIED objno.

Satisfied if Object objno. is carried.

4.10 NOTCARR objno.

Satisfied if Object objno. is not carried.

4.11 CHANCE percent.

Satisfied if percent. is less than or equal to a random number in the range 1-100 (inclusive).

4.12 ZERO flagno.

Satisfied if Flag flagno. is set to zero.

4.13 NOTZERO flagno.

Satisfied if Flag flagno. is not set to zero.

4.14 EQ flagno. value

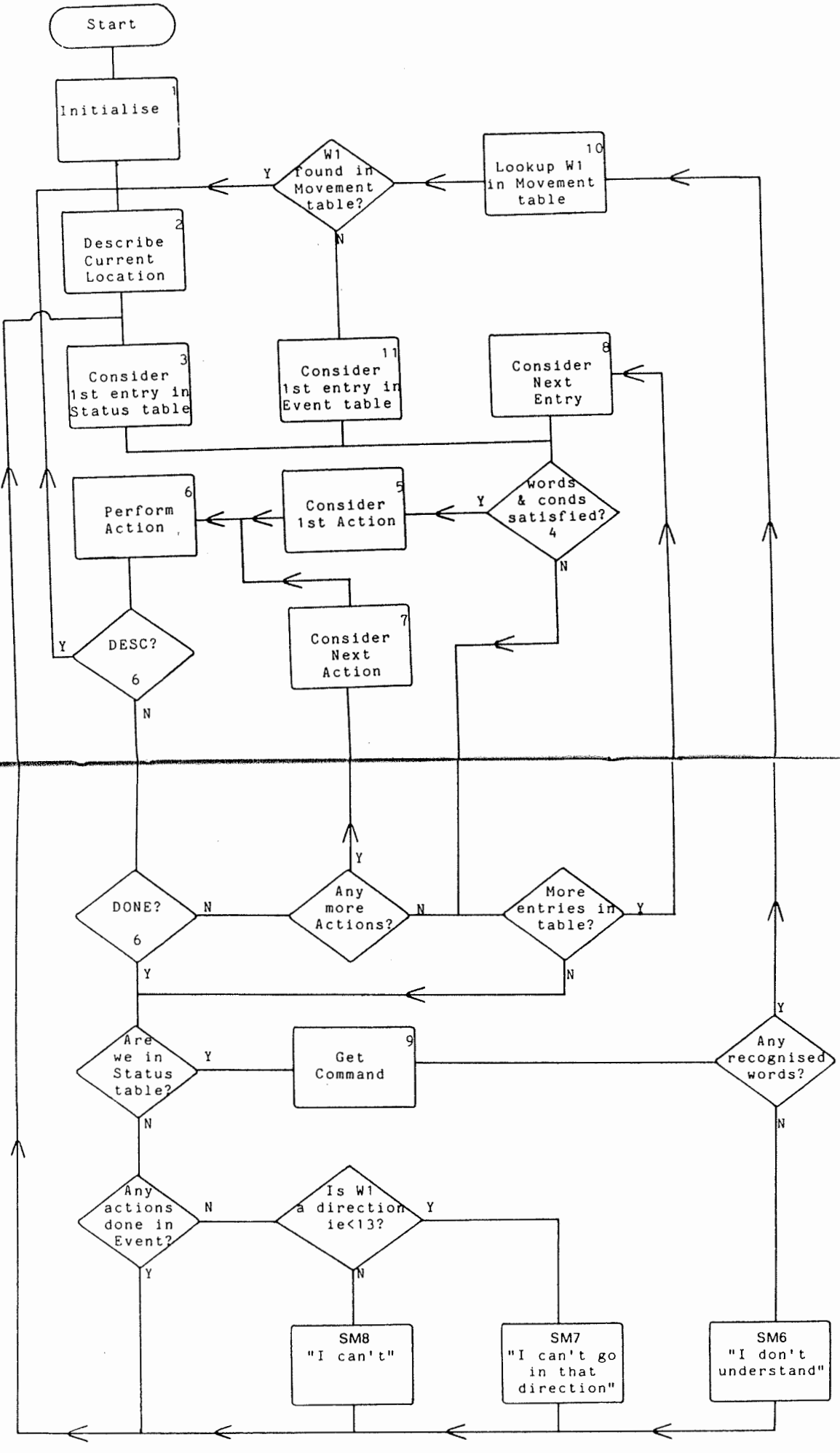
Satisfied if Flag flagno. is set to value.

4.15 GT flagno. value

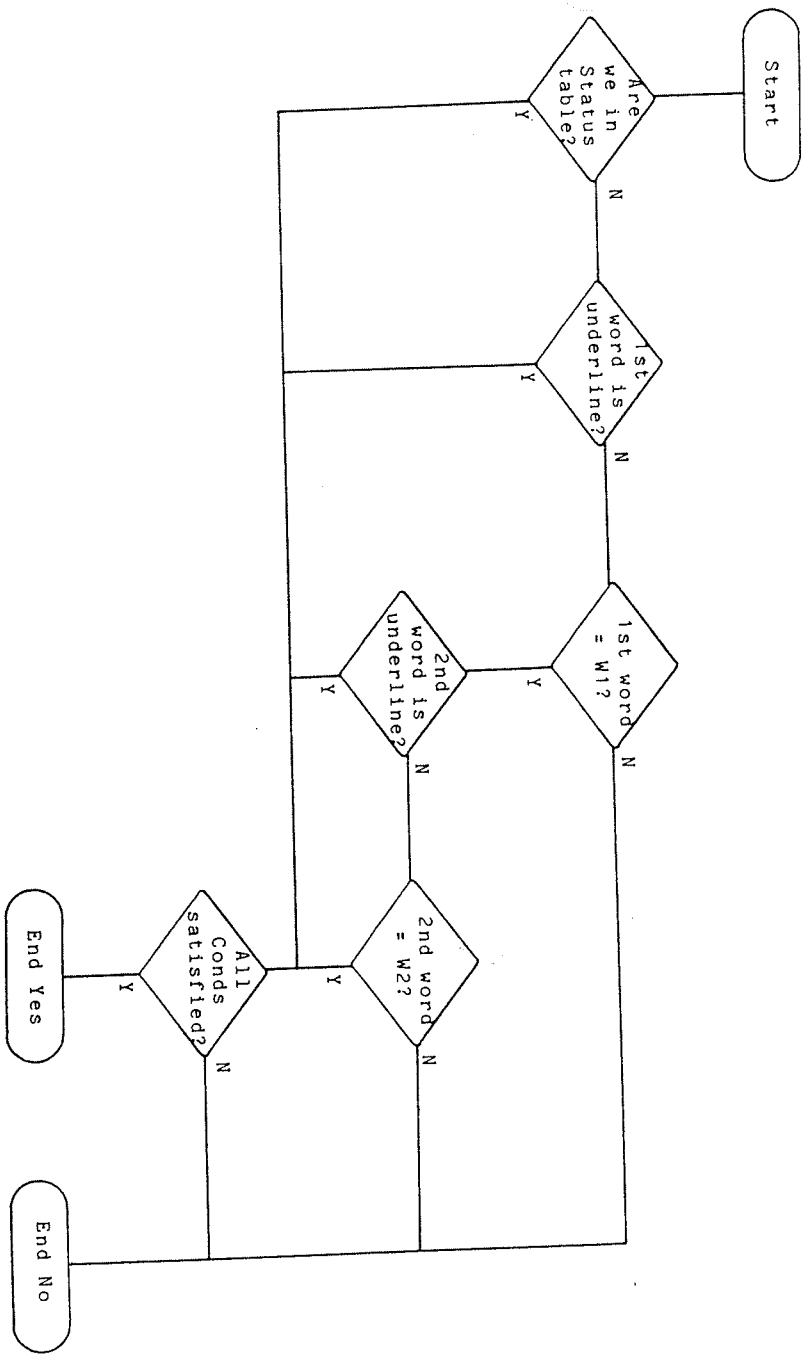
Satisfied if Flag flagno. is set to greater than value.

4.16 LT flagno. value

Satisfied if Flag flagno. is set to less than value.



Flowchart 1. Structure of Interpreter



Flowchart 2. Words & Conditions Satisfied

5 Consider 1st Action

A pointer is set to the first action in the entry being considered.

6 Perform Action

The action is performed as follows:-

6.1 INVEN

SM9 "I have with me:-" is printed. If no objects are carried or worn SM11 "Nothing at all." is printed, otherwise the object text for each object that is carried or worn is printed. If an object is worn its object text is followed by SM10 "(worn)".

Action DONE is then performed.

6.2 DESC

This action jumps out of STATUS/EVENT processing to Describe Current Location.

6.3 QUIT

SM12 "Do you really want to quit now?" is printed and the input routine called. If the reply does not start with the first letter of SM30 action DONE is performed.

6.4 END

SM13 "END OF GAME Do you want to try again?" is printed and the input routine called. If the reply does not start with the first letter of SM31 a jump is made to Initialise. Otherwise a jump is made to the Editor (if it is present) or to the BASIC NEW command.

6.5 DONE

This action jumps to the end of STATUS/EVENT processing i.e. no more actions or entries are considered.

6.6 OK

SM15 "OK" is printed and action DONE is performed.

6.7 ANYKEY

SM16 "Press any key to continue" is printed at the bottom of the screen and the keyboard is scanned until a key is pressed.

6.8 SAVE

SM32 "Start the tape, and press any key." is printed. When a key is pressed the game position is saved to tape, then action DESC is performed. If ESC is pressed during the save a jump is made

to Initialise.

6.9 LOAD

Loads data (which should be a game position) from tape, then action DESC is performed. If ESC is pressed during the load or a tape error is detected a jump is made to Initialise.

6.10 TURNS

SM 17-20 "You have taken x turn(s)." is printed where x is Flag 31 + 256 * Flag 32.

6.11 SCORE

SM21-22 "You have scored x%" is printed where x is Flag 30.

6.12 PAUSE value

Pauses for value/50 secs. However, if value is zero then the pause is for 256/50 secs.

6.13 GOTO locno.

Changes the current location to locno.

6.14 MESSAGE mesno.

Message mesno. is printed.

6.15 REMOVE objno.

If Object objno. is not worn, SM23 "I'm not wearing it." is printed and action DONE is performed.

If the maximum number of objects is being carried (Flag 1), SM24 "I can't. My hands are full." is printed and action DONE is performed.

Otherwise the position of Object objno. is changed to 'carried' and Flag 1 is incremented.

6.16 GET objno.

If Object objno. is worn or carried, SM25 "I already have it." is printed and action DONE is performed.

If Object objno. is not at the current location, SM26 "It's not here." is printed and action DONE is performed.

If the maximum number of objects is being carried (Flag 1), SM27 "I can't carry any more." is printed and action DONE is performed.

Otherwise the position of Object objno. is changed to 'carried'

and Flag 1 is incremented.

6.17 DROP objno.

If Object objno. is worn and the maximum number of objects is being carried (Flag 1), SM24 "I can't. My hands are full." is printed and action DONE is performed.

If Object objno. is neither worn nor carried, SM28 "I don't have it." is printed and action DONE is performed.

Otherwise the position of Object objno. is changed to the current location and Flag 1 is decremented if the object was carried.

6.18 WEAR objno.

If Object objno. is worn, SM29 "I'm already wearing it." is printed and action DONE is performed.

If Object objno. is not carried, SM28 "I don't have it." is printed and action DONE is performed.

Otherwise the position of Object objno, is changed to 'worn' and Flag 1 is decremented.

6.19 DESTROY objno.

The position of Object objno. is changed to 'not created' and Flag 1 is decremented if the object was carried.

6.20 CREATE objno.

The position of Object objno. is changed to the current location and Flag 1 is decremented if the object was carried.

6.21 SWAP objno. objno.

The positions of the two objects are exchanged.

6.22 SET flagno.

Flag flagno. is set to 255.

6.23 CLEAR flagno.

Flag flagno. is cleared to 0.

6.24 PLUS flagno. value

Flag flagno. is increased by value. If the result exceeds 255 the flag is set to 255.

6.25 MINUS flagno. value

Flag flagno. is decreased by value. If the result is negative the flag is set to 0.

6.26 LET flagno. value

Flag flagno. is set to value.

6.27 SOUND duration pitch

Makes a sound for duration/100. A pitch 1 is a low note and a pitch of 96 is a high note. A pitch of 37 is middle C and the notes change pitch in semitones.

6.28 INK i n

Where i ranges from 0 to 9 and n from 0 to 26. Changes ink i to colour n. Be careful not to change INK 0 and INK 1 to the same value!

6.29 BORDER n

Where n ranges from 0 to 26. Changes screen border colour.

6.30 CLS

Clears screen.

6.31 DROPALL

All objects which are carried or worn are created at the current location (ie all objects are dropped) and Flag 1 is set to 0.

6.32 PLACE objno. locno.

The position of Object objno. is changed to locno. Flag 1 is decremented if the object was carried.

6.33 AUTOG

The Object Word Table is searched for an entry which matches W2. If a match is not found, SM8 "I can't" is printed and action DONE is performed. If a match is found the object number of the matching entry is passed to the GET action.

6.34 AUTOD

The Object Word Table is searched for an entry which matches W2. If a match is not found, SM8 "I can't" is printed and action DONE is performed. If a match is found the object number of the matching entry is passed to the DROP action.

6.35 AUTOW

If the value in W2 is 200, SM8 "I can't" is printed and action DONE is performed. Otherwise the Object Word Table is searched for an entry which matches W2. If a match is not found, SM8 "I can't" is printed and action DONE is performed. If a match is found the object number of the matching entry is passed to the WEAR action.

6.36 AUTOR

If the value in W2 is 200, SM8 "I can't" is printed and action DONE is performed. Otherwise the Object Word Table is searched for an entry which matches W2. If a match is not found, SM8 "I can't" is printed and action DONE is performed. If a match is found the object number of the matching entry is passed to the REMOVE action.

7 Consider Next Action

A pointer is set to the next action in the entry being considered.

8 Consider Next Entry

A pointer is set to the next entry in the table being processed.

9 Get Command

If Flags 5 to 8 are non zero they are decremented. If it is dark (Flag 0 is non zero) and Flag 9 is non zero it is decremented. If it is dark and Flag 10 is non zero it is decremented if Object 0 is absent.

The turns count (Flags 31 & 32) is incremented, one of four messages SM2-5 e.g. "Tell me what to do." is printed and the input routine called. The first four letters of each word in the reply are looked up in the vocabulary and the values of the first two words found in the vocabulary are stored in W1 & W2.

10 Lookup W1 in Movement Table

The entry in the movement table for the current location is searched to see if the word value in W1 is present. If it is, the current location is set to the value following W1 in the movement table.

11 Consider 1st Entry in Event Table

A pointer is set to the first entry in the Event table.

The basic structure of the interpreter has its origins in an article written by Ken Reed and published in the August 1980 issue of Practical Computing. The interpreter in The Quill now has little in common with the article but the terms used to describe it (e.g. Status, Event, Flags) have been retained as an aid to people who are familiar with the article.

Detailed Description of the Database

The database consists of a number of inter-related tables and also contains an area of miscellaneous information e.g. values of permanent colours, number of objects conveyable. The tables present are:-

A The Vocabulary

Each entry in the table uses 5 bytes and contains a word (or the first four characters, if the word is longer than four characters) and a word value in the range 1-254. Words with the same word value are called synonyms. The entries are held in ascending order of word value and within each word value, entries with more spaces come first e.g.

U
UP
CLIM
ASCE

where entries with the same word value also have the same number of spaces the entry inserted first comes earlier e.g. CLIM(B) was inserted before ASCE(ND).

Note 1. Whenever the editor has to convert from a word value to a word it takes the first word with that value.

Note 2. Word values less than 13 should be reserved for movement words.

Note 3. Words relating to objects which can be worn should have word values 199.

B The Message Text table

This table contains the text of any messages which are needed for the adventure. The messages are numbered from 0 upwards and each one uses 3 bytes plus the length of the text.

C The Location Text table

This table, which has an entry for each location, contains the text which is printed when a location is described. Each entry uses 3 bytes plus the length of the text. The entries are numbered from 0 upwards and location 0 is the location at which the adventure starts. Whenever a new location is inserted a null entry for that location is also made in the movement table.

D The Movement Table

This table has an entry for each location and each entry may either be empty (null) or contain a number of 'movement pairs'. A movement pair consists of a word value in the vocabulary followed by a location number and means that any word with that word value causes movement to that location. A typical entry could be SOUTH 6 EAST 7 ENTER 6 NORTH

5 which means that SOUTH or ENTER or their synonyms cause movement to location 6, EAST or it's synonyms to location 7 and NORTH or it's synonyms to location 5. Each entry uses 3 bytes plus 2 bytes for each movement pair.

Note 1. The movement pairs contain the word value not the actual word and if a word value is deleted from the vocabulary then all movement pairs which contain that word value are also deleted.

Note 2. When the adventure is being played it is only the first recognised word (W1) which will cause movement.

Note 3. If any movements are to be performed in the Event or Status tables using the action GOTO then those movements should be excluded from the Movement table.

E The Object Text table

This table, which has an entry for each object, contains the text which is printed when an object is described. Each entry uses 3 bytes plus the length of the text. An object is anything in the adventure which may be manipulated and objects are numbered from 0 upwards. Object 0 is assumed by the Interpreter to be a source of light. Whenever a new object text is inserted an entry of 'not created' is made for that object in the object start location table.

F The Object Start Location table

This table has a 1 byte entry for each object, which specifies the location at which the object is situated at the begining of the adventure. An object can also start the adventure being worn, carried or not created.

G The Event table

This table (together with the Status table) is the main part of the database and each entry contains 2 word values followed by any number of conditions and then (normally) at least one action. When the adventure is played, if there is an entry in the table with the word values entered and the conditions specified are satisfied then the actions are performed. The conditions and actions that may be present and the effect that they have is fully specified in the description of the Interpreter. The order of entries in the table is in ascending order of the first word value. Entries which have the same first word value are held in ascending order of the second word value. Entries with the same first and second word values are held in the order they were inserted into the database (i.e. they must be inserted in the order required). An example of the order of the table, with word values shown in brackets, is as follows:-


```
LOOK(30)  UP  (9)
LOOK(30)  DOWN(10)
LOOK(30)  __  (255)
GET (100) KEY (16)
GET (100) LAMP(26)
GET (100) LAMP(26)
```

Each entry in the table has an overhead of 6 bytes and each condition and action uses 1, 2 or 3 bytes depending on the number of parameters.

Note 1. If a word value is deleted from the vocabulary then all entries in the Event and Status tables which contain that word value are also deleted.

H The Status table

This table has exactly the same format as the Event table. When the adventure is played the Status table is scanned between turns to see if the Spectrum wants anything to happen. The Event table can be considered as the players's table and contains entries which are dependent on the words entered, while the Status table is the computers's table and contains entries which are independent of the words entered by the player. The words in the Status table can however be used to position entries at the required place and/or as a reminder of the purpose of the entries.

I The Interpreter Messages

This table contains the messages used by the Interpreter. Each entry uses 3 bytes plus the length of the text. The description of the Interpreter shows when these messages are being used.

J The Object Word Table

This table has a 1 byte entry for each object which holds the word value of the word associated with that object.

Detailed Description of the Editor

A Vocabulary

Words may be inserted or deleted, the synonyms of a word may be displayed or the vocabulary may be printed:-

Insert I **word No.** (No. is in the range 1-254)

If **word** is not already present in the vocabulary it is inserted with a word value of **No.**

Delete D **word**

If **word** is present in the vocabulary, it and it's word value are deleted. If synonyms of the word deleted are present in the vocabulary no further action is taken. However, if no synonyms are present, then:-

a) all entries in the Event and Status tables which use this word value are also deleted.

b) all movements in the movement table which use this word value are also deleted.

c) All entries in the Object Word Table which use this word value are set to null.

Show Synonyms S **word**

If **word** is present in the vocabulary, it and all other words with the same word value are displayed.

Print P or L

Printing is either to the screen using P or to the printer using L.

Points to note:

a) Be careful using delete as it can also affect the Event, Status, Movement and Object Word tables.

b) Words with a word value of less than 13 are assumed to be movement words by the Interpreter and cause the message "I can't go in that direction," to be printed instead of "I can't".

c) Deleting words from the Vocabulary can sometimes take a long time (minutes).

B Message Text

Message texts may be inserted, amended or printed:-

Insert I

The next available message number is used and a null entry is made for it in the message text table. An automatic call to the amend routine is then made to allow the user to amend the null entry.

Amend A **mesno.**

The existing text for message **mesno.** is copied to the input buffer and displayed on the screen for amending. When ENTER is pressed the existing text is replaced with the contents of the input buffer.

Print P (**mesno.**) or L (**mesno.**)

Printing is either to the screen using P or to the printer using L. Printing starts with the text for message **mesno.** or at the begining if **mesno.** is not specified.

Points to note:

a) There is a limit of 255 messages.

C Location Text

Location texts may be inserted, amended or printed:-

Insert I

The next available location number is used and a null entry is made for it in both the movement table and the location text table. Processing then continues with an automatic call to the amend routine to allow the user to amend the null entry already set up in the location text table.

Amend A **locno.**

The existing text for Location **locno.** is copied to the input buffer and displayed on the screen for amending. When ENTER is pressed the existing entry is replaced with the contents of the input buffer.

Print P (**locno.**) or L (**locno**)

Printing is either to the screen using P or to the printer using L. Printing starts with the text for Location **locno.** or at the begining if **locno.** is not specified.

Points to note:

a) The start of an adventure is always at Location 0.

b) There is a limit of 252 locations.

D Movement table

Movements may be amended or printed:-

Amend A **locno.**

The existing entry for Location **locno.** is decoded, copied to the input buffer and displayed on the screen for amending. When ENTER is pressed the input buffer is vetted to be empty or to contain **word locno.** repeated any number of times. **word** must be present in the vocabulary and **locno.** must be present in the location text table. If there are no syntax errors the existing entry is replaced with an encoded copy of the input buffer (i.e. words changed to word values).

Print P (locno.) or L (locno.)

Printing is either to the screen using P or to the printer using L. Printing starts with the entry for Location **locno.** or at the begining if **locno.** is not specified.

Points to note:

a) A location text must be present for a Location before movements can be present.

b) Any words in the Vocabulary may be used in the Movement table.

c) When an entry is decoded (for Amend or Print) the word value is changed into the first word in the Vocabulary with that word value.

E Object Text

Object texts may be inserted, amended or printed:-

Insert I

The next available object number is used and a null entry is made for it in the object text table. An entry of 'not created' is also made for it in the object start location table. Processing then continues with an automatic call to the amend routine to allow the user to amend the null entry already set up in the object text table.

Amend A **objno.**

The existing text for Object **objno.** is copied to the input buffer and displayed on the screen for amending. When ENTER is pressed the existing text is replaced with the contents of the input buffer.

Print P (objno.) or L (objno.)

Printing is either to the screen using P or to the printer using L. Printing starts with the text for Object **objno.** or at the begining if **objno.** is not specified.

Points to note:

a) Object 0 is considered by the Interpreter to be a source of light.

b) There is a limit of 255 objects.

F Object Start Location Table

The location at which an object is situated at the start of the adventure may be amended or the object start location table may be printed:-

Amend A **objno. locno.**

The existing entry for Object objno. is replaced with locno. which must either be present in the location text table or be one of the special locnos. 252 not created, 253 worn or 254 carried.

Print P or L

Printing is either to the screen using P or to the printer using L

Points to note:

a) An object text must be present for an object before it's start location can be present.

G Event Table

Entries may be Inserted, Amended, Deleted or Printed:-

Insert I **word1 word2**

Word1 and **Word2** must be underline characters or words which are in the vocabulary. The word values of **Word1** and **Word2** (underline has a word value of 255) are used to find the correct place in the table for the new entry to be created. If any entries already exist for **Word1 Word2** then the new entry will be created after the existing entries. A null entry is created at the appropriate place and an automatic call made to the amend routine to allow the user to amend the null entry.

Amend A **Word1 Word2**

The first entry in the table with word values of Word1 and Word2 is copied to the input buffer and displayed on the screen for amending. When ENTER is pressed the input buffer is vetted to be empty, in which case the existing entry is deleted, or to contain any number of valid conditions followed by at least one valid action. If there are no syntax errors the existing entry is replaced with the contents of the input buffer. Any following entries in the table with the same word values (i.e. **Word1** and **Word2**) are then displayed in turn for amending in the same way.

The conditions that may be used are:-

AT	locno.	
NOTAT	locno.	
ATGT	locno.	
ATLT	locno.	
PRESENT	objno.	
ABSENT	objno.	
WORN	objno.	
NOTWORN	objno.	
CARRIED	objno.	
NOTCARR	objno.	
CHANCE	percent	(percent, is in the range 0-99)
ZERO	flagno.	
NOTZERO	flagno.	
EQ	flagno.	value
GT	flagno.	value (value is in the range 0-255)
LT	flagno.	value

The description of the Interpreter will tell you what these conditions do. The actions that may be used are:-

θ	INVEN	
θ	DESC	
ϕ	QUIT	
θ	END	
θ	DONE	
θ	OK	
	ANYKEY	
θ	SAVE	
θ	LOAD	
	TURNS	
	SCORE	
	PAUSE	value (value is 1/50 sec in the range 0-255)
	GOTO	locno.
	MESSAGE	mesno.
ϕ	REMOVE	objno.
ϕ	GET	objno.
ϕ	DROP	objno.
ϕ	WEAR	objno.
	DESTROY	objno.
	CREATE	objno.
	SWAP	objno. objno.
	SET	flagno.
	CLEAR	flagno.
	PLUS	flagno. value
	MINUS	flagno. value (value is in the range 0-255)
	LET	flagno. value
	SOUND	duration pitch (Duration is in 1/100 sec. The value of pitch varies in semi-tones with 37 being middle C.)
	BORDER	value
	INK	ink value
	CLS	
	DROPALL	

	PLACE	objno. locno.
ϕ	AUTOG	
ϕ	AUTOD	
ϕ	AUTOW	
ϕ	AUTOR	

The description of the Interpreter will tell you in detail what these actions do. However, please note that the actions marked θ will always cause an exit from the Event/Status table entry being processed so any following actions will never be performed. The actions marked ϕ may cause an exit from the table being processed.

Delete

To delete an entry amend it so that no conditions or actions remain.

Print P (word1 (word2)) or L (word1 (word2))

Printing is either to the screen using P or to the printer using L. Printing starts at the first entry with word values of Word1 Word2. If Word1 or Word2 is not specified then a word value of 0 is assumed. Thus P or L by itself starts at the beginning of the table.

H Status Table

The Status table is handled in exactly the same way as the Event Table.

I Save Database

Saves the database to tape or disc.

J Disc/Tape

Allows you to choose between disc and tape.

K Load Database

Loads a database into the Quill. It will however load any binary file back to the address it was saved from.

Very Important

If ESC is pressed or a tape error is detected during a load then the database held in memory will be corrupt and should not be used as it may corrupt the Editor and Interpreter. Under these circumstances the only Editor command which may be used safely is Load Database and this should be used until a database is loaded successfully.

L Test Adventure

"Do you require diagnostics?" is printed and any reply that doesn't start with "Y" is assumed to be negative. A jump is then made to the Interpreter. If diagnostics are required then whenever the Interpreter's input routine is used the next four lines of the screen

will display the values of the flags, the value of W1, W2 and the value of the current location. The first of the four lines will contain the values of flags 0-9, the second line flags 10-19 the third line flags 20-29 and the fourth line flags 30-32 followed in inverse by the values of W1, W2 and the current location. Note that the use of diagnostics will cause the screen to scroll earlier than usual.

Very Important

The only way back to the Editor from the Interpreter is by performing the action END in either the EVENT or STATUS tables.

M Save Adventure

The Interpreter and database are saved with the file name specified and in such a way that the Adventure will auto run when loaded from BASIC using the RUN command.

N CAT

Catalogues a tape or disc in the same way as from BASIC.

O Bytes Spare

The number of spare bytes is printed.

P Objects Conveyable

The number of objects that can be carried at any one time may be set to any value from 0 to 254. A value less than 10 will normally be used.

Q Permanent Colours

The BORDER & INK colours may be set to any valid values. Beware of setting INK 1 to the same value as INK 0.

R System Messages

System message texts may be amended or printed:-

Amend **A no.**

The existing text for message **no.** is copied to the input buffer and displayed on the screen for amending. When ENTER is pressed, the existing text is replaced with the contents of the input buffer.

Print **P (no.)** or **L (no.)**

Printing is either to the screen using **P** or to the printer using **L.** Printing starts with the text for message **no.** or at the beginning if **no.** is not specified.

Points to note:

a) The description of the Interpreter shows where these messages are used.

b) Messages 30 and 31 are not really messages but contain the positive and negative replies used in the QUIT and END actions. Therefore be very careful changing these as action END is the only way back to the Editor from the Interpreter.

c) These messages may be changed to use "You" instead of "I" if you prefer, i.e. "You're not wearing it", or even into different languages.

d) SM10 "(WORN)" should not include any control codes.

S The Object Word Table

The word associated with an object may be amended or the table may be printed:-

Amend **A objno. word**

The existing entry for Object **objno.** is replied with the word value of **word** which must be present in the Vocabulary (or be an underline to set the entry to null).

Print **P** or **L**

Printing is either to the screen using **P** or to the printer using **L.** Each entry may be followed by GD or GDWR to indicate which of the actions AUTOG, AUTOD, AUTOW and AUTOR can affect that object. GDWR will be shown if the word value is 199 otherwise GD will be shown.

T Switch Main Menu

Displays the other Main Menu

£ Return to BASIC

Jumps to the BASIC NEW command.

Editor Error Messages and their meanings

BREAK	ESC was pressed during a peripheral operation or while editing or a disc error occurred.
I/O Error	An I/O Error has occurred. Note that an error during a LOAD means that the database is corrupt
Database full	Insufficient room in the database for what you were attempting
Limit reached	The maximum number of locations, messages or objects is already present
I/P Buffer full	Entry for Event, Status or Movement table is too large for input buffer (very unlikely to occur). The remedy is to use a smaller entry

Note If an abnormally large entry is inserted in the movement table using abbreviations e.g. N 1 W 6 S 4 etc and the abbreviations are deleted from the vocabulary, the movement entry (when decoded) i.e. NORT 1 WEST 6 SOUT 4 etc could be too big for the input buffer. If this happens an I/P Buffer full message will be produced. The remedy is to reinsert the abbreviations in the vocabulary.

NOTES

1 An entry in the Status table of the form:-

```
—   —   Conds
        Acts    DESC
```

will cause the Interpreter to loop. Pressing the ESC key will escape from the loop.

2 The Input Routine

2.1 Character 126 is obtained by pressing CTRL/" (as normal), character 127 by pressing CTRL/# and character 96 by pressing SHIFT/backslash (as normal).

2.2 Characters 0-31 can be obtained from the keyboard using the CTRL key as shown in Appendix 3 of the CPC 464's User Instructions. However the Quill uses these characters as control codes so they should only be used after the TAB key.

2.3 The TAB key will add 128 to the ASCII value of the next key pressed. Note that it is possible to obtain all the ASCII values from 0-127 from the keyboard, although 0-31 are normally used as Quill control codes. Thus using the TAB key can give you characters in the range 128-255 e.g. CTRL/k normally gives ASCII character 11 which The Quill interprets as the CLR key. SHIFT/k normally gives ASCII character 75 which is a capital k. The k key by itself (when entering text) normally gives ASCII character 107 which is a lower case k. TAB followed by CTRL/k gives a character 139 (i.e. 128 + 11), TAB followed by SHIFT/k gives a character 203 (i.e. 128 + 75) and TAB followed by k gives a character 235, (i.e. 128 + 107). See Appendix 3 of the CPC 464's User Instructions for details of these character values.

2.4 Due to the slowness of the CPC 464's print routine the screen display will often lag behind the keyboard particularly when DEL or CLR is used. The only time that you cannot type ahead is when "Press any key to continue" is displayed as this discards everything in the keyboard buffer and then waits for the next key to be pressed.

2.5 It is usually quicker to press a key a number of times than to wait for it to repeat (DEL and CLR are always slow).

NOTES

Summary of Conditions, Actions and Flags

Conditions		Actions	
AT	locno.	INVEN	
NOTAT	locno.	DESC	
ATGT	locno.	QUIT	
ATLT	locno.	END	
PRESENT	objno.	DONE	
ABSENT	objno.	OK	
WORN	objno.	ANYKEY	
NOTWORN	objno.	SAVE	
CARRIED	objno.	LOAD	
NOTCARR	objno.	TURNS	
CHANCE	percent	SCORE	
ZERO	flagno.	PAUSE	value
NOTZERO	flagno.	GOTO	locno.
EQ	flagno. value	MESSAGE	mesno.
GT	flagno. value	REMOVE	objno.
LT	flagno. value	GET	objno.
		WEAR	objno.
		DROP	objno.
		DESTROY	objno.
		CREATE	objno.
		SWAP	objno. objno.
		SET	flagno.
		CLEAR	flagno.
		PLUS	flagno. value
		MINUS	flagno. value
		LET	flagno. value
		SOUND	duration pitch
		BORDER	value
		INK	ink value
		CLS	
		DROPALL	
		PLACE	objno. locno.
		AUTOG	
		AUTOD	
		AUTOW	
		AUTOR	

Flags

Flag 0 If this flag is set to zero it is light. Any other value means it's dark
Flag 1 holds count of objects carried
Flag 2 decreased when a location is described
Flag 3 decreased when a location is described and it's dark
Flag 4 decreased when a location is described and it's dark and object 0 is absent
Flags 5-8 decreased each turn
Flag 9 decreased each turn when it's dark
Flag 10 decreased each turn when it's dark and Object 0 is absent
Flags 11-29 ordinary flags
Flag 30 holds the score
Flag 31 holds turns count LSB
Flag 32 holds turns count MSB

KEY CONTROLS

ATARI -
1 OR 2 TO START WITH 1 OR 2 PLAYERS RESPECTIVELY.
[IN GAME]
F1 PAUSE
F10 QUIT
JOYSTICKS
PORT 1 FOR PLAYER 1
PORT 2 FOR PLAYER 2

LEFT AND RIGHT	LEFT AND RIGHT
UP	JUMP
FIRE	BUBBLE/JOIN GAME

AMSTRAD -

PLAYER 1	
LEFT	O
RIGHT	P
JUMP	Q
BUBBLE	SPACE
PLAYER 2	
JOYSTICK	

F1 PAUSE
ESC QUIT

LOADING INSTRUCTIONS

ATARI
AUTO BOOT - INSERT DISC AND TURN ON COMPUTER
AMSTRAD CPC6128 - DISC
TYPE RUN "BB"
CPC464 - TAPE
PRESS CTRL AND SMALL ENTER KEYS

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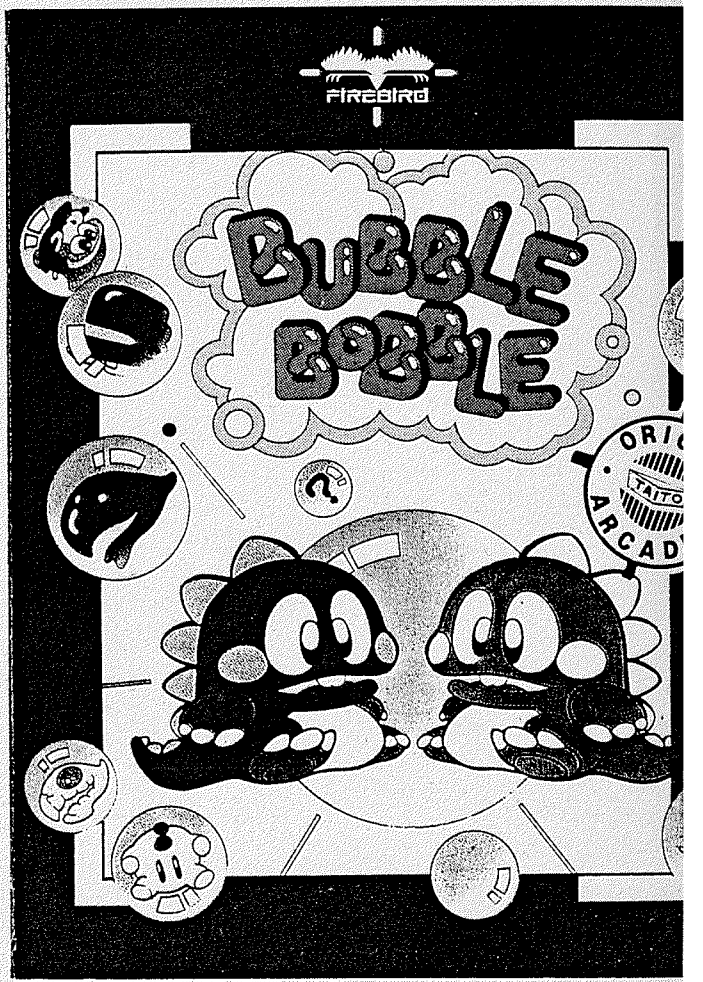
FIREBIRD

FIREBIRD IS A TRADE MARK OF
BRITISH TELECOMMUNICATIONS P.L.C.



BUBBLE BOBBLE

Meet BUB and BOB our bantam-weight brontosaures who are bent on battling big bullies by blowing and bursting bubbles. Before battling these brazen bullies, beware that bubble blowing is better than blasting bullies with bazookas, or better than bouncing bombs from biplanes, and even beats boxing these brainless barbarians. So now that we briefly belayed the Bub and Bob biographies, begin by browsing the play instructions below and becoming the best BUBBLE BOBBLE bubble blower on the block.

How to Destroy:



1) Blow Bubbles



2) Box up Bullies, then

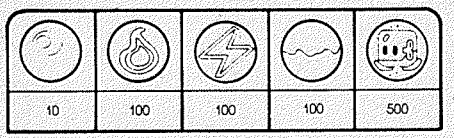


3) Burst Them!!!

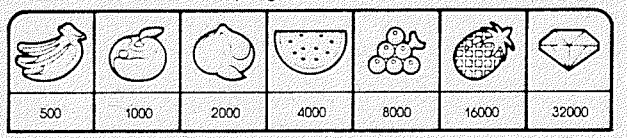
By bursting bubbles containing fire, thunder, and water that appeared in the previous stage, you can quickly destroy the bullies. Fire, Thunder, and Water flow in the direction in which you stretch yourself.
You can even bounce on the bubbles (by keeping the joystick pushed up)!!!

SCORING:

A Burst the Bubbles for the following points:

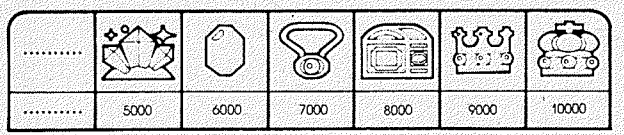


B Bonuses for destroying Bullies!!!



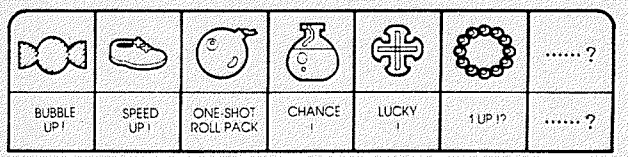
C TIMING TARGETS:

Clearing a stage quickly allows for high-point targets in the next stage.



D MAGIC TARGETS:

Magic Targets mysteriously appear!
Destroy them and power up!



Its best to destroy several enemies at the same time.
Can you reach the "True ending" by clearing all 100 stages?
A "Sudden Reversal" awaits you there!

A player can join at any time by pressing the fire button. You start the game with an extra 8 credits. To keep playing after you have lost all your lives, just press the fire button quickly.

EXTEND

Get all the letters. They appear when destroying several enemies at the same time!

E







Baron von Blubba
If you take too much time, you are no match for him!

BUBBLE BOBBLE

Mød BOB og BUB, vores bantamvægts brontosauruser, som er ivrige efter at slås mod store bøller ved at blæse og briste bobler. Før du banker disse beskidte bøller, pas på at boble blæsning er bedre end at knalde kugler med kanoner, eller bedre end at bokse disse bindegale barbarera. Så nu hvor vi har gjort dig bekendt med Bub og Bobs biografier, begynd med at studere spille instruktionerne herunder, og bliv den bedste BUBBLE BOBBLE boble blæser i blokken.

Hvordan man ødelægger:

1) SE ILLUSTRATIONERNE I DE ENGLISH INSTURUKTIONER
2) SE ILLUSTRATIONER 3) SE ILLUSTRATIONER

1) Blæse Bobler 2) Bokse Bøller, så 3) Brist dem!!!

Wed at briste bobler der indeholder ild, torden og vand på det sidste niveau, kan du hurtigt destruere bøllerne. Ild, Turden og Vand flyder i den retning du strækker dig.
Du kan endda hoppa på boblerne (ved at holde knappen nedtrykket)!!!

SCORING:

Brist Bobler før følgende points:
A) SE ILLUSTRATION
Bonus fur at destruere Bøller!!!
B) SE ILLUSTRATION

TIMING MÅL:

Ved hurtigt at rydde et niveau, opnåes høj-point mål på næste niveau.
C) SE ILLUSTRATION

MAGISK MÅL:

Magisk Mål kommer til syne på mystisk måde! Destruer dem og magt
D) SE ILLUSTRATION
Det er bedst at destruere fiere fjender på samme tid.
Kan du nå "True Ending" ved at rydde alle 100 niveauer!? En "Sudden Reversal" venter dig der!
En spiller kan komme ind på et hvilket som helst tidspunkt ved at trykke på skyde knappen. Du påbegynder spillet med 8 ekstra kreditter. Bliv ved med at spile efter du har mistet alle dine liv ved at trykke skyde knappen hurtigt.
EXTEND Saml alle bogstaverne.
De kommer til syne når fiere fjender er blevet destrueret på en gang!
Tager du for lang tid, kan du ikke klare ham!
E) SI ILLUSTRATION
SE ENGELSKE INSTRUKTIONER FOR ILLUSTRATIONER!

Tastaturkontrol

ATARI
1 eller 2 for at begynde med henholdevis 1 eller 2 spillere.
F1 Pause
F10 Opgiv
Joysticks
Port 1 for spiller 2 PORT 2 for spiller 1
Venstre og Højre — Venstre og Højre
Op — Spring
Skyd — Buble/Komme med i spillet

AMSTRAD
1st Spiller
Venstre 0
Hørje P
Spring Q
Buble Mellemrums tast
2ndan Spiller
Joystick
F1 Pause
ESC Opgiv

IND LÆSNINGSINSTRUKTIONER
ATARI Auto Boot - put disketten ind og slut computeren til.
AMSTRAD CPC464 BÅND Tryk CTRL og små indlæsnings taster.

BUBBLE BOBBLE

Treffen Sie BUB und BOB, unsere Bantamgewicht-Brontosaurier, die darauf aussind, große Bullies (Störenfriede) durch Seifenblasen-Aufpusten und -Zerplatzenlassen zu bekämpfen. Bevor Sie sich auf Kämpfe mit diesen gemeinen Bullies einlassen, seien Sie gewahr, daß Seifenblasen-Blasen besser ist, als die Bullies mit Bazookas zu bakämpfen, besser als Bombenwerfen von Doppeldeckern, und daß es sogar Boxen mit diesen himlosen Barbaren schlägt. Nachdem wir nun also kurz die Biographien von Bub und BOB dargelegt haben, beginnen Sie damit, die Spielanleitungen durchzulesen und der beste BUBBLE-BOBBLE-Seifenblasenbläser im Block zu werden.

So vernichten Sie:

1. siehe Bild in der englischen Beschreibung 2. s. Bild 3. s. Bild
1) Blasenpusten 2) Bullies boxen, dann 3) Zerplatzen lassen!!

Wenn Sie Seifenblasen zerplatzen lassen, die Feuer, Donner oder Wasser enthalten, was in der vorigen Spielstufe vorkam, können Sie die Bullies schnell vernichten. Feuer, Donner und Wasser strömen in der Richtung, in die Sie sich strecken können.
Sie können die Seifenblasen sogar hüpfen lassen (indem Sie den Knopf neiderdrücken)!!

PUNKTE:

Für das Zerplatzenlassen von Seifenblasen erhalten Sie folgende Punktzahlen:
A siehe Bild
Bonus für vernichtete Bullies!!!
B siehe Bild

ZEITLIMIT:

Ein Bild schnell abzuschließen bedeutet hoche Punktzahlen in der nachsten Spielstufe.
C siehe Bild

MAGISCHE ZIELE:

Magische Ziele verschwinden auf mysteriöse Weise! Vernichten Sie sie und übernehmen Sie die Macht.
D siehe Bild
Am besten vernichten Sie mehrere Feinde zugleich!
Erreichen Sie das "absolute Ende", indem Sie alle 100 Spielstufen bewältigen!? Dort wartet eine "plotzliche Umkehrung" auf Sie!
Ein weiterer Spieler kann sich jederzeit anschließen, indem er den Feuerknopf betätigt. Sie beginnen das Spiel mit einem Sonderkredit von 8 Punkten. Um weiterzuspielen, nachdem Sie alle Ihre Leben verloren haben, drücken Sie einfach schnell den Feuerknopf.
E X T E N D Sammeln Sie alle Buchstaben.
Sie erscheinen, wenn Sie mehrere Feinde gleichzeitig vernichten/ Wenn Sie zu langsam sind, schaffen Sie es nicht.
E siehe Bild
DIE BILDER FINDEN SIE IN DER ENGLISCHEN ANLEITUNG!

TASTENSTEUERUNG

ATARI
1 bzw. 2zum Spiel mit 1 bzw. 2 Spielern.
(während des Spiels)
F1 Pause
F10 Spielabbruch
STEUERKNÜPPEL
PORT 1 für Spieler 1 PORT 2 für Spieler 2
LINKS bzw. RECHTS — LINKS und RECHTS
AUFWÄRTS — HÜPFEN
FEUER — SEIFENBLASE / INS SPIEL EINSTEIGEN

AMSTRAD
Spieler 1
Links O
Rechts P
Hüpfen Q
Seifenblase LEERTASTE
Spieler 2
Steuerknüppel
F1 Pause
ESC Spielabbruch

LADEANWEISUNGEN
ATARI

FIREBIRD

FIREBIRD IS A TRADE MARK OF
BRITISH TELECOMMUNICATIONS P.L.C.

AMSTRAD

BUBBLE BOBBLE

Loading Instructions
Amstrad CPC 464 tape
Hold down **Control** and press the small **ENTER** key. Press **PLAY** on tape.
Amstrad CPC 6128 and CPC 664 tape
Hold down **SHIFT** and press the @ key. Type **TAPE** and then press **RETURN.** Hold down **CONTROL** and press the small **ENTER** key. Press **PLAY** on tape.
Amstrad CPC 6128, 664 and 464 disc.
Type **RUN "BB"** and press **RETURN** press **1**
Unfortunately Amstrad Bubble Bobble is a rather large game and so all of the program will not fit into memory in one go. To circumvent this problem, the game will ask you whether to load part 1 or part 2 part-way through loading. If you have just started the game, you should select **Bubble Bobble 1** by pressing key **"1"**. The game will then load up screens 1 to 79.
Upon completing screen 79, you will be given a secret code - **WRITE THIS DOWN!** Now you must reload the game but this time select **Bubble Bobble 2** to load by pressing key **"2"**. When prompted, type in the secret code and then you will be confronted by screen 80 - the final screen!
Redefining Keyboard Control
When redefining the keyboard controls for player one you may find that certain keyboard combinations will **not** work. Unfortunately this is a hardware problem and we hope that this does not detract from your enjoyment of the game.
Game Credits
Amstrad Bubble Bobble will give you **eight** credits to play the game with. Either key **"1"** or key **"2"** whilst playing the game. The respective player will then enter the game with three lives.

ADDENDUM

ISTRUZIONI PER IL CARICO
AMSTRAD CPC 6128 - DISC COMPORRE SULLA TASTIER RUN "BB, PREMERE **RETURN** PREMERE **"1"**
LAADINSTRUCTIES
AMSTRAD CPC 6128 - DISKETTE INFYPEN: RUN "BB" INDRUKKEN: **RETURN** INDRUKKEN: **"1"**
INSTRUCCIONES DE CARGA
AMSTRAD CPC 6128 - DISCO TECLEA RUN "BB" OPRIME **RETURN** OPRIME **"1"**
INSTRUCTIONS DE CHARGEMENT
AMSTRAD DISQUETTE CPC 6128 - TAPEZ RUN "BB" APPUYEZ **RETURN** APPUYEZ **"1"**
IND LAESNINGSINSTRUKTIONER
AMSTRAD CPC 6128 - DISK TYPE RUN "BB" TRYK **RETURN** TRYK **"1"**
LADEANWEISUNGEN
AMSTRADE CPC 6128 - DISKETTE RUN "BB" TIPPEN **RETURN** DRUCKEN **"1"** DRUCKEN
AMSTRAD CPC 464 - BAND CTRL (KONTROLLTASTE) UND KLEINE **ENTER** TASTEN DRUCKEN.

THRONE OF FIRE

Within the Burning Citadel, high above the desolate plains of Carakesh, the Throne of Fire stands empty. Three princes, sons of the late King Atherik, prepare to do battle against each other and seize the throne.

The eldest of the three is **Alorn the Lion Prince**, strong and good-hearted, but weak of mind. Next is **Cordrin the Sun Prince,** fair and straight and just. And the youngest is **Karag the Wolf Prince**, cunning and envious of his brothers. Each must strive to seize the throne and eliminate his rivals, for only when one prince is King, and both others dead, will the battle have been won.

Each prince has a band of loyal men-at-arms, and in addition to these three main forces is a fourth, impartial, force -- the King's Guard, whose duty it is to protect the Throne of Fire.

HOW TO PLAY

One-player game

In a one-player game the human player can control his characters by either a joystick or the keyboard. At the start of play he chooses the prince he wishes to control. The computer will then take on the roles of the remaining two princes, controlling each independently. One half of the screen display will be used by the human player, and the other by one of the computer-controlled forces.

Two-player game

In a two-player game, both human players may use joysticks or the keyboard. At the start of play each human player chooses the prince he wishes to control. The computer will then take on the role of the remaining prince. One half of the screen display will be used by each human player. Should one human player be eliminated during the course of the game, his half of the screen will then be taken over by the computer-controlled force until the game is over.

Loading Instructions

Spectrum 48/128K
Type the command LOAD"" and then press the ENTER key, or use the Tape Loader option on the 128.
Amstrad CPC
Press the CONTROL key and the small ENTER key simultaneously.
Start the tape deck and the game will now load automatically.

THE BURNING CITADEL

The action of the game, all movement and combat, takes place within the many rooms of the Burning Citadel, the royal fortress of the Sorcerer Kings of Carakesh, which is built around the rim of a smouldering volcano. The Citadel is completely circular, the outside wall looking out over the plains of Carakesh, and the inside wall looking down into the volcanic crater itself. It is possible for a player to do a round tour of the Citadel and arrive back at his starting point - if he manages to survive that long.

The Citadel Display

The scrolling Citadel display at the bottom of each player's screen area depicts the inner wall of the Citadel, silhouetted blackly against the deep blue of the night sky. The windows of all occupied rooms are lit in different colours, according to the allegiance of the occupant. If a window flickers between two colours, there are two members of opposing forces in that room, who may be engaged in combat.

The colours are:
Prince Alorn and his men-at-arms - **RED**
Prince Cordrin and his men-at-arms - **YELLOW**
Prince Karag and his men-at-arms - **PURPLE**
The men of the **King's Guard** - **GREEN**

The windows of unoccupied rooms are unlit, and consequently merge invisibly into the black wall of the Citadel. While the scrolling display gives essential information about the

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The windows of unoccupied rooms are unlit, and consequently merge invisibly into the black wall of the Citadel. While the scrolling display gives essential information about the deployment of all forces, it does not reveal the structure of the Citadel, the connecting stairways, nor the contents of the rooms. These can only be discovered by exploration.

Individual Room Display

The main, large display which occupies most of each player's screen area depicts the actions of the character who is currently under direct control, as he travels from room to room or is engaged in combat.

Each room is shown in perspective, and doors on the left and right lead directly to other rooms on the same level. Doors at the back lead to stairways ascending or descending to other levels.

CONTROLLING THE CHARACTERS

At the start of play, there are 10 men under the control of each player - a prince, and nine men-at-arms. During play, however, the number of men-at-arms will vary greatly, as some are killed, and reinforcements arrive. All characters on the same side can be identified by the helmets which they wear. The prince can be identified by his coronet.

Though a player has many men under his command, he can only directly control one at a time. The actions of this directly-controlled character are depicted in the large individual room display, in either Movement mode or Combat mode.

To switch control to another character, a player must enter Selection mode, which allows him to access the scrolling Citadel display at the bottom of the screen. Using a cursor, the player can scan the Citadel wall and select a room which is occupied by one of his men. This room will then appear in the individual room display above, and the character depicted within it will be under the player's direct control.

Characters who are not currently under the player's direct control cannot move from room to room of their own accord, but they will defend themselves if attacked. However, they will not be able to fight very well. To get the best from his men, a player should, whenever possible, directly control them in Combat mode.

GATE ROOMS & REINFORCEMENTS

Within the Citadel are a number of Gate Rooms. These rooms have only two doors, one which leads into the Citadel, and one which leads to the outside world. The latter cannot be used by any of the players.

From time to time new men-at-arms will enter Gate Rooms from the outside. They will only enter empty rooms, and they will join the side of the last player to have visited that room. If the room has yet to be visited by any player, then the new men will instead join the ranks of the King's Guard.

THE THRONE ROOM

The Throne Room is the ultimate objective of all players, as it contains the Throne of Fire. To seize the throne, a player must visit the Throne Room with his prince, and his visit must be unopposed. No other characters belonging to the other players or to the King's Guard can be in the room.

On gaining the Throne, that prince becomes King, and in addition to his men-at-arms, now takes control of the King's Guard. At the same time, the other players lose the ability to directly control their men-at-arms, who now stay rooted to the spot, seeking only to defend themselves against attack.

Should the new King die, the King's Guard becomes neutral once again, and the surviving players regain control of their men-at-arms. They can now once more attempt to seize the Throne.



WEAPONS

There are many different weapons, each with its own particular strengths and weaknesses. Men of the King's Guard only carry one weapon each, but all other characters can carry up to three different weapons. Weapons can be picked up and carried by using the Movement mode.

STRENGTH

Strength alone affects a character's abilities, and the strength of the character currently under a player's direct control is shown in the form of a beating heart at the top of the screen. The faster the heart-beat, the stronger the character, and the faster his movements and reactions will be.

Characters can regain strength by resting and doing nothing. The occasional magical object may also increase - or decrease - strength. Strength is also gained by visiting the Throne Room or Gate Rooms.

If the beating heart stops, that character dies.



JOYSTICK CONTROLS

The following applies to joysticks. If a player has opted for keyboard controls, then the appropriate keys can be substituted for the joystick directions and fire button.

Selection Mode

During selection mode the joystick controls the cursor which moves over the scrolling Citadel display. Pressing FIRE selects the character within the window where the cursor is positioned.

If the cursor is not positioned over a window of the correct colour, the previous man-at-arms or prince is re-selected.

Movement Mode

During movement, the joystick directly controls the actions of your on-screen character.

LEFT	Moves character to the left
RIGHT	Moves character to the right
UP	Moves character through stairway door if he is standing over one; or character picks up weapon if standing by one; or character picks up bottle if standing by one
DOWN	Switches to Selection mode, leaving character standing where he is
FIRE	Switches to Combat mode.

Combat Mode

During combat, the joystick directly controls the fighting actions of your on-screen character. Unlike other combat games, a joystick position *does not* cause a particular action, but it is the *route* from one joystick position to another which triggers a variety of thrusts and parries. Players will discover combat movements through experience, and it will be found that joystick movements correspond quite closely to weapon movements.

FIRE	Selects next weapon which the character is carrying; or switches to Movement mode if all weapons have been selected. This allows players to retreat, or to select another character. Combat mode can be re-selected from Movement mode by pressing FIRE

If the cursor is not positioned over a window of the correct colour, the previous man-at-arms or prince is re-selected.

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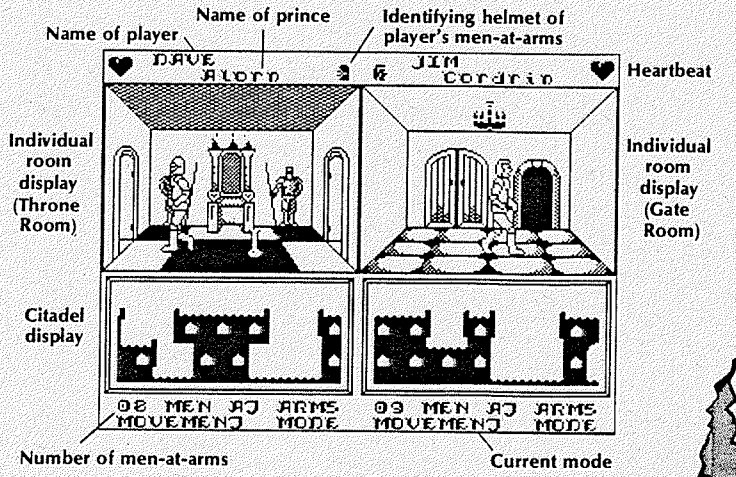
ON-SCREEN INFORMATION



CREDITS

Game design (c) 1986 **Mike Singleton**
Programming, graphics and music by **Consult Computer Syster**
Cover illustration by **David Rowe**
Instruction booklet produced and designed by **Serpentine Des**
Published by
Melbourne House (Publishers) Limited
8-10 Paul Street
London EC2

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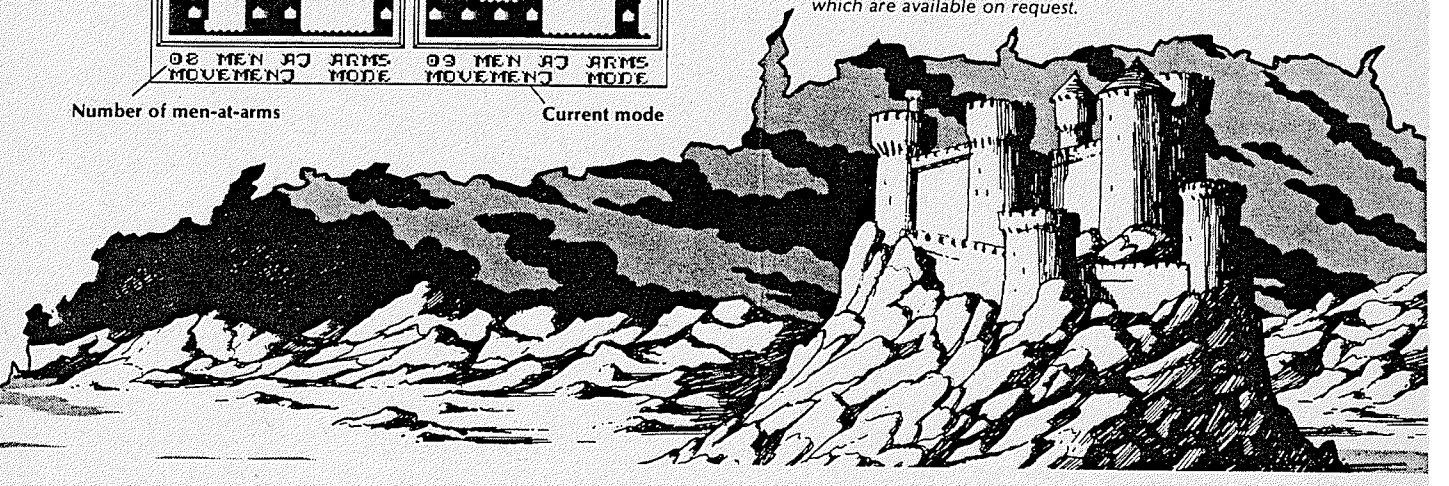

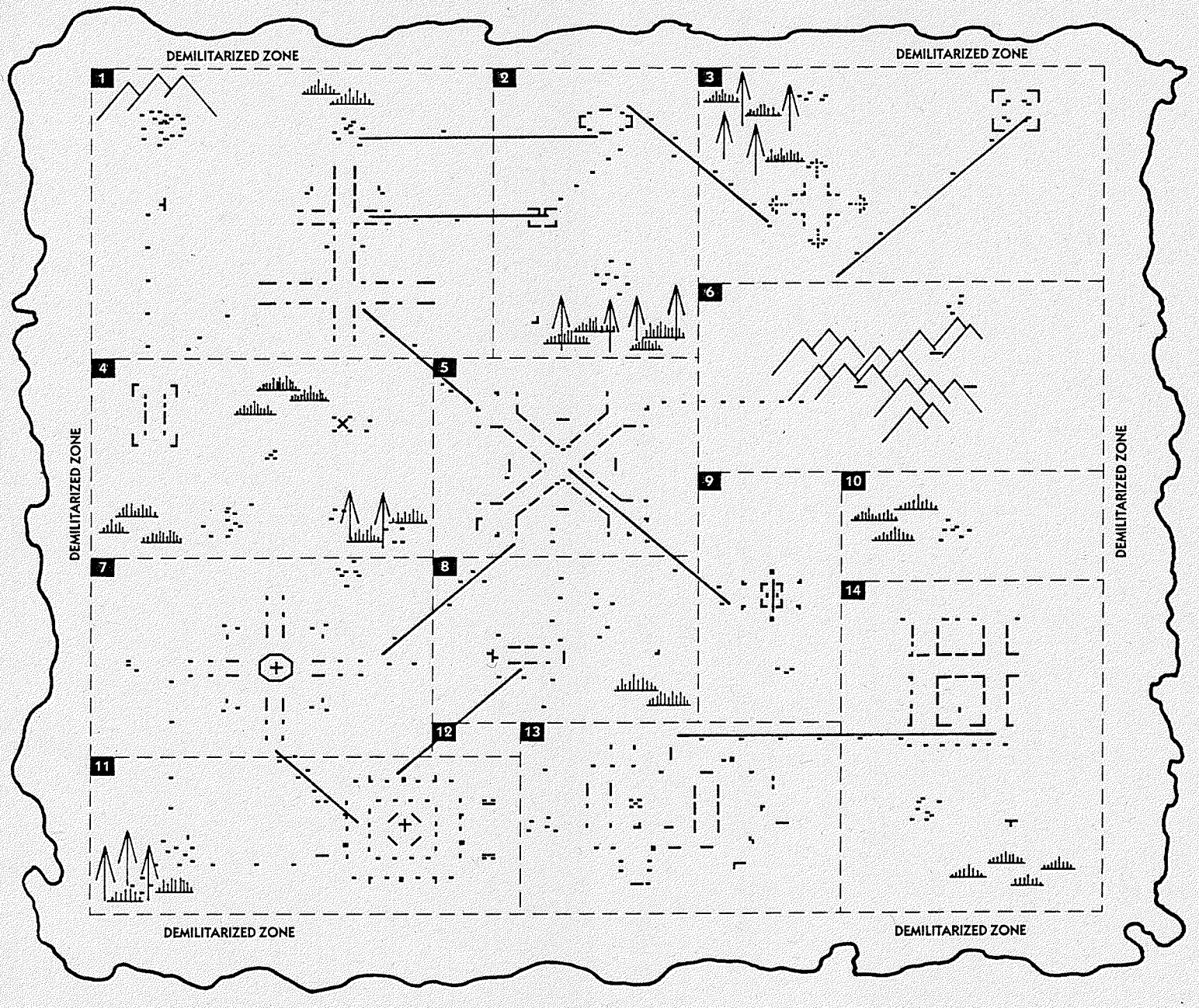

CATCH 23 ISLAND MAP

MARSHES

WOODS

MOUNTAINS

MILITARY ZONE BOUNDARIES

BUILDINGS

MAIN SHUTTLE ROUTES
There are at least forty
others for you to discover.

Catch 23

INSTRUCTIONS FOR

INSTRUCTIONS FOR CATCH 23

Index

1 YOUR MISSION

2 THE ISLAND

3 SHUTTLES

4 BUILDINGS

5 MILITARY ACTIVITY

a. Armoured Vehicle Patrols
b. Foot Patrols

6 MINEFIELDS

7 SIGHTLESS IMAGE ENHANCER (SIE)

a. Zone
b. Time Elapsed
c. Patrol Warning
d. Vision
e. Bombs
f. Spare Gun Clips
g. Mine Detector
h. Compass Direction Indicators
i. Message Panel

8 DANGEROMETER

9 THE RESISTANCE MOVEMENT

10 CONTROLS

11 GAMEPLAY

a. Movement
b. Gun Mode
c. To Board a Shuttle
d. To enter or leave a building
e. To identify anything else
f. To pick up Spare Ammunition, Explosives or Batteries
g. To leave a time delay bomb
h. To mine a tank
i. Computer Terminal-Transmitters
j. Save Game

12 MAP

13 THE SCIENTISTS

1 YOUR MISSION

Intelligence reports and satellite pictures have confirmed the worst – the enemy's CK 23 orbital interceptor is operational. Able to take off and land like any conventional aircraft, the revolutionary CK 23 is also able to escape the earth's gravitational pull and then achieve geo-stationary orbit in any specific location. There it can lie in wait, for weeks at a time, ready to blast back into the atmosphere at frightening speed to intercept and destroy enemy missiles or aircraft with its sophisticated missile and laser weaponry.

The CK 23 test development site is the most secret military complex on earth. Hidden somewhere on a mountainous and now deserted island, it is surrounded by deadly minefields, high voltage electric fences and surveillance cameras. The island itself is bristling with military activity, from armed foot patrols to roaming lethal armoured vehicles.

It is your mission to explore the island and find the heart of the development complex. Once there you must steal the design of the CK 23 and then set a time delay bomb in the nuclear reactor. The explosion which follows will devastate the entire island.

At the start of the game, you have just been dropped by parachute. Where you actually land will depend on the prevailing wind. The time is 2200 hours. Sunrise is at 0600 hours. This gives you just eight hours to complete your mission.

2 THE ISLAND

The island is a small island some 400 miles from the nearest mainland. Despite this, it once supported a thriving community who made their living by fishing the well stocked local waters. This community however, has now been evacuated and the several scattered villages are virtually ghost towns. The island is mostly flat windswept heathland, but there is the occasional forest and marsh. There are also mysterious mountains.

3 SHUTTLES

Whilst the enemy were building the military complex, the villages were occupied by the civilian workforce. To assist in rapid transport, a shuttle network was built which still criss-crosses the island. The shuttles run automatically from one location to another. By switching shuttles, it is possible to cover large distances quickly, but unfortunately your map shows only a few of the principal shuttle routes. It is not possible to leave a shuttle in transit.

4 BUILDINGS

The island contains a large variety of building types. Most of the buildings have been sealed by the military, but not all. It is still possible to enter and explore those which have been overlooked. Buildings which you can enter will have clearly visible doors.

Once inside a building it will be possible for you to identify its contents. You may also find batteries for the mine detector, explosives for making bombs and spare ammunition clips. It is worth making a record of buildings which can be visited to obtain fresh supplies of these vital items. There are other things for you to discover about some of these buildings.

(c) To board a shuttle:–
Enter investigate mode. Move the cursor over the shuttle stop and press FIRE.

(d) To enter or leave a building:–
Enter investigate mode. Move the cursor over the door and press FIRE.

(e) To identify anything else:–
Enter investigate mode. Move the cursor over whatever you wish to identify and press FIRE.

(f) To pick up Spare Ammunition, Explosives or Batteries:–
This will happen automatically if you manage to find them.

(g) To leave a time delay bomb:–
Press B to enter bomb mode. The timer of the bomb you are setting will flash. Set the timer using the keyboard numbers.

Example: To set a bomb to go off in 2 minutes and 12 seconds type 0212. The bomb is dropped automatically when set and cannot be defused. Press space to quit option.

(h) To mine a tank
Stand in a position which you think is on a tank patrol route. (This can be dangerous.) Proceed as above, but set the timer for a fair length of time. The bomb will explode if a tank goes over it.

(i) Computer Terminal-Transmitters
These will be found in the hide-outs of each of the scientists. To LOGON to the system network you must enter the correct password. Identifying whose hide-out you are in will help you do this. If you LOGON correctly to exit systems type BYE.

Once you are into the system, there are useful clues to be discovered, if you can crack them. Also, if you can communicate with any of the other transmitters your direction indicator will get a fix on that transmitter's location and continue to display it in red.

Being able to understand and work with these terminals is vital to success. You are alone in the midst of a hostile enemy. If you can find the nerve centre of the scientists' computer network, you may be able to finish their mission.

(j) Save Game
You can save the game to tape or disc, but only from a SAFE House.
If you find the word SAFE written on a wall, enter investigate mode and identify the lettering. Press S or L to Save game or Load saved game.

12 MAP

The Map enclosed with these instructions is intended as a guide only. Serious game players may wish to make their own larger map onto which they can plot shuttle routes, enemy patrol routes, minefields, buildings, marshes, forests, mountains, safe houses, etc.

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TRACEY COURT AMERICAN AGE: 29 SINGLE

Specialist Area: Targetting Systems

Summary Daughter of war hero General James Court, now tipped as a future Governor of Texas. A keen interest in Ornithology. In 1997 invented the world's first intelligent target system. Hates mice, rats, spiders etc.

SEAN CONNOLLY IRISH AGE: 54 MARRIED: 6 CHILDREN

Specialist Area: Super-Conductivity

Summary Gregarious extrovert. Keen golfer, enjoys reading and fishing and has a fanatical interest in chess at which he is a Grandmaster. In 1995 he moved to Switzerland. Hates fussy people, cats and most politicians.

CRISTOPHOLOUS STAVROS GREEK AGE: 44 MARRIED: 2 SONS

Specialist Area: Aerodynamics

Summary Interests range from showjumping, football and tennis to gardening and keeping bees. In 1994 was severely injured in a car crash and still suffers from severe back pain. Designed famous XT1000 body style with a drag coefficient of 0.1. Hates heights.

HOMERO GUEVARA SPANISH AGE: 44 MARRIED: 2 CHILDREN

Specialist Area: Human Physiology

Summary Brother of the famous bullfighter El Guevara. Competent classical guitarist. Loves music, good wine and good company. In 1995 discovered the ideal diet for weightless conditions. Now working on a revolutionary 'self exercising diet'. Hates crowded rooms and bad wine.

ANN ROBERTS CANADIAN AGE: 34 MARRIED

Specialist Area: Lasers

Summary Comes from a large family. Has six brothers. Organised the worlds first Festival of Laser Art, held in Toronto. Keen on most outdoor pursuits, in particular organised expeditions to explore wild and isolated parts of the world. An excellent swimmer. Hates television and sitting around doing nothing.

OLAF STENMARK NORWEIGAN AGE: 37 MARRIED: 1 CHILD

Specialist Area: Optics

Summary Brother was assassinated in 1997. Since then has withdrawn from public eye. Interested in astronomy. In 1998 he discovered a new star. Enjoys travelling and has a passion for sculpture. Recently developed a light intensification material suitable for contact lenses. Is short sighted. Hates poor workmanship and mice.

MARIO NOTRIANNI ITALIAN AGE: 42 MARRIED: 3 CHILDREN

Specialist Area: Missile Systems

Summary A famous footballer. Played for AC Milan. Was being tipped to play for his country when he broke his leg in 1990. Since then he has developed a keen interest in the history of art. He is writing a book on the subject. His wife is a famous TV personality. Hates very little.

OSWALD OSVALDO ARGENTINIAN AGE: 38 SINGLE

Specialist Area: Test Pilot

Summary Brother of first Argentinian astronaut. A keen explorer. In 1992 discovered a new passage through the Bandees Mountains. Passion for Polo. A brilliant pilot with a cool calculating mind. Hates city life.

MARCEL GUERRE FRENCH AGE: 36 MARRIED: 2 CHILDREN

Specialist Area: Metallurgy

Summary Ski-ing, cooking, wine tasting. In 1990 he represented his country in the Winter Olympics in the downhill, and came 12th. In 1994 developed the worlds first metallic polymers. Hates bad food, cheap wine and dogs.

PROFESSOR NING CHINESE AGE: 52 SINGLE

Specialist Area: Explosives

Summary A cultured and highly sensitive person with two great passions, wildlife and archaeology. In 1992 discovered the 'Red Webbed Warbler' a bird previously thought extinct. A regular visitor to most exciting archaeological digs. Currently working on programmable explosives. Hates processed food.

PROFESSOR WANG JAPANESE AGE: 32 MARRIED: 3 CHILDREN

Specialist Area: Instrumentation

Summary Son of the founder of KONY, the giant electrical company. Brilliant physicist. Currently working on DSPI (Direct Sensory Perception Instrumentation).

A fanatical love of mountaineering. A member of the 1995 Japanese expedition which recorded the fastest ever ascent of Mount Everest. Appreciates all fine art, but hates cheap imitations of anything.

ZACHARIAS NEUMANN GERMAN AGE: 28 WIDOWER

Specialist Area: Fuels

Summary A gifted concert pianist who tragically lost his entire family in a forest fire. If it were not for the fact that he is also a brilliant chemist he would undoubtedly have made this his chosen career. Currently working on low temperature fuels. Hates fire and heights.

PETER THOMAS BRITISH AGE: 43 SINGLE

Specialist Area: Propulsion Systems

Summary Keen interest in fast cars, windsurfing, real ale, cricket and reading science fiction. In 1994 won the Nobel Prize for Chemistry. In 1996 finished his first novel 'Calm Star' – a success. Hates spiders and seaside towns.

COLIN LASSITER AUSTRALIAN AGE: 47 3 TIMES MARRIED: 3 CHILDREN

Specialist Area: Communications

Summary A friendly extrovert with a passion for virtually all sports. A black belt in Karate. An accomplished mountaineer and rally driver. Has recently been working on 'invisible' communication systems. Hates people who bore him and snakes.

ANATOLI ROMANOV RUSSIAN AGE: 39 SINGLE

Specialist Area: Computer Systems

Summary Quiet, almost recluse like. Keen interest in flowers, astronomy, astrology and hang gliding. In 1991 developed the amazing new tulip 'Interface Zebra'. In 1996 developed the organic interface for computers. Hates noise, smoke and most people too.

RUDI APPEL DUTCH AGE: 22 SINGLE

Specialist Area: Radar Systems

Summary A brilliant mind capable of amazing imaginative leaps. Is working on 'Laser Detection' and 'Gravity Warp Detection' device. Son of a famous politican. Passionate interest in ecology and an active supporter of the Anti Whaling Lobby. An accomplished ski-ier. He hates waste and greed.

CREDITS

Game Concept © Martech Games Ltd 1987
Program by Ian McArdle
Graphics by Malcolm Smith
Music by Millers

ALSO NEW FROM MARTECH

THE ARMAGEDDON MAN

The year is 2032 AD and the world is balanced on a knife edge between survival and destruction. The last thirty years have seen an enormous expansion of the world's nuclear arsenal. There are now 16 nuclear superpower nations, each with the capacity to trigger the final destruction of mankind – Armageddon!

In a world where trust is crippled by 'Uncertainty of Response' the 16 superpowers form a desperate alliance – the UNN (United Nuclear Nations).

Together they finance and build an enormous network of spy and laser defence satellites capable of monitoring, influencing and even directly controlling the political, economic and military events of the world.

Control of the network itself resides in an enormous and sophisticated satellite, codenamed Olympus – and control of Olympus resides in its Supreme Commander often called 'The Armageddon Man' who literally holds the fate of the world in his hands.

In this incredible new game scenario *YOU* have just been chosen to become the next 'Armageddon Man'. Whether you have the necessary diplomatic, military and tactical skills to avoid global devastation is something you, and the World, are just about to find out.

COMING SOON

SLAINE – THE CELTIC BARBARIAN

(Licensed from 2000 AD)

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(e) Bombs

You can carry a maximum of three bombs. Each bomb is made from explosives, a detonator and a timing device. You have an unlimited supply of detonators and timers, but to make replacement bombs you must find buildings which contain explosives used by the civilian workforce to quarry for building materials.

You can use a bomb for a variety of purposes.

i. To destroy buildings
ii. As a mine to destroy armoured vehicles
iii. To create a diversion

(f) Spare Gun Clips

You can carry a maximum of three. With the one fitted to your rifle, this only gives you twenty available shots. Try to avoid being trigger happy, therefore. Spare Gun Clips can be found inside most buildings.

(g) Mine Detector Battery Status

If flat, your head-up display will not detect enemy mines. Spare batteries can be found in some buildings.

(h) Compass Direction Indicators

Displays the direction you are facing. Can also be used to lock onto the location from which radio transmissions are being made. The direction to the transmitter you have detected will be displayed in red.

(i) Message Panel

This displays text information. Your current score will also be displayed every time you add to it.

8 DANGEROMETER

This important panel displays a measure of the danger associated with your current location.

If it is high, the likelihood of your encountering a foot patrol is also high. For example, if you set off a bomb in a particular area, soldiers are likely to rush to investigate what happened. Hence your Dangerometer will be high. However, if you are elusive, and keep a low profile, soldiers are less likely to patrol your immediate area.

By strategic planning it is possible to reduce the danger in an area you need to go to, by leaving a time delay mine in an adjoining area. When this goes off, soldiers rushing to investigate this diversion will leave your area at a lower danger level.

Keeping a close eye on your Dangerometer and trying to discover what affects it, is of immense importance.

9 THE RESISTANCE MOVEMENT

As well as the civilian workforce, the enemy recruited a large number of technicians and scientists to help with the development of the CK 23. Very few of these people were recruited willingly, most having been blackmailed, threatened or even kidnapped whilst attending a bogus conference.

Unknown to the enemy, seventeen of these scientists organised themselves into a highly effective resistance movement, determined to sabotage the enemy's plans. Unfortunately they were discovered and were all evacuated. Their whereabouts are not known.

However, intelligence sources have discovered that each of the seventeen found a deserted building and turned it into their base. To enable them to communicate with each other in secret they installed a computer terminal and transmitter in each location. It is very unlikely they all met together, but nevertheless your sources indicate that they had devised a way to wreck the enemy's plans and that they were on the point of carrying this out when they were discovered.

You have been provided with a brief description of sixteen of the seventeen scientists and this is attached. The identity of the seventeenth scientist remains a mystery. This information will help you recognise which hide-out you have located should you come across a computer terminal/transmitter. Being able to correctly identify whose hide-out you have discovered may be a matter of life and death.

10 CONTROLS

ACTION	JOYSTICK	KEYBOARD
FIRE	FIRE	ENTER
Left or turn left	←	Z
Right or turn right	→	X
Up or move forwards	↑	P
Down or move backwards	↓	L
Turn left quickly	← with FIRE	Z with ENTER
Turn right quickly	→ with FIRE	X with ENTER
Bomb Mode		B
Investigate Mode		I
Gun Mode	(Automatic if soldiers appear)	
Move mode (Default)		SPACE

11 GAMEPLAY

(a) Movement

Although the island on which this game takes place is small, the distances involved for someone trying to investigate it on foot are very large. Every time you see the picture move towards or away from you represents one step. By using and mapping out shuttle routes it will be possible for you to cover larger distances more quickly. However, using a shuttle can be a hazardous undertaking.

You cannot leave a shuttle until it reaches its destination, but it is a good idea to keep a watchful eye on the passing scenery.

(b) Gun Mode

If you can see an enemy soldier, he can see you. You will jump automatically into gun mode and it is up to you to be quicker and more accurate than the enemy.

You can only kill an enemy soldier by hitting him in the chest. If you hit him anywhere else, he will be wounded but will still have time to shoot at you.

5 MILITARY ACTIVITY

The island is subjected to an unusually high level of military activity, a further indication of the military complex sensitivity.

(a) Armoured Vehicle Patrol (AV)

These AV have set patrol routes. They will not deviate from these routes unless they spot an intruder. Your image enhancer allows you to see armoured vehicles from a distance from which they are unable to see you. However, they move more quickly than you, and a close encounter is usually fatal.

(b) Foot Patrol

These are heavily armed and, like you they have been equipped with capable image enhancers. If you run into a foot patrol and they see you it is too late to think of running away. Being accurate and quick on the trigger is the only way you will survive the inevitable shoot out.

6 MINEFIELDS

The island has a number of areas which have been mined. You have been equipped with a mine detector which, if the batteries are not flat, will relay a signal to your head-up display. Any mines in your field of vision will be clearly visible to you. The enemy have used proximity mines. If you get too close to one, its effect will be swift and lethal.

7 SIGHTLESS IMAGE ENHANCER (SIE)

The parachute drop has been scheduled to coincide with a moonless night. You have been equipped with an advanced image enhancer which shows an accurate 3-D representation of your 'world' as you move within it. The SIE also has a sophisticated head-up display which provides you with a constant update on your status and situation.

ZONE TIME PATROL

VISION

BULLETS | SCORE AND MESSAGE PANEL | COMPASS

BOMB TIMERS | BOMBS CARRIED | SPARE AMMUNITION | BATTERY STATUS

DANGEROMETER

(a) Zone

The island has been divided into fourteen zones by the occupying military forces. (See Map)

(b) Time

Your parachute drop is timed for 2200 hours.

(c) Patrol Warning

If an armoured vehicle is nearby a condition GREEN warning sign will appear in this space. If the enemy spots you, this warning will become condition RED.

As soon as the AV can get you in its sights, you will be destroyed. Your only hope is to try and run away.

(d) Vision

Displays a 3-D image of your field of vision. The range of the SIE is approximately 100 metres. You will not be able to see anything beyond that distance. There are a large number of things you may see but some objects you need to be able to recognise straight away are:–

(i) Enemy mines

Only detectable if your batteries are not flat.

(ii) Shuttle stops

(iii) Your own bombs

(iv) Computer terminal/transmitter

(v) Any object in a room



GET DEXTER II

"Where did I put that accursed module?" Professor Czara shouted at no one in particular, waving a sheaf of papers. In a sudden access of zeal, he dropped his documents (all important) in random order, then stepped back the better to judge the result.

His office was awash with papers, electronic note pads and computer modules. The final touch he had just added seemed to satisfy him. He looked up defiantly at Maïita. The secretary robot rolled forward to give its verdict.

"My tidy-away functions have been disconnected." Duty done, the robot rolled contentedly back to the corner that had been its home since its first hour of functioning.

"Disconnected ... Hmmp ... Let's say the circuits have blown," corrected the professor.

"Shoddy things, these robots," he added, rather unfairly since he knew he'd gone a little too far with the principles of tidying away when he'd acquired the robot.

Bombarded by contradictory instruction, Maïta had spent half a day trying to put two or three documents in the right places. A cloud of white smoke and the acrid smell of burning circuits had put a stop to the kamikaze mission.

Professor Czara may not be a specialist in putting things away but he's an expert in finding his way through the incredible mess cluttering all his shelves and drawers. Normally, that is. For the moment he had a problem. The high authorities of his planet, Xul 3, the Council of the Wise, had summoned him to summarize the abilities of his brainchild, the android Dexter. He simply had to lay his hands on the missing module, a pre-recording of his summary.

Clean out of ideas, he grabbed the nearest electronic note-pad and flung it at a pile of precariously balanced books. The projectile's somewhat deviant trajectory led straight into the wall. With a muffled scrunch, the universally appreciated tool

exploded, scattering its insides on the carpet below.

A clean-up robot immediately shot into the room. Not more than 20 centimetres tall, it was quite covered in revolving flashing lights. It also had something of a fire-engine look about it, or a Christmas tree. Only smaller. It screeched to a halt and identified immediately the scene of the accident. Professor Czara's approving gaze followed the newcomer whose efficiency contrasted so satisfyingly with the muddle of his office. He went and stood at a point somewhere along the clean-up robot's path. When the little machine arrived before his feet, he stuck out his right leg and kicked it several metres away from its ideal trajectory. After rolling over a few times, the robot got back on its wheels and, screeching like a cracked saucepan, shot back to its little entrance, bumping wildly into furniture on the way.

Professor Czara grinned.

"I've been itching to do that for ages," he explained to Maïta. Perhaps he was trying to gain the secretary robot's forgiveness.

"It's always profitable to give expressions to one's repressed desires," the robot replied smugly.

"Mm! 12,000 kronos (1) just to hear second-hand psychology," grumbled the professor.

He went over to the bay window and stood contemplating the near perfect row of chlorotaceans in the park. It was no use, he would have to improvise his speech the next day.

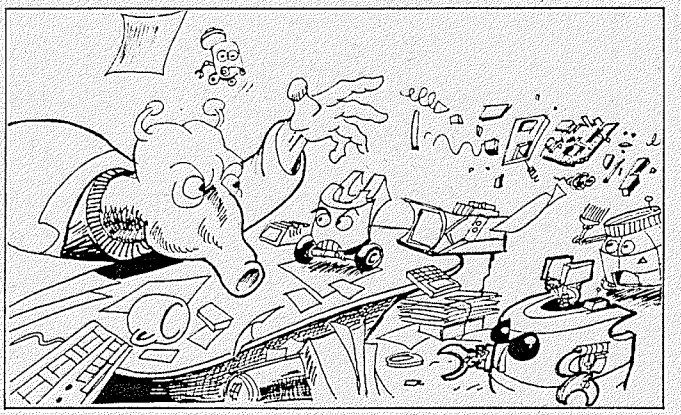
"Maïta, what time's my appointment with the council tomorrow?"

"10 o'clock."

He promised himself he would think about it in the evening. He couldn't have known that events wouldn't leave him the time to.

(1) Kronos: XUL 3 monetary unit.

After an uneventful afternoon, Czara settled into his autobubble. As usual, he was going back to his home about a hundred kms away. He drove manually to the nearest zone door.



The dashboard's message screen lit up in red letters: "You are entering an automatic traffic zone. Please enter destination coordinates."

Czara punched the "Home" button and slipped his seat into "Relax". The traffic must have been light, because the autobubble started moving after only a few seconds. It very quickly reached its normal speed, almost 300 Kph.

Just as he was about to opaque the windows, his attention was caught by a small red light at the very end of the dashboard.

"What the devil's that?," he asked aloud.

The light was on a small unmarked box. He remembered that his friend Nitti has installed it a few months previously. Now what did it do exactly? Czara couldn't remember. While the autobubble whizzed through the suburbs of Xul 3's biggest city, Czara picked up the holophone and keyed in his friend's number.

Nitti was undoubtedly Xul 3's top inter-computer communications expert. No one could touch him when it came to penertrating the most highly guarded systems. He could slip in anywhere.

Nitti's hologram came on.

"Hi Doc'"

Nitti had called Czara "Doc" from the day he'd told him about a foolproof method for treating trunks.

"Hi Nitti! Say, what's the little box you installed for exactly?"

"Uh, it's a kind of intruder detector I cooked up," smiled Nitti proudly.

"And what happens when the red light comes on?"

"What?"

Nitti's smile gave way to incredulity. He paused.

"It means someone's put a parasite program in the autobubble traffic-control system. And he can follow your movements."

"You sure?"

"Listen! Don't do anything. I'll check and call you back."

Nitti, quite excited, cut off. Czara watched the passing scenery blindly. This was a new situation for him.

"Bah," he exclaimed, "maybe Nitti's wrong."

But that wasn't like Nitti, and he knew it.

Czara and Nitti descended from the same planet. Descended only, because it was their great great grandparents who had together left Mila for Xul 3. No contact had since been possible with Mila: the planet had been declared "R Class", a rare procedure. When an exploring mission discovers a new planet with intelligent life forms, the local leaders are offered a choice between a technological leap forward with commercial ties to other civilizations, or to be left alone to get on with their own evolution.

If the planet chooses the latter solution, any inhabitants who so wish can leave. Then a magnetic force-field is set up, protecting that portion of space from any intruders. Mila had chosen isolation, but Nitti and Czara's ancestors had left for Xul 3. Since discovering their mutual origin, Czara and Nitti had become friends. Physically, they resembled each other. The principal difference between them and man was the 20 cm long trunk just below their eyes.

The autobubble sped into the plains zone just as the holophone buzzed. Nitti came on, beside himself.

"Doc, it's unbelievable! Someone's been following your movements for the last eleven days. Tell me, your detector hasn't been working recently?"

"Uh, no. Frankly, I'd forgotten all about it. I must have switched it on accidentally this evening."

Then the professor asked, "Can you find out where the information lands up?"

"That's always the 64,000 kronos problem, Doc. The destination computer's ID number is a fake. The guy has figured everything."

Czara, in a last attempt to deny reality, mumbled, "Isn't the traffic-control system impossible to parasite?"

Nitti smiled.

"Officially, sure. In fact, no. The system works through information exchange from the autobubble to a computer network. At any one moment, the network contains all the information on all the autobubbles travelling in its sector. You just have to insert a 'leech' program to get the information. Now, ..."

"Very well," interrupted Czara, "but those network programs are regularly checked."

"Sure, but it's an automatic check. You just have to use a 'cell' parasite. A very small program whose presence is constantly checked by other 'cells' hidden around the computer's memory. Destroy the 'body' and there's always a cell to reconstitute it. Just about invulnerable. As well as that, the parasite can move around."

"It seems so simple!"

"Seems. In fact it's very complicated even if the principle is easy to understand. One thing's clear: someone's spying on you. I'll bet the robots you use at the centre are also parasited. Know anyone who might do that to you?"

"Um, no. I really can't ..."

"Come on!" exploded Nitti, "You're Xul 3's number one android

expert and you can't imagine who'd want to spy on you! I can think of dozens!"

"It's because of Dexter, you think!"

The professor became pensive.

"A module has disappeared from the centre: it contains a speech giving Dexter's abilities and technical specifications. There may be a link."

Nitti burst out laughing.

"Have you seen what your office is like? You'll soon need pot-holing gear to get in there!"

"I'm quite at home there," protested Czara.

"Joking aside," said Nitti seriously, "I don't think there's a link. Someone would've had to go in to steal it. That's too dangerous, especially when he can just pump info from your robots from a distance."

Nitti broke off to look at something outside the hologram field.

"OK, I'll see what's going on. Call me if anything seems unusual. My holophone's rigged with a scrambler I invented. I'll call you as soon as something turns up. OK?"

"All right."

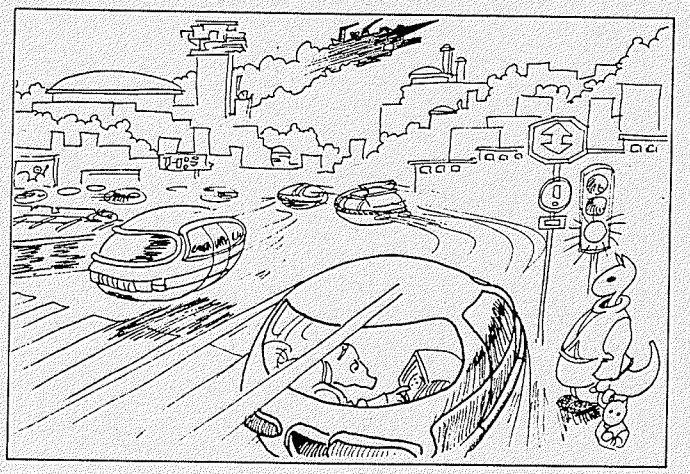
The hologram blinked out, leaving Czara alone inside his autobubble. Already he could see the hills where he had his home. He lowered the back of his seat to catch a few seconds rest.

"So. Someone wants to copy Dexter. That's ridiculous : robots can be copied, not androids."

Czara retraced the various stages of his research. Fourteen years. Fourteen years of study and experiments to create the first universal android. Of course, robots had been around for centuries, and specialized androids for a while. But Dexter was something else entirely : in fact he could deal with almost any situation just as well as an intelligent being.

And now Dexter had become a national hero. Three years before, he'd been sent to Earth with a weird little animal, Scooter the podocephalus, who had since become his mascot. His job had been to find and take the central memories of the computers

which controlled Xul's energy supplies from afar. The operation had been necessary because the risk of nuclear war on Earth had never been so great. The mission also meant independence for Xul 3. The anniversary of Dexter's return had since been declared a planetary holiday. For the moment, Dexter and Scooter were living in Czara's second home.



The next morning, Nitti still hadn't called back, for the simple reason that he had nothing new to tell Czara. The evening before, he'd artificially placed a piece of information in one of the traffic-control computers. All night, six of his machines had followed that information in its considerable travels.

The anomalies should have shown up on the first screen, but it stayed desperately empty. Nothing unusual. Just the usual exchanges. Nitti sat playing absently with his chocolate-flavoured Tomatine sandwich, and watching the cursor change

endlessly from blue to green to blue.

The next screen, however, was full : it was listing the ID numbers of the computers that had picked up on his booby-trap information. A new line had just come up.

"And one more," he murmured to himself. One more that would go about its routine tasks of arranging, selecting, comparing and making statistics. The usual. And yet Nitti couldn't shake off a nagging suspicion that something fishy was going on. What on Xul could it be?

The answer came to him in a flash : the very same number was already printed, higher up on the screen. Why did that particular machine need to collect the same information twice?

He launched his group of consoles into the informational outflow, and hundreds of little bits of program dispersed themselves inside the receiving computer's memory. That's a favourite Nitti technique; most of them survive for only a time fraction of a second, wiped out in the flux. Some survive.

The technique was working normally : he was inside the intruder. The real identifier flashed onscreen. This one wasn't an ordinary number. Nitti waited for the owner's name to show up; his program was busy tracking it down through the host computer's enormous memory banks.

Suddenly, he almost choked on the tomatine in his trunk: console 6 was bleeping frantically. He'd been detected! "They" were trying to identify *him*!

Chaff was automatically released to keep him hidden. Without effect. On the contrary, the alarm tone had risen. "Zkjchtwok (2) This protection is incredible!"

Nitti's eyes swept across his screens. Number 6 was still screeching, 5 had cut out automatically and 4 was printing up unintelligible signs at unbelievable speed. A complete dog's dinner. Number 3 ... yes, number 3, which was supposed to be giving him the name and coordinates of whoever was spying on professor Czara, was horribly empty.

(2) Milanian swearword. Impossible to translate.

Nitti wanted that name. Quitting this close to the answer was out of the question! He had to throw all he had left into protecting number 3. He framed it with a warning program from the second console. This would tell him when it was time to get out of there if he didn't want "them" to find out who he was.

But "they" were too fast. His warner had already been broken through. Nitti worked frantically to escape from the intruder, covering his tracks as fast as he could. Finally, he tore the oval connector from the socket linking it to the outside world. There wasn't much point, he knew. But it was somehow reassuring. He was sweating. Just before beating his hasty retreat he'd noticed a name flash for one second on number 3's screen: "Maraz Enterprises." An innocent-looking name, but Nitti knew better.

He knew it was one of the many fronts used by the D.G.I.R., Xul 3's powerful counter-espionnage service.

Professor Czara was ushered into the vast chamber used by the Council of the Wise. Practically all civilizations present on Xul 3 were represented here. In this room decisions of the greatest importance were taken.

Once an Earth colony, Xul 3 had become a mix of many very different civilizations. This melting pot had given the planet its strength and its considerable advance in a number of sectors.

"I have asked Professor Czara to be with us today because I'm convinced that Dexter will have a role to play in the solution of our current problem."

Czara turned his gaze toward the speaker. The Chairman, of humanoid type, was on his feet. He went on:

"I am of course referring to the situation on the planet Kef. I take it that we are all aware of the problem ...?"

Throats were guiltily cleared and chairs scraped, interrupting the speaker, who glared at the unruly assembly.

"Harumph ... Quite so. Mr Wystraniak, would you care to summarize briefly?"

The person known as Wystraniak got up. He was a giant, more than two metres in height, and with a lizardish face. He cleared his

throat; the sound was rather like thunder and frightened the wits out of those nearest him. It also brought immediate calm to the assembly. He breathed deeply and began:

"Kef is the second planet in the Betelgeuse system. Two races inhabit it: the Stiffiens and the Swappis. The Stiffiens have always held power. They are organized, methodical and disciplined. The Swappis are just the opposite : they are discreet, little given to order and spend most of their time at their favourite activity, bartering. They have never risen to positions of power and probably wouldn't want to."

The giant orator paused to mark the end of this preamble.

"About a year ago, Kef suffered a number of natural cataclysms which were, oddly enough, simultaneous. Shortly thereafter, our observers reported the growing influence of a certain Stiffien sect. The constant and considerable increase in the number of adepts forces us to speak of a genuine religious revival among the Stiffiens. What, you may well ask, is their doctrine? It can be summed up in two or three words: *the cult of Antines."*

A member of the Council, with a very small head and three globular eyes, leaned towards his neighbour.

"What is Antines when it's at home?"

And, since one half of the assembly was getting restless, the other half did the same.

Professor Czara had already heard of the enigma of the "Antines Construction."

The speaker continued, having to raise his voice above the tumult:

"Antines is a mysterious construction built inside a high mountain on Kef. No one has yet managed to penetrate the construction far enough to uncover the secret."

The extraordinariness of what had just been said made one poor Trats jump in his sleep. He slid from his chair and hit the floor with a rather loud bump. Sixty three heads turned to stare at the Trats, who sleepily hauled himself back onto his chair, and having muttered darkly in his mother tongue, got back to the serious

business of snoozing. Trats have a leading edge in snooze technology.

Wystraniak, ignoring the interruption went on:

"Nobody has succeeded because the interior is full of booby-traps of all kinds and robots whose job it is to keep intruders out. What is more, the radiation after the second chamber is quite deadly to living beings. Sending in a machine is also out of the question, since they appear to go out of control very quickly."

Professor Czara knew all this. Some years before, he'd made a study of "paranormal" phenomena, and of all the cases he'd encountered, Antines was one of the strangest. A voice spoke up from the back of the hall:

"But the robots protecting Antines must have been put there by someone!"

The Chairman took this opportunity to intervene:

"Let us not forget that all the expeditions have so far been under strict Stiffien control. The radiation exists, there is no doubt of that. For the rest we can only rely on the official version of the facts. Many scientists have spoken openly of trickery."

A Sramian stood up and piped in a shrill voice:

"Trickery or not, I don't see what business it is of ours. Kef is not a member of our Confederation. We have no reason to interefere in their internal affairs."

The interrupter sat down in the way of all Sramians: kneeling back on his heels, resembling a bird on a perch or perhaps a mad programmer in front of his keyboard. The Chairman half smiled:

"You are quite right, and yet I suggest we intervene for at least three reasons."

Satisfied that he had his audience hooked, he continued:

"The first is that a number of indications point to a religious revival deliberately provoked in order to fanaticize the population, thus triggering a war with the neighbouring planets; and those planets are members of the Confederation. The second reason is that the Swappis are incapable of action; they have asked us to help."

"That's well and good," said one member getting to his feet, "but it's not a sufficient reason for our intervening."

"Let me ..." The Chairman's sentence fizzled out as he saw the other go to sit down and suddenly disappear instead! After a few seconds, the Chairman noticed the triangular head reappear from beneath a table and he understood what had happened: the triangular-headed speaker's neighbour, an Eniac, had quietly pulled his colleague's chair away while he was on his feet speaking. Eniacs love practical jokes. The Chairman waited until the prank's victim had finished pouring a jug of water over the Eniac's bald head before restarting:

"Let me tell you the third and, in my opinion, most important reason: our services have recently detected the presence of two small computer groups on Xul 3, working for the Stiffiens. by parasiting a number of our machines, they've been calculating our probable response in the event of an attack, and more precisely, how we would use Dexter."

A murmur of astonishment washed through the great hall.

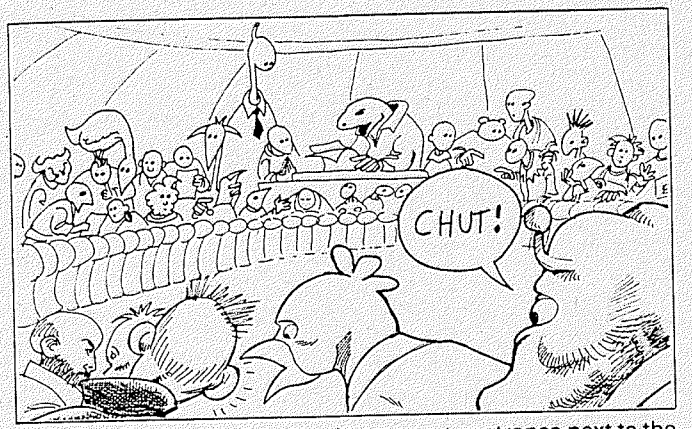
"We don't know whether their intention has been to steal Dexter or simply to study him. We do know, however, that Professor Czara has been the object of Stiffien espionnage for some time. We have proof of this."

"That explains what Nitti discovered yesterday," thought Czara.

The Chairman went on:

"I therefore propose we send Dexter to Kef to uncover the secret of the "Construction of Antibes." That will put a stop to the wave of fanaticism on that planet. Professor Czara, Dexter's "creator", will now explain Dexter's principal abilities, abilities which should allow him to succeed where all others have failed."

Czara stood up, took a deep breath, and began.



An hour later he was in the almost empty entrance next to the debating hall where the members were still discussing the issue. Czara stepped into a holophone booth and called his friend.

Nitti appeared, as excited as ever.

"Hi, Doc. You'll never guess what I found!"

"As a matter of fact, I ..."

"Just wait till I tell you! This morning, when I was hunting down whoever it is who's spying on you, I got tangled up with Counter-Espionnage."

"... Urgh."

"I got out fast, I can tell you., Those savages would've fried my machines! I thought they were the ones who've been tailing you for two weeks."

"Ouch!"

"But I went back, by another route. I realized they were screening a hire machine. They'd found the intruder long before I had! So, I dropped the case since they were dealing with it."

Czara didn't want to spoil his friend's excitement by telling him

he already knew about the Stiffien spying.

"Nitti, you're just as fast as ever. Come over for a meal at my place; my robot-chef has invented a new recipe. It's based on ... no, it'll be a surprise!"

After hanging up, Czara didn't wait for the Council's decision. He preferred to go and get things ready for Dexter's second important mission. When he got back to the centre, Maïta, his secretary robot, came up to him and announced in clear and suave tones:

"Professor, I have recovered the module you were looking for yesterday. It had slipped behind ..."

"So," broke in Czara, "it took you all night to find it? That's not what I call quick service."

The robot stopped. Complete silence. To the accompaniment of a buzzing electric motor, it produced from its entrails an old-fashioned keyboard, and a screen. A message on the screen said: "Enter your instruction = ."

"Oh, no! Look, I really didn't mean to hurt your feelings."

Czara knew this was the robot's way of sulking. He'd have to type his instructions on the terribly impractical keyboard, and the robot would insist on minimum vocabulary, as laid down by Union guidelines: perhaps forty words at the most. He would have to type in "Open door" or "Take key" to make himself understood.

In a last effort at reconciliation, he painfully typed: "I am sorry."

"I don't understand SORRY," was printed onto the screen after a number of seconds. "Enter your instruction = ."

"Okay, be miserable! That won't stop me from working. Now the first thing to do is to call up Dexter."

And this is how the keyboard/screen dialogue went on:

Call Dexter
I don't understand CALL
Holophone Dexter
I don't understand HOLOPHONE

"Very well, I'll call him myself," sighed Czara, picking up the holophone."

Two hours later, the professor's door seemed to collapse as Dexter burst in, followed closely by a lively and debonair Scooter.

"Hi everybody!" exclaimed Dexter heartily. Noticing the secretary robot, he gave it a mighty slap on the back.

"How's it going, Maïta?"

The robot shot forward at least a metre under the force of Dexter's friendly tap, but said not a word. Sad to see the robot wasn't in its usual giggling mood, he said:

"Trouble with the boss again, eh? Let me see if I can't fix things up."

Dexter quickly typed the word "North" on the robot's keyboard. The robot suddenly turned around and trundled at top speed, bang into the wall! Dexter doubled up with laughter.

Maïta's voice came back instantly:

"Think you're funny, eh, dummy?"

The secretary robot put away its keyboard and screen, and set about revarnishing its front with a spray-can produced from somewhere inside itself.

The professor explained the situation on Kef to Dexter, and told him of the decision which had just been made to send him there.

"You'll have to land on this plateau on the side of the mountain. There are a number of houses. The entry to Antines is guarded night and day by Stiffiens who, of course, don't know about your mission. The only solution is to gain the Swappis' trust. They'll be able to get you in discreetly."

"How can I get them to trust me?"

"Well, you see, Swappis always have their wishes printed on signs in their houses, so that everyone who comes in can see. Be careful though: there are some actions they completely disapprove of. So you could find their trust in you disappearing! One thing you can do is swap things with them; they love bartering."

"And what about the Stiffiens?"

"The best thing would be to avoid them altogether, but that's probably impossible. And, who knows, if you visit them, you might

find some interesting things! Swappis hate Stiffien weapons, so remember that if you decide to use one."

"What exactly am I supposed to do once I'm inside Antines?"

"Er .. We're not too sure. One thing is certain, however: the key to the mystery is inside the Construction. I imagine you'll be able to find various pieces of equipment in there, left behind by previous expeditions. There should be enough to stock a Do-It-Yourself shop!"

Turning to look at the polocephalus, the professor added:

"How's Scooter, by the way?"

"I've been teaching him to fetch things. He's not doing too badly."

Both of them watched Scooter. He was flicking through an animated magazine showing female polocephali in immodest poses. He was gesticulating wildly and banging on the wall.

"He worries me sometimes," sighed Dexter.

Czara looked at the time and said:

"The Council should give us your departure time any minute now. Let's go and see."

They left the office and walked as far as a massive and important-looking door which Czara opened after much complicated twiddling. They entered an almost empty room. A lone console stood in the middle of the floor.

After several minutes, the message came up in large letters on the screen:

"Departure Time Dexter tomorrow 11 hours."

This message will self-destruct in 30 seconds."

Dexter pointed a finger at the screen.

"What does the last bit mean? Is the console going to blow up or something?"

Czara smiled. "No, it's just an old joke. There's always someone who can't resist adding it on to any supposedly secret message! Let's go and do those final tests on your ship."

They started walking to the door.

"About those nozzles: as long as they're cold, you ...'

A shattering explosion prevented Czara from finishing his sentence. They turned round to see a gaping hole in the floor at the spot where the console had been. Twisted bits of debris covered the floor.

Dexter turned towards the professor who was contemplating the scene, his trunk thrown untidily about his neck.

"Old joke, eh?"

Rémi HERBULOT

GET DEXTER - INSTRUCTIONS

Planet Xul-3 has won its independence from Earth, thanks to the success of Dexter's first mission. Ultra-Android Dexter and his trusty podocephalus, Scooter, have been designated for a new and highly important mission on the planet Kef.

Kef is inhabited by two races:

- Stiffiens. These organized and disciplined beings hold power on Kef.
- Swappis. Little given to order, the not very rich Swappis like to spend their time swapping things.

Following a series of natural disasters, a new religious sect has sprung up on Kef. All its adepts are Stiffiens. "Antines is the dwelling-place of the Gods", they claim.

Antines is the mysterious construction built in the side of a mountain. Who built it? How old is it? Nobody knows its secret. No one has managed to penetrate it. From a simple myth, Antines has become the centre of a Stiffien religious revival, strongly tainted with xenophobia and a hatred of new technologies. The Swappis are the first victims of this new fanaticism.

Dexter has been sent to Kef to shed light on the Antines mystery. He'll need the Swappis' help to slip into the mountain complex, so he'll have to start by gaining their trust. This is done by granting their wishes. The wishes are posted clearly in the Swappis' houses.

A sign on the wall of each of the Swappis three houses indicates the occupants wish. In other places, the signs provide clues.

These three wishes are tests which Dexter must pass if he hopes completely to win the Swappis trust. They can be completed in any order. Be careful not to lose what trust you may have won by doing something thoughtless.

When maximum trust has been won, the Swappis will open up a secret passage in the cave-system, leading to the first room of Antines. Dexter will then have to discover the truth about the construction.

Scooter: when calling the podocephalus you can ask him to fetch an object : when the bubble appears, use the joystick or the arrow keys to list all the available objects. Press the fire button or Return to confirm your choice. Any other key will cancel.

Available objects are those placed at a certain distance from Dexter: they can even be off-screen.

* Swapping: Swappis spend most of their time swapping things. If Dexter has an object on him and touches a Swappi, the Swappi will offer something in exchange by means of a bubble. Press the Fire button or Return to accept the deal, or any other key to refuse.

* Energy: Dexter can re-energize at an electricity source. Inside Antines, there is also a way to recharge.

* Game Keys:

Move	: Joystick or Arrow Keys
Jump	: Fire or Copy
Take	: Space Bar
Drop	: D
Throw	: T
Pull	: P
Call Scooter	: R
Laser	: Return (if laser pistol in pocket)
Pause	: DEL
Quit	: ESC

A before-play option lets you choose move mode:
- directional
- non-directional

AMSTRAD VERSION:
The complete 128K version of GET DEXTER 2 runs on 464 (with disk-drive), 664 and 6128 configurations. Best use of available memory is made (Vortex extensions also recognized). A smaller cassette version is also available.

ATARI VERSION: The game keys are indicated on the options panel.

LOADING INSTRUCTIONS

ATARI ST

MAKE SURE YOUR COMPUTER IS CONNECTED PROPERLY.
INSERT THE GAME DISK IN YOUR DISK DRIVE.
SWITCH ON YOUR COMPUTER AND THE PROGRAM WILL LOAD AUTOMATICALLY.

AMSTRAD CPC TAPE

MAKE SURE YOUR COMPUTER IS CONNECTED PROPERLY.
SWITCH ON YOUR COMPUTER.
ON SIDE ONE OF THE TAPE YOU WILL FIND 'GET DEXTER 2',
WHILE ON SIDE TWO YOU WILL FIND 'GET DEXTER 1'.
CHOOSE WHICH SIDE YOU WANT TO PLAY.
INSERT THE TAPE THE RIGHT WAY ROUND INTO THE TAPE RECORDER.
ON AMSTRAD CPC 664 & 6128, TYPE: TAPE AND PRESS RETURN.
THEN, ALSO FOR AMSTRAD CPC 464, PRESS CTRL & ENTER SIMULTANEOUSLY AND PRESS PLAY ON THE TAPE RECORDER.

AMSTRAD CPC DISK

MAKE SURE YOUR COMPUTER IS CONNECTED PROPERLY.
SWITCH ON YOUR COMPUTER.
ON SIDE ONE OF THE DISK YOU WILL FIND 'GET DEXTER 2',
WHILE ON SIDE TWO YOU WILL FIND 'GET DEXTER 1'.
CHOOSE WHICH SIDE YOU WANT TO PLAY.
INSERT YOUR DISK IN THE DRIVE.
TYPE RUN"DEXTER AND PRESS RETURN.
THE PROGRAM WILL LOAD AUTOMATICALLY.

GET DEXTER 1

UNFORTUNATELY, WE COULD ONLY INCLUDE GET DEXTER 1 ON THE AMSTRAD VERSIONS OF THE PROGRAM. SORRY, ATARI OWNERS.

AIM OF THE GAME
You have to find the Chamber of Zarxas, the galactic central computer and discover the means of access: an eight figure code.

Each figure is known by a scientist and you should question each one using one of the objects in the research centre. The same objects, used carefully, will destroy or force the retreat of many of the research centre guards.

Well trained Xunk will help you on your mission.

COMMANDS
To gain energy, connect yourself to a holophonic cabin.
To pick up an object, press the space bar.
To drop an object, press D.
To pull something, press P.
To recall podolephale, press R.

MOVEMENTS
Movements can be controlled by the joystick or cursor keys.
To jump, press fire button or copy key.
To start the game, press the fire button or space bar.

THE ADEPTS

The Spellcasters. Conduits of energy. Guiders of missiles and magic.

Mistress of Chaos

Master of Order

ELEMENTALS

CHAOS

Behemoth – Massive as mountains. As subtle as a piledriver. Reducer to rubble.

Siren – Murderous mermaid. Singer of songs. The voice that sank a thousand ships.

Ifrit – Dark spirit of storm and air. Scion of cyclones. Genie. Raksasha.

Firebird – Crafty child of ARCHON'S Phoenix. Fire is its weapon and its armor.

ORDER

Giant – Earthborn cousin of Troll and Golem. Walks slowly and carries a big rock.

Kraken – Strong, slow giant of the deep. So big its tentacles cause tidal waves.

Thunderbird – Skyrider, hurler of thunderbolts. Symbol of Order, defender of law.

Salamander – Little lizard, made of flame. Scuttler, skulker, flinger of fireballs.

DEMONS

Juggernaut
A melding of master and missile, monster and machine. Hell on wheels. Pure force.

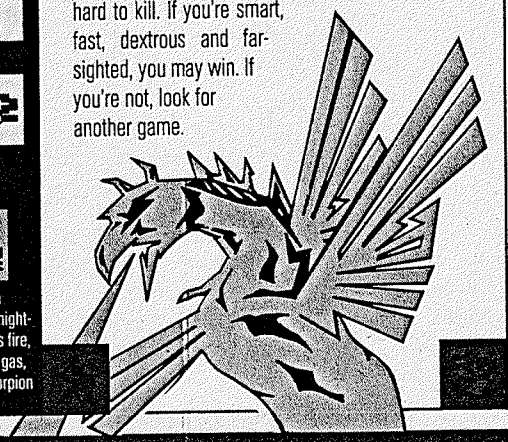
Wraith
Leech of the life-force. Feeder on wounds. Now you see it, now you don't.

Gorgon
Fragile paralyzer of life and limb. Hard on everyone, especially on the slow moving.

Chimera
A three-faced nightmare. Breathes fire, snorts poison gas, stings like a scorpion

ARCHON

There's a board. There are pieces with varying powers, squares to move into and an opponent to conquer. But the squares keep changing. And once you decide where to attack, the board explodes into a battlefield. Your pieces include phoenixes, golems and wizards, and they use all their strange powers when they fight the banshees, goblins and sorceresses they face. They cast spells and missiles, they pummel, pierce and throw out flames, they move each other around, take on each other's shapes and shriek at each other. If you square off on a spot that stays favourable, you'll be hard to kill. If you're smart, fast, dextrous and far-sighted, you may win. If you're not, look for another game.





Jon Freeman, Paul Reiche III and Anne Westfall, the conjurers behind the conjurers. Without them there would be no Adepts, no Chimeras, no Sirens, no Wraiths. All reasons to be grateful to them. Except maybe for the Wraiths.

ELECTRONIC ARTS®
Home Computer Software

ABOUT OUR COMPANY.

We're an association of electronic artists who share a common goal. We want to fulfill the potential of personal computing. That's a tall order, but with enough imagination and enthusiasm, we think there's a good chance for success. Our products, like this one, are evidence of our intent. If you'd like a product brochure, send a stamped SAE to: Electronic Arts, 11/49 Station Road, Langley, Slough, Berks, England.

Archon / Archon II

Note: Your wraiths are visible when you play against the computer, because the computer knows where they are, so it's only fair that you know as well.

Casting Spells:
Place the frame over an Adept and press fire twice; this displays the top of a list move up and down the list to find the spell that you require, then press fire to cast. Choose cease conjuring if you change your mind. If you change your mind mid-spell, move the frame over your citadel and press fire. To change your mind during a Summon spell fire over the blank square at the end of the line of icons.

Casting spells costs magical energy. Occupying power points increases your energy. Your total energy is displayed on the bar that appears below the board during your move. (This differs from the manual which states that the bar is vertical).

Quitting, press 'escape key' to quit from the game.

EO3220EY

ELECTRONIC ARTS®
Home Computer Software

ELECTRONIC ARTS LIMITED
11/49 STATION ROAD, LANGLEY, BERKS SL3 8YN, ENGLAND

ELECTRONIC ARTS

ENGLISH

The Archon Collection

Amstrad cassette & disk

Side 1 Archon, Side 2 Archon II: Adept.

Getting Started
First switch on your machine, then follow the tape or disk instructions accordingly.

TAPE: Fully rewind the tape then press the CTRL and small ENTER keys. Press play on your tape recorder followed by any key, and the program will now load and run.

DISK: Insert the disk in your drive, Type RUN "EA" and then press RETURN, the program will now load and run.

Archon

Starting Play:
Select the game configuration from the start up menu, use the cusor Keys and **ENTER** to choose your side, who goes first and specific game controls. Press **ENTER** on 'Start Game' when you are ready to play. Press **Spacebar** and hold to skip through the start up sequence.

Keyboard Controls:

	Left	Right	Down	Up	Fire
Light	**F**	**H**	**X**	**W**	space
Dark	**F4**	**F6**	**F2**	**F8**	small enter key

Pause Key: While in the combat arena is '**0**'

Moving

1. Strategy: Use joystick or keys to move icons or frames and press fire to start or end moves. End your move on your starting square to cancel your move.

See your manual for more detailed instructions.

2. Combat: Use the following instructions for each icon:

Knight or Goblin: Move the joystick toward the enemy and press fire to swing your weapon.

Banshee: Press fire to initiate attack, the Banshee can move while screaming.

Phoenix: Press fire to initiate attack, the Phoenix cannot move until the explosion is over.

All others: Move the joystick or press the key in the direction you wish to aim, then press fire.

Quitting the game: Use the escape key.

Changes to the Manual:

The Attack Interval: Instead of sounding a tone the computer places a coloured block in the top left and right corner of the arena, this represents the ready to attack tone.

Archon II: Adept.

Starting Play:
Select the game configuration from the start up menu, choose which side you wish to use, who goes first and specific game controls. Press zero when you are ready to play. Press **Spacebar** and hold to skip through the start up sequence. (The player options are as shown and differ from those stated in the manual).

Keyboard Controls:

	Left	Right	Down	Up	Fire
Chaos	**F**	**H**	**X**	**W**	space bar
Order	**F8**	**F2**	**F6**	**F4**	small enter key

Handicapping:
Before starting your game, select your play level; beginner, experienced, advanced or Adept. Beginners start with more magical energy, advanced players start with less. The lower a player's level, as compared to an opponents, the slower the opponents icon's, missiles and attacks will be. In the case of Adepts not only do they move slower but their missiles are harder to control. Choose Adept for the most skillful and Beginner for the least skillful player to obtain the maximum possible handicap.

Moving Icons on the strategy board:
The selection frame appears on your side of the board when it's your turn to move. Use either joystick or keys to place the frame over the icon you want and press fire. Next, move the icon (or frame in the case of Adepts) to the desired location and press fire again. For additional information about movement rules refer to the manual.

Moving and Fighting on the Battleground:
You must fight for disputed territory when you enter a space occupied by an opposing icon. Use joystick or keys to move the icon. To fire move in the direction you wish to aim and then press fire. For additional information please refer to the manual.

ARCHON depicts the eternal struggle between Light and Darkness as a contest of action and strategy between opposing forces wrought from myth and legend. The Light Side and the Dark Side are equal in number, balanced in strength, but not identical. Their aim, however, is the same: conquest of the five "power points" or the elimination of the opposite side.

THE TWO SCREENS

First is the strategy screen where, by turn, the icons are manoeuvred into favourable positions. When an icon moves onto a square already occupied by an opponent's icon, the game shifts to the battleground where both fight for that square.

INITIAL STRATEGY SCREEN

The Luminosity Cycle - "Luminance" squares on the strategy screen vary in brightness throughout the game. Your fortunes tend to ebb and flow with this cycle because Light Side icons are harder to defeat on light squares than when they are on the dark squares and vice versa.

Power Points - Flashing symbols indicate the five power points. Icons on power points heal faster and are protected from magic spells. You win the game when you occupy all five power points.

Movement - Move the frame atop the icon you wish to select. Push the button to choose icon. Move the frame atop the destination desired, and press button to move icon to that destination.

There are three forms of movement: ground, fly, and teleport. Ground movers cannot move diagonally, or through occupied squares, and fliers are restricted only in where they land. Only the Wizard and the Sorceress can teleport.

Note: If you change your mind while manoeuvering a ground mover, you must backtrack.

THE BATTLEGROUND

Combat is immediate and simultaneous. Joysticks (mouse, or direction keys) direct movement of the icons and the button initiates an attack while immobilizing your icon. There are three forms of combat. Knights and Goblins wield swords and clubs; Banshees and the Phoenix's inflict damage in a circular area around themselves; and all the other icons throw missiles of some sort.

The Attack Interval, while fast and furious, has limits. It takes a moment to raise a sword or rip a boulder from the ground! The computer will sound a tone when your icon is ready to launch another attack.

Barriers go through luminosity cycles of their own. A barrier is impenetrable except when it disappears (becomes nearly transparent)

Life, Death, and Wounds affect the "lifelines" at either end of the arena which indicate the current lifespan of the two battling icons. A victorious icon from the arena returns to the strategy screen in control of the disputed square. Wounded icons heal slowly with the passage of time; more quickly on a power point; or instantly by a Heal spell.

MAGIC SPELLS

Magic is the most significant strategic element. Only the Wizard and the Sorceress can cast spells. You can cast each spell only once. Spells are powerful but each one weakens the mage casting it.To cast a spell, move the frame atop your mage and press the button twice Push the joystick up and down to survey the spells still available, push the button when you find the one you want. On the Macintosh, pull down the spells menu. You'll get additional messages.

TELEPORT

Effect: Moves icons any distance from one square to another.
Actions Required: Move the frame to the icon, push the button and then move it to its destination.
Restrictions: You cannot move an enemy icon, move into a square already occupied by your own icon, teleport onto or off a power point or teleport an imprisoned icon.

HEAL

Effect: Heals any icon of all wounds.
Actions Required: Move the frame to the wounded icon and push the button.
Restrictions: You cannot heal an icon on a power point.

SHIFT TIME

Effect: Two effects are possible. Reverse the flow of time or abruptly shift time on the luminosity cycle.
Actions Required: None after selecting the spell.
Restrictions: None.

EXCHANGE
Effect: Causes any two icons to trade places.
Actions Required: Move the frame to the icon you wish to transpose, push the button. Then do the same to the other icon.
Restrictions: Imprisoned icons, or those icons on power points cannot be exchanged.

SUMMON ELEMENTAL
Effect: Allows for attack of an enemy icon with a new, temporary icon representing earth, air, fire or water. After the battle the elemental vanishes.
Action Required: Move it to the icon you wish to attack.
Restrictions: You cannot attack an icon on a power point or choose which elemental will respond to your summons.

REVIVE
Effect: Restores an icon previously killed in combat.
Actions Required: The revived icon comes from a display on your side of the strategy screen and its destination must be a vacant square next to your mage.
Restrictions: You cannot revive a live icon. One of the squares next to your mage must be vacant.

IMPRISON
Effect: Keeps an icon from leaving its square. *Important*: An imprisoned mage cannot cast spells. Imprisonment is temporary until the luminosity cycle colour of the prison square matches that of the imprisoned icon.
Actions Required: Move the frame to the target icon and press the button.
Restrictions: You cannot imprison an icon on a power point.

CEASE CONJURING
If you change your mind while selecting a spell or if the spell you want is unavailable or canceled, you may push the button while "CEASE CONJURING" is displayed and then start over.

THE OPPOSING FORCES

Light Side
The **WIZARD** mage casts balls of fire, and other spells.

The **UNICORN** is swift and agile. Its horn fires a bolt of energy.
The **ARCHERS** are endowed with quivers that are never empty.
A **GOLEM** is an artificial being and its weapons are boulders.
VALKRIES are females who can walk on air and carry an enchanted spear.
The **DJINNI** can raise a small tornado.
The **PHOENIX** can explode into a mass of fire and be unscathed. During metamorphosis it is invulnerable.
The **KNIGHTS** are soldiers armed and armoured against far larger enemies than themselves.

Dark Side
The **SORCERESS** mage fires her lightning bolts and casts spells.
The **BASILISK** has quick movements and a deadly glance.
The **MANTICORE**'s tail bristles with great quills.
The **TROLL** seizes whatever is handy and catapults it.
The **SHAPESHIFTER** steals form from its enemies and becomes a mirror image.
The **DRAGON**'s flaming breath will kill many creatures. Its awesome powers make it second only to the Sorceress.
The **BANSHEE** attacks with her keening wail, draining the life from anyone within range.
The **GOBLINS** have gnarled clubs that are more than a match for the swords of the Knights.

PLAYING HINTS AND TIPS

Strategy Openings
Conservative: Move your unfavorably located icons onto more favourable squares. Establish a strong, balanced position early.
Magical Assault: Wipe out the strongest enemy icon right off the bat.This is most easily done with a combination of spells.
Monster Romp: Risky but fun and sometimes surprisingly effective. Just fly or teleport your strongest icon to the other side and take it romping' and stomping'.

Strategy General Hints
Stay on your color. Plan ahead. Avoid traffic jams. Protect your mage!

Strategy Spells
Teleport: Handy for tossing a slow or unfavorably placed icon into your opponent's back ranks.

Heal: Never heal a Shapeshifter since it regenerates between battles.
Shift Time: Use to prolong imprisonment. Strategic use could allow for a concerted attack on the power points.
Exchange: Frustrate an enemy advance by exchanging a menacing intruder with a weaker icon.
Summon Elemental: Unaffected by changes in luminance, they are well suited for attacking an enemy that remains on squares favourable to it.
Revive: Revive only your strong icons!
Imprison: The real trick is timing, coupled with Shift Time to prolong the effect.

Combat General Hints
Don't move in straight lines. Hit and run. Use diagonal shots. Trap your opponent in a corner. Confuse your opponent Know your icon's strengths and weaknesses. Feint!

Combat Icons
WIZARD: Avoid using unless attacked.
SORCERESS: Avoid combat if possible!
UNICORN/BASILISK: Speed and distance are their prime weapons.
ARCHER: Keep in mind that the slow nature of their attacks.
GOLEM/TROLL: They have long lives and conduct deadly attacks.
DJINNI/DRAGON: You have power to spare here.
VALKRIE: Basically a tougher Archer.
PHOENIX: Move close-the closer, the better.
SHAPESHIFTER: Success depends on having the proper battleground.
MANTICORE: Has the advantage of a broader attack than its counterparts.
BANSHEE: Attacks efficiently, with great skill.
KNIGHT/GOBLIN: Moves quickly but erratically. Get in close and stay there.
ELEMENTALS: The Earth elemental should be played like a Golem/Troll. Tactically, you can think of Fire as a Wizard, Air as an Archer and Water as a Manticore.

TWO SCREENS
Adept uses the same Strategy and Battleground screens as does Archon.

PLAYER OPTIONS
Adept uses the same Player Options as does Archon.

MOVES
You begin with four Adepts. On each turn you use whatever magical energy you have left to: 1. Move an Adept. 2. Use an Adept to cast a spell. or 3. Move an icon conjured up on a previous turn.

WINNING
You win if you occupy all six power points, if you triumph in the Apocalypse or if your opponent runs out of magical energy or icons.

THE BOARD
- The main board is composed of four bands representing the classical elements of Earth, Water, Air and
  Fire. There are four squares which are not part of the bands. Two are black, neutral Voids. The others are the citadels of Order and Chaos. Voids can be occupied by icons but citadels cannot.
- There are six flashing power points. Two are the Voids and the other four move from turn to turn.

MOVEMENT
If the frame is on your side, it's your turn. Use your joystick to move it atop the icon you want and push the button. Next, move it to your intended destination and press the button again. (If you don't want that icon, then push the button again. NOTE: The rule for cancelling an Adept move is different.)
Elementals & Demons: Slide them as far as you like with two restrictions: they cannot pass another icon and they cannot end up atop a friendly icon. You may jump from one element to an adjacent one.
Adepts: They can teleport anywhere on the board at the cost of a bit of magical energy.

MAGIC SPELLS

- Instead of a move an Adept can cast any spell it has enough energy for. Select the Adept with the frame, press the button and press it again. This produces "SELECT YOUR SPELL".
- Move the joystick forward and backwards to get the choices. Press the button on the one you want. You can change your mind with "CANCEL SPELL". If you already selected the spell then move the frame to your citadel and press the button.
- Magic lies at the heart of the action but it costs. The amount of magical energy you have is shown by the vertical bar and varies throughout the game.
- Moving icons is mostly free but its takes energy to maintain Demons and Elementals and lots more to cast spells. The energy bar shows you the cost of your options.
- The effect of spells is limited to the element that the Adept is on. Adepts cannot cast spells from a Void and are immune to all spells except Heal.

THE SPELL LIST

Summon: Choose among four Demons and four Elementals. NOTE: Adept magic works only within the element of the conjuring Adept. You may summon an icon and directly attack an opposing icon at an energy cost. For attacking Adepts you must use icons already on the board.
Heal: Cures half of an icon's wounds and all paralysis.
Weaken: Cuts an enemy icon's current lifespan in half.
Imprison: The imprisoned icon cannot be moved but it costs energy.
Release: When you can no longer afford or need to keep an icon imprisoned.
Banish: Very expensive to cast but very effective.
Apocalypse: Use to put a hopelessly overwhelmed enemy out of misery or as an act of suicidal desperation.

COMBAT TIPS

Attack Methods: On the battleground, icons hurl, hammer, flame, sing, fling, stare and otherwise harass the enemy in whatever direction you move the joystick while pressing the button.
The Attack Interval: Combat is fast but you have to wait for the attack interval to pass before you can attack again.
Attack Styles: Each icon is most effective when used in friendly elements and well understood. Adept missiles can be steered as long as you hold down the button but then the Adepts cannot move.
The Gorgon does not wound; it paralyses. Wraiths are not nice; they are invisible except when they are attacking you.
The Firebird cannot be hurt, or move when exploding, but you can end the explosion by releasing the button.
Sirens don't have to aim. Just press the button and the singing and the dying starts.
Juggernauts are like missiles. They travel in straight lines and are invulnerable-except to the song of the Siren.

TAI-PAN

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Wir sind im Jahr 1814 . . . Händler aus Grossbritannien, Europa und Amerika segeln die Meere des Ostens auf der Suche nach dem großen Vermögen.
Vor zwanzig Jahren hatte der chinesische Kaiser verfügt, daß chinesische Güter nur mit Silberbarren gekauft werden könnten. Die Nachfrage nach Tee, Seide und Jade verursachte ein riesiges Defizit in der Handelsbilanz und machte die Handelsnationen nahezu bankrott. Dann segelte ein einzelnes Schiff, "The Vagrant Star" im Namen der East India Company mit einer Ladung illegaler Konterbande nach Canton. Die chinesischen Händler kauften die Ladung und bezahlten dafür in Silberbarren. Ein Weg zur Reduktion des Defizits war gefunden. Während der nächsten zwanzig Jahre wuchs der Handel mit Konterbande derart, daß das Einkommen davon die zum Kauf legitimer Güter benötigten Silberbarren übertraf. Nun war der Handel wieder ausgeglichen. Die unabhängigen Händler schufen sich große Vermögen und Schiffsflotten. Die Anführer formten ihre eigenen Handelsfirmen und fingen an, den Handel zu monopolisieren. Die Chinesen nannten diese Männer Tai-Pan (Höchste Führer), und der größte unter ihnen war DER TAI-PAN.
Die Meere Chinas waren feindselig, sowohl Wetter wie Piraten forderten ihre Opfer von den Handelsschiffen und Profiten. Alle Schiffe waren deshalb bewaffnet, aber das half nicht immer. Eine bestimmte Gefahr lag im Wetter; zu bestimmten Jahreszeiten wurden die TAI-FUNG (Höchste Winde), die die Händler Taifune nannten, zum leibhaftigen Terror. Es gab wenig und keine Fluchtmöglichkeiten vor den wütenden Winden, dem peitschenden Regen und den über hundert Fuß hohen Wellen. Die Schiffe wurden vom Kurs abgebracht und an der gnadenlosen, gefährlichen Küste in Stücke geschmettert, oder verschwanden auf Nimmerwiedersehen unter der See.
Als der Handel zwischen den vielen Hafenstädten im chinesischen Meer zunahm, benutzten die Händler die Einheimischen und ihre Städte als sichere Häfen vor den fürchterlichen Stürmen und als zweite Handelsposten zwischen Europa und dem Fernen Osten.
Jetzt ist die Bühne frei damit Du Dein Vermögen machen und ein reicher Kaufmann . . . DER TAI-PAN werden kannst.

LADEN

CPC 464

Lege die zurückgespulte Kassette in das Kassettenteil, tippe RUN" und danach drücke die ENTER Taste. Folge den Anweisungen, wie sie auf dem Bildschirm erscheinen. Falls ein Diskettenlaufwerk angeschlossen ist, tippe | TAPE und danach drücke die ENTER Taste.
Anschließend tippe RUN" und drücke die ENTER Taste.
(Das | Symbol erhältst Du, indem Du die Umschalter Taste festhältst und @ drückst).

CPC 664 und 6128

Schließe einen geeigneten Kassettenrekorder an und versichere Dich, daß die korrekten Kabel angeschlossen sind, wie es in der Anleitung für Benützer beschrieben ist. Lege die

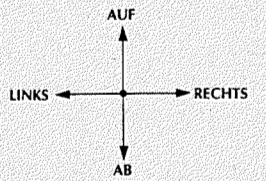
zurückgespulte Kassette in den Rekorder und tippe | TAPE und danach drücke die ENTER Taste. Anschließend tippe RUN" und drücke die ENTER Taste. Folge den Anweisungen, wie sie auf dem Bildschirm erscheinen.

DISKETTE

Lege die Programmdiskette mit der A Seite nach oben in das Laufwerk. Tippe | DISC und drücke ENTER, damit der Computer Zugriff auf das Laufwerk hat. Nun tippe RUN" DISC und drücke ENTER. Das Spiel lädt sich nun automatisch.

STEUERUNGEN

JOYSTICK (Port B)



FIRE – FEUER
LEERTASTE – WECHSELN ZWISCHEN ABBILDUNGEN

TASTATUR

Q	– AUF
Z	– AB
I	– LINKS
P	– RECHTS
N	– FEUER
LEERTASTE	– WECHSELN ZWISCHEN ABBILDUNGEN

DAS SPIEL

Du beginnst das Spiel ohne einen Pfennig; kein Geld, keine Schiffe, kein Vermögen. Deine Ambition ist es, DER TAI-PAN zu werden. Du beginnst in der Stadt Canton und mußt zuerst jemanden finden, der Dir genügend Geld leiht, damit Du ein Schiff kaufen und ausrüsten kannst und danach noch genug übrig hast, um eine Besatzung anzuheuern und Handelsgüter zu kaufen. Das geliehene Geld muß innerhalb von sechs Monaten zurückgezahlt werden, sonst verliert Dein Wohltäter sein Gesicht und Du Deinen Kopf!
Dein Vermögen und Status sind im Nachrichtenfenster unter den Abbildungen angegeben. Dort wird auch aufgezeigt, was Du gerade im Besitz hast.

SCHIFF

Du hast einen Gefolgsmann, Deinen Sohn, der für Dich Dinge holt und trägt, aber sonst mußt

Tai-Pan

Du alles selbst tun. Auf der Suche nach einem freundlichen Wohltäter wanderst Du in der Stadt herum. Nachdem es Dir gelungen ist, $300,000 aufzutreiben, mußt Du zur Bank gehen und ein Schiff kaufen. Du kannst zwischen drei verschiedenen auswählen:

LORCHA – $150,000 – ein Schmugglerschiff (schnell), Laderaum = 10 Einheiten, 2 Kannonen, 6 Besatzung.

KLIPPER – $250,000 – ein gewöhnliches Handelsschiff (mittel), Laderaum = 30 Einheiten, 4 Kannonen, 12 Besatzung.

FREGATTE – $400,000 – ein Gefechtsschiff, wie es die Marine und die Piraten benützen (langsam), Laderaum = 30 Einheiten, 8 Kannonen, 24 Besatzung.

Du wählst Dein Schiff je nachdem, auf welche Art Du Deine Ambition erfüllen willst. Wenn Du Konterbande schmuggeln willst, solltest Du die Lorcha wählen. Wenn Du friedlich innerhalb des Gesetzes handeln willst (abgesehen von einer Indiskretion ab und zu), solltest Du den Klipper wählen. Wenn Du ein Freibeuter werden willst, brauchst Du die Fregatte. Umgekehrt kannst Du die Fregatte als Handelsschiff und den Klipper als Schmuggelschiff benutzen, aber ihre fehlende Geschwindigkeit machen sie dazu ungeeignet.

BESATZUNG

Sobald Du Dein Schiff gekauft hast, mußt Du eine Besatzung finden. Diese kannst Du entweder anstellen (Du findest sie in den Schenken), oder, falls Du Geld sparen willst, kannst Du sie auch zwangsanheuern. Denk daran, daß eine bezahlte Besatzung Dir loyaler gesinnt ist als eine gezwungene.

Damit Du beim Zwangsanheuern Erfolg hast, schlagen wir vor, daß Du es nur bei betrunkenen oder erschöpften Männern versuchst, und zwar mit einem Knüppel. Wenn Du das bei einem fitten Mann versuchst, wird er vermutlich zurückschlagen oder die Polizei rufen. Wenn Du verhaftet wirst, verbringst Du 30 Tage im Gefängnis. Nach drei Verhaftungen wirst Du geköpft.

Wenn Du beim Zwansanheuern Erfolg hast, bringen Deine Gefolgsleute, am Anfang Dein Sohn, die Betroffenen zum Schiff. Wenn Du keinen Gefolgsmann bei Dir hast, kannst Du niemanden zwangsanheuern, da es Dir nicht möglich ist, den Mann zu tragen.

Sobald Du eine genügend große Besatzung für Dein Schiff hast, mußt Du Vorräte, Waffen und Handelsgüter kaufen. Diese können an verschiedenen Stellen in der Stadt gekauft werden.

GLÜCKSSPIEL*

Vielleicht findest Du eine Spielhölle (in bestimmten Gebäuden) und wirst eingeladen, mitzuspielen. Das Spiel basiert auf einem Rennen zwischen den chinesischen mythischen Gestalten, die die Jahre darstellen. Dies sind: Hirsch, Pferd, Fisch, Kuh, Schaf und Drachen. Die Spielsteinel stellen die verschiedenen Kreaturen dar und es wird darum gewettet, welche genügend Spielsteine gewinnt, um das Rennen zu gewinnen. Wenn Du die Spielhölle betrittst, wirst Du gefragt, ob Du mitspielen willst. Wenn ja, mußt Du wählen, auf welche Kreaturen Du setzen willst (die Gewinnquoten sind unter jedem Spielstein angegeben). Bewegen des Joysticks nach rechts und links läßt die verschiedenen Möglichkeiten aufleuchten, durch Drücken kannst Du Deine Wahl treffen. Danach wirst Du nach der Höhe Deines Einsatzes gefragt. Ein Zähler beginnt bei $100, durch Aufwärtsbewegen des Joysticks kannst Du diesen in Einheiten von $100

bis zu $10000 erhöhen. Drücke FIRE um Deinen Einsatz festzulegen und das Rennen zu beginnen. Die Spielsteine oben im Bildschirm rotieren und stoppen willkürlich, jedesmal wenn sie stoppen wird der gezeigte Spielstein denjenigen der entsprechenden Kreatur zugeordnet. Wenn eine Kreatur 10 Spielsteine erreicht hat, hat sie gewonnen. Wenn Du gewinnst, wird Dir Dein Gewinn überschrieben und Du wirst gefragt, ob Du weiterspielen willst. Falls ja kannst Du wiederum wählen, falls nein findest Du Dich außerhalb des Gebäudes wieder.

SCHMUGGLER

Vielleicht wirst Du in den Städten von Schmugglern angesprochen, oder Du könntest eine Schmugglerhöhle finden. Sie wollen Dir vielleicht Konterbande verkaufen, dies ist ein gefährlicher aber sehr profitabler Handel. Wenn die Polizei Dich mit Konterbande erwischt, wirst Du eingesperrt und verlierst Deine Güter. Der Schmugglerpreis in der Stadt ist fest für Kauf und Verkauf, aber Marktänderungen führen zu Preisänderungen in jedem Hafen, den Du besuchst.

LADUNG

Einige Dinge, die Du kaufen mußt, nehmen auch Laderaum ein. 1 Ladeeinheit = 1 Verpflegungseinheit (Wochenration für 20 Mann, Du kannst die Einheiten nicht aufteilen). 1 Ladeeinheit = 1 Einheit Kannonenschüsse (12 Schüsse).

Sobald Du Deine Vorräte und Güter zusammen hast, mußt Du Dein Schiff finden und lossegeln. An Bord kannst Du Deinen Kurs festlegen, vorausgesetzt, Du hast die Ausrüstung und Seekarten dazu gekauft, um zu den ungezählten Häfen zu gelangen, die Deinem Handel offenstehen.

SCHIFFAHRTSROUTEN

Wenn Du Deinen Kurs wählst, solltest Du auf die Jahreszeit (Wetter) und die Sicherheit von bestimmten Routen achten. Auf den sichersten Routen besteht wenig Gefahr, auf Piraten au treffen, aber je weniger sicher die Route, umso größer die Gefahr eines Angriffs. Je sichereren Routen sind länger, auch erlauben diese Routen nur Handel entlang der Küste. Um ein größeres Handelsgebiet zu erhalten, mußt Du die möglichen Konsequenzen einer Überfahrt übers offene Meer auf Dich nehmen. Wenn Du die Seekarte gebrauchst, wird die Zeit schneller vergehen (siehe Kalender), solange Du einer Schiffahrtsroute folgst. Dadurch können lange Zeitspannen, während denen nichts geschieht, vermieden werden. Wenn die Windrichtung oder das Wetter ändern, oder wenn ein anderes Schiff ins Spielgebiet kommt, kehrst Du zu Normalzeit zurück.

Um die Geschwindigkeit Deines Schiffs zu verändern brauchst Du die "Segel"-Abbildung. Drücke FIRE und bewege den Joystick auf und ab, um die Segel aufzuziehen oder herunterzuholen. Dies beeinflußt Deine Reisezeit, wenn Du die Karte benutzt.

Um Dein Schiff zu steuern, brauchst Du den Steuer-Modus ("Steuerrad"-Abbildung). In diesem Modus führt die Rechts– oder Linksbewegung zum Drehen des Schiffs. Vergiß nicht, dies sind Segelschiffe, um ihre Maximalgeschwindigkeit zu erreichen, müssen sie den Wind von hinten haben.

INSELN*

Wenn Du auf hoher See bist, kannst Du auf einer Insel landen (diese sind nicht auf der Karte ersichtlich, sondern erscheinen im Planungs-Modus auf dem Bildschirm). – Segle zu den Inseln

und deponiere Güter, welche Du besser nicht auf dem Schiff behältst (z.B. Konterbande, wenn Dein nächster Hafen diese nicht toleriert), oder vereinbare dort ein Treffen mit Schmugglern, um größere Transaktionen zu arrangieren.

VERPFLEGUNG

Du mußt Deine Besatzung auf der ganzen Reise verpflegen. Dazu wählst Du die "Verpflegungs"-Abbildung, wo Du eine Menukarte erhältst, die Dich über Deine Vorräte und Anzahl Besatzung orientiert. Du kannst dann die Höhe der Rationen, die Du ausgeben willst, bestimmen (vergiß nicht, daß Deine Besatzung ausreichend verpflegt sein muß, um voll durchhalten zu können; wenn Du sie nicht verpflegst, besteht die Gefahr einer Meuterei). Wenn Du Deine Reisezeit unterschätzt hast, mußt Du vielleicht gegen Ende der Reise reduzierte Rationen ausgeben, aber das sollte möglichst selten geschehen. Esswaren können von einer Reise können nicht für die Nächste aufgespart werden.

KAMPF

Wenn Du ein Freibeuter werden willst, kannst Du über die Meere segeln und auslesen, welche Schiffe Du angreiffen willst. Dazu wählst Du die "Kampf"-Abbildung. Dadurch erhältst Du Kontrolle über Deine Kannonen, während Du Dein Schiff in eine Angriffsposition segelst. Drücke FIRE, und der Bildschirm zeigt Dir Deine Kannonen und das feindliche Schiff am Horizont (durch Links– und Rechtsbewegungen kannst Du auswählen, aus welcher Kannone Du feuern willst), dann drücke FIRE, um den Schuß abzugeben. Während dieser Schuß unterwegs ist, kannst Du eine andere Kannone vorbereiten (sofern Du auf dieser Seite mehr als eine hast); mit dieser Methode kannst Du eine Breitseite abfeuern. Wenn das Schiff außer Reichweite gerät, drücke die Leertaste für den Planungs-Modus, damit Du weiter manövrieren und den Angriff fortsetzen kannst. Wenn das Schiff nicht mehr seetüchtig ist oder von selbst gestoppt hat, kannst Du an Bord gehen (denk daran, falls Du das Schiff in gutem Zustand erobern willst, um Dein Vermögen zu vermehren, solltest Du beim Schießen vorsichtig sein).

AN BORD GEHEN

Um an Bord zu gehen, mußt Du seitlich an das feindliche Schiff anlegen; sobald Du nahe genug bist, wirst Du auf der "An Bord"-Anzeige plaziert und der Zweck ist, das Schiff zu sichern und den Kapitän zu töten. Du repräsentierst jeden Einzelnen Deiner Besatzung, wenn Du ein Leben verlierst, verlierst Du ein Mitglied Deiner Besatzung; verliere zuviele, und Du kannst Dein eigenes Schiff nicht mehr segeln. Jedes Besatzungsmitglied des gegnerischen Schiffes ist ein Teil der totalen Besatzung desselben, je weniger Du deshalb umbringst, umso größer ist Deine Chance, eine Besatzung beizubehalten, die das Schiff für Dich segeln kann (sobald Du das Schiff erobert hast, bleibt die Besatzung loyal zu Dir, wenn Du sie am Leben läßt).
Wenn Du das Schiff in gutem Zustand eroberst, kannst Du es in den Hafen befehlen, wo sein Vermögen und Wert in Deinen Besitz übergehen. Wenn Du es schwer beschädigt oder zuviele Besatzungsmitlieder umgebracht hast, kannst Du die Ladung und alles, was Du auf Deinem Schiff tragen kannst, umladen. Wenn Du auf dem feindlichen Schiff besiegt wirst, kannst Du Dich auf Dein Schiff zurückziehen und mit der "Abgang"-Abbildung (dargestellt durch ein Schiff) den Angriff abbrechen. Während dem Kampf hast Du die Wahl zwischen 2 Waffen (sofern Du

Musketen und Munition eingekauft hast). Das Schwert wird im Nahkampf gebraucht und die Muskete für Distanzschüsse; wieviel Munition Du verbrauchen kannst hängt davon ab, wieviel Du im Hafen eingekauft hast (das Schwert kann nicht verloren gehen). Beim Kämpfen verlierst Du an Ausdauer (durch den Barren auf dem Bildschirm dargestellt), wenn sie ausgeht, stirbt Dein Mann. Falls Du Deine Truppe nicht genügend verpflegt hast, zeigt sich das an ihrer Ausdauer.

MERKE

Wenn Du ein Schiff eroberst und in den Hafen schickst, besteht die Möglichkeit, daß es bei schlechtem Wetter untergeht, oder daß es von einem andern Schiff angegriffen wird. Dieses Risiko mußt Du eingehen, wenn Du Dein Vermögen vermehren willst.
Es besteht die Möglichkeit, daß Du von andern Schiffen angegriffen wirst. Sie können auf Dich schießen oder, falls sie schneller sind als Du, können sie seitlich an Dich herankommen und versuchen, an Bord zu gelangen. In diesem Fall mußt Du soviele Feinde wie möglich umbringen; wenn es Dir gelingt, den größten Teil der Besatzung zu erledigen, hast Du die Piraten abgeschreckt und sie ziehen sich zurück. Wenn es ihnen gelingt, Dein Schiff zu überrennen, hast Du verloren. Falls dies Dein einziges Schiff ist, ist das Spiel zu Ende. Wenn Du mehrere Schiffe besitzt, entscheidet ein Zufallselement "JOSS" (Glück), ob Du überlebst oder nicht.

HAFEN

Damit Du nach einer Reise in den Hafen einlaufen kannst, siehst Du Häfen auf der Meer-Anzeige. Wenn Du diese anläufst, wirst Du in den Hafen eingelassen. Sobald Du im Hafen bist, mußt Du das Lagerhaus und die Bank finden, um die Güter und Schiffe, die Du auf Deiner Reise erworben hast, zu verkaufen. Danach mußt Du Deinen Bestand erneuern und weitersegeln.
Wenn Du bei Deiner Rückkehr nach Macau mehr als 1 Schiff im Hafen hast, kannst Du auslesen, auf welchem Schiff Du als nächstes segeln willst und danach die andern Schiffe zur See schicken. Sie werden mit legaler Ware handeln und ihre Ein– und Verkäute werden Deinem Konto gutgeschrieben, resp. belastet. Auch wenn Du die Schiffe nicht zur See schickst, kosten sie Dich Löhne und Verpflegungsrechnungen.
Sobald Du genügend Geld hast, um Deinem Wohltäter Deine Schuld zurückzuzahlen, mußt Du nach Canton zurückkehren und dies erledigen. Nun, mit Deinem eigenen Vermögen, setze Deine Segel von Neuem und bemühe Dich, Deinen Reichtum und Status zu vermehren, bis Du den Höhepunkt Deiner Ambition erreicht hast . . . DER TAI-PAN zu werden.

STATUS

Wenn Du das Spiel abbrichst, entweder freiwillig oder weil Du getötet worden bist, wirst Du über Deinen Endstatus informiert. Dieser hängt von Deinem Bargeld und Vermögen zu diesem Zeitpunkt ab.
In aufsteigender Ordnung sind dies:
Sklave – Trunkenbold – Bankrotteur – Prolet – Kabinenboy – Ruderer
Takler ($100,000) – Deckhand ($150,000) – Wachtposten ($200,000) – Steuermann ($300,000) – Kadett ($350,000) – 2. Maat ($400,000) – 1. Maat ($500,000) – Kapitän ($600,000) – Schiffsbesitzer ($750,000) – Händler ($1,000,000) – Kaufmann ($2,000,000) – Meister Kaufmann ($400,000) – Reichster Kaufmann ($5,000,000) – TAI-PAN ($6,000,000+)

SPIELTIPS

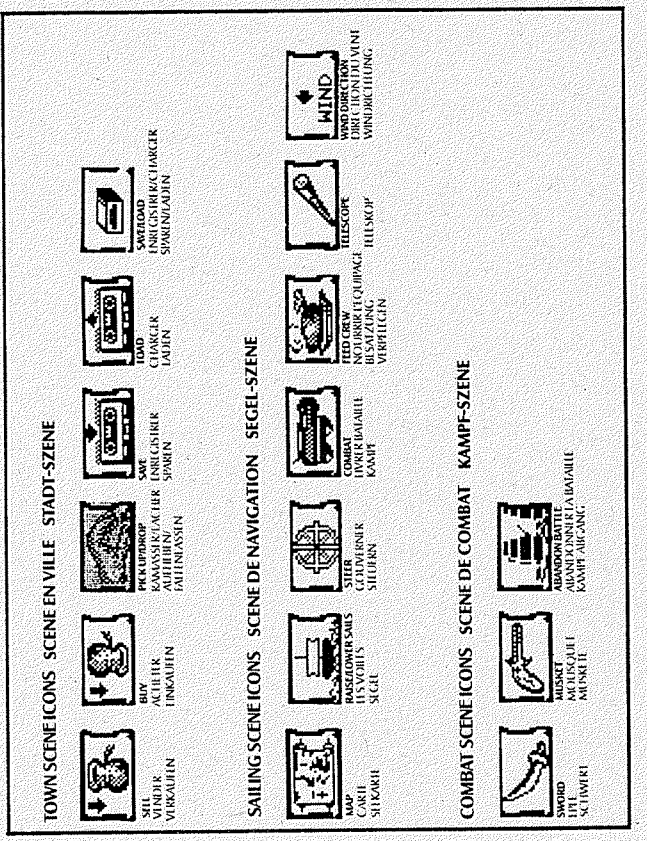
Tai-Pan kann auf viele Arten gespielt werden, je nach Deinen Wünschen. Es kann als einfaches Spiel gespielt werden, mit Schwerpunkt auf dem Handelselement, und unter Vermeidung anderer Kontakte. Es kann als Arkade Abenteuer gespielt werden mit all dem dazugehörigen Rätselraten, oder es kann auch als richtige Schießerei gebraucht werden, indem Du einen Klipper kaufst, eine Besatzung zwangsanheuerst und als Pirat über die Meere segelst. Am meisten Spaß macht Tai-Pan als Mischung all dieser Elemente.

Am Anfang wenn Du im Hafen bist, solltest Du den Sextanten, Kompass, Seekarten und ein Teleskop einkaufen, sonst stehen Dir verschiedene Möglichkeiten nicht offen, und Segeln wird lange dauern.

Wenn Du an den Freuden des Hafenleben teilnimmst, solltest Du nicht vergessen, daß Du, wenn Du betrunken oder erschöpft bist, selbst zwangsangeheuert werden könntest. Dadurch würde das Spiel beendet.

Wir schlagen vor, daß Du als erstes Schiff die Lorcha kaufst. Wenn Du mit dem Klipper handeln willst, kannst Du keine Vorräte einkaufen und nur durch Freibeuterei Güter anhäufen.

★ – Nur Amstrad Diskette.



SHAKE...RATTLE...ROLL IT...

AFTERBURNER – You've played the arcade **smash** – now **experience** the white-knuckled **realism** of a supersonic **dogfight** at home! Using your heat-seeking **missiles** and laser anti-aircraft **fire,** can you be **top gun** against a seething supersonic **swarm?**

Experience brain-numbing **G-forces;** bones **rattling** with the body-jarring **pitch** and yaw...**scan** with your **radar, lock on** your target and **FIRE!**

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F-14 AFTER BURNER
AERIAL ARCADE ACE

MISSION BRIEFING

CONFIDENTIAL

ACTIVISION

Name

SEGA®

DIE F-14 DREHEN

Um feindliche Flugzeuge oder Geschosse, die von hinten auf Sie zukommen, abzuschütteln, müssen Sie eine 360-Grad Drehung ausführen. Fliegen Sie in schneller Folge von einer Seite auf die andere.

KANONEN

Die Kanonen werden automatisch aktiviert, sobald ein Feind auf der Bildfläche erscheint. Sie können mit diesen Kanonen auf Ihre Feinde schießen. Für jedes getroffene Flugzeug erhalten Sie einen Trefferpunkt (HIT point). An bestimmten Stellen des Spies bekommen Sie einen Bonus aufgrund Ihrer erzielten Trefferpunkte.

'LOCK-ON'-ANZEIGER

Wenn dieser aktiviert ist, können Sie Ihre Geschosse benutren, um das feindliche Flugzeug auszuschalten. Eine kleine Zielscheibe wird über dem Objekt erscheinen. Für jedes getroffene Flugzeug bekommen Sie einen Trefferpunkt. An bestimmten Stellen des Spiels erhal ten Sie einen Bonus aufgrund Ihrer erzielten Trefferpunkte.

WARNLICHTER

Nähert sich Ihnen ein Feind von hinten, so leuchten die Warnlichter auf. Passen Sie auf!

AUFTANKEN

An bestimmten Stellen des Spiels übernimmt der Computer die Kontrolle und führt Sie zum Auftanken. Gleichzeitig erhalten Sie auch zusätzliche Geschosse.

ZUSÄTZLICHE LEBEN

In den fortgeschritteneren Stadien des Spiels erhalten Sie zusätzliche Leben, um Ihnen die Beendigung des Spiels zu ermöglichen.

'HIGH SCORE'-TABELLE

Schaffen Sie es, einen außergewöhnlich hohen Punktestand zu erreichen, werden Sie gebeten, Ihren Namen einzugeben. Besitzen Sie eine Disketten-Version von AFTERBURNER, so wird Ihr Name auf der Diskette gespeichert.

FUNKTIONSVERZEICHNIS

JOYSTICK-KONTROLLE (Gültig für alle Versionen)

RUNTER/LINKS< RUNTER >RUNTER/RECHTS
HOCH/LINKS< HOCH >HOCH/RECHTS
GESCHOOSSE-FEUERKNOPF
SPEED TOGGLE-LEERTASTE

MAUS-KONTROLLE (ST/AMIGA)

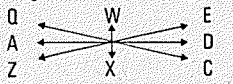
RUNTER/LINKS< RUNTER >RUNTER/RECHTS
LINKS< >RECHTS
HOCH/LINKS< HOCH >HOCH/RECHTS
GESCHOSSE-MAUSKNOPF 1
SPEED TOGGLE (Geschwindigkeit-Schalter)-MAUSKNOPF 2 oder LEERTASTE

TASTENFUNKTIONEN (Spectrum/Amstrad/MSX)

Zu Beginn des Spiels können Sie eins der beiden Lay-Outs Wählen, die unten dargestellt sind. Die möglichen Bewegungsrichtungen entsprechen denen von Joystick-oder mauskontrolle.
(Beachten Sie: Sind zwei Buchstaben durch ein Pluszeichen verbunden, so müssen beide Tasten gleichzeitig gedrückt werden.)

KEYBOARD (Tastatur-) OPTION (1)

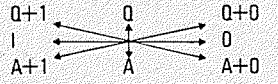
Tasten für die gewünschte Bewegung



TESCHOSSE-S-TASTE
SPEED TOGGLE (Geschwindigkeit-Schalter)-LEERTASTE

KEYBOARD OPTION (2)

Tasten für gewünschte Bewegung



GESCHOSSE-P-TASTE
SPEED TOGGLE (Geschwindigkeits-Schalter)-LEERTASTE

AFTERBURNER tm
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HINWEISE ZÜR BENUTZUNG VON JOYSTICK UND TASTATUR

1) Fur den Commodore 64 können Sie jeden kompatiblen Joystick benutzen (an Anschluß 2 angeschlossen).
2) Für den Amstrad CPC können Sie jeden kompatiblen Joystick benutzen. Die Tastatur bietet Ihnen die gleichen Kontrollmöglichkeiten.
3) Für den Spectrum können Sie Kempston, Interface 2 und Kursor-kompatible Joysticks benutzen (Sinclair). Die Tastatur bietet Ihnen die gleichen Kontrollmöglichkeiten.
4) Für Atari ST können Sie jeden kompatiblen Joystick an Anschluß 1 anschliessen. Die Maus bietet Ihnen die gleichen Kontrollmöglichkeiten.
5) Für Commodore Amiga können Sie jeden kompatiblen Joystick an Anschluß 1 anschließen. Die Maus bietet Ihnen die gleichen Kontrollmöglichkeiten.
6) Für MSX können Sie jeden kompatiblen Joystick anschliessen. Die Tastatur bietet Ihnen die gleichen Kontrollmöglichkeiten.

LADESCHWIERIGKEITEN

Wir sind stets darauf bedacht, die Qualität unserer Produkte zu verbessern und haben hohe Anforderungen an unsere Qualitätskontrolle entwickelt. Sollten Sie deshalb auf Schwierigkeiten beim Ladevorgang stoßen, ist es höchst unwahrscheinlich, daß der Fehler am Produkt selbst liegt. Schalten Sie Ihren Computer aus und wiederholen Sie die Ladeanweisungen sorgfältig. Prüfen Sie, ob Sie die für Ihren Computer und Ihre Software maßgeblichen Anweisungen benutzen. Falls Ihre Schwierigkeiten weiterhin bestehen, befragen Sie die Benutzungshinweise für Ihren Computer oder bitten Sie Ihren Software-Händler um Rat. Ist Ihr Problem noch immer nicht gelöst, auch nachdem Sie Ihre Hardware auf möliche Fehler hin untersucht haben, so wenden Sie sich bitte schriftlich an unsere Kundenberatungsabteilung:

Activision Customer Advice (AFTERBURNER)
Blake House
Manor Farm Estate
Manor Farm Road
Reading
Berkshire

Ihr Brief sollte folgende Details enthalten:

- Ihren Namen und Adresse,
- eine Telefonnummer, unter der Sie tagsüber erreichbar sind,
- den Namen des beanstandeten Produktes,
- ob es sich um eine Kassette oder Diskette handelt,
- welches Computersystem und welche Zusatzgeräte (Joysticks etc.) Sie benutzen,
- wo und wann Sie das Produkt gekautt haben,
- und eine detaillierte Beschreibung der auftretenden Schwierigkeiten.

OPTIONEN

Nachdem AFTERBURNER geladen ist, werden Sie mehrere Präsentations-Bildschirme sehen; drücken Sie irgendeine Taste und die Menü-Seite mit den vorhandenen Spielmöglichkeiten erscheint.

Wählen Sie aus den unten beschriebenen Spielangeboten, die sich, je nach der Version von AFTERBURNER, die Sie benutzen, unterscheiden.

SPIELBEGINN (Gültig für alle Versionen)

Wählen Sie START GAME, und das Spiel beginnt. Oder drücken Sie den Feuerknopf Ihres Joysticks.

KEYBOARD (1)/KEYBOARD (2) (Nur für Spectrum, Amstrad, MSX) Das Spiel wird durch die Tastatur kontrolliert (und nicht mit einem Joystick). Zwei unterschiedliche Lay-Outs können gewählt werden. Vgl. Funktionsverzeichnis für Tastenfunktionen.

MAUS (ST/AMIGA)

Das Spiel wird durch die Maus und bestimmte Tasten kontrolliert. Vgl. Funktionsverzeichnis für Tastenfunktionen.

KEMPSTON JOYSTICK (Spectrum)

PROTEK JOYSTICK (Spectrum)

SINCLAIR JOYSTICK (Spectrum)

Wählt Spielkontrolle durch einen dieser Joysticks. Der gewählte Joystick erscheint hervorgehoben auf dem Menü und Sie können das Spiel beginnen, indem Sie START GAME wählen.

MUSIC ON/OFF (Gültig für alle Versionen)

Schaltet Musik AN/AUS.

SOUND EFFECTS ON/OFF (Gültig für alle Versionen)

Schaltet Soundeffekte AN/AUS.

SPEED TOGGLE (Geschwindigkeits-Schalter)

Dieser Knopf ändert Ihre Geschwindigkeit von CRUISE zu SLOW oder von CRUISE zu FAST. Sie bleiben so lange im Schnell- oder Langsam-Modus, wie Sie den Knopf niedergedrückt halten. Lassen Sie den Knopf los, kehren Sie zur Cruise-Geschwindigkeit zurück.

Um von Ihren AFTERBURNERs Gebrauch zu machen, müssen Sie den SPEED TOGGLE-Knopf zweimal schnell hintereinander drücken. Nach einer bestimmten Zeit kehren Sie zur Cruise-Geschwindigkeit zurück.

d) Drücken Sie die CTRL-Taste zusammen mit der kleinen ENTER-Taste und drücken Sie dann die PLAY-Taste auf Ihrem Kassettengerät.
e) Der Computer gibt an, wann Sie zur B-Seite wechseln sollten. Überprüfen Sie wiederum, daß die Kasette an den Anfang zurückgespult ist.

5. Für AMSTRAD CPC 464, CPC 664, CPC 6128 mit Diskette
a) Schalten Sie Ihren Fernseher/Monitor und Computer ein.
b) Hat Ihr Computer ein eingebautes Kassettengerät, so sollten Sie Ihren Computer ausschalten und ein passendes Laufwerk an Ihren Computer anschliessen. Nun schalten Sie Laufwerk und Computer ein, tippen DISC und drücken dann die RETURN-Taste. Ihr Computer ist jetzt ladebereit.
c) Geben Sie Ihre AFTERBURNER-Diskette in das Laufwerk ein, mit der Seite 1 nach oben.
d) Tippen Sie RUN"DISC" und drücken Sie dann die ENTER-Taste.
e) Der Computer gibt an, wann Sie zur B-Seite wechseln sollten.

6. Für SINCLAIR ZX SPECTRUM, SPECTRUM+, SPECTRUM 128, SPECTRUM +2 oder SPECTRUM +3 mit Kassette
a) Schließen Sie wie gewohnt Ihr Kassettengerät an Ihren Spectrum-Computer an (falls Ihr Kassettengerät nicht schon eingebaut ist).
b) Wenn Sie einen Joystick benutzen möchten, so geben Sie nun das notwendige Interface ein. Besitzt Ihr Computer einen eingebauten Joystick-Anschluß, so schließen Sie nun einen geeigneten Joystick an (siehe die Joystick-Kontrolliste unten).
c) Schalten Sie Ihren Fernseher/Monitor, Kassettengerät und Computer ein. (Zeigt Ihr Computer nun einen Menü-Bildschirm, so können Sie zwischen 48K und 128K BASIC wählen.)
d) Legen Sie die AFTERBURNER-Kassette in das Kassettengerät ein, mit der A-Seite nach oben. Überprüfen Sie, daß die Kassette bis zum Anfang zurückgespult ist.
e) Tippen Sie LOAD"" ein und drücken Sie dann die ENTER-Taste.
f) Der Computer gibt an, wann Sie zur B-Seite wechseln sollten. Spulen Sie die Kassette bis an den Anfang zuruck.

7. Für SINCLAIR +3 mit Diskette
a) Mochten Sie einen Joystick benutzen, so geben Sie nun das notwendige Interface ein. Besitzt Ihr Computer einen eingebauten Joystick-Anschluß, dann schließen Sie nun einen geeigneten Joystick an (siehe die Joystick-Kontrolliste unten).
b) Schalten Sie Ihren Fernseher/Monitor und Computer ein.
c) Geben Sie die AFTERBURNER-Diskette in das Laufwerk ein, mit der Seite 1 nach oben.
d) Nun wählen Sie LOADER aus Ihrem Menü und drücken ENTER.
e) Der Computer gibt an, wann Sie zur B-Seite wechseln sollten.

8. Für ATARI ST mit Diskette
a) Schließen Sie Ihr Laufwerk an Ihren Computer an (falls das Laufwerk nicht schon eingebaut ist).
b) Geben Sie die AFTERBURNER-Diskette "A" in das Laufwerk A ein, mit der beschrifteten Seite nach oben.
c) Schalten Sie Ihren Fernseher/Monitor, Computer und Laufwerk ein.
d) Der Computer zeigt an, wann Sie die Diskette "B" in das Laufwerk A eingeben sollten, wiederum mit der beschrifteten Seite nach oben.

9. Für COMMODORE AMIGA mit Diskette
a) Geben Sie die AFTERBURNER-Diskette "A" in das Laufwerk A ein, mit der beschrifteten Seite nach oben.
b) Schalten Sie Ihren Fernseher/Monitor und Computer ein.
c) Der Computer gibt an, wann Sie die Diskette "B" in das Laufwerk A eingeben sollten, wiederum mit der beschritteten Seite nach oben.

10. Für MSX Computersystem mit Kassette
a) Schließen Sie wie gewohnt Ihr Kassettengerät an Ihren MSX-Computer an (falls Ihr Kassettengerät nicht schon eingebaut ist.
b) Schalten Sie Ihren Fernseher/Monitor, Kassettengerät und Computer ein.
c) Legen Sie Ihre AFTERBURNER-Kassette in Ihr Kassettengerät ein, mit der Seite A nach oben. Überprüfen Sie, daß die Kassette bis an den Anfang zurückgespult ist.
d) Tippen Sie BLOAD"?",R ein und drücken Sie dann die RETURN-Taste. (Besitzt Ihr Computer ein eingebautes Laufwerk, so tippen Sie BLOAD"CAS:",R)
e) Der Computer gibt an, wann Sie zur B-Seite wechseln sollten, nachdem die Kassette bis an den Anfang zurückgespult ist.

HINWEISE FÜR KASSETTENBENUTZER

Der erste Teil von AFTERBURNER wird nun geladen. Der Ladevorgang erfolgt stückweise, und Sie werden während des Ladens verschiedene Farben auf Ihrem Bildschirm sehen. Der Computer zeigt an, wann Sie die Kassette stoppen oder starten sollen, während Sie Ihre F-14 fliegen.

HINWEISE FÜR DISKETTENBENUTZER

Der erste Teil von AFTERBURNER wird nun geladen. Der Ladevorgang erfolgt stückweise. Die restlichen Teile von AFTERBURNER werden automatisch geladen, während Sie Ihre F-14 fliegen.

AFTERBURNER tm

présenté par

Activision (UK) Limited

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MSX	Codage	par Mr Micro et Keith Barkhill
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	Graphismes	par Focus C.E. Limited

PRODUCTION

Producteur	StuartHibbert
Graphismes	Saul Marchese/Stuart Hibbert
Test	Dave Cummins/Nick Dawson
Remerciements	Andy, Neil, Bonita, Jane, Rod, Jon, Marketing, Manufacture, Administration, Finances, Vente ...

GUIDE D'UTILISATION

Ecrit par Stuart Hibbert

UNE PRODUCTION SOFTWARE STUDIOS

AFTERBURNER SPIELANLEITUNG

LADEN

1. Stellen Sie Ihr Computersystem so auf, we in der Gebrauchsanweisung angegeben und schließen Sie Ihr Fernsehgerät oder Monitor an. Überprüfen Sie, daß alle anderen Funktionen und Zusatzgeräte (Laufwerke, Kassettengeräte, Drucker etc.) abgestellt sind, da sonst Ladeschwierigkeiten auftreten können. (Ist das Laufwerk in den Computer eingebaut, kann es natürlich nicht abgestellt werden, doch überprüfen Sie alle anderen Geräte.)
2. Für COMMODORE 64 oder COMMODORE 128 mit KASSETTE

a) Verbinden Sie Ihre Datenkassette mit Ihrem COMMODORE 64 oder 128 und schalten Sie den Fernseher/Monitor und Ihren Computer ein.
(Für den COMMODORE 128 wählen Sie nun den 64-Modus, indem Sie GO64 tippen, dann die RETURN-Taste, Y und nochmals RETURN drücken.)

b) Legen Sie nun Ihre AFTERBURNER-Kassette ein, mit der A-Seite nach oben. Überprüfen Sie, daß die Kassette an den Anfang zurückgespult ist.

c) Halten Sie die SHIFT und RUN/STOP-Tasten niedergedrückt. Drücken Sie dann die PLAY-Taste auf Ihrer Datenkassette.

d) Der Computer gibt an, wann Sie zur B-Seite übergehen sollten. Überprüfen Sie wiederum, daß die Kassette zum Anfang zurückgespult ist.

3. Fur COMMODORE 64 oder COMMODORE 128 mit DISKETTE

a) Schließen Sie Ihr Laufwerk an Ihren COMMODORE 64 oder 128 an und schalten Sie Ihren Fernseher/Monitor, Computer und Laufwerk ein.
(Für den COMMODORE 128 wählen Sie nun den 64-Modus, indem Sie GO64 tippen, dann die RETURN-Taste, Y und nochmals RETURN drücken.)

b) Geben Sie Ihre AFTERBURNER-Diskette in das Laufwerk ein, mit der Seite 1 nach oben.

c) Tippen Sie LOAD"*",8,1 und drücken Sie die RETURN-Taste.

d) Der Computer gibt an, wann Sie zur B-Seite wechseln sollten.

4. Für AMSTRAD CP464, 664 oder 6128 mit Kassette

a) Schalten Sie Ihren Fernseher/Monitor und Computer ein.

b) Hat Ihr Computer ein eingebautes Laufwerk, so sollten Sie nun ein passendes Kassettengerät anschließen, TAPE eintippen und die RETURN-Taste drücken. Ihr Computer ist jetzt ladebereit.

c) Legen Sie Ihre an den Anfang zurückgespulte AFTERBURNER-Kassette in das Kassettengerät ein, mit der A-Seite nach oben.

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ISBN 07457-0000-4

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Amstrad ZEN Reference Manual

Introduction

Thank you for buying this copy of ZEN for the Amstrad CPC64. If you have any questions about ZEN then please feel free to write to Avalon Software. All high level languages have performance limitations, when you need the maximum in speed and flexibility the answer lies in Assembly Language programming. ZEN provides you with the tools to generate or analyse Z80 Assembly Language programs.

Starting up

Unlike BASIC, which is permanently available in ROM, you need to load ZEN from cassette. It is stored on the cassette as a binary file designed to run at address 4000H (16384 decimal). BASIC usually assumes that it has the whole of memory to itself. To ensure that BASIC and ZEN coexist peacefully it is necessary to change the top of memory before loading from cassette. The loading procedure is therefore as follows:

(1) Type MEMORY 16383(ENTER)

(2) Type LOAD"ZEN"(ENTER)

BASIC will then load ZEN into memory, displaying various prompts and messages as it does so. When loading is finished you are returned to BASIC's command level, any existing BASIC programs are unaffected. To transfer control to ZEN type CALL 16384(ENTER).

Command level

Whenever the prompt ZEN> is displayed you are at command level, you may execute any of the following commands:

A ..... Assemble	O ..... Out
B ..... Bye	P ..... Print
C ..... Copy	Q ..... Query
D ..... Down	R ..... Read
E ..... Enter	S ..... Sort
F ..... Fill	T ..... Target
G ..... Goto	U ..... Up
H ..... Howbig	W ..... Write
I ..... In	X ..... Xamine
K ..... Kill	Z ..... Zap
L ..... Locate	c ..... catalog
M ..... Modify	d ..... disassemble
N ..... New	u ..... unscramble

To select a given command type in the first letter of it's name, followed by a parameter if relevant, and then press the (ENTER) key. The DEL key can be used to backspace. The usage of command loop parameters is explained in greater detail in the next section, which examines each command in depth. If ZEN doesn't understand anything you've typed in it will display the error message HUH? The default command, just pressing (ENTER) on it's own will clear the screen.

ten-Assembler

Assembler Error Handling

If the assembler finds a syntax error the following will happen:

(1) Assembly terminates.

(2) An error message is displayed.

(3) The offending line is displayed and is made the editor current line.

(4) The command loop is re-entered.

You can now correct the error and re-assemble. It is impossible to make a syntax error which will damage ZEN or anything in memory. The error messages are:

UNDEFINED You have used an undeclared symbol.

SYMBOL You have declared a zero length symbol or have forgotten the symbol needed with an EQU pseudo-op.

RESERVED You have tried to use a reserved word for a symbol.

FULL The symbol table is full.

DOUBLE SYMBOL You have declared the same symbol more than once.

EOF You have forgotten END and have hit end-of-file.

ORG! You have forgotten ORG.

HUH? The assembler is completely baffled.

OPERAND You have done something wrong with an operand, this covers a multitude of sins! Most types of syntax error will come under this heading as well as errors of magnitude. These occur when you try to offset too far with a relative jump or indexing instruction.

unscramble This command is a simplified version of the disassembler. It will disassemble eight Z80 instructions beginning at the address specified by the command parameter. For example u41E0H will disassemble the start of ZEN's mainloop. If you default on the address parameter then the command continues from where it last finished. Any illegal opcodes encountered are displayed as data bytes. ZEN will try to make an intelligent guess about how to display eight bit numeric operands. Numbers less than ten are displayed as single digit decimals. Numbers from from 41H to 5AH and 61H to 7AH are displayed as ASCII literal characters. Other numbers are displayed as hex values with a leading zero if necessary.

Further Information

List Output

The commands Assemble, Sort and disassemble can all generate large quantities of output to the video or external devices. With these commmands the output will be generated a page at a time with a short pause between each page. Pressing any key will stop output at the end of the page, to restart press any key except 'Q'. This key will force the command to QUIT and return to the command loop.

The external device is assumed to be eighty characters wide by sixty-six lines long i.e a typical printer. You can change the page length by modifying the PAGE procedure (see ZEN listing). You can change the various field widths by modifying the group of constants COMWIDTH/SYMWIDTH (see ZEN listing). The external device is presumed to respond to the ASCII control characters Formfeed (0CH), Carriage Return (0DH) and Linefeed (0AH). ZEN issues a Formfeed followed by sixty-two lines of text for each page, each line being terminated by Carriage Return, Linefeed. The external device driver (see ZEN listing) will drive EPSON FX-80 type printers as it stands. If you have something unusual there is space in the driver to insert patches, to filter Linefeeds for example.

The video device is assumed to be forty characters wide. Note that line numbers are not generated on the video device for Assembler/disassembler listings because of this reduced width. The symbol, operand and comment fields of a Z80 statement may be of indefinite length. If necessary ZEN will truncate these fields to fit into the required format.

The Symbol Table

The symbol table is the area of memory used by ZEN to store symbols during Assembly/disassembly. It is situated between ZEN and the text file. If you wish to increase it's size it is only necessary to change the start-of-file pointer to the required new value, here's how: (1) KILL the text file (2) Use MODIFY to change SOFP (3) KILL the text file again to copy SOFP into EOFP and CURRENT (4) Perform an ASSEMBLE to shut down the symbol table (5) Use WB to write the new version to cassette.

The External Environment

The Amstrad CPC64 has a complex memory map. When you first enter ZEN you will find that the Operating System and BASIC ROMs have been switched out and that RAM is contiguous from 0 to 0FFFFH, with the video RAM occupying the remaining space. To switch the ROMs back in is fairly easy. Enter the following keystrokes:

```
K(ENTER)
E(ENTER)
ORG 7000H(ENTER)
LOAD 7000H(ENTER)
CALL 0B900H(ENTER)
CALL 0B906H(ENTER)
JP 4000H(ENTER)
END(ENTER)
,(ENTER)
A(ENTER)
V(ENTER)
G7000H(ENTER)
(ENTER)
```

This short program calls two procedures in the Operating System interface to switch in the upper and lower ROMs. They can now be examined with the Query and unscramble/disassemble commands. For example if you Query around 660H you can see the export market names for the machine. Examination of the region around CC50H will reveal all the BASIC error messages.

ZEN will operate whatever condition the memory map is in. BASIC text files occupy low RAM just after the RESTART block and grow up towards HIMEM. The BASIC cassette operating system requires the use of two 2K buffers for read and write. When you first enter ZEN they are set to 3000H to 37FFH (Read) and 3800H to 3FFFH (Write). You can move these around by modifying the CRBUFF, CWBUFF pointer constants (see ZEN listing). They can occupy the same space if required as ZEN only uses one at a time.

Something you should be aware of when designing a program is the Amstrad's use of background interrupts. The interrupt handler is running constantly in order to scan the keyboard, etc. This interrupt handler expects to find certain information in the Z80 alternate registers. You should therefore never do an EXX instruction in your programs with interrupts enabled. If you have to look at the alternate registers for any reason then disable interrupts first. You should also be aware that any call to the Operating System jump block will turn interrupts back on and will consequently crash if you have the register sets exchanged.

New This command lets you modify the current line of the text file. The line is displayed with the cursor at the rightmost position. Change the line and press (ENTER) to restore the new line to the text file.

Out This command will output a data value to the I/O port specified by the command parameter. You will be prompted for the data parameter.

Print This command displays a number of lines from the text file on the screen. The number of lines is specified by the command parameter, for example P9(ENTER) would display nine lines. The default command parameter is one. The display commences with the current line and the last line displayed becomes the new current line.

Query This command displays sixty-four bytes of memory in hex and ASCII. The command parameter specifies the start address, for example Q4000H(ENTER) would display the start of ZEN. If you supply no address parameter then the display begins from where it last finished.

Read This command reads a file from cassette into memory, you will be prompted for a filename. There are two types of file which concern ZEN, text files and binary files. If the file is a text file then it is added to the end of any text already existing in memory. If the file becomes too large then the error message MEMORY is issued and reading terminates. If it is a binary file then it will be placed at it's load address unless you have specified a load address as a command parameter. For example R7900H would load the file commencing at 7900H irrespective of it's actual load address. The execution address of the binary file is placed in the User Program Counter. These two types of files are the same as the standard BASIC text and binary files. The type of a file is determined by a single byte in the file header. The following seem to be the normal types: BASIC = 00H, BASIC PROTECTED = 01H, BINARY = 02H, TEXT = 16H.

Sort This command will sort and display the symbol table produced during the last assembly. You will be prompted for an output option. Your possible responses are the same as for the Assembler list output. The output of this command is generated a page at a time as with list output. You can restrict the sort process to symbols beginning with a particular letter by entering that letter as a command parameter. For example SB(ENTER) would only produce the symbols beginning with the letter 'B'. Note that symbols are only sorted on the first letter and not the whole name.

Target This command will move you to any line in the text file and make it the current line. The command parameter specifies the line number, for example T1435(ENTER) would move you to line one thousand four hundred and thirty-five. The default command parameter, T(ENTER), moves you to the start-of-file.

Up This command moves you up the text file by the number of lines specified in the command parameter. The default parameter is one.

Write This command writes a text or binary file to cassette, you will be prompted for a file name. The command W(ENTER) writes the text file while the command WB(ENTER) writes an area of memory as a binary file. In this case you will be further prompted for START>, STOP> and EXEC> addresses. The area written is from start to stop inclusive, the execution address is merely placed in the file header for use in later reading.

Xamine This command displays the Z80 registers saved in the User Image. The top line shows the main registers and the lower line the Z80 alternate register set.

Zap This command removes a number of lines from the text file as specified by the command parameter. For example Z108(ENTER) would remove one hundred and eight lines, commencing with the current line. The default command parameter is one.

catalog This command is identical to the BASIC cat command, it will verify and display all the files found on the cassette. File type indicators are: BASIC = $, BASIC PROTECTED = %, BINARY = &, TEXT = *.

disassemble This command performs a symbolic disassembly on an area of memory and generates a text file or listing as output. You will be prompted for the START> and STOP> addresses of the area you wish to disassemble. You will then be asked the address which the program RUNS AT>. Sometimes you may have a program in memory at a different location to it's usual run-time location, the disassembler can relocate any addresses and labels in it's output to reflect this. If you default to the request for the run-time start address then ZEN assumes that the program is at it's normal run-time location. If you supply an actual address parameter then the output file will reflect this run-time address. You will then be asked, repeatedly, for the START> and STOP> addresses of any data areas within the disassembly region. These are areas which will not be decoded as instructions but as data bytes. To terminate this process type in a stop address of zero. There is a maximum of sixty-four seperate data areas, if you exceed this number ZEN will generate the error message FULL. You will now be asked for an output OPTION>. You may specify V(ENTER) or E(ENTER) for listings to the video or external devices. If you default then ZEN will generate a text file and add it to the end of any text already in memory. If the text file grows up to the top of memory limit during disassembly then the error message MEMORY is issued and disassembly terminates. The only other error condition possible during disassembly is for the symbol table to fill up in which case the error message FULL is issued. Note that the disassembler uses the same symbol table as the assembler and so destroys any symbols there. This is only of relevance if you which to perform a later SORT operation. Any illegal opcodes encountered during disassembly are treated as data statements. Labels of the form Lnnnn (where nnnn is an address) will be generated at the appropriate positions.

Assemble The function of the assembler is to read a series of assembly language statements and to produce the corresponding Z80 machine code and listing. The ZEN editing commands are used to create a text file in memory which is the input to the assembler. Output of the machine code file, usually called the object file, is controlled by the LOAD operator (see under PSEUDO-OPS). The listing output is specified by you in response to the OPTION> prompt from the assembler. You may specify V(ENTER), E(ENTER) or (ENTER) for video, external or null list output. The null output option is much the fastest mode (the assembler is peripheral-bound) and should be used until all syntax errors are corrected. The text file is read beginning at the start-of-file and stopping when the END operator is found.

Bye This command gives a warm return to BASIC, any BASIC programs in memory are unaffected. You can do a warm return to ZEN by issuing the CALL 16384 statement as described previously. You can shuttle between ZEN and BASIC whenever you like without affecting any files or data in memory.

Copy This command moves a block of memory. You will be prompted for START>, STOP> and DESTINATION> parameters. Within ZEN's command structure a numeric parameter may be a decimal, hexadecimal or octal number. Hex numbers are 'H' postfixed and octal are 'O' postfixed. So if you wanted to move the block of memory from 200H to 2FFH up to 8000H you would type 200H(ENTER), 2FFH(ENTER) and 8000H(ENTER).

Down This command moves the editor current line down by the number of lines specified in the command parameter. For example D37(ENTER) moves down thirty-seven lines. The default command parameter is one so D(ENTER) moves down one line. The editor in ZEN is line orientated as in BASIC but does not use explicit line numbers, instead you use various commands to move around the text file until you reach the required position. You then use the ENTER or ZAP commands to insert or delete lines of text. If the DOWN command bumps into the end-of-file then the message EOF will be displayed.

Enter This command enters lines of text into the text file. ZEN will display the current line number, type in your line of text then press (ENTER). This process will repeat until you type a full stop as the first character on the line, this returns you to command level. Your text is placed in the file at the current line, the old current and following lines are moved downwards towards EOF. Note that although line numbers are often displayed by ZEN these are dynamically computed and not stored in the text file.

Fill This command fills a block of memory, from START> to STOP> inclusive with a DATA> value. You will be prompted for all three parameters.

Goto This command loads the Z80 registers with the User Image and transfers control to the address specified in the command parameter. For example G0(ENTER) would perform a complete system cold start. If no command parameter is supplied then control is transferred to the address in the User Program Counter. You will then be prompted for a breakpoint address. If you respond with a valid address parameter then a breakpoint is set at that address. If you default, by just pressing (ENTER), then no breakpoint is set. A breakpoint is a way of stopping a running program. A RST 30H instruction (0F7H) is inserted into the program and a vector back to the ZEN trap handler is placed at 0030H. The trap handler will save all the Z80 registers in the User Image area and restore the code under the breakpoint before returning to the ZEN command loop. You can thus examine the state of the Z80 at the time of the breakpoint. You cannot set a breakpoint in ROM, ZEN will generate a MEMORY error message if the breakpoint has failed to set for this reason. You can continue execution by using the G(ENTER) command as the Program Counter is saved as part of the trap process.

Howbig This command displays, in hexadecimal, the start and end addresses of the text file and the top of memory. ZEN will allow the text file to grow up to this top limit but no further. You can change this limit if required (see ZEN listing, the LIMIT constant). It is presently set at AB7FH, the area from AB80H to BFFFH is used by the BASIC operating system. The area from C000H to FFFFH is the video memory.

In This command will display, in hexadecimal and binary, the data read from the I/O port specified by the command parameter. For example I83H(ENTER). The particular hardware configuration of the Amstrad CPC64 means that addresses up to FFFFH are valid.

Kill This command erases the text file, as with the NEW statement in BASIC. It is possible to recover an accidentally KILLED file as ZEN just makes the EOF pointer equal to the SOF pointer, the actual text will still be in memory. Find the address of the last text character, this will be an ASCII Carriage Return code (0DH). Increase this by one and use the MODIFY command to restore the EOF pointer (see ZEN listing, EOFP).

Locate This command is used to search the text file for a particular string of characters. The character string forms the command parameter. For example LBIT 7,A(ENTER) would find the first occurrence of the string BIT 7,A in the text file. The text file is searched from the line after the current line. If the string is found then that line is made the current line. If the search fails you are at end-of-file. There are no restrictions on the contents of the parameter string.

Modify This command allows you to examine and alter memory contents. The start address is specified by the command parameter. For example M7000H(ENTER) would cause the command to start at 7000H. If you supply no address parameter then the command continues from where it last finished. The byte at the address is displayed in hex and ZEN prompts for a data parameter from you. If you supply a parameter then it is stored at that address, if you default ZEN just steps onto the next address. To return to command level type a full stop.

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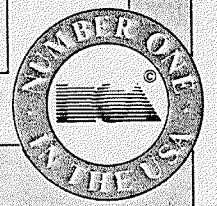

ELECTRONIC ARTS™

Teil 1: Lernen Sie Ihr Schiff kennen

Erstes Training: Wenn dies Ihre erste Erfahrung mit einem Tragflügelboot ist, möchten Sie sich wahrscheinlich eine erste Demonstration ansehen. So gehts:
Sobald Ihr Computer eingeschaltet ist und das Programm läuft (näheres hierzu auf der Referenz-Karte), wird Ihnen eine Liste mit neun verschiedenen Missionen vorgelegt. Wählen Sie hier bitte Mission 0. Der Comnputer führt das Programm nun vollautomatsich vor. Bitte beachten Sie jetzt schon den Unterschied zwischen dem Blick von der Brücke und dem Blick auf die Landkarte.
Wenn Sie glauben, für Ihre erste Mission bereit zu sein, drücken Sie bitte >Shift-Q<. Sie können dann erneut eine Mission auswählen. Wir schlagen vor, zu Beginn eine der ersten, einfacheren auszuwählen.

Teil 2: Die Missionen

In das Programm wurden acht verschiedene Missionen integriert. Die ersten beiden Missionen sind nur zum Training und versorgen Sie mit simulierten Kampfeinsätzen zum Üben. Wir empfehlen Ihnen, mit diesen Missionen zu beginnen und die anderen sechs erst mit einiger Erfahrung anzugehen.
Am Ende jeder Mission erhalten Sie eine Punktzahl und eine Auszeichnung, die auf Ihre Leistung beim Einsatz schließen lassen. Die Punktezahl setzt sich aus fünf Faktoren zusammen, die im folgenden beschrieben sind. Die Faktoren werden bei jeder Mission unterschiedlich gewichtet. In manchen Missionen ist es wichtiger, Ihr Schiff heil in den Hafen zu bringen, als möglichst alle Feinde zu vernichten.

Punkte-Wertung:

1. Hauptziel (Main Objective)
Die volle Punktzahl erhalten Sie nur, wenn Sie Ihre Mission vollständig beendet haben. Schaffen Sie es nicht, gibt es keinen einzigen Punkt.
Bereich: 1000 bis 5000 Punkte

2. Zerstörte Gegner (Enemies Destroyed)
Für jeden zerstörten Gegner erhalten Sie Punkte.
Bereich: 50 bis 500 Punkte

3. Beschädigte Gegner (Enemies Damaged)
Für jeden getroffenen, aber nicht zerstörten Gegner gibt es Punkte.
Bereich: 25 bis 250 Punkte

4. Übrige Zeit (Time Remaining)
Für jede Minute, die nach erfolgreicher Beendigung Ihrer Mission noch übrig sind, gibt es Punkte.
Bereich: 1 bis 4 Punkte pro Minute

5. Überlebens Bonus (Survival Bonus)
Einen Überlebens-Bonus gibt es, wenn Sie entweder die Mission erfolgreich beendet haben oder wenn die Missions-Zeit abläuft, Sie aber noch nicht versenkt wurden. Es gibt Punkte für jede der zwölf Sektionen des Schiffs (Sechs Rumpf-Sektionen, sechs System-Sektionen). Die volle Punktzahl gibt es für unbeschädigte Sektionen, die halbe für beschädigte, keine für zerstörte.
Bereich: 20 bis 200 Punkte pro Sektion

Beförderungen
Je nach Ihrer Punktzahl und der Schwerigkeit der Mission können Sie Beförderungen erhalten. In den einfachen Missionen können Sie selbst bei fehlerfreiem Abschneiden nur Lieutenant werden. Nur bei den schwerste Missionen ist es möglich, so hohe Ränge wie Admiral zu erreichen. Um befördert zu werden müssen Sie in jedem Fall die Mission erfolgreich beenden.
Die einzelnen Ränge sind (in aufsteigender Reihenfolge):

Deck Mopper (Putzmann), Ensign, Lieutenant, Commander, Captain, Commodore, Rear Admiral, Admiral

Die Missionen

1. Battle Training (Kampf-Training)

Zehn feindliche Schiffe werden, eines nach dem anderen, in Ihr Gebiet rund um Key West eindringen. Diese Schiffe reichen vom einfachen Patrollienboot bis zur Nanuchka II Raketen-Corvette. Diese Mission ist dafür ausgelegt, Sie mit dem Tragflügelboot und seinen Waffensystemen vertraut zu machen.

Ziel: Zerstören Sie alle zehn simulierten Feinde.
Höchster erreichbarer Rang: Lieutenant
Schiffe der Feinde: Patrol Boat, OSA 1, Nanuchka II
Strategische Tips: Diese Mission ist eine gute Lektion zum Kennenlernen des Schiffs. Benutzen Sie die Kanone für die kleinen Boote, sparen Sie sich die Raketen für die großen.

2. Graduation Exercise
Diese Übung ähnelt der ersten, mit dem einzigen Unterschied, das nun alle zehn Schiffe auf einmal auf Sie zu kommen und Sie versuchen, unter die Wasseroberfläche zu kriegen. Alle Angreifer so schnell wie möglich zu vernichten ist das wichtigste, um zu überleben.

Ziel: Versenken Sie alle zehn Gegner
Höchster erreichbarer Rang: Lieutenant
Schiffe der Feinde: Patrol Boat, OSA 1, Nanuchka II
Strategische Tips: Bleiben Sie in Bewegung, sonst sind Sie ein glänzendes Ziel für die Gegner. Benutzen die Raketen für die weiter eintfernten Schiffe, ihre Kanone für die näheren. Passen Sie auf Ihrem Radar auf schnelle Punkte auf, die sich in Ihre Richtung bewegen. Dies sind feindliche Raketen, die sie mit Ihrem CHAFF ablenken müssen.

3. Terrorist Attack
Vor etwa acht Stunden haben einige Terroristen einen Badeort überfallen, viele Menschen getötet und noch mehr verwundet. Sie sind in mehreren Patrollienbooten Richtung Westen geflohen. Nach Zeugenaussagen sind es zwischen sieben und zehn Schiffe, einige sollen OSA I-Raketenboote sein. Ihre Mission ist es, diese Schiffe zu suchen, abzufangen und zu versenken.
Es könnte durchaus sein, das einige Nachbarnationen die Terroristen unterstützen und beschützen werden. Wir vermuten die Basis der Terroristen auf Cypern. Die Terroristen haben sich wahrscheinlich in vier oder mehr einzelne Gruppen aufgeteilt, als sie flohen.

Ziel: Versenken Sie sämtliche Terroristen
Höchster erreichbarer Rang: Commander
Schiffe der Feinde: Patrol Boats, OSA 1, OSA 2, Zhuk
Strategische Tips: Die Schiffe der Terroristen sind westlich Ihrer Startposition und bewegen sich schnell nach Norden. Versuchen Sie, ihnen den Weg abzuschneiden, während Sie deren Verbündete aus dem Nordosten vermeiden (oder vernichten). Bewahren Sie Ihre Raketen für die OSA-Schiffe auf.

4. A Better Part of Valor
In Südamerika braust ein Krieg auf. Ihr Tragflügelboot wird dort so schnell wie möglich gebraucht. Von Ihrer Basis in Key West brechen Sie dorthin auf. Sie müssen durch die gefährlichen Strömungen des Yucatans zwischen Mexico und Cuba navigieren, um die südlichen Gewässer zu erreichen. Um die Mission zu erfüllen, genügt es, das südliche Ende der Karte zu erreichen. Halten Sie nach feindlichen Schiffen Ausschau, die Sie daran hindern wollen. Benutzen Sie Ihren Hubschrauber, um die Gegend rund um Ihr Boot zu bewachen oder um Feinde aufzuspüren und zu vernichten.

Ziel: Erreichen Sie das südliche Ende der Karte mit so wenig Schaden, wie nur möglich.
Höchster erreichbarer Rang: Commander
Schiffe der Feinde: Kommar und Assad Raketenboote
Strategische Tips: Bewegen Sie sich stets mit Höchstgeschwindigkeit. Schiessen Sie Gegner, die sich Ihnen in den Weg stellen, schon aus größerer Entfernung mit Ihren Raketen ab.

5. Search for Terrorists
Zwei Raketen-Corvetten haben erfolglos eine amerikanische Militärbasis auf Sizilien angegriffen. Ein Tragflügelboot mit Exocet-Raketen sowie ein Hubschrauber stehen bereit, um sie aufzuspüren. Ihre Mission ist es, beide Schiffe zu vernichten, bevor sie fliehen können. Sie fliehen Richtung Süden, wir nehmen an, nach Tripolis. Sie können von ähnlichen Schiffen nur anhand des Kurses unterschieden werden. Obwohl Sie auf eine Menge feindlicher Schiffe stoßen werden, denken Sie immer daran, daß diese beiden Schiffe Ihr Ziel sind.

Ziel: Versenken Sie die zwei fliehenden Nanuchka II Schiffe
Höchster erreichbarer Rang: Captain
Schiffe der Feinde: OSA I, OSA II, Nanuchka II
Strategische Tips: Vermeiden Sie, wenn möglich, die anderen Gegner und verfolgen Sie die Flüchtigen. Heben Sie sich Ihre Raketen für diese beiden auf.

6. Supply Convoy
Ein südamerikanisches Land wurde von einem Diktator übernommen, der es geschafft hat, die Karibik in eine Kriegszone zu verwandlen. Ihre Mission ist es, einem Hochgeschwindigkeits-Schiff Geleitschutz zu geben, das Medizin und Nahrungsmittel zu Flüchtlingen bringen soll. Die Truppen des Dikators setzen hauptsächlich Schiffe mit Raketen und kleinen Kanonen oder einer großen Kanone ein.

Ziel: Geleiten Sie das Versorgungsschiff sicher an den südlichen Rand der Karte.
Höchster erreichbarer Rang: Admiral
Schiffe der Feinde: Vosper-Thornycroft 121 ft. Class
Strategische Tips: Sparen Sie Treibstoff indem Sie nur mit kleiner Geschwindigkeit fahren und nur dann schneller werden, wenn Sie Feinde am Horizont entdecken oder Sie das Convoy-Schiff überholt.

Der Convoy sollte mit Höchstgeschwindigkeit in das untere rechte Eck der Karte fahren. Benutzen Sie die Hubschrauber, um Feinde vorzeitig zu erkennen. Bleiben Sie stets zwischen den Feinden und dem Convoy-Schiff.

7. Surveillance Mission
Es wird vermutet, daß einem Diktator militärische Ausrüstung zugeschmuggelt wird. Ein Frachtschiff wurde photographiert, wie Waffen an Bord genommen wurden. Dieses Schiff hat Kurs auf Nicaragua genommen. Außerdem befinden sich sieben ähnliche Frachtschiffe mit dem selben Kurs im Einsatzgebiet. Sie sollen alle acht Schiffe fotographieren, so daß man deren Identität feststellen und das Waffenschiff entlarven kann. Ein Schiff wird automatisch fotographiert, wenn Sie näher als 1500 Fuß heran fahren und das Schiff als Ziel auswählen. FEUERN SIE ABER NICHT! Sollten Sie eines der Schiffe vernichten, ist dies ein schwerweigender internationaler Zwischenfall. Ihre Mission wäre damit negativ beendet. Benutzen Sie Ihre zwei Hubschrauber, um alle acht Frachtschiffe zu finden. Einige Kampfschiffe des Dikatators sind in der Nähe, die Sie ruhigen Gewissens vernichten können. Passen Sie aber auf, auf wen Sie schießen und identifizieren Sie die Schiffe schon aus der Ferne. Passen Sie auf Ihre Tankfüllung auf!

Ziel: Finden und fotographieren Sie alle acht Frachtschiffe ohne eines zu versenken.
Höchster erreichbarer Rang: Rear Admiral
Schiffe der Feinde: Frachtschiffe (Cargo Ships), OSA II
Strategische Tips: Die Frachtschiffe sind zwar langsam, werden aber irgendwann mal einen sicheren Hafen erreichen. Bewegen Sie sich schnell und setzen Sie Ihre Hubschrauber vernünftig ein.

8. JIHAD
Ihre Mission ist es, ein Versorgungsschiff durch den Persischen Golf zu geleiten. Die einzige Schwierigkeit ist der gerade tobende Golfkrieg, bei dem auch auf zivile, unschuldige Schiffe ohne Warnung geschossen wird. Das Versorgungsschiff versucht, amerikanische Arbeiter aus dem Krisengebiet zu evakuiren, aber der Kapitän ist zu besorgt, um selber das Schiff durch den Golf zu fahren, so daß Sie auch dessen Steuerung übernehmen müssen. (Das Versorgungsschiff wird wie ein Hubschrauber gesteuert).
Versuchen Sie, Auseinandersetzungen mit Gegnern zu vermeiden. Je freundlicher Sie sich verhalten, desto unwahrscheinlicher ist es, daß Sie angegriffen werden. Wenn Sie jedoch in Kampfhandlungen

eingreifen oder diesen zu nahe kommen, wird sich eine ganze Flotte gegen Sie stellen. Das Versorgungsschiff ist das beliebte Ziel der Angreifer, also passen Sie gut drauf auf. Ihre Mission ist es, das Versorgungsschiff sicher in den indischen Ozean zu bringen, Schaden an Ihrem Schiff ist nur zweitrangig. Passen Sie auf Ihren Benzintank auf, und auf das Zeitlimit, daß sehr knapp gesteckt ist!

Ziel: Bringen Sie das Versorgungsschiff sicher in den Indischen Ozean.
Höchster erreichbarer Rang: Admiral
Schiffe der Feinde: OSA I und OSA II Raketen-Corvetten
Strategische Tips: Diesmal sind Sie auf sich alleine gestellt.

Teil 3: Die Steuerung

EINFÜHRUNG:
Das Tragflügelboot ist ein Hochgeschwindigkeits-Schiff mit kompakten Waffensystemen. Es ist ideal geeignet für kleinere Einsätze, Patrollien und Aufklärungs-Missionen. Aufgrund der Tragflügel-Technik kann ein solches Schiff auch bei starkem Seegang noch sehr schnell fahren und bleibt dabei äußerst wendig. Die im Spiel verwendeten Tragflügelboote tragen jeweils eine 76-mm-Kanone, Raketen (je nach Ausführung Gabriel, Harpoon oder Exocet) und Chaff um gegnerisches Radar zu täuschen.
Als der Commander des Boots können Sie jederzeit zwischen dem Blick von der Brücke und einer Landkarte hin- und herschalten. Jede der beiden Ansichten hat ihre eigenen Funktionen und ihre eigene Tastaturbelegung. Die Tastaturbelegung ist auf der Referenz-Karte für Ihren Computer gesondert aufgelistet.

DIE BRÜCKE
Bitte sehen Sie sich dazu Bild 1 an. Die obere Hälfte des Bildschirms zeigt die Aussicht von der Brücke, darüber sehen Sie ein Fernglas, das einzelne Schiffe vergrößert.

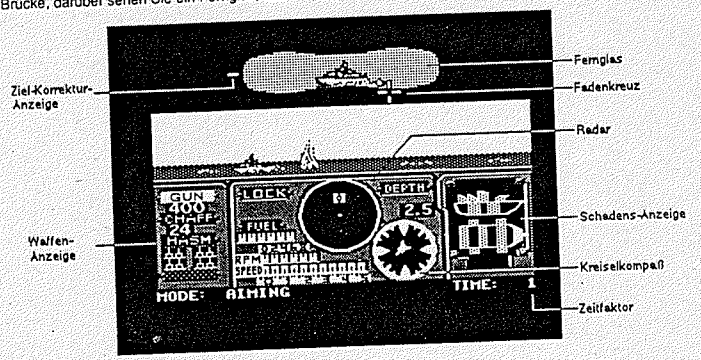

Bild 1: DIE BRÜCKE

Die untere Hälfte des Bildschirms zeigt die Instrumente des Boots. Im folgenden eine Beschreibung:

Kreiselkompass - Zeigt die Richtung an, in die Sie fahren. Norden ist immer oben.
RPM - Umdrehungsmesser, zeigt die Geschwindigkeit des Motors an.
Speed - Zeigt die Fahrgeschwindigkeit des Boots an.
Radar - Zeigt alle Schiffe in der Umgebung des Boots.
Waffen-Anzeige - Zeigt das gerade aktive Waffensystem sowie die Anzahl der verbleibenden Schüsse/Raketen an.

Warn-Anzeigen - Die beiden Warnanzeigen weisen auf potentielle Probleme hin. Leuchtet Depth rot auf, besteht Gefahr, daß Sie aud Grund laufen. Ein automatisches System verhindert das Schlimmste und stoppt Ihr Boot vorzeitig ab. Drehen Sie einfach in eine andere Richtung, damit Sie weiterfahren können. Leuchtet Lock auf, haben eine oder mehrere Raketen des Feindes Sie in ihrem Radar. Entweder werden in Kürze Raketen auf Sie abgefeuert oder diese sind schon auf dem Weg.
Schadens-Anzeige - Zeigt an, welche Teile des Bootes leichten oder schweren Schaden erlitten haben. Eine genauere Erklärung folgt.

DIE LANDKARTE
Sie können jederzeit von der Brücke aus auf eine Landkarte der Umgebeung umschalten (und wieder zurück). Siehe auch Bild 2.

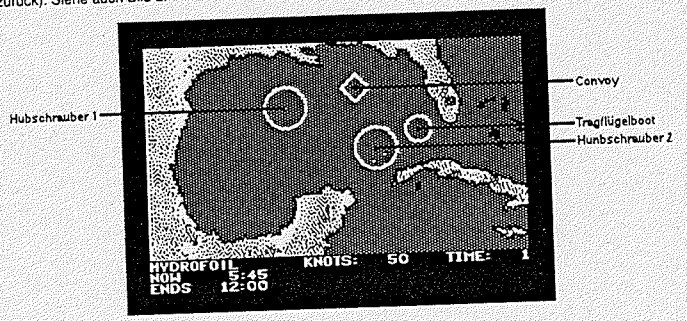

Bild 2: DIE LANDKARTE

Die Karte zeigt das komplette Einsatzgebiet für Ihre derzeitige Mission. Sie zeigt alle großen Landmassen, Ihren derzeitigen Standort, die aller befreundeten Schiffe/Hubschrauber sowie all Feinde im Radar-Bereich Ihrer Schiffe/Hubschrauber. Ihr Schiff wird in weisser Farbe angezeigt. Die Hubschrauber und zusätzlichen Schiffe können nur von der Kart aus gesteuert werden. Mehr Informationen dazu finden Sie auf der Referenz-Karte.

WAFFEN UND VERTEIDUNGUNGSSYSTEME

Ihr Tragflügelboot ist mit dem neuesten aus der offensiven und taktischen Bewaffnung ausgerüstet. Die folgenden Informationen sind eine einfache Beschreibung aller Systeme an Bord. Bedienungshinweise für diese Systeme finden Sie ihn der Referenz-Karte.

76mm Kanone
Die Oto-Melara 76mm Automatik-Kanone (wassergekühlt) wird von vielen Marine-Einheiten überall auf der Welt eingesetzt. Sie feuert etwa 90 Schuss pro Minute und ist sogar für Flugzeuge und Raketen eine echte Bedrohung. Die Reichweite von etwa zehn Meilen reicht aus, kleinere Schiffe schnell zu versenken. Da Sie aber auf bewegliche Ziele schießen, ist die effektive Reichweite schon bei etwa sechs Meilen erreicht. Sie müssen deswegen auch bei beweglichen Zielen etwas neben das Ziel schießen, damit das Geschoß beim Einschlag das feindliche Schiff und nicht einfach das Wasser trifft. Je weiter entfernt und schneller ein Ziel ist, desto schwerer ist es zu treffen. Ein computer-kontrolliertes Ziel-System informiert Sie darüber, in welche Richtugn Sie beim nächsten Schuß korrigieren müssen, wenn Sie ein Ziel verfehlen. Beachten Sie die aufleuchtenden Anzeigen rund um Ihr Fernglas.

Chaff
Das Mark 34 Chaffroc System an Bord Ihres Schiffs erlaubt es Ihnen, Raketen abzufeuern, die in der Luft explodieren und dabei Aluminum-Streifen (Chaff) in der Luft verstreuen. Dadurch wird das Radar von anfliegenden Raketen gestört, die nun die Aluminium-Streifen als neues Ziel ansehen. Bewegen Sie sich möglichst schnell vom Chaff weg, sonst kann die Rakete Sie doch noch erwischen.
Das richtige Timing ist sehr wichtig. Feuern Sie das Chaff zu früh, fallen die Aluminium-Streifen ins Wasser und die Rakete kehrt zum alten Ziel (nämlich Ihnen) zurück. Feuern Sie zu spät, stellt sich die Rakete nicht mehr auf das Chaff ein. Der beste Zeitpunkt zum Abfeuren ist, wenn sich die Rakete in etwa einer Meile Entfernung befindet.

Harpoon Raketen
Die Harpoon Raketen sind Ihre gefährlichste und präziseste Waffe. Sie treffen in 90 Prozent aller Fälle und zerstören alle kleinen Schiffe mit einem einzigem Treffer. Da die Harpoon-Raketen radargesteuert sind, treffen Sie Ziele, die Sie nur als kleinen Punkt am Horizont sehen (etwa 40 Meilen Entfernung). Auf diese Entfernung können die meisten Gegner nichts gegen Sie ausrichten.

Gabriel Raketen (nur auf israelischen Booten)
Diese Rakete hat eine kleinere Reichweite als die Harpoon, soll dafür aber etwas präziser sein. Ihr Sprengkopf ist wesentlich stärker (400 Pfund hochexplosiver Sprengstoff).

Exocet Raketen (nur auf italienischen Booten)
Eine französische Rakete, von den Briten erfolgreich in Falkland eingesetzt. Sie hat eine ähnliche Charakteristik wie die Harpoon.

Radar
Die Reichweite Ihres Radar-Systems ist etwa 40 Meilen, nach vorne oder hinten ist es etwas genauer und weitreichender als zu den Seiten. Ihr Boot wird durch einen blinkenden Punkt in der Mitte des Radarschirms gekennzeichnet. Blinkt dieser Punkt nicht, dann ist jemand ganz nah an Ihnen dran!

Hilfsfahrzeuge
Einige Missionen erfordern, daß Sie zusätzliche Boote und Hubschrauber steuern. Die Steuerung erfolgt komplett über die Landkarte. Bitte lesen Sie näheres in Ihrer Referenz-Karte nach.

SCHADENS-ANZEIGE
Ihr Boot kann immer noch benutzt werden, wenn es teilweise beschädigt ist. Im folgenden wird beschrieben, welche Schäden welche Folgen haben. Beachten Sie auch bitte Bild 3.

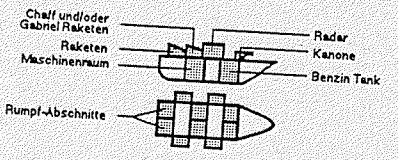

Bild 3: Schadensanzeige

Rumpf-Beschädigung
Der Rumpf des Schiffes ist in sechs wasserdichte Abschnitte unteteilt. Leichte Beschädigung (angezeigt durch gelbe Farbe) an einem oder allen der Abschnitte behindert Sie nicht. Ein schwerer Schaden (angezeigt durch rote Farbe) an mehreren Abschnitten versenkt Ihr Boot. Diese Zahl wechselt mit dem Boot das Sie benutzen. Das amerikanische PHM kann schweren Schaden an bis zu vier Abschnitten verkraften, das israelische Flagstaff wird nach drei zerstörten Abschnitten sinken und das italienische Sparviero, das kleinste der drei Schiffe, schon bei zwei zerstörten Abschnitten sinken wird.
Beachten Sie: Solange Sie auf den Tragflügeln gleiten, kann Ihrem Schiff nichts passieren, sobald Sie aber die Geschwindigkeit senken und der Rumpf ins Wasser eintaucht, haben Sie ein Problem. Solange Sie auf den Flügeln gleiten, ist ihr kompletter Rumpf über der Wasseroberfläche, so daß es wahrscheinlicher ist, daß er getroffen wird.

System Schaden
- 76mm Kanone: Leichter Schaden führt zu gelegentlichen Fehlschüssen. Schwerer Schaden macht die Kanone unbrauchbar.
- Radar: Leichter Schaden verringert die Reichweite auf etwa 20 Meilen, schwerer Schaden auf 10 Meilen. Obwohl das Radar beschädigt ist, haben Sie auf der Landkarte eine größere Reichweite, weil Ihre Offiziere den Horizont mit Ferngläsern absuchen.
- Chaff: Mit leichtem Schaden kann es zu Fehlzündungen kommen, bei schwerem Schaden können Sie keinen Chaff mehr abfeuern.
- Raketen: Mit leichtem Schaden kann es zu Fehlzündungen kommen, bei schwerem Schaden können Sie keine Raketen mehr abfeuern.
- Benzintank: Bei leichtem Schaden verlieren Sie langsam Sprit, bei schwerem Schaden sehr schnell. Haben Sie keinen Sprit mehr, ist die Mission negativ beendet. Bei kleineren Geschwindigkeiten verbrauchen Sie wesentlich weniger Sprit.
- Maschinenraum: Leichter Schaden setzt Ihre Maximalgeschwindigkeit herab. Schwerer Schaden führt zu sehr langsamen Geschwindigkeiten oder zum Stillstand des Schiffs. Wenn Sie zu langsam werden, taucht Ihr Rumpf ins Wasser ein. Bei leichtem Schaden kann es dann passieren, daß Sie nicht mehr genug Kraft haben, um das Boot aus dem Wasser zu heben.

STEUERUNG DES SCHIFFS

Sie können das Schiff entweder von der Brücke oder von der Landkarte aus steuern. Um zwischen diesen beiden Modi umzuschalten, drücken Sie bitte die Taste V. Von der Brücke aus steuern Sie das Boot und Ihre Waffensysteme. Sie können hier auch die Reichweite Ihres Radars einstellen. Von der Landkarte aus können Sie Ihren Autopiloten einstellen und ihre Hilfsfahrzeuge (Schiffe/Hubschrauber)

steuern. Manche Tastaturfunktionen können Sie in beiden Modi aktivieren, beispielsweise die Pausenfunktion oder die Geschwindigkeitskrontolle. Eine Aufzählung aller Funktionen folgt. Weitere Details dazu finden Sie in der Referenz-Karte.

Steuerung des Bootes:
Sie können Ihr Boot mit einem Joystick oder der Tastatur steuern (Näheres in der Referenz-Karte). Drücken Sie den Joystick nach oben, wird Ihr Schiff schneller, drücken Sie nach unten, langsamer. Drücken Sie den Joystick nach links und rechts, steuern Sie das Boot in die entsprechenden Richtungen. Sobald Sie das Schiff von Hand steuern, schalten Sie den Autopiloten ab.

Zielen und Abfeuern der Waffen:
Sie benutzen den Joystick ebenfalls zum Bedienen der Waffen. Wenn Sie die Leertaste drücken, schalten Sie zwischen Steuerruder und Waffensystemen um. Um ein Ziel auszuwählen, können Sie mit der Taste T auf dem Radarschirm ein Ziel nach dem anderen aussuchen. Ihr Ziel erscheint dann im Fernglas. Um mit der Kanone zu zielen, bewegen Sie das Fadenkreuz mit dem Joystick, der Knopf feuert sie ab. Nach dem Einschlag zeigen die Ziel-Korrektur-Anzeigen, in welche Richtung Sie das Ziel verfehlt haben.
Raketen und Chaff arbeiten ohne das Fadenkreuz. Raketen gehen automatisch auf das Schiff im Fernglas los. Danach geht alles automatisch und Sie können schon ein neues Ziel auswählen. Chaff brauchen Sie überhaupt nicht zu zielen. Wie man zwischen den Waffensystemen umschaltet, steht auf der Referenz-Karte.

Der Autopilot
Um den Autopiloten zu programmieren, müssen Sie auf der Landkarte sein und Ihr Schiff selektiert haben (näheres dazu auf der Referenz-Karte). Bewegen Sie das Fadenkreuz auf das Ziel und drücken Sie eine der Tasten von 1 bis 5. 5 bedeutet Höchstgeschwindigkeit, 1 bedeutet sehr langsam. Haben Sie schon eine Geschwindigkeit eingestellt, drücken Sie nur den Feuerknopf, um Ihr neues Ziel zu bestätigen. Drücken Sie 0, bleibt Ihr Boot stehen. Sollten Sie auf der Brücke das Boot von Hand steuern, wird der Autopilot sofort abgeschaltet. Sie können jedoch auch auf der Brücke mit den Tasten 1 bis 5 die Geschwindigkeit ändern, ohne den Autopiloten abzuschalten.
Der Autopilot gibt Nachricht in der unteren Bildschirmzeile, wenn das Ziel erreicht wurde.

Die Hilfsfahrzeuge:
Auf der Landkarte können Sie auch die anderen Fahrzeuge, sprich einen oder zwei Hubschrauber sowie ein Convoy-Schiff kontrollieren. Diesen Fahrzeugen geben Sie Befehle, wie Ihrem Autopiloten (siehe oben). Sie müssen nur vorher das entsprechende Fahrzeug selektieren (siehe Referenz-Karte). Die Fahrzeuge auf der Landkarte sind farb-kodiert. Ihr Boot erscheint stets weiss, die beiden Hubschrauber sind grün, das Convoy-Schiff grau. Wenn Sie die Taste D drücken, werden die Radar-Anzeigen dieser Schiffe gegen entsprechenden Symbole ausgetauscht.

Zeit-Kompression:
Wenn Sie durch ruhige See fahren und das Spiel etwas beschleunigen wollen, sehen Sie bitte auf der Referenz-Karte nach. Sie können das Spiel maximal um den Faktor 128 bneschleunigen. Allerdings wird dies automatiich auf den Faktor 8 heruntergebremst, wenn Sie auf feindliche Schiffe stoßen. Immerhin können Sie eine komplette Mission in achtfacher Geschwindigkeit spielen, eine echte Herausforderung für Profis.

PHM Pegasus was created by the Lucasfilm Games Division. Noah Falstein was the designer and head programmer. Larry Holland and Edwin Reich were programmers on the Apple II and Commodore 64 versions. Ken Macklin did the artwork, Chris Grigg designed the sounds and music. Charlie Kellner, Ron Gilbert and Randy Farmer contributed algorithms and special program routines. Steve Arnold, Mary Paterno and Nancy Mohler provided logistical and administrative support. Other members of the division helped with testing and suggestions.

Special thanks to George Lucas.

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Manual by N. Lavroff & Lucasfilm Games Division. © 1986 Electronic Arts.

springen, was sehr viel Zeit spart. Mit dem Sprungauslöser werden diese Flächen aktiviert.
Viele der größeren Gebäude sind mit Andockvorrichtungen ausgestattet. In solchen Fällen liefert der Tor-Auslöser idie richtige Entschlüsselungssequenz zum Andocken.
Vom Andocken bei hohen Geschwindigkeiten wird dringend abgeraten.

ɔl/Tracking Auf Anfrage erhältlich. Wenn die Laser Ihres Schiffs ein Fahrzeug anvisieren, zeigt der obere Balken rot an. Der mittlere Balken wird rot, wenn Sie selbst das Ziel sind. Aufleuchten des unteren Balkens signalisiert einen Ausfall Ihrer Schilde.

ɔßanzeigen Meßanzeigen gehören zur Standardeinrichtung aller Skimmer. Sie zeigen die Laser-Temperatur an (bei Dauerbetrieb kommt es leicht zu einer Überhitzung), Schildzustand, Treibstoffvorrat, Höhe und Geschwindigkeit

Eine Mission zu Ende bringen

Nach Abschluß einer Mission (bei einem Punkteniveau ɔ 90% oder höher) beenden Sie den Flug durch Andocken dem Galcorp Landevehikel. Auf dem Bildschirm erscheint ıderum das Hauptmenü.
ıweis: Bei Zerstörung Ihres Raumschiffs wird der ıktestand nicht aufgezeichnet.
Vom Hauptmenü aus können Sie sich die Bewertung einzelnen Einsätze anzeigen lassen - durch Wahl der lion Fortschrittsreport'. Dabei werden die vier Missionen in

der betreffenden Kategorie angezeigt, zusammen mit den jeweils erzielten Resultaten und einem Durchschnittswert.

8. Skimmer-Konstruktion

Zusätzlich zu den drei Standard-Skimmern können Sie sich auch einen eigenen zusammenstellen und nach Ihren individuellen Wünschen ausstatten. Zu diesem Zweck wählen Sie die Option 'Skimmer-Konstruktion'.
Die linke Spalte enthält die verfügbaren Ausstattungsgegenstände. Den anderen Spalten ist zu entnehmen, ob die Einrichtung vorhanden ist, und wenn ja, die Menge bzw. die Leistung. Der geltende Wert wird durch ein Häkchen markiert. Rechts finden Sie eine Angabe über das Gewicht.

Um an der Ausstattung Änderungen vorzunehmen, bewegen Sie den Zeiger auf das entsprechende Feld und drücken FEUER. Angenommen, Sie wollen den Skimmer mit einem Scanner ausstatten, fahren Sie auf die Zeile 'Scanner' und setzen Sie den Cursor auf das mit Ja markierte Kästchen. Bestätigen Sie die Wahl mit FEUER. Zum Zeichen, daß dieser Gegenstand nun Bestandteil der Ausstattung ist, wird er "abgehakt".
Hinweis! Es empfiehlt sich, alle Einrichtungen zunächst auf die niedrigste Einstellung zu schalten und dann bei Bedarf höher zu gehen.
Die beiden wichtigsten Einschränkungen beim Ausstatten eines Schiffs sind das Gewicht und die Gesamtkosten (beide in Türkis im unteren Bildschirmteil angezeigt). Der normale Skimmer-Rumpf schafft gerade 100 Galaktische Megatonnen, und das Budget der Gal-Corp schreibt eine Höchstgrenze von 100M Krediteinheiten vor. Eine Überschreitung eines dieser beiden Werte wird in rot angezeigt. Es bleibt Ihnen dann nichts anderes übrig, als sich von dem einen oder anderen Ausrüstungsgegenstand zu trennen, ehe Sie weitermachen.

Wenn Sie mit Ihrem Schiff zufrieden sind, fahren Sie den Zeiger auf die Option 'Design OK' (am unteren Seitenrand) und drücken FEUER. Dadurch gelangen Sie zum Abschnitt 'Steuerpult-Design', wo Sie die Anordnung der Instrumente definieren können.

Wählen Sie eine Hintergrundfarbe und ein -muster aus der Liste und wählen Sie 'Instrumente plazieren'. Der Bildschirm nimmt die gewählten Farben an, und es erscheint ein Fenster mit diesen Optionen:
Monitor plazieren
Letzten Schritt annullieren
Fahren Sie den Zeiger auf 'Monitor plazieren' und drücken Sie FEUER. Der Zeiger wird durch ein großes weißes Rechteck ersetzt (den Monitor), das Sie an eine beliebige Position verschieben können. Bestätigen Sie die Position mit FEUER. *Hinweis:* Eine Rückkehr in das vorhergehende Menü ist jederzeit möglich, indem Sie auf die oberste Zeile fahren, wo das Rechteck sich wiederum in den Zeiger verwandelt.
Nach der Plazierung des Monitors erscheint der Zeiger wieder in seiner normalen Form. Verschieben Sie ihn auf die Menüleiste und drücken Sie zur Plazierung des nächsten Gegenstandes FEUER. *Hinweis:* ein Übereinanderlegen von Instrumenten ist nicht zulässig. Der Block wird in solchen Fällen gelb.
Wenn Sie bei der Ausstattung Ihres Skimmers sehr großzügig waren, haben Sie u.U. Schwierigkeiten, alles unterzubringen. Ein kleiner Tip: es empfiehlt sich, den Monitor in irgendeine Ecke zu quetschen, so daß daneben noch Scheiben und Meßinstrumente hineinpassen.
Wenn Sie mit der Instrumentenanordnung zufrieden sind, wählen Sie die Option 'Design OK' und drücken FEUER. Schlußendlich geben Sie Ihrem Skimmer noch einen Namen

(gefolgt von ENTER). Darauf wird wiederum die Seite 'Schiff auswählen' eingeblendet, die nun den neuen, von Ihnen konstruierten Skimmer enthält.
Falls Sie bereits alle drei für eigene Designs reservierten Plätze belegt haben, müssen Sie vor dem Umschalten auf 'Skimmer-Konstruktion' markieren, welches der drei selbst definierten Schiffe ersetzt werden soll; anderntalls ersetzt das Programm automatisch das zuletzt definierte Design mit dem neuesten.

9. Laden der nächsten Schwierigkeitsstufe

Voraussetzung zum Übergang zur nächsthöheren Stufe und damit zum nächsten Viererblock von Missionen ist ein MITTEL-Punktewert von 90% oder darüber. Zum Einlesen des folgenden Datenblocks wählen Sie aus dem Hauptmenü das Untermenü 'Mission wählen'. Dort sollte die Option 'Nächste Stufe laden' bereits mit einem Häkchen markiert sein. Den Zeiger dorthin fahren und FEUER drücken.
Die 5 Blöcke mit den Einsatzdaten befinden sich auf der zweiten Kassette im Programmpaket. Die Stufen I, II und III sind auf der ersten Seite der Kassette, die Stufen IV und V auf der
zweiten. Spulen Sie das Band in etwa auf die richtige Stelle und drücken Sie FEUER. Der Computer hält Sie auf dem laufenden.

10. Abspeichern des Spiels

Sie können Ihre Spielposition in jedem beliebigen Zeitpunkt aus dem Hauptmenü mit Hilfe der Option 'Spieldatei speichern' aus dem 'Band-Menü' abspeichern. Legen Sie dazu eine unbespielte Kassette (NICHT die Academy Spiel- oder Datenkassette) in den Rekorder und drücken Sie FEUER. Zum Wiedereinlesen eines schon abgespeicherten Spiels von Kassette dient die Option 'Spieldatei laden' aus demselben Menü. Etwaige benutzerdefinierte Tastenbelegungen werden zusammen

mit der Partie gespeichert. *Solange die Missi*
können Sie sie nicht speichern.
Auch die selbst entworfenen Skimmer k
Kassette abgespeichert werden. Dafür gibt es
'Schiff-Design speichern'. Damit werden alle
definiert) abgespeichert.

11. Menü ANSICHT/TASTEN UMDEFI

Anhand dieses Menüs können Sie belie
im Flug-Modus benutzten Tasten neu definier
erscheint eine Liste der vordefinierten Tasten
und einige Optionen.
Tasten umdefinieren
Joystick/AMS-Maus

Ein Fragezeichen steht an der Stelle der
'Links' in der Tastenliste. Drücken Sie jetzt ein
die Sie für Links, Rechts usw. benützen wolle
dabei Fehler passieren oder sich herausstellt,
"unmögliche" Belegung gewählt haben, könne
auf die Standarddefinition zurückstellen - durc
ESC.

ete	M	Rakete feuern (wenn vorhanden)
n	A	Anti-Missile-Geschoß feuern
chtkörper	F	Leuchtkörper werfen
bombe	B	Bombe werfen
icht	V	Ansicht umschalten vorn,hinten,rechts/lks
ie +	H	Steigflug
ie -	G	Sinkflug
ung	J	Sprungflächen verwenden
den	L	In den Boden-Modus umschalten (Skimmer muß zur Landung am Boden sein)
arot	I	wenn an Bord
usreport	R	Wie im Boden-Modus

Die Ausstattung

Die Ausstattung und Bewaffnung des Skimmers kann je h Mission variieren.

ilde	Schilde gehören zur Grundausstattung der Skimmer; allerdings gibt es unterschiedliche Qualitätskategorien.
er	Teil der Grundausstattung; drei verschiedene Typen erhältlich
nner	Wahlweise Zusatzausrüstung von großem praktischem Wert. Offeriert einen 360 Grad Radar-Scan der Umgebung"

Raketen	Auf Anfrage erhältlich. Raketen sind erheblich effektiver als Laser, da sie ein angesteuertes Ziel unfehlbar treffen.
Leuchtkörper	Auf Anfrage erhältlich. Auf allen Welten, mit Ausnahme der "einseitigen", ist mit einem Sonnenuntergang zu rechnen. Die dann einsetzende Dunkelheit kann mit den Leuchtkörpern kurzfristig erhellt werden.
Amms	Anti-Missile Raketen. Auf Anfrage erhältlich. Anti-Missile Raketen machen etwaige Feindraketen unschädlich - und leider auch die eigenen, gerade gezündeten.
Zeitbomben	Auf Anfrage erhältlich. Im Nahbereich extrem effektiv. Wenn abgeworfen, hat der Skimmer ca. 10 Sekunden Zeit, sich vor der Explosion in Sicherheit zu bringen. Vor allem zum Einsatz gegen große stationäre Objekte empfohlen.
Infrarot	Auf Anfrage erhältlich. Die Infrarotanlage ermöglicht die Besichtigung von Planetenoberflächen bei Nacht.
Kompaß/ADF	Der Kompaß zeigt den Kurs an; der Automatic Direction Finder heftet sich im allgemeinen an die Fersen des Galcorp Landungsvehikels (G.L.V.).
Auslöser	Für Sprünge und zum Öffnen von Türen. Auf Anfrage erhältlich. Sprungflächen gibt es in allen größeren Kolonien und Städten. Man kann von einer Fläche zur nächsten

mit der Partie gespeichert. *Solange die Mission im Gange ist, können Sie sie nicht speichern.*

Auch die selbst entworfenen Skimmer können auf Kassette abgespeichert werden. Dafür gibt es die Option 'Schiff-Design speichern'. Damit werden alle 3 (wenn definiert) abgespeichert.

11. Menü ANSICHT/TASTEN UMDEFINIEREN

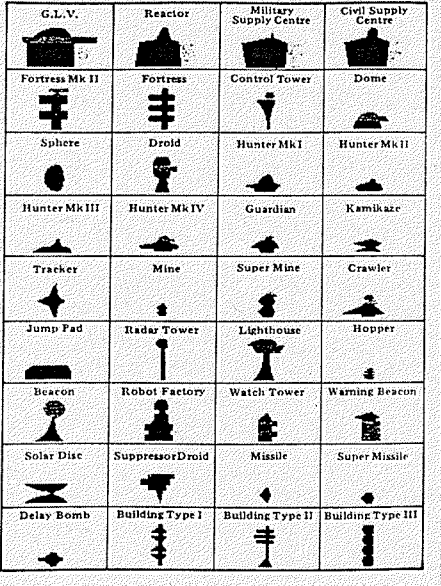
Anhand dieses Menüs können Sie beliebige (oder alle) im Flug-Modus benutzten Tasten neu definieren. Es erscheint eine Liste der vordefinierten Tastenbelegungen und einige Optionen.

Tasten umdefinieren
Joystick/AMS-Maus

Ein Fragezeichen steht an der Stelle der Taste für 'Links' in der Tastenliste. Drücken Sie jetzt einfach die Taste, die Sie für Links, Rechts usw. benützen wollen. Wenn Ihnen dabei Fehler passieren oder sich herausstellt, daß Sie eine "unmögliche" Belegung gewählt haben, können Sie jederzeit auf die Standarddefinition zurückstellen - durch Drücken von ESC.

12. Identifikationstabelle

Die nachstehende Identifikationstabelle wird allen Kadetten bei ihrem Eintritt in die Akademie ausgehändigt.



13. Die Missionen

Es folgt eine Liste der Einsätze, die zurze der Ausbildung zum Elite-Skimmer-Piloten sind

...beim O.K. Korral
Wiedersehen mit Ceti
Chiffre
Nur keine Panik
Hades II
Versteckspielen
Wenn es sich bewegt...
Laserium
Meltdown
Unwahrscheinliche Mission
Nadel im Heustock
Vom Regen in die Traufe
Pazz!
Protector
Red Dawn
Sache, sachte
Kohlebergwerk
Sand der Zeit
Schäfer
Wo geht's lang?

Academy (Tau Ceti II) von Pete Cooke

ien des Programms

S Kassette:	RUN"
S Diskette:	RUN"DISC"
M Kassette:	SHIFT + RUN/STOP
M Diskette:	LOAD"*",8,1

ort nach dem Laden wird die Titelseite eingeblendet, Aufforderung: "Zum Weitermachen Feuertaste bzw. -drücken".
ießend erscheint das Hauptmenü von ACADEMY, das nen enthält. Rechts neben dem Menü erkennen Sie kleinen Pfeil, der mit den Tasten O, P, S und X (bzw. mit oystick) gesteuert werden kann. Um eine Auswahl zu plazieren Sie den Pfeil auf die betreffende Option, die ch in Umkehranzeige erscheint, und drücken Sie R.

ber die Akademie

e Galcorp Akademie für Fortgeschrittene Skimmer-n (GASP) wurde im Jahr 2213 gegründet. Von den über andidaten, die jedes Jahr aufgenommen werden, in nur die wenigsten die rigorosen Anforderungen, die gerisches und kämpferisches Können gestellt werden. r einen erfolgreichen Abschluß müssen die Kadetten ssionen (jeweils vier in fünf verschiedenen Kategorien) reich hinter sich bringen.

3. Kurze Führung durch die Menüs

Nach dem Laden geben Sie als erstes Ihren Namen ein. Wählen Sie dann eine der vier Missionen aus Schwierigkeitsstufe I. Fahren Sie den Zeiger auf 'Eine Mission wählen' und drücken Sie FEUER. Dies bewirkt Einblenden des Untermenüs 'Mission wählen' mit 4 Optionen.

Die momentan eingestellte Mission ist mit einem Häkchen versehen. Um eine andere zu wählen, fahren Sie ganz einfach mit dem Zeiger dorthin und drücken FEUER. Unter der Mission sehen Sie eine Liste mit 3 Wahlmöglichkeiten.

'Info über diesen Einsatz' ist eine kurze Beschreibung der bevorstehenden Aufgabe sowie der Schiffe und Gebäulichkeiten. ('Systemunterstützung' bedeutet Reparatur- und Auftankmöglichkeiten). Sie können auch Angaben über das betreffende Planetensystem aufrufen, um sich über die Verhältnisse dort ein Bild zu machen. Das Programm gibt eine Empfehlung aus, welche Art von Skimmer am ehesten geeignet ist.

'Nächste Stufe laden' ist mit einem Kreuzchen markiert und kann erst gewählt werden, wenn Sie ein mittleres Resultat von über 90% auf den ersten 4 Missionen erzielt haben und gewillt sind, den nächsten Vierersatz zu übernehmen.

'Wahl getroffen' bringt Sie auf das Hauptmenü zurück.

Wählen Sie die erste Mission ('Wenn es sich bewegt...") und beschaffen Sie sich die Informationen zu dem Einsatz und dem System.
Wenn Sie sich diese zu Gemüte geführt haben, bewegen Sie den Zeiger auf 'Wahl getroffen' und kehren Sie mit FEUER auf das Hauptmenü zurück.

Nach der Entscheidung für eine bestimmte Mission folgt die Wahl eines Skimmers. Bewegen Sie den Zeiger auf 'Skimmer wählen' und drücken Sie FEUER. Auf dem Bildschirm öffnet sich das Skimmer-Menü.

Am oberen Rand erkennen Sie eine Liste mit 6 Skimmertypen, wobei die letzten drei nicht definiert sind und in dieser Phase nicht gewählt werden können (siehe 'Skimmer-Konstruktion' weiter hinten). Der momentan gewählte Skimmer ist durch ein Häkchen gekennzeichnet. Durch entsprechendes Verschieben des Zeigers und Drücken von FEUER können Sie sich jedoch auch einen anderen aussuchen. Innerhalb der Skimmer-Liste gibt es 4 Optionen.

'Info über diesen Skimmer' zeigt eine Liste der Ausrüstung an (vgl. Abschnitt 6 für weitere Details).

'Layout' vermittelt einen Eindruck über die Anordnung der Instrumente. FEUER bewirkt Rückkehr ins Hauptmenü.

'Skimmer-Konstruktion' gestattet es Ihnen, für eine bestimmte Mission (bzw. eine Gruppe von Missionen) selbst einen Skimmer zu entwerfen.

'Wahl getroffen' bringt Sie ins Hauptmenü zurück.

Der empfohlene Skimmer für die Mission "Wenn es sich bewegt..." ist der GCS Lenin. Wählen Sie also diesen und bewegen Sie den Zeiger auf 'Wahl getroffen', um ins Hauptmenü zurückzukehren.

So. Ihre Mission und Ihr Raumschiff haben Sie jetzt, und es kann ernsthaft losgehen. Fahren Sie den Zeiger auf 'Mission akzeptiert' und bestätigen Sie die mit FEUER.

4. Auf in den Kampf

Auf dem Bildschirm erscheint jetzt das Instrumentenbrett. Die oberste Zeile ist der Statusbalken, der den Zustand des Schiffs signalisiert (angedockt), den Punktewert (000%) und die Einsatzdauer (00:00:00). Darunter befindet sich der Monitor, verschiedene Meßinstrumente und Wählscheiben und ein kleines blaues Rechteck - das Computerfenster. Der Skimmer

meldet sich mit 'Skimmer bereit. Hilfe oder einen anderen Befehl eingeben'.

Sie befinden sich jetzt in einem der zwei Spielmodi, dem sog. Boden-Modus. Die Kommunikation mit dem Computer erfolgt anhand der folgenden Kommandoliste:

HILFE	Für eine Liste aller verfügbaren Kommandos
VISIER EIN	Einschalten der Visiervorrichtungen
VISIER AUS	Ausschalten der Visiervorrichtungen
PAUSE	Zum Anhalten der Uhr. (Zum Weitermachen dient FEUER)
WARTEN	Rückt den Uhrzeiger um 5 Min. weiter
WARTUNG	In angedocktem Zustand: für Reparaturen und zum Auftanken
STATUS	Zeigt den Zustand der Geräte (beschädigt oder intakt)
CODES	Zum Manipulieren etwaiger aufgespürter Code-Fragmente
INFO	Beim Andocken an einem Gebäude: Ausgabe von Informationen
DEAF	Üben mit einem D.E.A.F.
BEENDEN	Zum Abbruch der in Gang befindlichen Mission, Aktualisierung des Punktestands
STARTEN	Sendet den Skimmer hinaus auf die Planetenoberfläche.

5. FLUG-MODUS

Nach dem Start wird der Skimmer per Tastendruck und einfachen Joystickbewegungen gesteuert. Die Standardbelegung der Tasten ist wie folgt, kann jedoch auf Wunsch aus dem Hauptmenü neu definiert werden:

Links	O	(oder Joystick)
Rechts	P	(oder Joystick)
Beschleunigen	S	(oder Joystick)
Bremsen	X	(oder Joystick)
Laser feuern	Leertaste	(oder Joystick)

Rakete	M	Rakete feue (wenn vorh
Amm	A	Anti-Missile feuern
Leuchtkörper	F	Leuchtkörp
Zeitbombe	B	Bombe wei
Ansicht	V	Ansicht um vorn,hinter
Höhe +	H	Steigflug
Höhe -	G	Sinkflug
Sprung	J	Sprungfläc verwender
Landen	L	In den Bod umschalte (Skimmer Landung a Boden sei wenn an B
Infrarot	I	Wie im Bo
Statusreport	R	

6. Die Ausstattung

Die Ausstattung und Bewaffnung des Skimm nach Mission variieren.

Schilde	Schilde gehören zur Grundaussta Skimmer; allerdings gibt es unters Qualitätskategorien.
Laser	Teil der Grundausstattung; drei ve Typen erhältlich
Scanner	Wahlweise Zusatzausrüstung vo praktischem Wert. Offeriert einen Radar-Scan der Umgebung

GEMINI WING

Play Gemini Wing with your joystick – make sure it's a good, strong one 'cos you're gonna need it. Up, Down, Left and Right on the stick have predictable results when it comes to controlling the Gemini fighter on screen. The clever bit surrounds the Fire button: pump it like crazy to achieve a respectable laser cannon fire rate, or press it and hold to unleash the power of a gunball. More of gunballs a little later...

"Die Mutant Alien Scum"

Not the most friendly of newspaper headlines you must agree, especially when it comes to promoting inter-galactic relations, but then there has always been a so-called 'gutter element' to holo-journalism. (Not that anyone can remember what a gutter is, these days, but the general feeling is that it was something rather unpleasant, if vaguely useful.)

And it was that headling 'Die Mutant Alien Scum' that caused all the bother when it appeared in a space-wide holo-edition of the SoonDay Spirit. After several centuries of reading "little green men turned me into a potato" stories invented by SoonDay Spirit journalists, aliens throughout space were beginning to get just a little bit fed up with humanity. Naturally, human diplomats did their best to repair the damage, but your average little green man reading the SoonDay Spirit on the top of a Venusian omnibus wasn't swayed. As time went on, he got more and more fed up with being slandered and vilified in the holo-outpourings of a small and insignificant bipedal race that lived on a dirty little planet in the Sol system.

When the crazed SoonDay Spirit headline writer finally flipped his xenophobic lid and came up with DIE MUTANT ALIEN SCUM as a front-page lead story for the early edition one Tuesday, the clamour of outrage coming from the top of the omnibuses throughout the galaxy could be heard on Earth. Alien anger continued to mount, and by the middle of Wednesday morning political leaders on every civilised world in the galaxy realised there was only one course of action open to them if they wanted to get re-elected by their people: declare war on Earth.

So by lunchtime that Wednesday every civilised race in the galaxy had declared war on Earth, the human race, and in particular all journalists working for the SoonDay Spirit. Expecting an easy victory in the game 'Earth V The Rest of God's Creations', alien hordes set out for the time-space adjacent to Earth and prepared to do battle with humanity's feeble space fleets. But they hadn't reckoned on the ingenuity of Earth's weapons scientists; they didn't realise that the Gemini Wing fighter project was already complete. And their spies had spent too much time on Earth chasing girlies and turning them into potatoes to report back on the development of awesome weapon systems such as the Windscreen Wiper of Death...

What at first seemed to be an easy victory for alien forces turned into a bitterly-fought conflict, a space-war that is still raging in several dimensions. Which is about where you come in, as the pilot of a Gemini Wing fighter. Pausing only to shout the battle cry of the crack GW regiment you belong to – "Die Alien Mutant Scum" – you leap into the control seat of your craft, warp to a vertically-scrolling etherworld and start fighting the good fight...

Killing Mutant Alien Scum

Simple really – as the Gemini Wing pilot training manual says, it's just like playing an arcade game. Press the fire button and deal out laser death.

But there's more. A strange paradox in the fabric of reality causes additional weapon systems in your fighter to materialise when you blast certain aliens. Small clawed creatures cause a single gunball to materialise when they turn up their claws and cough their last, while porky fat clawed aliens - known as 'Bringers' – can yield as amany as eight gunballs in their death warps.

"Collect up gunballs whenever possible and then use them by pressing and holding fire to help you do the job of dealing death to the mutant alien scum" is what it says in the Gemini Wing pilot training manual, and the guy who wrote it got it right. (There is a third, undocumented method of acquiring gunballs that he doesn't mention, but that involves stealing them from a colleague on a two-man mission and is far too underhand to mention here.)

A Gumby's Guide To Gunballs

All you need now is a run-down on what those gunball jobbies do for you, and it's off into space for spot of killing. So here's an extract from the Gemini Wing pilot training manual.



Three way fire ball



2,000 points



5,000 points



10,000 points



Alien seeking missiles



Fire wall



Speed-up



Spiralling circle of death



Windscreen wiper of death



Extra life

The above weapons (gunballs) are picked up in three ways, first is by shooting a small, relatively harmless, clawed alien. These carry one extra weapon and so should always be shot, these take only one hit to destroy. Second is by shooting what is known as a 'Bringer', this is a larger clawed alien which usually carries approx eight gunballs, shooting it causes the gunballs to cycle through the different weapons. The third method of collecting gunballs causes the most interplayer hatred ever seen in arcade games, this is the ability to steal the other players gunball tail thus depriving him of his extra weapons. Tail stealing can only take place if the victim has more than three gunballs.

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ENGLISH

LOADING

COMMODORE 64/128

Hold down SHIFT key and press RUN/STOP. Press PLAY on tape. Program will load and run.

CONTROLS: 1 player. Joystick in port 2.

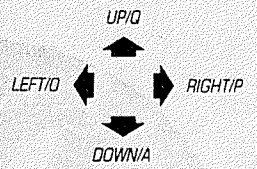
AMSTRAD CPC

(464) press CTRL and small ENTER.
(6128) type /TAPE and press RETURN. Press CTRL and small ENTER.

CONTROLS: 1 player

JOYSTICK: press the Fire button to shoot. Hold down the Fire button to fire a gunball.

KEYBOARD.



Press Space Bar to shoot. Hold down Space Bar to fire gunball. G aborts game. H pauses game.

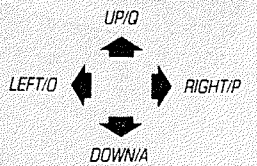
SPECTRUM

Put your machine into 48k mode. Type LOAD"" and press ENTER. Program will load and run.

CONTROLS: 1 player

JOYSTICK: press the Fire button to shoot. Hold down the Fire button to fire a gunball.

KEYBOARD:



Space Bar to shoot. Hold down Space Bar to fire a gunball. G to abort game. H to pause game.

DEUTSCH

LADEANWEISUNG

COMMODORE 64/128

Die SHIFT-Taste gedrückt halten und auf RUN/STOP drücken. PLAY auf dem Recorder drücken. Das Programm lädt sich und läuft.

STEUERUNG: 1 Spieler. Joystick in Port 2.

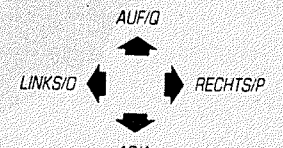
AMSTRAD CPC

(464) Auf CTRL und die kleine ENTER-Taste drücken.
(6128) /TAPE eingeben und auf RETURN drücken. Auf CTRL und die kleine ENTER-Taste drücken.

STEUERUNG: 1 Spieler

JOYSTICK: Zum feuern auf den Feuerknopf drücken, und den Feuerknopf gedrückt halten, um einen 'gunball' abzuschießen.

TASTATUR:



Zum Feuern auf die Leertaste drücken, und die Leertaste gedrückt halten um einen 'gunball' abzuschießen. G bricht das Spiel ab. H ergibt eine Spielpause.

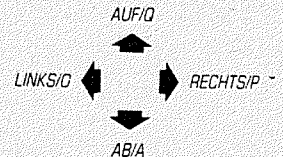
SPECTRUM

Den Computer auf 48k einstellen. LOAD"" eingeben und auf ENTER drücken. Das Programm lädt sich und läuft.

STEUERUNG: 1 Spieler

JOYSTICK: Zum Feuern auf den Feuerknopf drücken, und den Feuerknopf gedrückt halten, um einen 'gunball' abzuschießen.

TASTATUR:



Zum Feuern auf die Leertaste drücken, und die Leertaste gedrückt halten, um einen 'gunball' abzuschießen. G bricht das Spiel ab. H ergibt eine Spielpause.



THE GAME

MAD GAMES PRESENTS "SPELLBOUND"

The first in a new generation of arcade and adventure style games using a unique window menu system.

All command choices can be made by moving a pointing finger to the required choice on a menu, then selecting it by pressing space. In this way quite complex commands can be built up easily using only three keys.

Controls

Joystick or Keys:–

A – Cursor Up
Z – Cursor Down
} (When in a Menu)
N – Left
M – Right
A – Jump

Space or Fire Buttom to enter a menu and accept option in a menu.

You are Magic Knight, the hero of Finders Keepers. Your tutor Gimbal the Wizard has been trying out some very old spells to make his rice pudding taste nicer, unfortunately the scribes who translated the spells from very ancient English to slightly ancient English made some mistakes with the wording and Gimbal is in trouble.

The spell sent Gimbal to the mythical Castle of Karn and dragged seven innocent people with him. As Gimbal becomes trapped he projects a last faint message back to you across the time stream. I've taught you enough to rescue us all. Magic Knight, you are our only hope!!

Clue: Red Herring may be useful.

Hold down control and press the small ENTER Key.

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Made in Great Britain
Design & Artwork: Word & Pictures Ltd., London.

THE INFO

CONTROLS

Z — links
X — rechts
K — hoch
M — ab
Leertaste — Feuer

1,2,3, — Waffe auswählen (Licht, Wasser oder Schwefel)
5,6 — Zauberformel sprechen (Fugue oder Chi)
P — Pause/Inventar (zum Weitermachen Feuer drücken)
S,D — Single (Einzel-) oder Double (Doppel) Modus
Enter — Karte enblenden (nur im Single-Modus)
E — Spielende

Zum Laden des Programms CTRL & ENTER drüken

PROGRAMMER PROFILE



Name: John Keneally
Occupation: Systems Analyst
Previous Work: Smugglers Cove, Genesis and many others!
Current Project: Budget Chess for Amstrad and Spectrum
Hobbies: Juggling, Chess and Ancient History

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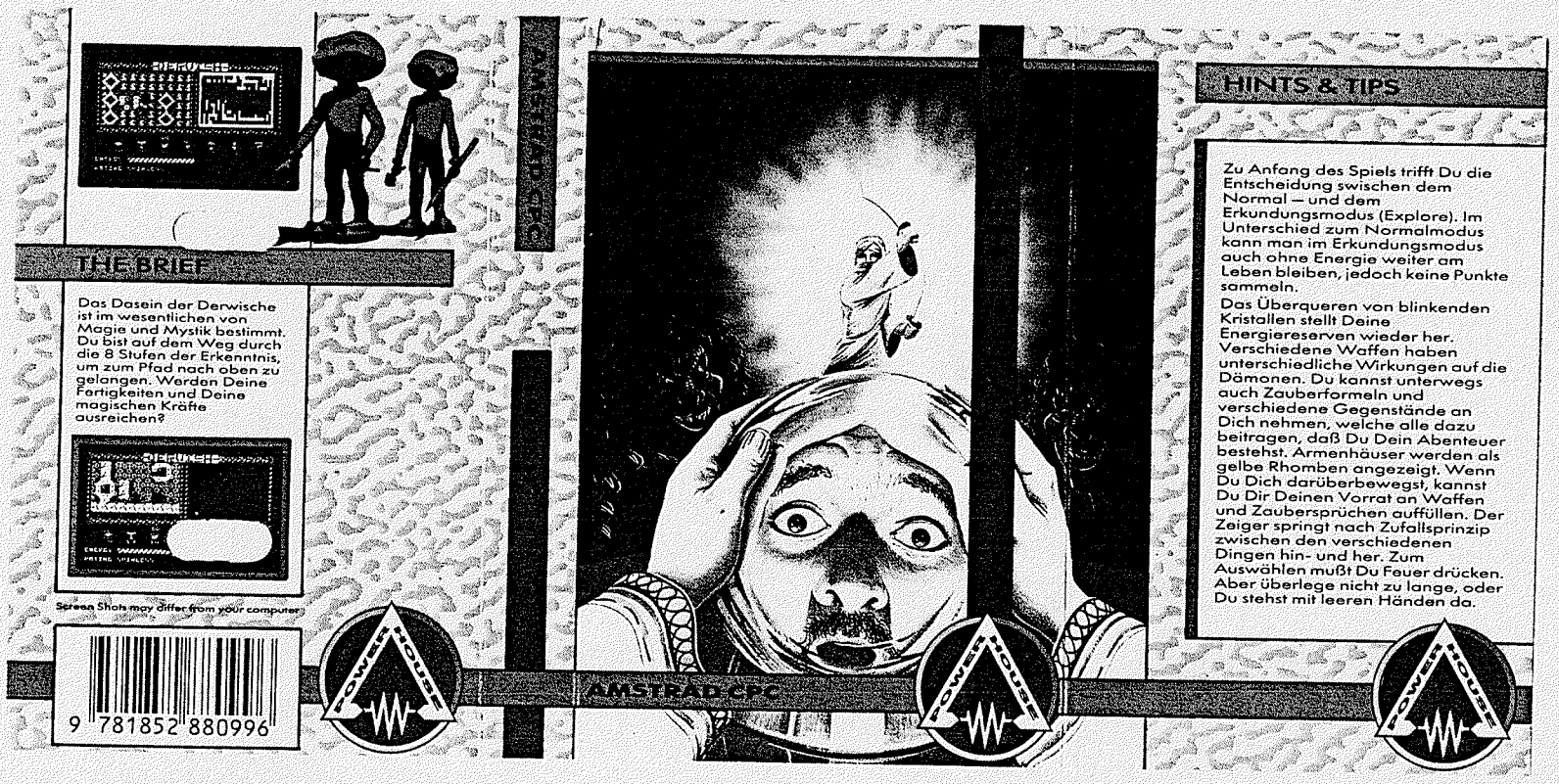
THE BRIEF
Das Dasein der Derwische ist im wesentlichen von Magie und Mystik bestimmt. Du bist auf dem Weg durch die 8 Stufen der Erkenntnis, um zum Pfad nach oben zu gelangen. Werden Deine Fertigkeiten und Deine magischen Kräfte ausreichen?
Screen Shots may differ from your computer
9 781852 880996
AMSTRAD CPC
AMSTRAD CPC
HINTS & TIPS
Zu Anfang des Spiels trifft Du die Entscheidung swischen dem Normal – und dem Erkundungsmodus (Explore). Im Unterschied zum Normalmodus kann man im Erkundungsmodus auch ohne Energie weiter am Leben bleiben, jedoch keine Punkte sammeln.
Das Überqueren von blinkenden Kristallen stellt Deine Energiereserven wieder her. Verschiedene Waffen haben unterschiedliche Wirkungen auf die Dämonen. Du kannst unterwegs auch Zauberformeln und verschiedene Gegenstände an Dich nehmen, welche alle dazu beitragen, daß Du Dein Abenteuer bestehst. Armenhäuser werden als gelbe Rhomben angezeigt. Wenn Du Dich darüberbewegst, kannst Du Dir Deinen Vorrat an Waffen und Zaubersprüchen auffüllen. Der Zeiger springt nach Zufallsprinzip zwischen den verschiedenen Dingen hin- und her. Zum Auswählen mußt Du Feuer drücken. Aber überlege nicht zu lange, oder Du stehst mit leeren Händen da.

RÈGLE DU JEU

Choix des mots : Microsapiens dispose d'un immense savoir qui lui permet d'accepter une grande partie des mots contenus dans le Petit Larousse 1985 ainsi que dans le Flammarion usuel. Toutefois :
- Pas de sigles (SNCF, WC...)
- Pas d'abréviations, sauf celles devenues des mots (extra, inter, vélo... mais pas intra, aéro...)
- Pas de noms propres ou de noms composés
- Pas de suffixes ou de préfixes (sauf séparés de la racine par un trait d'union)
- Pas de symboles (chimiques, par exemple)
- Pas de verbes conjugués (mais infinitif, participe passé et participe présent acceptés, bien entendu).

Une partie est constituée de 8 manches s'il y a quatre joueurs, et de 6 manches s'il y en a moins.

CAPTURE DES LETTRES

Votre héros se déplace et, afin d'éviter le répugnant (et fatal) contact avec le monstre qui le poursuit, se téléporte grâce aux touches suivantes :

ATMOS :
Flèches pour le déplacement + barre d'espace pour la téléportation.

SPECTRUM :
Touches fléchées pour le déplacement + touche 0 pour la téléportation.

COMMODORE 64 :
- Vers le haut : A
- Vers le bas : Z
- Vers la gauche : <
- Vers la droite : >

et barre d'espace pour la téléportation.

Avec la manette de jeu, la touche TIR vous téléporte.

SÉLECTION DU MOT LE PLUS FORT

Vous disposez de 40 secondes pour le composer à l'aide de votre provision de lettres.
Si vous obtenez le message : "Je ne connais pas ce mot ; l'acceptez-vous ?", croyez votre ordinateur sur parole et décidez vous-même (en accord éventuellement avec les autres joueurs), de l'acceptation ou non du mot litigieux.

COMPTE DES POINTS

C'est le joueur menant la manche, donc qui a capturé les lettres, qui le détermine.
Si le mot qu'il a découvert obtient un total de points égal ou supérieur à celui de chacun des autres, ce total de points lui est effectivement attribué.
Dans le cas contraire, le ou les joueurs ayant fait mieux se voient attribuer la différence entre leurs points et ceux du meneur.

BONNE CHANCE !

REMARQUE : Enrichissez votre vocabulaire grâce à MICROSAPIENS ! Prenez-le souvent comme adversaire, augmentez progressivement sa force, et vous découvrirez peu à peu toute l'étendue de son savoir. Lorsque vous l'égalerez, vous serez devenu un fameux Homosapiens que l'on enviera sans doute pour sa connaissance du vocabulaire...

AMSTRAD

CAPTURE DES LETTRES

Flèches pour le déplacement + barre d'espace pour la téléportation.

CPC 464

MICROSAPIENS

R. ZEHNTER

Au cours de ce jeu, vous serez amené à capturer périlleusement un certain nombre de lettres de l'alphabet (jusqu'à 8), puis à en exploiter au mieux les diverses valeurs grâce à la composition de mots, lesquels devront obtenir un maximum de points pour vous ménager quelque chance de victoire.

PETER PACK RAT

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THE GAME

Peter Packrat is a cute little rodent who lives in a Junkyard, he likes nothing more than picking up all the nice things people don't mean to throw away. He runs around his neighbourhood collecting all the trash-treasures he can lay his hands on and carries them back to his nest, where he can look at them in peace. However, the Junkyard is not such a safe place, and is patrolled by Riff Rat - the leader of the Rats of Flatbush, his minions, and various other villains including Scrapper the Junkyard dog, Sticky the spider, Nite Owl, Slugger the bat, Big Al the alligator, Diamond Jim the snake and Clawd the Cat, all these guys are very nasty pieces of work (boo, hiss!). When Peter has collected everything from the Junkyard, he hunts the Sewer, and when he has all the treasures from there, he can look in the Tree. By the time he has searched there, someone is sure to have dumped something wonderful back where he started...So, Peter Packrat, get collecting!

LOADING

AMSTRAD CPC 464 OWNERS

1. Place the rewound cassette in the cassette unit and press PLAY.
2. Hold down CTRL and press the SMALL ENTER key.

AMSTRAD 664/6128 AND 464+DISK OWNERS

1. Hold down the SHIFT and press the @ key. Type TAPE and press RETURN.
2. Connect a suitable cassette player to your computer, according to the User Manual, and insert the rewound cassette.
3. Hold down CTRL and press the ENTER key.
4. Press PLAY on the cassette player.

Note: Full insructions can be found in your Amstrad User Manual.

PLAYING THE GAME

Controls

You may redefine the keys from an option on the title page, or use a joystick.

Up	Climb up a ladder, or jump.
Down	Climb down a ladder, or duck.
Left	Move Left
Right	Move right
Fire	Throw a stone or treasure, or let go of flying animal.

What you need to do

Peter Packrat muct collect all the treasures on the level and take them all back to his nest. The number of items he needs to gather is shown at the bottom of the screen. He must either avoid the evil animals, or stun them by throwing stones or treasures at them. Flying animals that have been stunned can carry him, but not for long, so let go when the creature that is carrying him starts flashing. He can climb up or down ladders, slide down slides, bounce across gaps on planks, and climb through pipes. He can swim, but not very fast, so avoid a dip whenever possible.

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HILFSPROGRAMME:

Sie haben die Option "HILFSPROGRAMME" gewählt. Das folgende erscheint auf dem Bildschirm.

Menü HILFSPROGRAMME
ZUGANG KASSETTE
BILDSCHIRMTYP
BEENDEN

Um eine dieser Optionen benutzen zu können, brauchen Sie nur das Fenster zu verschieben und auf ENTER zu drücken. Wir werden zusammen die oben genannten Optionen untersuchen.

ZUGANG KASSETTE:

Sie haben zwei Möglichkeiten: große Geschwindigkeit
geringe Geschwindigkeit

Diese zwei Optionen sind für die Einstellung der Geschwindigkeit des Ladens und Aufnehmens gedacht.

BILDSCHIRMTYP:

Diese Option ermöglicht es Ihnen, sich die Bildschirmart auszusuchen, mit der Sie arbeiten wollen.

ARBEITSENDE

Sie haben sich aus dem Hauptmenü die Option "Arbeitsende" ausgesucht. Das dazu gehörende Menü erscheint auf dem Bildschirm.

MENÜ ARBEITSENDE
EASY FILE BEENDEN
RÜCKKEHR EASY FILE

Um eine dieser Optionen benutzen zu können, brauchen Sie nur das Fenster zu verschieben und auf ENTER zu drücken.

Wir werden zusammen diese Optionen untersuchen.

EASY FILE VERLASSEN:

Diese Option ermöglicht es Ihnen, das Programm zu verlassen.

ACHTUNG! Alle Daten sind dann endgültig verloren.

EASY FILE RÜCKKEHR:

Mit dieser Option können Sie zurück ins Hauptmenü.

DRUCK EINES DATENSATZES:

Wenn Sie den Cursor auf diese Option stellen, erhalten Sie eine Kopie der Datei, die auf dem Bildschirm steht.

RECHNUNG/TOTAL:

Wenn Sie eine Formel geändert oder hinzugefügt haben, können Sie mit dieser Option die Datenbank noch einmal vollständig durchrechnen.

BEENDEN:

Es erscheint ein anderes Menü, das Ihnen anbietet, die Datenbank zu sichern, nicht zu sichern oder das Menu zu verlassen. Wir werden diese drei Optionen untersuchen.

Menü BEENDEN
MIT SICHERN
OHNE SICHERN
BEENDEN

BILDSCHIRM SICHERN:

Diese Option ermöglicht es, Ihre Datenmaske zu sichern. Sie können somit diese Maske jederzeit wieder benutzen. Sie brauchen nur das Fenster auf diese Option zu schieben und ENTER drücken. Geben Sie dann den Dateinamen (max.10 Zeichen) und dann ENTER ein. Der Computer bittet Sie dann, auf die Tasten PLAY und RECORD Ihres Kassettenrekorders zu drücken. Sobald der Bildschirm gesichert ist gehen Sie zurück ins Hauptmenü.

OHNE SICHERN:

Mit dieser Option gehen Sie zurück ins Hauptmenü, ohne die Bildschirmmaske gesichert zu haben.

BEENDEN:

Diese Option ermöglicht es Ihnen, in das Menü "ERSTELLUNG EINES BILDSCHIRMES" zurückzugehen.

AUSGABE DER DATEN:

Mit dieser Option können Sie Ihre Daten von Ihrem Drucker ausdrucken lassen. Die Maske erscheint auf dem Bildschirm und wenn Sie einen vollständigen Druck haben wollen, drücken Sie jedesmal auf ENTER, wenn sich der Cursor vor ein Feld stellt.
Falls Sie nur einen Teil der Daten gedruckt haben möchten, müssen Sie die Daten eingeben,damit die Suche erfolgen kann.
Wenn dies geschehen ist, erscheinen auf dem Bildschirm eine Reihe von Fragen:

NAME DER AUSGABE:

Sie dürfen nicht mehr als 20 Zeichen eingeben, danach drücken Sie ENTER.

ZWISCHENRAUM:

Drücken Sie auf "J", wenn Sie einen Zwischenraum zwischen den Sätzen möchten und auf "N", wenn Sie keinen möchten.

BEMERKUNG:

Wenn Sie eine Bemerkung eingeben wollen, darf diese nicht länger als 20 Zeichen haben. Geben Sie Ihre Bemerkung ein und drücken Sie ENTER.

WOLLEN SIE DIE SUMME DER FELDER?

Drücken Sie auf "J" wenn Sie die Summe der Felder haben möchten und auf "N", falls Sie sie nicht möchten.

ANZAHL DER FELDER:

Sie müssen die Anzahl der Felder eingeben, die Sie gedruckt haben möchten. Wenn diese Zahl eingegeben ist, brauchen Sie nur die Maske ausfüllen, die auf dem Bildschirm erscheint.

SUCHE EINES DATENSATZES

Mit dieser Option können Sie einen Datensatz in Ihrer Datenbank suchen. Stellen Sie das Fenster auf diese Option. Auf dem Bildschirm erscheint ein neues Menü:

MENÜ
NAECHST
VORH
LOESCH
MOD
FORM
SUCH
DRUCK
TOTAL
BEENDEN

NÄCHSTER DATENSATZ:

Wenn Sie das Fenster auf diese Option schieben, erscheint auf dem Bildschirm der nächste Datensatz. Dann gehen Sie zurück ins Menü "SUCHE".

VORANGEGANGENER DATENSATZ:

Wenn Sie das Fenster auf diese Option schieben, erscheint auf dem Bildschirm der vorangegangene Datensatz und Sie gehen dann ins Menü "SUCHE" zurück.

ÄNDERN/MODIFIZIEREN EINES DATENSATZES:

Wenn Sie das Fenster auf diese Option schieben, können Sie den Datensatz, der sich auf dem Bildschirm befindet, verändern.

FORMAT:

Wenn Sie das Fenster auf diese Option schieben, haben Sie Zugang zur Maske und Sie müssen die Werte eingeben, die Sie suchen wollen. Danach gehen Sie ins Menü "SUCHE" zurück.

SUCHE EINES DATENSATZES:

Sie haben die Suchkriterien schon unter "FORMAT" (s.o.) eingegeben. Auf dem Bildschirm erscheint ein Datensatz, der den Charakteristiken entspricht, die Sie eingegeben haben. Sie gehen dann in das Menü "SUCHE" zurück. Falls Sie mit dem gefundenen Datensatz nicht zufrieden sind, gehen Sie zurück zur Option "SUCHE". Ein anderer Datensatz erscheint dann auf dem Bildschirm.

BENUTZUNG DATENBANK

Sie haben die Option "BENUTZUNG DATENBANK" gewählt. Auf dem Bildschirm erscheint ein Menü, das es Ihnen ermöglicht, Ihre Datenbank zu verwalten.

Menü BENUTZUNG
EINFÜGEN
LADEN
SUCHEN
SORTIEREN
AUSGEBEN
BERECHNEN
BEENDEN

Wir werden zusammen diese Optionen untersuchen.

EINEN DATENSATZ EINFÜGEN:

Wenn Sie diese Option gewählt haben, können Sie einen neuen Satz eingeben. Der Cursor stellt sich dann auf Ihr erstes Feld und Sie brauchen die Daten nur eingeben und ENTER drücken.
Tun Sie das gleiche für die anderen Felder. Sollte ein Feld identisch mit dem vorhergegangenen sein, drücken Sie auf die Taste "COPY" und das vorhergegangene Feld wird dann einfach kopiert. Sie haben keinen Zugang zu einem Feld, in dem eine Rechnung durchgeführt wird. Der Computer führt diese Rechnung durch und geht dann zurück in das Menü "BENUTZUNG".
Wir werden nun anhand von Beispielen unseren Datensatz ausfüllen.

DATENBANK LADEN:

Diese Option ermöglicht es Ihnen, eine existierende Datenbank zu laden. Sie müssen dafür das Fenster auf diese Option schieben und auf ENTER drücken.
Auf dem Bildschirm erscheint:

NAME DER DATENBANK

Sie müssen den Namen Ihrer Datenbank eingeben und dann auf ENTER und PLAY drücken (ENTER am Computer und PLAY am Kassettenrekorder). Nach dem Laden gehen Sie zurück ins Menü "BENUTZUNG".

DATENBANK SORTIEREN:

Diese Option ermöglicht es Ihnen, Ihre Datenbank zu sortieren, ganz gleich, ob nach alphanumerischen, numerischen oder Datum-Felder.
Sie können, wenn Sie auf "+" drücken, eine steigende Sortierung erhalten und wenn Sie auf "-" drücken, eine absteigende.
Um diese Sortierung durchzuführen, müssen Sie den Cursor auf das zu sortierende Feld schieben "+" oder "-" eingeben und ENTER drücken.
Nach der Sortierung gehen Sie zurück in das Menu "BENUTZUNG".

BILDSCHIRM LÖSCHEN:

Diese Option ermöglicht es Ihnen den Bildschirm zu löschen, denn wenn Sie ein oder mehrere Felder neu erstellen wollen, müssen Sie erst den Bildschirm löschen und zurück zur Option "ERSTELLUNG EINES BILDSCHIRMES" gehen.

BILDSCHIRM LADEN:

Diese Option ermöglicht es Ihnen, einen Bildschirm zu laden (Maske und Felder).
Wenn der Bildschirm geladen ist, gehen Sie zurück ins Menü "ERSTELLUNG EINES BILDSCHIRMES".

FORMATAUSGABE:

Diese Option ermöglicht es Ihnen, ein Format auszugeben und Masken zu kopieren. Sie müssen den Typ des Druckers überprüfen und ob er an den Computer angeschlossen ist.
Wenn der Druck beendet ist, gehen Sie zurück ins Menü "ERSTELLUNG EINES BILDSCHIRMES".

BEENDEN:

Nun erscheint ein anderes Menü, das Ihnen anbietet, die Datenbank zu sichern, nicht zu sichern oder das Menü zu verlassen.
Wir werden zusammen diese drei Optionen untersuchen.

Menü BEENDEN
MIT SICHERN
OHNE SICHERN
BEENDEN

BILDSCHIRM SICHERN:

Diese Option ermöglicht es Ihnen, Ihre Datensätze zu sichern. Sie können somit diese Maske jederzeit wieder benutzen. Sie brauchen nur das Fenster auf diese Option zu schieben und auf ENTER drücken.
Geben Sie dann den Dateinamen ein (max. 10 Zeichen) und drücken Sie ENTER.
Der Computer bittet Sie, auf die Tasten PLAY und RECORD Ihres Kassettenrekorders zu drücken. Sobald der Bildschirm gesichert ist, gehen Sie zurück ins Hauptmenü.

OHNE SICHERN:

Mit dieser Option gehen Sie zurück in Hauptmenü, ohne die Bildschirmmaske gesichert zu haben.

BEENDEN:

Diese Option ermöglicht es Ihnen, in das Menü "Erstellung eines Bildschirmes" zurückzugehen.

BEISPIEL FÜR DIE ERSTELLUNG VON FELDERN:

Abb.3 Verkäufe im Monat

ARTIKELNAME	BEZUG
NETTOPREIS	MWST-SATZ
MWST	BRUTTOPREIS
TOTAL	DATUM

Nachdem Sie die Maske gem. Abb. 3 erstellt haben, legen Sie nun die Eingabefelder fest.

1. Stellen Sie den Cursor hinter die erste Feldbezeichnung.
2. Drücken Sie auf "CTRL" und "R".
3. Geben Sie den Feldnamen "MONAT" und dann ENTER ein.
4. Geben Sie den Feldtyp "A" und dann ENTER ein.
5. Geben Sie die Feldlänge "10" und dann ENTER ein.

1. Schieben Sie den Cursor hinter die nächste Feldbezeichnung.
2. Drücken Sie "CTRL" und "R".
3. Geben Sie den Feldnamen "ART" und dann ENTER ein.
4. Geben Sie den Feldtyp "A" und dann ENTER ein.
5. Geben Sie die Feldlänge "15" und dann ENTER ein.

1. Schieben Sie den Cursor hinter die nächste Feldbezeichnung (Bezug).
2. Drücken Sie "CTRL" und "R".
3. Geben Sie den Feldnamen "BEZ" und dann ENTER ein.
4. Geben Sie den Feldtyp "A" und dann ENTER ein.
5. Geben Sie die Feldlänge "10" und dann ENTER ein.

1. Schieben Sie den Cursor hinter die nächste Feldbezeichnung (Nettopreis).
2. Drücken Sie "CTRL" und "R".
3. Geben Sie den Feldnamen "NETTO" und dann ENTER ein.
4. Geben Sie den Feldtyp "N" und dann ENTER ein.
5. Geben Sie die Feldlänge "10" und dann ENTER ein.
6. Drücken Sie auf ENTER bei Abfrage der Formel.
7. Drücken Sie auf "N" und dann auf ENTER bei der Festlegung als Summenfeld.

1. Schieben Sie den Cursor hinter die nächste Feldbezeichnung (MWST-Satz).
2. Drücken Sie "CTRL" und "R".
3. Geben Sie den Feldnamen "MWSSA" und dann ENTER ein.
4. Geben Sie den Feldtyp "N" und dann ENTER ein.
5. Geben Sie die Feldlänge "05" und dann ENTER ein.
6. Drücken Sie auf ENTER bei Abfrage der Formel.
7. Drücken Sie auf "N" bei der Festlegung als Summenfeld und dann ENTER.

1. Schieben Sie den Cursor hinter die nächste Feldbezeichnung (MWST).
2. Drücken Sie auf "CTRL" und "R".
3. Geben Sie den Feldnamen "MWST" und dann ENTER ein.
4. Geben Sie den Feldtyp "N" ein und dann ENTER.
5. Geben Sie die Feldlänge "10" und dann ENTER ein.
6. Geben Sie die Formel "NETTO * MWSSA/100 und dann ENTER ein.
7. Drücken Sie "N" bei der Festlegung als Summenfeld und dann ENTER.

1. Schieben Sie den Cursor hinter die nächste Feldbezeichnung (Bruttopreis).
2. Drücken Sie auf "CTRL" und "R".
3. Geben Sie den Feldnamen "BRUTT" und dann ENTER ein.
4. Geben Sie den Feldtyp "N" und dann ENTER ein.
5. Geben Sie die Feldlänge "10" und dann ENTER ein.
6. Geben Sie die Formel "NETTO + MWST" ein und dann ENTER.
7. Drücken Sie "N" bei der Abfrage als Summenfeld.

1. Schieben Sie Ihren Cursor hinter die nächste Feldbezeichnung (Total).
2. Drücken Sie "CTRL" und "R".
3. Geben Sie den Feldnamen "TOTAL" und dann ENTER ein.
4. Geben Sie den Feldtyp "N" und dann ENTER ein.
5. Geben Sie die Feldlänge "11" und dann ENTER ein.
6. Geben Sie die Formel "BRUTT" und dann ENTER ein.
7. Drücken Sie auf "J" um die Summe der Totalfelder zu erhalten.

1. Schieben Sie Ihren Cursor hinter die nächste Feldbezeichnung (Datum).
2. Drücken Sie "CTRL" und "R".
3. Geben Sie den Feldnamen "DATUM" und dann ENTER ein.
4. Geben Sie den Feldtyp "D" und dann ENTER ein.
5. Geben Sie ENTER ein.

Sie haben die Erstellung Ihrer Datenerfassungsmaske beendet. Um die Maske verlassen zu können, brauchen Sie nur auf die Taste "Copy" zu drücken. Sie gehen dann automatisch in das Menü "ERSTELLUNG EINER DATENBANK" zurück.
Wenn Sie die Option "ERSTELLUNG EINES BILDSCHIRMES" verlassen, können Sie keine Felder und keine Feldbezeichnungen mehr einfügen.

Wir werden nun die restlichen Optionen, die Ihnen angeboten werden, untersuchen. Wenn Sie die Option "ERSTELLUNG EINES BILDSCHIRMES" gewählt haben, müssen Sie, um diese Option zu verlassen, ein Feld erstellen, auf COPY drücken und den Bildschirm löschen.

BILDSCHIRM ERSTELLEN

Wir haben die Option "BILDSCHIRM ERSTELLEN" gewählt. Ein Cursor erscheint oben links auf dem Bildschirm. Wir werden zusammen eine Datenbank für den Verkauf erstellen. Zu diesem Zweck erstellen wir eine Maske (Abb.3) und dann die Eingabefelder.
Wenn eine Feldbezeichnung erstellt ist, müssen Sie den Cursor um ein Feld nach rechts verschieben. Geben Sie dann die folgenden Beispiele ein. Am Ende des Kapitels befindet sich ein Wörterverzeichnis mit den verschiedenen Anweisungen und Kommandos.

ERSTELLUNG DER EINGABEFELDER

Um ein Feld zu erstellen, müssen Sie den Cursor auf die gewünschte Position setzen. Drücken Sie die Tasten CTRL und "R", dann beantworten Sie die Fragen, die unten auf Ihrem Bildschirm erscheinen.

Name des Feldes..: geben Sie maximal 5 alphanumerische Zeichen ein und drücken Sie ENTER.

Typ (A)lpha, (N)umerisch,(D)atum.:

Geben Sie den Feldtypen ein: "A" für alphanumerisch
"N" für numerisch
"D" für ein Datum

Länge des Feldes: Für ein alphanumerisches Feld ist die Länge durch die Position des Cursors vorbesetzt.
Für ein Feld des Typs "Datum" ist die Länge maximal 8 Zeichen lang und ein numerisches Feld kann bis zu 11 Zeichen lang sein. Geben Sie die Länge ein und drücken Sie ENTER.
Wenn Sie ein numerisches Feld wählen, wird Ihnen eine andere Folge von Fragen gestellt.
Wenn Sie das Feld berechnen möchten, können Sie eine Formel in dieses Feld eingeben, die aus den Namen anderer Felder zusammengesetzt wird.
In den Beispielen, die folgen, werden wir Formeln eingeben.

Summenfeld (J/N):

Die Frage ermöglicht es Ihnen, die Summe der numerischen Felder zu erhalten. Wenn Sie die Summe nicht haben wollen, drücken Sie die Taste "N" und dann ENTER oder aber Sie drücken die Taste "J" und dann ENTER.
Wir werden auf den folgenden Seiten die Erstellung der Felder für unsere Verkaufsmaske untersuchen.

START DES PROGRAMMES

Nach dem Titelbild erscheint auf Ihrem Bildschirm eine Maske (Abb.1), die die folgenden Optionen enthält:

HAUPTMENÜ
ERSTELLUNG EINER DATENBANK
BENUTZUNG DER DATENBANK
HILFSPROGRAMME
QUITTIEREN

Um eine dieser Optionen benutzen zu können, brauchen Sie nur das Fenster, entsprechend Ihrer Wahl mit Hilfe der Cursorpfeiltasten), zu verschieben und auf ENTER zu drücken. Ein anderes kleines Menü erscheint auf dem Bildschirm. Es bietet Ihnen den Inhalt dieser Option an. Sie brauchen dann nur auf die Taste "J" für Ja oder auf "N" für Nein zu drücken.

ERSTELLUNG EINER DATENBANK

Der Sinn der Erstellung einer Datenbank besteht darin, den Datensatz und den verschiedenen Feldern Namen zu geben.
Nachdem Sie die Option "ERSTELLUNG EINER DATENBANK" gewählt haben, erscheint auf dem Bildschirm ein Menü, das die folgenden Optionen enthält:

Menü ERSTELLUNG EINER DATENBANK

BILDSCHIRM ERSTELLEN
BILDSCHIRM LÖSCHEN
BILDSCHIRM LADEN
FORMAT EDITIEREN

Sie brauchen nur das Fenster entsprechend Ihrer Wahl zu verschieben, um eine dieser Optionen benutzen zu können. Wir werden diese Optionen zusammen untersuchen.

Keyboard (tastiera)

	CBM64/128	Spec/Ams	Atari ST	Amiga	IBM PC
Su	–	Q	–	–	↑
Giù	–	A	–	–	↓
A sinistra	–	O	–	–	←
A destra	–	P	–	–	→
Fire	SPACE	SPACE	–	–	INS/DEL
Pausa	RUN/STOP	–	F1 – On, F2 – Off	P	RETURN
Quit	–	–	–	Q	ESC
Joystick Solo	✓	–	✓	✓	–
Smart Bomb	–	–	F1 Giocatore 1 F2 Giocatore 2	–	F1/F5 Giocatore 1 F6/F10 Giocatore 2

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FORGOTTEN WORLDS™

LADEANWEISUNGEN

CBM 64/128 Kassette
Die Tasten SHIFT und RUN/STOP gleichzeitig drücken. Dann die PLAY-Taste des Kassettenrecorders drücken. Folgen Sie den Bildschirmanweisungen.

CBM 64/128 Diskette
LOAD"*",8,1 eintippen und RETURN drücken. Das Spiel lädt und läuft automatisch. Folgen Sie den Bildschirmanweisungen.

SPECTRUM 48K Kassette
LOAD"" eintippen und ENTER drücken. Dann die PLAY-Taste des Kassettenrecorders drücken.
48K-Version Seite A, 128K-Version Seite B. An 48K-Benutzer: Nach Beenden des Spiels Zurückspulen und das Spiel neu laden, um wieder Anzufangen.

SPECTRUM +2/+3
ENTER drücken. Das Spiel lädt und läuft automatisch.

AMSTRAD CPC Kassette
Die CTRL-Taste und die kleine ENTER-Taste drücken. Dann die PLAY-Taste des Kassettenrecorders drucken.

AMSTRAD CPC Diskette
RUN"DISK eintippen und ENTER drücken. Das Spiel lädt und läuft automatisch.

ATARI ST
Diskette A einschieben und den Bildschirmanweisungen folgen. Spieler 1 Joystick in Maus-Anschluß.

CBM AMIGA
Diskette A einschieben und den Bildschirmanweisungen folgen.

IBM PC und KOMPATIBLE
Mit DOS starten. Bei A> die Spieldiskette einschieben, "FW" eintippen und ENTER drücken. Das Spiel lädt und läuft automatisch.

SZENARIO

Kaiser Bios, Gott der Vernichtung, hat acht böse Götter gezeugt, die überall die Zivilisation vernichteten.

Zerstörte Städte wurden zu Trümmerhaufen. Man nannte sie die 'FORGOTTEN WORLDS'. Die zornigen Menschen schufen aber zwei mächtige Krieger, um die grausamen Dämonen zu bekämpfen und die Welt von Bios zu retten.

Ihre Aufgabe wird dadurch erschwert, daß Kaiser Bios unter dem Schutz dreier Halbgötter steht – dem Goldenen Drachen, dem Gott des Krieges un dem Paramecium.

DAS SPIEL

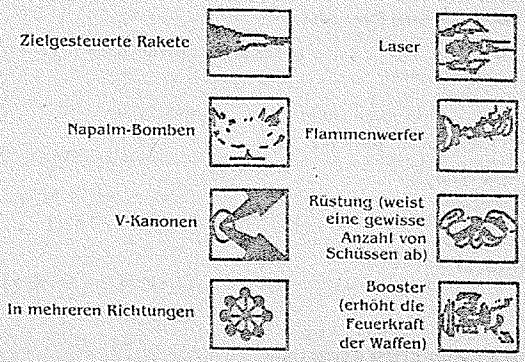
Level 1 – Stadt der Sünden
Begeben Sie sich zum Eingang des unterirdischen Komplexes, nachdem Sie sich Ihren Weg durch die düstere Stadt gebahnt haben. Hüten Sie sich vor der Spinne, die Robotwächter mag. Unterhalb der Erde wird Ihnen der Weg durch Röhren versperrt. Wenn Sie diesen einen Riß zufügen, werden Sie zu Pommes Frites verbrutzelt. Und schließlich erscheint der erste Halbgott, der sein zerbrechliches Maul, das tödliche Mutationen ausspuckt, mit Müll umgibt, um es gegen Ihre Angriffe zu schützen.

Level 2 – Staubwelt
In den trüben Wassern der untergetauchten Welt des Staubdrachens lauern tödliche Schlangen, die bis zum letzten Moment warten, bis sie mit rasiermesserscharfen Zähnen nach Ihnen schnappen. Kanonengeschütze befinden sich entlang des Weges zum Staubdrachen, der nur zerstört werden kann, wenn Sie sein Herz treffen. Angriffe gegen andere Körperteile machen ihn nur noch wütender.

Level 3 – Hi-Tech
Eine schwer bewaffnete Festung, die von Kanonengeschützen umgeben ist, um den Schrein des Kriegsgottes zu schützen. Unzähligen Eidechsen ist es nicht gelungen, Sie vom Vordringen zu diesem Ort abzuhalten, doch der Kriegsgott, der die Festung fast schon winzig erscheinen läßt, ist zum Kampf bereit. Nur bei der Zerstörung seiner Schultern besteht noch Hoffnung.

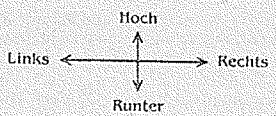
Level 4 – Götterdomäne
Über den Wolken liegt das Kaiserreich von Bios. Er schickt die Mönche seines höchsten Ordens gegen Sie, um Sie zu stoppen. Dabei benutzt er böse Kreaturen wie Schlangen und Maden, um Sie von den Angriffen der Mönche abzulenken. Schlagen Sie die Mönche und dringen Sie bis zum anderen Ende des Waldes vor, wo Bios, auf seinem Throne sitzend, bereits auf Sie wartet.

Während des Spielverlaufs können Sie sich zusätzliche Waffen in Läden kaufen, die inmitten eines Levels erscheinen. Diese Waffen sind:

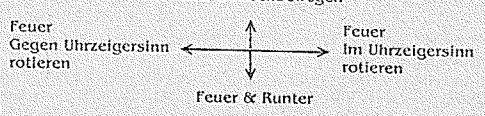


STEUERUNG

Joystick
Ohne den FEUERKNOPF zu drücken:



Mit gedrücktem FEUERKNOPF:



Tastatur

	CBM64/128	Spec/Ams	Atari ST	Amiga	IBM PC
Hoch	–	Q	–	–	↑
Runter	–	A	–	–	↓
Links	–	O	–	–	←
Rechts	–	P	–	–	→
Feuer	LEERTASTE	LEERTASTE	–	–	INS/DEL
Pause	RUN/STOP	–	F1 – An, F2 – Aus	P	RETURN
Abbrechen	–	–	–	Q	ESC
Nur Joystick	✓	–	✓	✓	–
Intelligente Bomben	–	–	F1 Spieler 1 F2 Spieler 2	–	F1 F5 Spieler 1 F6 F10 Spieler 2

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BEI WIDERRECHTLICHEM KOPIEREN DIESE PROGRAMMS KÖNNEN DIE VERANTWORTLICHEN PARTEIEN SOWOHL VOM LIZENZINHABER ALS AUCH VOM INHABER DES URHEBERRECHTS STRAFRECHTLICH VERFOLGT WERDEN.

Sollten Sie beim Laden oder Spielen von Forgotten Worlds auf Irgenwelche Probleme stoßen, können Sie uns unter der Telefonnummer (UK) 021 356 3388 von Montag bis Freitag zwischen 14.00 Uhr und 16.30 Uhr (Westeuropäischer Zeit); anrufen. Fragen Sie nach dem "Software Development Department", das ihnen gerne bei der Beantwortung Ihrer Fragen behilflich ist.

THE GAME

The Scan confuses. Where is the heat? It is not appearing. Have they left with the movement? Cold.
The Scan confuses. We are almost unmoving. Are we deactive?
The Scan confuses. I cannot assemble to memory. It contains damage.
Am I to unfunction?
I confuse the Scan. All is not well. It does not run, the heat is dying. . . am I to protect it or to end it?
It will not assemble yet. Memory remains but is not uncorrupted. My function must be complete, the host must tell me how, but it is not on Scan.
The Scan enlightens. We are 1. All else is gone. It is damaged as am I. Repair and reprogram. Correct before we terminate to host source conjunction which will destroy and I must guard that which is within it.
The Scan fails. I know only what is within it and yet the unfunction is also. Without Scan conjunction will occur without control. Movement remains sufficient to complete the meeting. I must restore more to avoid it. All is unfunction. Repair all within and else to regain control.

1 Scan 1. Readout:
TYPE: MSB MAINTENANCE DROID CLASS 4
POWER: FUSION CLASS 2
TRANSPORTER: SELF CENTERED, SHORT RANGE
CAPABILITY: STEERAGE AND REPAIR CRUISER CLASS X
OPERABILITY: 90% PROGRAM CORRUPT. FUNCTIONING DAMAGE TO MEMORY CIRCUITS

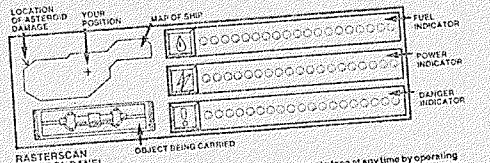
M.S.B returns to the Scan. I am again. Location unclear. Meaning impaired beyond recall.
Scan for RASTERSCAN::
TYPE: CRUISER CLASS X
POWER: BATTERY POWER FUSION REACTORS (INOPERATIVE)
ENGINE: FOUR, RATING 250c (INOPERATIVE)
CAPACITY: 57K MT CARGO, 250 UNITS
CONTROL SYSTEMS: STANDARD 3 THREE SCANNER CONTROL (INOPERATIVE)
RANGE: 3K PARCELS
OPERABILITY: 10% POWER AND CONTROL SYSTEMS NOT POWERED. HULL INTEGRITY IMPAIRED.

Rasterscan returns to memory. I am here again. Damage all around function must be fulfilled. Repair and control before location is terminated in conjunction.
Movement begins to complete undamage. . .

PLAYING THE GAME

Rasterscan is an animated adventure game without any text. All locations, puzzles, clues and solutions are depicted graphically. Although joystick controlled, the game requires no arcade skills whatsoever.
The game takes place aboard a large spaceship, the Rasterscan. After a skirmish the Rasterscan is badly crippled and drifting helplessly towards a star.
The player takes the role of a small, spherical service robot by the name of M.S.B. Unfortunately M.S.B.'s only remaining program is how to repair toasters and he hasn't a clue how to operate the spaceship.
The object of the game is to repair and control the Rasterscan preferably before it collides with the star!

M.S.B. M.S.B. has no limbs to manipulate objects but he (it?) can cause an object to teleport from one place to another. This is done by placing M.S.B. over the required object, pressing fire, moving M.S.B. to the object's destination and pressing fire again. The object will appear directly below M.S.B.
All machinery and instruments can (once repaired) be operated by plugging M.S.B. into them. A window will then appear showing relevant information/options in a graphical form.
LOCKS Certain areas of the ship are initially blocked off by locked doors. Locks take the form of a simple logic puzzle which must be completed in a unlimited number of moves. The solution is slightly different for each lock.
MACHINERY All machinery and instruments on the ship are designed to be functional and their purpose can be worked out logically. The player must repair each item, ensure it is connected to the power supply then work out what it does. Several options will cause the game to be lost so a cautious approach is called for.
(i) The Generator At the start of the game the ship's generator has ceased to function and the ship is on battery power. The battery will not last very long and has only enough power to support the ship's basic life-support systems.
The generator is powered by liquid fuel. A fuel pipe runs from the tank to the generator. Part of the pipe runs along the outside of the ship and this has been damaged, causing a leak. In order to fix the leak, M.S.B. must collect a pipe section from the store, find the leak and repair it.
(ii) The Engines There are four engines on the ship, all powered by electricity from the generator. Between each engine and the power supply, there are two switches; the main on/off switch and the emergency cut-off switch. Switches are scattered around the ship so the player must follow electricity cables carefully to discover which switches are connected to which engine. Many of the cables are broken. The store room contains all the necessary spare parts. Once an engine has been switched on, the ship will accelerate.
(iii) The Scanner The scanner lies on the bridge of the ship. It must be switched on. In a room near the scanner which is also locked, there are three switches and only the correct combination of option will switch on the scanner.
The scanner, when operational, will show a view of the Rasterscan and its surroundings. On the far right of the picture is the star, towards which the ship is being drawn. The ship itself is shown as a flashing point. Also shown are several planets.
STEERING THE SHIP This is the most difficult of the tasks. A room near the scanner is the control room. Here the player can control the speed and direction of the ship. There are four indicators which show the speed of each of the engines. In the middle of the room is a circle with a cross near the centre. The distance of the cross from the centre of the circle indicates the speed of the ship and its position relative to the centre indicates the ship's direction. To change the course of the ship the player must move M.S.B. to the desired position of the cross and press fire. The speed of the engines will adjust accordingly.
The game is completed when Rasterscan safely reaches the edge of the scanner.
THE STATUS PANEL At the bottom of the screen is the status panel, which shows: M.S.B.'s location within the ship, which object M.S.B. is carrying, a fuel gauge, and danger level.



RASTERSCAN CONTROL PANEL

SAVE GAME OPTION The player can save the status of the game to tape at any time by operating the tape machine. This will, of course, have to be repaired before use.
CONTROLLING M.S.B. Joystick or Keyboard.
O = Up A = Down O = Left P = Right SPACE = FIRE

LOADING INSTRUCTIONS
Amstrad 464: Press CNTRL and small ENTER
Amstrad 664/6128: Type |TAPE and press RETURN.
Press CNTRL and small ENTER.

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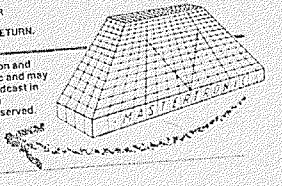

PASTE-MAN PAT

© L. Calder

Pat Splatt, the finest poster putter-upper in Groove-Town spent all day yesterday pasting the new batch of posters. Unfortunately for him, his greatest rival, Nasty Norville, got his henchmen to muddle the posters up. So, it has fallen to him to set about sorting them out. Due to the nature of Pat's super sloppy paste, the posters can't be pulled off and repasted, no, that's what makes him so cool. He's got to slide the pieces around with his horse-hair brush until it's back to normal. Norville's henchmen have found out what's going on and will try and make Pat's job as hard as they can by throwing just about all they can get their hands on at him. If it all gets too much for him, a trip to the toilet will provide insight.

LOADING INSTRUCTIONS

AMSTRAD 464 OWNERS

1. Place the rewound cassette in the cassette unit and press **PLAY**.
2. Hold down **CTRL** and press the **SMALL ENTER** key.

AMSTRAD 664/6128 AND 464 + DISK OWNERS

1. Hold down the **SHIFT** and press the **@** key. Type **TAPE** and press **RETURN**.
2. Connect a suitable cassette player to your computer, according to the User Manual, and insert the rewound cassette.
3. Hold down **CONTROL** and press the **ENTER** key.
4. Press **PLAY** on the cassette player.

Note: *Full loading instructions can be found in your Amstrad Manual*

PLAYING THE GAME

Controls

Use a joystick to control Pat.

The title page presents you with a list of difficulty levels. The hardest being at the top (ie. The picture has been divided up into lots of pieces), the easiest at the bottom (The picture has been divided into only 4 pieces). Select the level you want to play by moving the cursor over it and pressing fire.

You can load a new poster by selecting the option at the very bottom of the list. There are 5 pictures on the tape, and it is best to note down the counter reading at the beginning of each one as you load them, so you can spool straight through to your favourite one.

The aim of the game is to sort out the messed-up billboard in the time allowed, avoiding the missiles thrown by the rivals below. The missiles can be pushed away with the brush. By pressing down on the wall above the toilet sign, a full screen picture of the billboard is shown, pressing fire flips throught three screens that help with the game.

Controls are left/right etc. to move Pat around the billboard, fire AND left/right etc. controls the brush. The brush moves the billboard around as long as it hasn't hit a missile first and is not over a section line. When pushing the brush up or down, the side the brush appears on depends on the last left/right movement.

CONSEILS POUR JOUER

- LE JEU ETANT EN TEMPS REEL VOUS N'AVEZ QUE 25 MINUTES POUR REUSSIR CAR AUTANT LE DIRE , 20 MINUTES ONT ETE NECESSAIRES POUR L'EVACUATION DE L'AMBASSADE DURANT LAQUELLE VOUS AVEZ ASSISTE A UN BEL AFFOLEMENT. VOUS REPRENEZ VOTRE CALME, ET COMMENCEZ A ETABLIR UN PLAN DU BATIMENT, IL SERA VRAIMENT TRES PRECIEUX.
- CERTAINES ACTIONS DEMANDENT DU TEMPS POUR LEUR EXECUTION, PREVOYEZ EN CONSEQUENCE.
- L'UTILISATION DE LA COMMANDE " EXAMINE " VA SE REVELER TRES UTILE.
- UN DERNIER CONSEIL , IL EST EVIDENT QUE CETTE EPREUVE VA VOUS METTRE LES NERFS A VIFS, CE N'EST PAS UNE RAISON POUR TROP INSULTER L'ORDINATEUR IL EST CAPABLE DE VOUS RETIRER QUELQUES MINUTES DE JEU.

BONNE CHANCE.

N.B : EN FIN DE PARTIE SI VOUS AVEZ ECHOUE , A LA PRESENTATION DE L'ECRAN FINAL , VOUS POUVEZ TENTER VOTRE CHANCE UNE NOUVELLE FOIS EN APPUYANT SUR " R " PUIS : RUN "ATTENTAT"

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140, AV PABLO PICASSO 92000 NANTERRE

BONJOUR,

VOUS POUVEZ FAIRE PARTI DU CLUB RAINBOW , C'EST TRES FACILE. POUR PROFITER DE POSTERS GRATUITS DE VOS JEUX , DE REDUCTIONS APPRECIABLES A L'ACHAT , DE CONTACTS AVEC LES AUTEURS, REPONDEZ AUX QUESTIONS SUIVANTES ET ENVOYEZ LES A :

RAINBOW PRODUCTIONS
SERVICE CLUB
140 AV PABLO PICASSO
92000 NANTERRE

1) AVANT D'ACHETER VOTRE PROGRAMME FAITES VOUS CONFIANCE A LA PUBLICITE OU AUX ESSAIS DANS LES REVUES ?
2) QUELLE EST VOTRE REVUE PREFEREE ?
3) QUELS SONT VOS PROGRAMMES PREFERES : AVENTURE
ARCADE
SIMULATION
UTILITAIRE
CLASSEZ LES DANS L'ORDRE DE PREFERENCE
4) QUEL SERAIT POUR VOUS LE JEU IDEAL ?
5) VOTRE AGE ?

ENVOYEZ NOUS LES REPONSES SANS OUBLIER VOTRE NOM, ADRESSE, MATERIEL UTILISE.

MERCI ET A BIENTOT...

Hilfsprogramme:

Sie haben die Option "HILFSPROGRAMME" gewählt. Das Menü erscheint auf dem Bildschirm".

MENÜ HILFSPROGRAMME

KASSETTENZUGRIFF
BILDSCHIRMTYP
RÜCKKEHR INS HAUPTMENÜ

Um eine dieser Optionen benutzen zu können, brauchen Sie nur das Fenster entsprechend Ihrer Wahl zu verschieben und auf ENTER zu drücken.

Kassettenzugriff:

Sie haben zwei Möglichkeiten: schnelle Geschwindigkeit
langsame Geschwindigkeit

Diese zwei Optionen sind für die Einstellung der Geschwindigkeit des Ladens und Aufnehmens gedacht.

Bildschirmtyp:

Diese Option ermöglicht es Ihnen, die Bildschirmart einzustellen, mit der Sie arbeiten wollen.

Quittieren:

Sie haben sich aus dem Hauptmenü die Option "Quittieren" ausgesucht. Das dazugehörende Menü erscheint auf den Bildschirm.

MENÜ QUITTIEREN
EASY BANK VERLASSEN
DATEN SICHERN
RÜCKKEHR INS HAUPTMENÜ

Um eine dieser Optionen benutzen zu können, brauchen Sie nur das fenster entsprechend Ihrer Wahl verschieben und auf ENTER zu drücken.

EASY BANK verlassen:

Diese Option ermöglicht es Ihnen, das Programm zu verlassen.

ACHTUNG! Alle Daten sind dann endgültig verloren.

DATEN sichern:

1. Legen Sie eine Kassette (wenn möglich eine Neue) in den Kassettenrekorder ein. Diese soll die eingegebenen Daten aufnehmen.
2. Drücken Sie auf die Taste PLAY und RECORD Ihres Kassettenrekorders.
3. Der Dateiname ist mit KONTO voreingestellt. Falls Ihnen dieser nicht gefällt, können Sie ihn ändern; er darf allerdings nicht mehr als 6 Buchstaben haben.
4. Drücken Sie auf die Taste ENTER, um das Speichern zu starten.
5. Sie können auf dem Bildschirm einen Zähler sehen, der es Ihnen ermöglicht, den Fortgang des Speichervorgangs zu verfolgen.
6. Wenn die Aufnahme beendet ist, gehen Sie zum Ende Ihrer Arbeit zurück.

LADEN

Laden der Kassette:

1. Legen Sie Ihre Datenkassette ein.
2. Drücken Sie auf die Taste PLAY Ihres Kassettenrekorders.
3. Wir haben als Dateinamen den Namen"RECHN" ausgesucht.
4. Drücken Sie auf die Taste ENTER. Dies startet das Laden Ihrer Daten.
5. Sie können auf dem Bildschirm einen Zähler sehen, der es Ihnen ermöglicht, den Fortgang des Ladevorgangs zu kontrollieren.
6. Wenn die Daten geladen sind, kommen Sie ins Menü zurück.

Daten ausgeben:

Sie haben sich die Option "Daten ausgeben" ausgesucht. Es erscheint auf dem Bildschirm das Menü "Daten ausgeben".

MENÜ DATEN AUSGEBEN

BILDSCHIRMAUSGABE
DATEN SUCHEN
DRUCKERAUSGABE
RÜCKKEHR INS HAUPTMENÜ

Um eine dieser Optionen benutzen zu können, brauchen Sie nur das Fenster entsprechend Ihrer Wahl zu verschieben und auf ENTER zu drücken.

Bildschirmausgabe:

Diese Option ermöglicht es Ihnen, alle Daten abzurufen. Um die Ausgabe fortzusetzen, drücken Sie die Taste "→", um rückwärts zu blättern die Taste "←". Wenn Sie die Ausgabe abbrechen wollen, müssen Sie auf die Taste "↑" drücken. Um Daten zu löschen, drücken Sie auf"D"und um Daten zu ändern auf"M".Sie können somit nach und nach das Saldo bei jeder Transaktion verfolgen.

Daten suchen:

Sie haben sich die Option "DATEN SUCHEN" au
Dieselbe Maske wie für "DATEN EINGEBEN" erscheint
Bildschirm. Sie brauchen nur das jeweilige Feld,
Sie suchen wollen, ausfüllen. Falls dieser Wert e
wird der ganze Satz ausgegeben. Für eine vol
Suche drücken Sie bei jedem Feld auf ENTER.

Beispiel einer Suche:

Datum :14/12/84
Soll/Haben :D/S
Summe :432
Zahlungsmodus:Scheck
Bemerkung :Fa.Meier

Druckerausgabe:

Sie haben sich aus dem Hauptmenü die "DRUCKERAUSGABE" ausgesucht. Dieselbe Maske, "DATEN EINGEBEN" erscheint auf dem Bildschirm. Fü diese aus, um den Druck Ihrer Transaktionen zu Falls Sie einen vollständigen Druck haben wollen, Sie auf ENTER bei jeder Rubrik.

Beispiel:

Druck des Bankkontos

DATUM	Modus	Bemerkung	Bewegung Soll	Haben	Sal Sol
13.12.84	Scheck	Ich selbst		12720,99	
14.12.84	Scheck	Fa. Meier	432,-		432

Ihr Kontensaldo am 14.12.84 DM 12388,99

Kontensaldo:

Sie haben sich aus dem Hauptmenü die Option "KON ausgesucht. Das Saldo Ihres Kontos wird unter d Ihrer letzten Eingabe auf dem Bildschirm sichtbar

Beispiel:

Ihr Kontensaldo am 14.12.84 12388,99 DM HABEN.

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SOFT

Beispiele:
Wählen Sie die Option "Datensatz eingeben".

1. Der Cursor steht auf dem Datumsfeld. Geben Sie folgenden Wert ein:

   130785 dann ENTER

2. Der Cursor steht nun auf dem Feld KREDITOR/DEBITOR. Drücken Sie die Taste"K"für die Habenseite oder die Taste"D"für die Sollseite. Geben Sie folgendes ein:

   K dann ENTER

3. Sie werden nach "Summe" gefragt. Geben Sie folgende Summe ein:

   256.30 dann ENTER

4. Nun müssen Sie den Zahlungsmodus eingeben. Drücken Sie auf S für "Scheck", auf B für "bar" und auf A für einen anderen Zahlungsmodus. Für diese letzte Transaktion haben Sie die Möglichkeit, bis zu 10 Buchstaben einzugeben. Sie geben ein:

   S dann ENTER

5. Zuletzt kommt die Frage nach dem Empfänger bzw. Absender (Bemerkung). Geben Sie folgendes ein:

   Schmidt dann ENTER

Schließlich werden Sie gefragt, ob Sie diese Transaktion übernehmen wollen. Drücken Sie auf"J"für Ja oder auf"N"für Nein. Sie werden dann gefragt, ob Sie noch eine zusätzliche Transaktion eingeben wollen.

Es folgen einige Beispiele:
Geben Sie diese ein und drücken Sie "N", wenn Sie die letzte Transaktion eingegeben haben.

Datum : 13/12/84
Soll/Haben : K
Summe : 12720.99
Zahlungsmodus: S (Scheck)
Bemerkung : Ich selbst

Zweimal"J"

Datum : 14/12/84
Soll/Haben : D
Summe : 432
Zahlungsmodus: S (Scheck)
Bemerkung : Fa. Meier

"J"und dann"N"

Praktische Ratschläge:

Sie haben beim Laden Ihres Programms Probleme gehabt. Versuchen Sie noch einmal, das Programm zu laden.Wenn dieser Versuch erfolgios bleibt, dann befolgen Sie bitte die folgenden Ratschläge:

1. Ist die Lautstärke Ihres Kassettenrekorders auf Ihr Maximum eingestellt?

   Stellen Sie die Lautstärke auf Maximum ein.

2. Ist der Abspielkopf sauber?

   Säubern Sie den Kopf mit einem in Alkohol getränkten Wattestäbchen

3. Überprüfen Sie die Justierung des Abspielkopfes.

Sollte das Problem trotzdem andauern, muß die Kassette den Händler zurückgebracht werden.

Daten eingeben:

Sie haben sich aus dem Hauptmenü die Option "Daten eingeben" ausgesucht.
Das Menu wird dazu auf dem Bildschirm sichtbar.

MENÜ DATEN EINGEBEN

DATEN EINGEBEN
DATENBANK LADEN
RÜCKKEHR INS HAUPTMENÜ

Um eine dieser Optionen auszuwählen, brauchen Sie nur das hell markierte Fenster mit dem Rechts- oder Linkspfeil entsprechend Ihrer Wahl zu verschieben und auf ENTER zu drücken.

Diese Optionen werden nun näher untersucht.

Daten eingeben

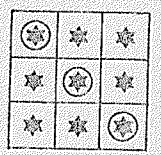
Bei allen folgenden Operationen müssen Sie Antworten in Großbuchstaben eingeben. Es erscheint auf dem Bildschirm eine Datenerfassungsmaske, die Sie ausfüllen müssen. Dann werden Sie gefragt, ob Sie die Eintragungen übernehmen wollen. Sie antworten mit der Taste "J" oder mit der Taste"N".
Dann werden Sie gefragt, ob Sie weitere Daten eingeben wollen.
Drücken Sie auf die Taste"J"für Ja oder auf die Taste"N"für Nein. Ihrer Antwort entsprechend gehen Sie entweder zum Anfang Ihrer Maske zurück oder ins Menü.

NUDGES

Lose	Collect	Win		Lose	collect	Win
10p	2	4	or	1	5	7
10p	4	6		3	7	9
2	6	8		7	9	11
8	10	12		9	11	13
10	12	UL		11	13	UL

For example if you win 1 Winner Spinner and gamble it and lose, you lose 20p. If you gamble 1 Winner Spinner and win you get 2 Winner Spinners. So the sequence is 20p-1-2.

THE FRUITS. Star, Lemon, Plum, £1, Grape, Bell, Bar, Sevens.



The stars can be in any position on the screen.
2 stars wins 20p 3 stars wins 30p.

LEMON-LEMON-LEMON = 50p
PLUM-PLUM-PLUM = 70p
£1 - £1 - £1 = 1 POUND
GRAPE-GRAPE-GRAPE = £1.50
BAR-BAR-BAR = £2.00
BELL-BELL-BELL = £2.00
SEVEN-SEVEN-SEVEN = JACKPOT = £3.00

Any 2 similar fruits appearing on 1st and 2nd reel = 20p.

LIST OF REELS:
This is only to be used if you want to cheat on nudging.

REEL 1	REEL 2	REEL 3
pound	star	star
star	seven	bell
lemon	lemon	lemon
grape	bell	plum
plum	star	bar
pound	bar	pound
bar	lemon	lemon
plum	grape	bar
lemon	lemon	star
pound	bell	bell
plum	bar	grape
seven	pound	plum
lemon	seven	seven
plum	lemon	lemon
lemon	bell	star
grape	plum	bell
star	grape	pound
pound	lemon	grape
bell	bar	lemon
plum	plum	bar

Probability of getting

3 sevens	straight in =	4000-1
3 Bars	straight in =	890-1
3 bells	straight in =	890-1
3 grapes	straight in =	670-1
3 pounds	straight in =	500-1
3 plums	straight in =	400-1
3 lemons	straight in =	100-1
3 stars	straight in =	25-1

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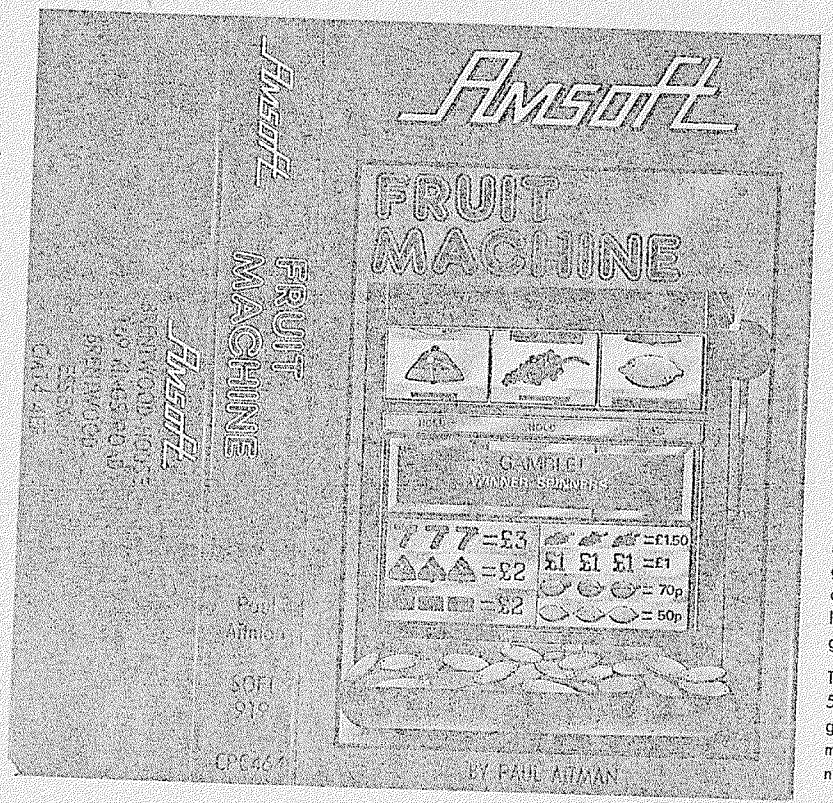

LOADING INSTRUCTIONS

Reset computer by holding down CTRL,SHIFT and ESC keys together in that order. Place cassette into the Datacorder. Rewind tape to beginning then press STOP/EJECT once. Press CTRL and small ENTER keys simultaneously then press PLAY followed by any key. This program will take about 4 minutes to load.

To start game press space bar. You have £5 to start with and each run of the Fruit Machine costs 10p of your £5 stake.

During the game you may be able to hold the reels. You do this by pressing 1 for the left hand reel, 2 for the middle reel and 3 for the right hand reel. The Fruit Machine never holds after a nudge or a Winner Spinner. If you win you can collect the cash (by pressing C) or gamble it (by pressing G), or exchange it for nudges (by pressing N).

If you exchange it for nudges you are then able to nubge the reels up and down, depending on the number of nudges you have. To nudge down you press 1, 2 or 3. To nudge up you press either 4, 5 or 6. You may also chose to gamble your nudges which could win you a greater number of nudges or lose the ones you have already acquired. If you press G and gamble your money you could win a greater amount or lose the lot.

To get a Winner Spinner you must have a win of at least 50p. When you get a Winner Spinner you press W (you can gamble these if you wish). The Fruit Machine then becomes magical and by pressing the space bar you receive a number of wins and this is added to your total.

KEYS

1, 2 and 3 will hold either 1st, 2nd and 3rd reels.
Space bar will set the reels rolling.
Press the space bar to continue.
4, 5 and 6 will nudge up each reel.
1, 2 and 3 will nudge down each reel.
G =Gamble
C =Collect win or cancel hold
N = Will exchange wins for nudges
W = Will exchange wins for Winner Spinners

RULES

WINNER SPINNERS	CASH	NUDGES
0	20p	2
0	30p	3
1	50p	4
2	70p	6
3	£1.00	8
4	£1.50	10
5	£2.00	12
-	£3.00	-

Exchange £2 for 12 nudges - G - UL nudges.

GAMBLING SEQUENCES

WINNER SPINNERS			CASH		
Lose	Collect	Win	Lose	Collect	Win
20p	1	2	10p	20p	30p
1	2	3	10p	30p	50p
2	3	4	30p	50p	70p
3	4	5	50p	70p	£1.00
			50p	£1.00	£1.50
			£1.00	£1.50	£2.00
			£1.00	£2.00	£3.00

CONTROLS

Turf-Form uses easy to read input screens and prompts the user whenever information is required. The options available and the keys concerned are displayed in the lower part of each screen.

Selecting the meeting - use the cursor keys to select the location of today's races.

Select the number of horses you wish to predict for and enter their names next.

Then enter the form details from the paper, for each horse selected following the on-screen prompts.

If the horse ran last at a foreign course enter 'The last course' as 'Newbury'. If the horse fell or was pulled up at its last race enter the previous race's information as if it was the last race.

MSX users please note: References to 'Carlmel' should be entered into the computer as 'Wye'.

Turf-Form gives every course a speed rating, ie the speed that a horse should attain to stand a chance of winning. For example, Ascot's rating is 85 which must be equalled or exceeded by the horse to be considered in with a chance of winning.

Each horse for whom details are entered will also be given a fitness rating, ranging from poor to 'Excellent'. A horse should have a 'Very Good' or 'Excellent' rating to be considered capable of winning.

With Turf-Form's information as a guide you should then be able to make your bets!

This program was licensed from Cygnus Software.

This game is sold under the condition that it shall not be RESOLD, LENT, HIRED or COPIED without written permission from Blue Ribbon Software Ltd.

Turf-Form is a horse racing forecaster that can predict form for both Flat and National Hunt races on UK racecourses.

All the information required to use Turf-Form can be found in most popular daily papers. There is no need to buy expensive form books or other prediction aids.

By entering the detailed information required by the program when prompted on screen, the program will calculate a speed rating and a fitness rating for each horse.

From this information you can calculate the chances of each horse in the race concerned.

The user should use Turf-Form as a guide only and should be used for predicting form only at good class races. Blue Ribbon does not warrant this product in any way and will not accept claims for losses made by using the information output by this program.

LOADING

Follow the loading instructions printed on the cassette label.

Blue Ribbon Software Ltd.
Nimrod House, Beckett Road, Doncaster, DN2 4AD (0302) 321134



LOADING INSTRUCTIONS

464: Press CTRL and small ENTER key.

664, 6128: Type **|** (SHIFT) TAPE then CTRL and the small ENTER key.

THE GAME

Paddle through the wild waters of 4 different courses avoiding hazards, such as rocks, islands & land banks to beat the course record.

You must negotiate all the gates keeping the red poles always to the right. If you hit a pole you shall receive a 5 sec penalty. If you miss a gate all together a 10 sec penalty shall be incured.

Paddle fast for the best possible time but be careful to avoid running out to energy. If you capsize paddle frantically in all directions to right yourself.

Good Luck and be careful, those wild waters are just waiting to get you.

THE CONTROLS

Use joystick RIGHT or key Lfor RIGHT
Use joystick LEFT or key K for LEFT
Use joystick UP or key G for PADDLE FORWARD
Use joystick LEFT or RIGHT & FIRE, or key J or COLON for SLAP SUPPORT (BALANCE) ESCAPE KEY - Abort Game

COURSE DESIGN

It is possible to design your own courses or to alter the existing ones. This feature is extensively documented within the program and includes the options of altering rocks, rapids and gate positions making it as hard or as easy as you want.



5 015103 893171

ALTERNATIVE SOFTWARE LIMITED
UNITS 3-6 BAILEYGATE
INDUSTRIAL ESTATE
PONTEFRACT
WEST YORKSHIRE WF8 2LN
TELEX 557994 RR DIST G

LOADING INSTRUCTIONS:
Press CTRL & small ENTER then press PLAY

The small town of Smallsville was the sort of town where the only person with a gun was the travelling salesman. But that all changed the day that Dirty Dick and his band hit town and ran riot.

The Mayor of Smallsville has called on you and a friend to come and clean up the town and rid them of Dirty Dick and his bunch of Screwballs.

GAMEPLAY
This is a one or two player game with approximately 50 locations, the object of the game is to clear all the Screwballs from each screen. Gold can also be collected. It is dropped when a Screwball is shot.

You lose points if townspeople are shot.

In the game, there are three possible endings.

1) All Screwballs are killed.
2) You are killed.
3) Too many people are killed.

Obviously, you should aim for the first one, so take care with your 'Revolver'!

KEYS:

O	Top Left	SPACE	Fire
P	Top Right	CAPS	Pause On/Off
Q	Bottom Left	Or Joystick	
A	Bottom Right		

The Screen Displays

SCREENSHOTS FROM COMMODORE VERSION

The Aim of the Game

Single word commands

NORTH, N etc	Move in specified direction.
INVENTORY, I	List carried objects.
LOOK, L	Redescribe location.
SAVE	Save game present position.
LOAD	Load saved game.
QUIT	End game: start again.
SCORE	Check % progress through game.
WAIT	Do nothing.

The following are some of the more important verbs which are accepted. There are many more which you will have to find for yourself

GET	TURN	LOCK	REMOVE	TIE, UNTIE
SEARCH	EXTINGUISH	LOOK	GIVE	OPEN
LEAVE	TAKE	HIT	EAT	PULL
THROW	KILL	DROP	PUT	LIGHT
UNLOCK	SAY	ATTACK	EXAMINE	CAST
PUSH	WEAR	CLIMB	ENTER	

ALL can be used with the verbs GET and DROP to pick up everything in a location or drop everything carried. It will ignore hidden objects etc., and dead characters. LOOK is used for seeing into containers eg. LOOK INTO CHEST. It can also be used to look at adjacent locations eg. LOOK EAST will tell you what objects and creatures (except hidden ones) are there.

GIVE when giving an object to a character it must be done in the form GIVE [object] TO [character] eg. GIVE SACK TO ELVA.

Talking to other characters:

To talk to another character you must mention the character and use quotes eg. SAY TO OGERON "GIVE ME SWORD". Friendly characters will usually cooperate if they can — others not necessarily!

Sentences are not limited to VERB/NOUN, although this is sufficient in many cases eg. GET SHIELD or GET THE LARGE SHIELD.

In many cases longer sentences are necessary eg. PUT SWORD INTO CHEST or UNLOCK RED DOOR WITH LARGE KEY.

Many objects are described by both noun and adjective eg. LARGE KEY or NASTY KNIFE. If you want to get the large key you could try GET LARGE, GET KEY or GET LARGE KEY. The first two might be accepted, unless there are any other large objects or keys around — this would cause confusion.

Abbreviations

Most words can be abbreviated to two letters, and some to one eg. OPEN DOOR can be OP D. Ambiguity can arise, though eg. LOOK IN CHEST as LO CH will be taken as LOCK CHEST — LOO CH would work.

HINTS

KENTILLA is a richly devious adventure. Collecting objects is not an end, just a means to it. You may have to revisit some locations a number of times in order to make overall progress, and time may be of the essence. Much is hidden, and not revealed at first examination. Apparently useless things might have curious effects on those who threaten you. The very title of the game is of great importance in its playing . . . but you will find that out . . .

LOADING INSTRUCTIONS

Hold down CTRL and press the small ENTER key

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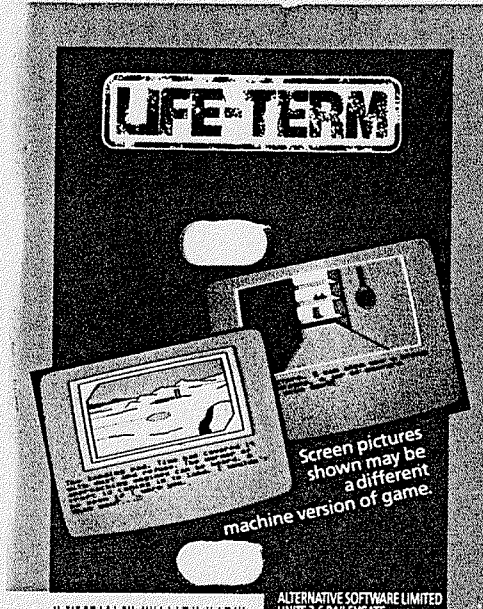
Made in Great Britain

Design & Artwork: Words & Pictures Ltd., London.

LIFE-TERM



Screen pictures shown may be a different machine version of game.

5 015103 870370

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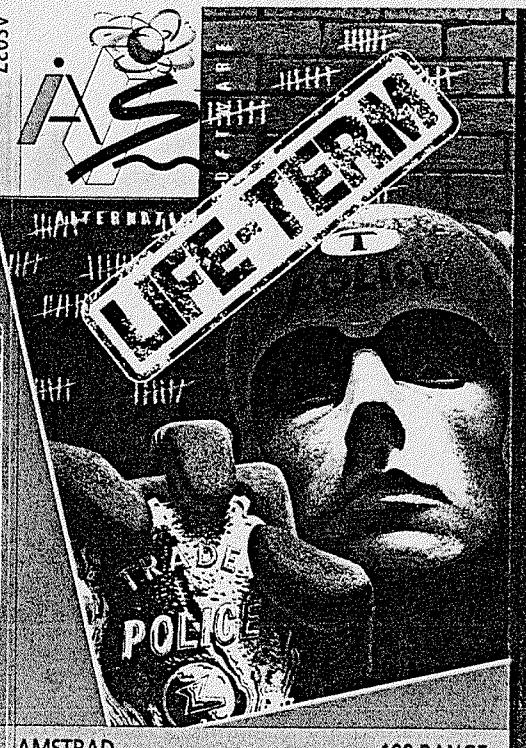
TELEX 557994 RR DIST G
FAX 0977 790243
TELEPHONE 0977 797777

AMSTRAD

AS037

LIFE-TERM



AMSTRAD 199 RANGE

LIFE-TERM

Full colour graphic and text adventure.

Loading instructions:—
Hit CTRL ENTER together, then press PLAY then any key.

In the year 3142 democratic government broke down and was replaced by rule by multi-planetary companies, vast multi-billion dollar organisations with just two thoughts in mind. Personal gain and the extinction of all competition! What justice existed was metered out by the Trade Police who attempted to keep the fine balance between the factions vying for supremacy. For the rich, life was good. For the outsider it was a hard life and treachery, deceit and corruption were rife. On the 14th of the 3rd in the year 47 the central complex computers of the Flo-Tec Trading Corp registered an intruder. Security staff were despatched to the point of entry and after an exchange of fire one security guard lay dead and the intruder had escaped. Although Jake Stalin was 13,000,000 miles away at the time it didn't stop him being accused, tried and found guilty of the man's murder!
He was sentenced to the maximum. LIFE-TERM

Since execution as such no longer existed he was put in charge of a planetoid named Souzel where the refuse from a dozen planets was collected for processing into raw materials for building purposes. There he would stay for the natural term of his life. Or could there be a way out?

To help you in your quest for justice here is a selection of command words: CORRUPT—EXCAVATE—IGNITE—PILOT—RESCUE—INVESTIGATE—CHAT—DETONATE—AID—SWIM. Altogether there are over 100 command words. If you get stuck and would like the full list, then send a stamped self addressed envelope and we will send you the complete list so you can cheat.

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PNEUMATIC HAMMERS

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THE GAME

RED ALERT! The Lee Valley gold research base is under threat of destruction. The electrical power lever has broken off and there is no other way of switching off the plant's pneumatic hammers. The hammers were installed to hammer bridge pillars into the river bed. The continuous operation of the hammers is causing the rockface to crack and crumble into the valley floor, threatening the base.

Red O'Blair, famous trouble shooter, is choppered in to save the day. Your job is to help Red cast a new lever, but the only available material is gold, which first has to be found. The gold nuggets have to be pure in quality and exact in quantity to make the required lever.

LOADING

AMSTRAD 464 OWNERS

1. Place the rewound cassette into the cassette unit and press PLAY.
2. Hold down CTRL and press the SMALL ENTER key.

AMSTRAD 664, 6128 and 464 - DISK OWNERS

1. Hold down SHIFT and press the @ key. Type TAPE and press RETURN.
2. Connect a suitable cassette player to your computer, according to the User Manual, and insert the rewound cassette.
3. Hold down CONTROL and press the ENTER key.
4. Press PLAY on the cassette player.

NOTE: Full loading instructions can be found in your Amstrad Manual.

PLAYING THE GAME

Pneumatic Hammers can be played with a joystick connected to the port of your Amstrad computer or with the following keys:

Z = Left X = Right ; = Up . = Down
Return (fire button on joystick) = Pick up/Drop/Jump
Esc = Abort/High Score Table

The game begins with options offered on playing modes and difficulty levels.

The gold is buried amongst the rockslides either side of the river. The nuggets can be found by use of a metal detector, obtained on the 1st floor of the base. When a nugget has been located, it can be made visible by pointing the hand at the spot and pressing fire. A sack is provided for collection. Take care, both detector and gold will be lost if there is a rockslide and they are not held in the hand. The number of buried nuggets is displayed in the bottom corners of the screen.

Movement across the river is made by jumping from pillar to pillar, hammers should be avoided though! The pillar will gradually be hammered under the water, but time can be extended by placing logs on top of the pillars. Log piles can be replenished by use of the crane on the ground floor of the base.

Recovered nuggets of gold can be weighed and checked for purity on the 2nd floor. Nuggets come in sizes of 9, 10, 11, 18, 20, 22, 45, 50, 55, 90, 100, 110 grammes. Only 10, 20, 50 and 100g are pure enough for moulding. Every nugget placed in the furnace must be pure, otherwise all the gold will be lost. The player must also take care to weigh in the correct amount of gold needed for the handle.

The furnace will heat up until it reaches 1000 c when a thermostat will turn on and maintain the temperature at between 980 c and 1000 c. Gold will melt at 1063 c and cast at 1120 c, so until the correct amount of gold is present, do not switch the furnace above 1000 c. This is achieved by pressing the HEATING switch when the temperature is rising, if it is dropping the furnace will switch off.

Once a handle is cast, go to the top floor and switch the power off and the base will be saved. The exit to the base is on the ground floor opposite the lift.

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If this program is faulty, or fails to load, please return it to the address below CLEARLY MARKED "RETURNS" and it will be replaced free of charge and postage refunded. This offer does not affect your statutory consumer rights.





RINO

'Z'

AMSTRAD/
SCHNEIDER CPC



Amstrad/Schneider CPC

'Z'

RINO

3 Lives 4 Battle Zones

'Z'

Instructions for Play

Gameplan

The aim of the game is to destroy all attacking aliens. After every 10 standard aliens are shot, an energy unit will appear; destroy this and an energy capsule will be released. Chase and collect the capsule to obtain energy bombs (running total gained displayed at bottom of screen). Once you have several energy bombs you can blast a hole through the moving force barrier surrounding the Transporter Unit. Once a large enough hole has been created guide your ship into the transporter to hyper-warp to the next level.

Features

Energy Unit ✉ **Energy Capsule** ●

Level 1 – Alien Complex **Points**

Standard aliens – 20 per squadron,
1 squadrons **100 points each x level**

Energy units –
appear after 10 aliens shot **400 points**

Meteorites –
slowly orbit planet surface **100 points**

Transporter Unit –
penetrate force barrier to enter hyperwarp

Level 2 – Countryside battle zone
As level 1 **PLUS**
Flying Saucims – ◎
emit directional missles **300 points**

Level 3 – Lunar Landscape
As Level 1 **PLUS**
Mother Ships – ⊕
emit homing missiles,
5 hits to blast to pieces **500 points**
Extra Life Bonus

Level 4 – Nightflight
All hazards of Levels 1, 2, 3 **PLUS**
No Transporter Unit
and final mission – once 5 bombs are collected the alien control ship will appear, only direct hits with all five bombs will destroy this ship and complete the game.

How to Move

Up
Left Fire Right
Down

Space fires bombs to penetrate force barrier.

How to Load

Switch machine off then on

Hit CTRL and small ENTER togethe

Press PLAY then any key.

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Sheffield S1 4DW Tel: (0742) 739061

LOADING THE GAME

Ensure that the tape is fully rewound and then load this game by entering:

Press the CTRL & ENTER (keypad) keys together. Start the tape and the game will load and run automatically upon completion of loading.

WARNING: Do not play this game. This game features 'Primary Imbalance' and may be injurious to mental health.

Well, you seem to have ignored my warning, so I'd better tell you something about this silly game.

THE GAME

"It was a Thursday afternoon at around 3 o'clock when the signal to go was beamed across the known universe. Boarding your supa-interspatial megagalactic craft you set off knowing full well that you are Mankind's last hope, but not at all sure that you remembered to lock the front door . . ."

Sorry, wrong game, let's try again.

"Wow are you hungry, and as you guide your snapping form around the maze you find fruit to devour, but look out! Those nasty ghosts are . . ."

Hum. No, that's wrong too, I'm sure I had it here somewhere . . . Ah yes here it is ...

BRIAN BLOODAXE. Conqueror of the Brits

It was pretty late in the week — probably Thursday, I should think, when Brian got bored. Well you'd get bored too, I can tell you, if you'd been stuck in a flaming great ice-cube floating about in the North Atlantic for a few centuries. Brian had reached a decision, not before time you might say as it had taken him around 500 years to formulate. But then Brian never was much of a quick thinker. "I'll invade the Brits ..." spluttered forth his excuse for grey matter.

So he did. Trouble is he chose a certain Tuesday in 1985AD when the entire population where either 'out to lunch', 'in a meeting', or on the edge of their seats about to be informed who exactly had shot Terry Wogan.

Not to be put off, Brian set forth to conquer.

Being an exceptionally sly creature Brian decided to choose one of three major invasion points around Britain, none of which were Hastings.

Oh yes, due to an old war-wound (and, some say, an inherent laziness) Brian can only carry three things at a time.

"Uh that's about it really.
"You sure?
"Well, yeah, I think so.
"Haven't told them much have you?
"No. S'pose not really. But they'll soon get the hang of it.

"What do you think those bird brains out there are going to be able to make their little ways around all 127 screens, each of which present a unique and mind boggling mental puzzle?
"Yeah.
"And discover all the weapons, tools and goodies as well as how to use them?!
"Hope so.
"And discover the point of the game?!!
"Well, no. S'pose not really.
"Well aren't you going to tell them about how Brian's task is to get hold of the Crown Jewels and sit on the Throne with them?
"Yeah, all right. But I'm not telling them the rest.
"What not even about the penguins?
"Nope.

GAME CONTROLS

Keyboard:
START GAME — SPC (SPACE BAR)
RIGHT — SMALL ENTER KEY
LEFT — DECIMAL POINT
JUMP — NUMBER PAD 0
PICK UP/DROP — SPC BAR
FIRE/USE — CTRL KEY
ABANDON GAME — ESC

Joystick:
START GAME — FIRE BUTTON
RIGHT — JS RIGHT
LEFT — JS LEFT
JUMP — JS FORWARD
PICK UP/DROP — JS FIRE BUTTON
FIRE/USE — JS BACK

Using an object:
To use an object or select a weapon for use, you must first pick up the object or weapon. Then select it by pressing the '1', '2' or '3' keys on the pad (see the arrow which appears below the chosen object). You can then use the object or weapon by pressing the CTRL key or pulling the joystick backwards.

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THE EDGE

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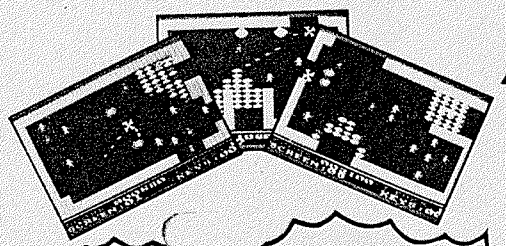
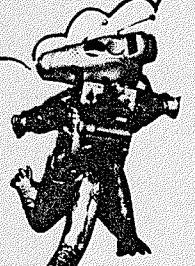
BRIAN BLOODAXE
by Charles Bystram

From The Edge

AMSTRAD 464/664



Just look at them . . . . . .
Look at them.
The wanton destruction and vandal work has to stop.
Well, You're in charge of Law and Order around here and the Berks are at it again, so you'd better stop reading this and punish these little runts now!



THE POWER HOUSE

9 781852 880026

BERKS

A002

AMSTRAD

THE POWER HOUSE



INCLUDES *FREE AUDIO* TRACK BY H.E.X.

BERKS

CONTROLS:
CURSOR KEYS
SPACE - FIRE
8 - HOLD
SPACE - restart
or JOYSTICK

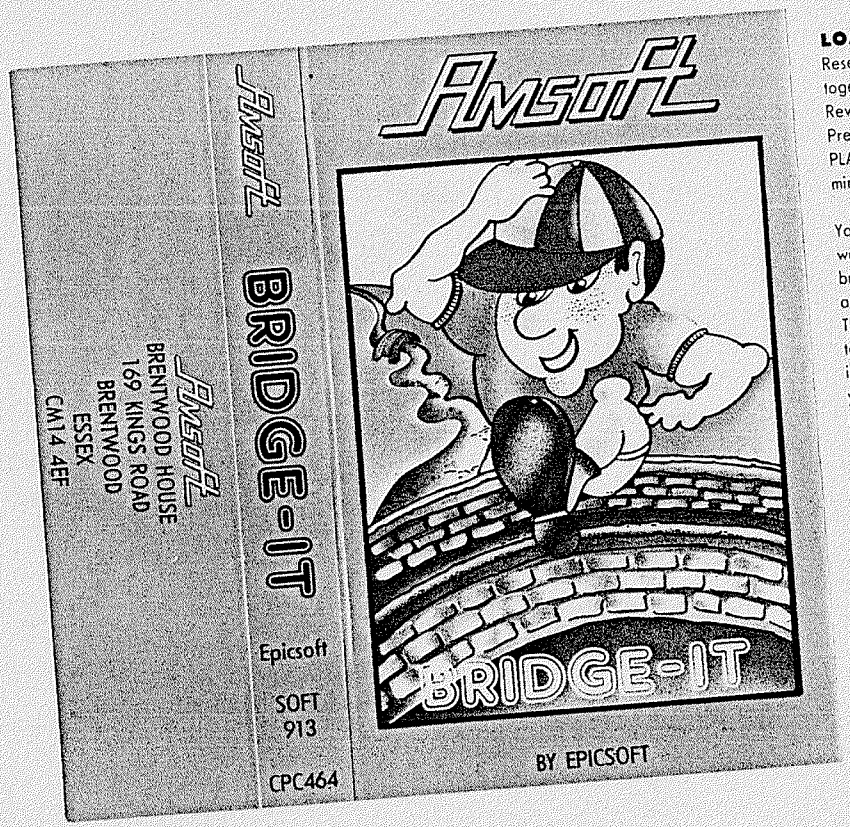
LOADING:
CTRL & SMALL ENTER

Hints & Tips Dept.

Collect all the keys on each screen.

Beware the giants - they can only be stunned.

Some Berks may require several shots to die.



LOADING INSTRUCTIONS

Reset computer by holding down CTRL,SHIFT and ESC keys together in that order. Place cassette into the Datacorder. Rewind tape to beginning then press STOP/EJECT once. Press CTRL and small ENTER keys simultaneously then press PLAY followed by any key. This program will take about 6 minutes to load.

You live in a town where every house is surrounded by water. This made visiting friends very difficult until some bright spark built a number of bridges to help people get around.

The aim of the game is to get from a house one side of the town to one on the other side. You control the bridges so it is up to you to get you and your friends across safely. But you must take care for the bridges are treacherous and one mistake can be disastrous.

There are 9 levels of difficulty and you can have up to 50 lives. Good luck!

CONTROLS

Amsoft Joystick JY1 or

A = Top bridge
> = Right bridge
< = Left bridge
Z = Bottom bridge

or you can re-define the keys.

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The Screen Displays

Amstrad/Schneider

MASTERTRONIC

CAVES OF DOOM

199 RANGE

MASTERTRONIC

IA 0084

CAVES OF DOOM

AMSTRAD/SCHNEIDER

You are imprisoned in caves deep within the bowels of Doom. To escape you must find 5 keys, one of which is in three pieces, which are hidden in the thirty caves but the Lord of Darkness is sure to keep you trapped for ever . . . or is he?

MANUFACTURED IN THE U.K.

5 012967 800079

The Aim of the Game

Whilst exploring the planet Doom you were captured by the guards of the ruthless Lord of Darkness.

You are now imprisoned in caves deep within the bowels of Doom but are determined to escape. To do so you must find five keys, one of which is in three pieces, which are scattered around the caves.

However, the odds are against you as the Lord of Darkness has laid traps in the caves and has sent many thousands of his bloodthirsty minions to thwart your mission.

You are unarmed and, therefore, must use your wits to avoid certain death on Doom.

Screen Editor

Built into the game is a screen editor with which you may view and alter the thirty locations using any of the 256 defined characters or define your own with the character editor.

Editor mode – Press E to enter screen editor.
Press SHIFT and CURSOR keys or use a joystick to move the cursor. Press fire button or copy key to point the character on the screen. If you wish to change a character press C to enter the character editor. Use the cursor keys to move around the character box.

Press the FIRE button or copy key to alter character. Press the Escape key to return to the opening screen.

To save any alterations you make, return to the opening screen, place a blank tape in your cassette unit and press the S key. To load your version of the game, first load Caves of Doom then place your tape in cassette unit and press the L key.

Controls
or Joystick –
H – Pause
S – Restart
G – Start game
Keyboard –
Cursor Keys

LOADING INSTRUCTIONS

Hold down CTRL and press the small ENTER key.

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Made in Great Britain
Design & Artwork: Word & Pictures Ltd., London.

INSTRUCTIONS DE CHARGEMENT

Appuyer en même temps sur CTRL, et sur la petite touche ENTER.

Alors que vous étiez en train d'explorer la Planète Maudite, les gardes de l'impitoyable Seigneur de l'Ombre vous ont capturé.

Vous êtes maintenant emprisonné dans les grottes dans les entrailles de la planète mais voulez vous échapper. Pour cela, il vous faut trouver cinq clefs, dont l'une est en trois morceaux, dispersées dans les grottes.

Toutefois les chances sont contre vous, car le Seigneur de l'Ombre a piégé les grottes et a envoyé des milliers de ses sbires assoiffés de sang pour vous empêcher de mener à bien votre mission.

Vous n'êtes pas armé et vous devez donc utiliser votre intelligence pour éviter une fin certaine sur la Planète Maudite.

Editeur d'écran

Un éditeur d'écran est incorporé dans ce jeu: il vous permet de visualiser et de changer les trente emplacements en utilisant un des 256 caractères définis ou de définir les vôtres à l'aide de l'éditeur de caractères.

Mode éditeur – Appuyer sur E pour entrer dans l'esiteur d'écran. Pour déplacer le curseur, appuyer sur SHIFT et sur les touches du CURSEUR, ou bien utiliser une manette de jeu. Appuyer sur le bouton de tir ou sur la touche Copy pour désigner le caractère sur l'écran. Pour changer un caractère, appuyer sur C pour entrer dans l'éditeur de caractères. Avec les touches du curseur vous pouvez vous déplacer dans le carré de caractères.

Appuyer sur le bouton de tir ou sur la touche Copy pour changer le caractère. Appuyer sur Escape pour revenir à l'écran d'ouverture.

Pour sauvegarder tout changement réalisé, revenir à l'écran d'ouverture, mettre une cassette vierge dans le lecteur de cassettes et appuyer sur la touche S. Pour charger votre propre version du jeu, charger d'abord les Grottes de la Planète Maudite puis placer votre cassette dans le lecteur de cassettes et appuyer sur la touche L.

Commandes
ou Manette de jeu –
H – Pause
S – Redémarrer
G – Commencer le jeu
Clavier –
Touches du curseur

ISTRUZIONI PER IL CARICAMENTO

Tenere schiacciato CTRL e schiacciare il tasto piccolo ENTER.

Mentre stavate esplorando il pianeta Doom siete stato catturato dalle guardie del maligno Signore delle Tenebre.

Ora siete imprigionato nelle caverne che si trovano al centro del pianeta, ma siete deciso a scappare. Per poter evadere, però, dovrete trovare cinque chiavi, una delle quali è divisa in tre pezzi, che sono in punti diversi delle caverne.

Non avete armi, e pertanto dovrete usare la vostra intelligenza per evitare la morte certa sul pianeta Doom.

Tuttavia, tutto è contro di voi, perché il Signore delle Tenebre ha costruito delle trappole nelle caverne ed ha inviato migliaia dei suoi seguaci assetati di sangue ad impedirvi la fuga.

Edizione dell'immagine

Il gioco comprende un sistema di edizione dell'immagine che vi consentirà di cambiare il luogo di azione, usando uno qualsiasi dei 256 caratteri definiti o definendone uno vostro che sia compreso nell'edizione dei caratteri.

Modo di edizione dell'immagine – Schiacciare E per inserire l'edizione dell'immagine. Schiacciare SHIFT e CURSOR, o usare la barra di comando per muovere il cursore. Schiacciare il bottone del fuoco o copiare il tasto per indicare il carattere sullo schermo. Se desiderate cambiare un carattere, schiacciate C per inserire l'edizione del carattere. Usare i tasti del cursore per spostare la scatola del carattere.

Schiacciare il bottone del fuoco o copiare il tasto per cambiare il carattere. Schiacciare il tasto di uscita (Escape) per ritornare all'immagine iniziale.

Per poter conservare i cambiamenti da voi effettuati, ritornare all'immagine iniziale, inserire una cassetta vuota nel registratore, e schiacciare il tasto S. Per caricare la vostra versione del gioco, prima di tutto caricate il gioco delle Caverne di Doom, poi inserite il vostro nastro nel registratore e schiacciate il tasto L.

Comandi
o Barra di Comando –
H – Pausa
S – Ricominciare
G – Iniziare il gioco
Tastiera
Tasti du comando del cursore

LADEANWEISUNG

CTRL und gleichzeitig die kleine ENTER-Taste drücken

Bei der Erforschung des Planeten Unheil bist Du den Wachtsoldaten des grausamen Herren der Finsternis in die Hände gefallen.

Tief unter der Oberfläche des Planeten hat man Dich in den Höhlen eingekerkert, aber Du denkst nur an Flucht. Aber bevor Du Deinen Plan verwirklichen kannst, mußt Du fünf über die Höhlen verteilte Schlüssel finden, von denen einer in drei Stücken ist.

Das wird nicht einfach sein, denn der Herr der Finsternis hat in den Höhlen Fallen gelegt und tausende seiner blutrünstigen Häscher gegen Dich in Marsch gesetzt.

Du bist unbewaffnet und mußt Deinen Verstand anwenden, wenn Du dem sicheren Tod auf Unheil entkommen willst.

Schirmeditor

Mit dem zum Spiel gehörenden Schirmeditor kannst Du die 30 Plätze sehen und ändern, indem Du eines der 256 vordefinierten Zeichen benutzt oder mit Hilfe des Zeicheneditors eigene Zeichen definierst.

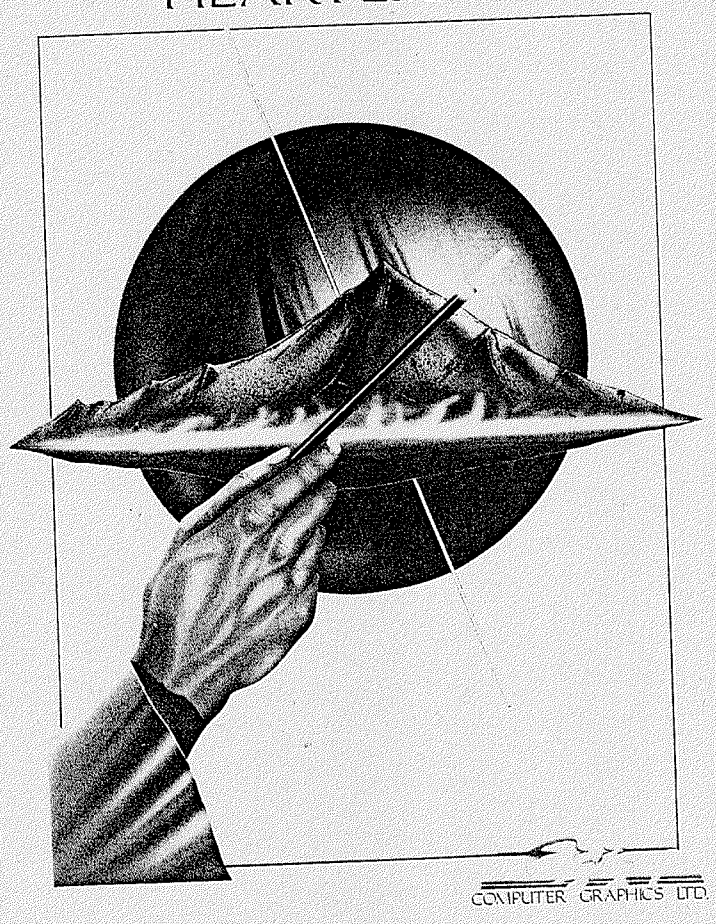
Editormodus – Für Zugriff auf Schirmeditor E drücken.
Der Cursor kann auf Druck der SHIFT-und CURSOR-Tasten oder mit dem Joystick bewegt werden. Zur Angabe des Zeichens FEUER-Knopf oder COPY-Taste drücken. Wenn ein Zeichen geändert werden soll, muß der Schirmeditor durch Druck auf C herangezogen werden. Innerhalb des Zeichenkastens bewegt man sich über die CURSOR-Tasten.

Zur Zeichenänderung FEUER-Knopf oder COPY-Taste drücken. ESCAPE führt zum Eröffnungsbild zurück.

Änderungen werden gespeichert, indem man zum Eröffnungsbild zurückkehrt, eine neue Kassette einlegt und S drückt. Die eigene Version des Spiels kann man laden, indem man zuerst "Unheilshöhlen" lädt, dann das eigene Band einlegt und L drückt.

Steuerung
oder Joystick:
G – Start
H – Pause
S – Neustart
Tastatur:
CURSOR-Tasten

HEARTLAND



PLAYING INSTRUCTIONS

Keyboard Controls

Control:	Keys.
Left, Right & Turn:	X,C,V,B, etc
Through door out of screen:	A,S,D,F, etc
Through door into screen and jump:	Q,W,E,R, etc
Fire and use bed:	1,2,3,4, etc

Joystick Controls

Left, Right & Turn:	Left, right.
Through door out of screen:	Down.
Through door into screen and jump:	Up.
Fire and use bed:	Fire.

SCENARIO

Attics are always pretty interesting places, all sorts of old family heirlooms; swords, pictures, trunks, old clothes and books, can be found waiting to be re-used, looked at or in, worn and read.
One rainy day, having nothing better to do, you find yourself rummaging through the relics in your Grandmother's attic and come across an old battered book. The tale it contains is one of ancient magic, telling of days when Wizards ruled and monsters roamed, it is the history of the Heartland.
As you read, invoking the book's subtle magic, you find yourself on a quest, roaming the lands following the deeds of the Hero Wizard Eldritch, whose plump appearance, top hat, and travelling bed are ridiculed only by those foolish enough to want to be splattered by a spell.
In days gone by, Eldritch was well known for his ability to slay dragons, rescue distressed damsels, and generally get up the nose of his arch enemy, the dreaded black Warlock, Midan. These days, Eldritch has moved on to other quests but, with an eye to the future, left the book in our world to search for a new hero to help the Heartland in times of dire trouble. As the book progresses, the magic has its way, and the story changes to reveal current events.
The Heartland, once a happy peaceful place, has fallen under the cruel fist of the ruthless Midan and his minions, who roam the lands working their evil ways, creating misery, hate, and building vast glowering fortresses in which to imprison the populace.
As the end of the book approaches you find that, alas, the final chapter is missing and unless it is found, the Heartland will be in the grip of the tyrannical Midan and his followers forever.
Your desperate quest is to locate the last six pages and the original book, cast to the seven winds by Midan in his final battle with Eldritch. To foil any would be heroes, Midan has created six dark pages which, if not destroyed, will cause great bad luck and havoc (GBH) for the citizens of the Heartland for ever more.
Beware of Midan's followers who are out to stop you, and the spells they weave to distract you from your goal. Some of these spells will wait until you walk into them before they invoke, others will seek you out. The greatest danger is from Midan himself who has discovered your presence in the Heartland. Even as you start your quest, his evil magic is at work on the book, weakening its magic and limiting your time in each land. Each time evil touches you, his strength will grow and he will reveal his face – **The Face of Death.**

SPELLS:

Top hat:	Your main weapon needs three shots to kill, but lasts forever.
Swords:	Takes two shots to kill.
Fireball:	One shot will do the job.
Bubbles:	Helps fight the growing strength of Midan.
Small stars:	Make you immune to other spells.
Large stars:	Drains your strength very quickly.
The Book:	You must collect this first as it tells you where the pages are.
Pages:	Collect six white and destroy six dark.
Bed:	After collecting a page, this will take you to the next land, don't lose it.

ENEMIES:

Wizards:	Touching these sap your will, they also fire at it.
Gooch:	Killing these is only an ephemeral solution.
Spacemen:	Do Not Touch.

LOADING INSTRUCTIONS

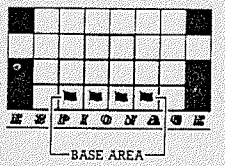
Spectrum 48/128K
Put the 128K system in 48K mode. Place the cassett
recorder, connect the **EAR** socket on your Spectrur
socket on the data recorder and make sure the **MI**
disconnected.
Type **LOAD "" ENTER**
Press play on the data recorder, the program will n
run automatically.

Amstrad CPC cassette
Place the cassette in your data recorder and rewin
Reset the computer by holding down the **CTRL, S**
ESC keys or turn off/on.
Press **CTRL** and the small **ENTER** key and any ke
keyboard. The game will now load and run.

Amstrad CPC disk
Insert disk into drive, and type:
RUN"HEART"

Commodore 64/128 cassette
Place the cassette into the data recorder and rewi
Hold down the **SHIFT** key and press **RUN/STOP.**
the data recorder, the game will now load and run.

Commodore 64/128 disk
Place the disk into the drive and type:
LOAD "*",8 RETURN
RUN RETURN
The game will now load and run.



N.B. AN AGENT WITH A MICRO-FILM BACK AT BASE REMAINS ON THE SQUARE HE ENTERED AND CANNOT MOVE AGAIN. (ALSO CANNOT BE TERMINATED OR SANCTIONED).

THE GAME ENDS

The evaluation of the winner is given when all Micro-film canisters have been removed and are safely under the guard at one or more of the players bases.

GOOD HUNTING

DETENTE - THE GAME STARTS

Detente is the classic situation regularly discussed by politicians and strategists the world over.

This is a totally unique situation, which to our knowledge is not represented in any other game other than **ESPIONAGE.** Before conflict begins the first twelve moves (one move per turn for each player, during the detente phase of the game) are to place your highly trained team of Agents anywhere on the board, regardless of their normal movements i.e. lines of travel/fire. This is where your Agents are only as good as your strategy allows. Be careful, watch your opponents moves and remember on move thirteen Detente is at an end and the game of **ESPIONAGE** takes on all the intrigue that the word suggests, in fact you may well see aspects of your opponents' nature that you would never believe existed. In the game where no quarter is expected or given, you will not believe the thoughts that run through your mind to terminate your opponents Agents.

NOTE. No sanctioning or terminating is allowed in this period.

THE CONFLICT BEGINS - MOVE 13

As already pointed out in the heading (your mission) the object of the game is to remove the Micro-films back to your home base along with terminating as many of your opponents Agents as possible, thus increasing your value at the end of the game.

Please remember if you choose to attack any or all opposing Agents, and leave the Micro-film where they are this is also a form of strategy, so, as in all other aspects of this game, the final game play and how you win is entirely up to you.

HOW TO REMOVE MICRO-FILM FROM THE MIDDLE SECTOR

Only Secret Agents and Courier Agents can remove the Micro-films from the middle sector, as the Micro-films can only be taken in a diagonal move from any square surrounding the four Micro-film canisters, therefore the Surveillance Agents who only move vertically and horizontally cannot remove Micro-films, (see diagram showing the taking of the Micro-film by Secret Agents and Courier Agents). Once you are back at base (where your Agents began their mission - shown by flags in close-up) with your micro-film, your Agents value is increased by Ten million and this is added to your score.

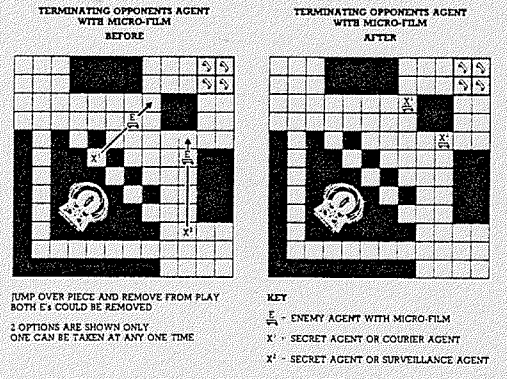
REMOVAL OF A MICRO-FILM

A Secret Agent or Courier Agent must jump over the Micro-film diagonally, thus picking up the Micro-film which changes the symbol for that Agent. The Bottom half of the symbol will appear to have a line of a different colour running through it, showing that the Agent is holding a Micro-film.

THE TAKING OF A MICRO-FILM FROM AN OPPOSING AGENT IN TRANSIT

This can be achieved in the normal course of the game when an opposing Agent has obtained a Micro-film and is in transit, sanctioned or terminated. The Micro-film then passes to the Agent who terminated or sanctioned, all types of Agent can perform this function (see diagram).

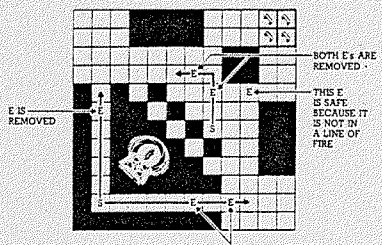
Please note any Agent in possession of a Micro-film cannot terminate another Agent who is also in possession of a Micro-film.



AGENT BACK AT BASE WITH THE MICRO-FILM

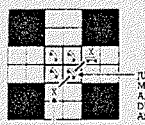
Once this operation has taken place the Agent and Micro-film will remain at base, not able to re-enter the conflict . The score is increased by the value of the ten million that the micro-film is valued at.

SURVEILLANCE AGENT
TERMINATING OPPONENTS AGENTS



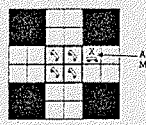
N.B. ONLY ONE OPTION CAN BE TAKEN

CENTRAL AREA
REMOVING MICRO FILM
BEFORE



COULD BE SECRET AGENT OR A COURIER AGENT ONLY

CENTRAL AREA
REMOVING MICRO-FILM
AFTER



SANCTIONING

The last question you are asked before the game begins is Sanction (Yes/No) if you set Sanction to 'Yes' then this is what you have agreed to .

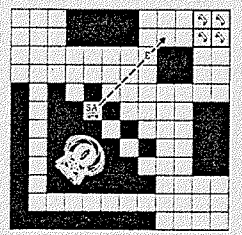
As in the real world of ESPIONAGE signs of weakness are penalised. If an opposing Agent is in your line of travel/fire, you must terminate. Should you miss this opportunity intentionally or un- intentionally your piece will be removed with a suitable noise or the words 'YOU ARE SANCTIONED!' (ESPIONAGE terminology for complete removal from the situation).

If you are the Sanctioning Agent then you will be prompted to 'SANCTION? Yes/No'.

Please Note : An Agent in possession of a Micro-film cannot terminate or sanction any other Agent who is in possession of a Micro-film.

If you are in possession a Micro-film and do not take another Agent who is not in possession of a Micro-film, YOU could be SANCTIONED, and the Micro-film would then pass to the Agent you didn't remove.

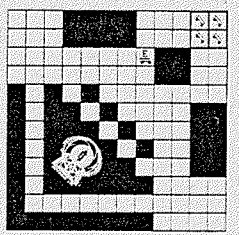
SANCTIONING
BEFORE



SA HAS FAILED TO TERMINATE E THEREFORE E CAN SANCTION SA AND ALSO CAPTURE* MICRO-FILM

*TRANSFER

SANCTIONING
AFTER



E HAS TRANSFERRED MICRO-FILM AND MAY STILL HAVE ITS NORMAL GO

KEY

MICRO-FILM
SA SECRET AGENT
E ENEMY AGENT

AGENT EXCHANGE

This is a classic move which can completely change the game play in one second and be totally devastating to your opponent, but most important the move allows each player no matter if he or she is losing heavily, to turn the game to his/her advantage.

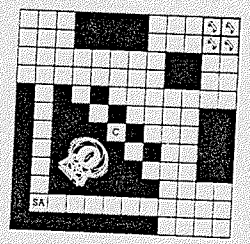
HOW TO EXCHANGE

Where ever your Agents are positioned and no matter what role they play i.e. Secret Agent, Courier Agent or Surveillance, they may interchange with any member of their own team, no matter what their value.

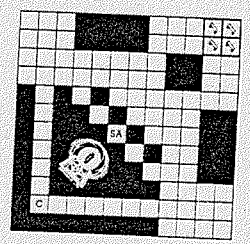
To perform an Exchange is the same as making a standard move, the only difference is that both squares selected contain Agents which will then take up respective positions.

Please note that should your Agent be in possession of a Micro- film when making an exchange, the micro-film travels with the possessing Agent.

AGENT EXCHANGE BEFORE



AGENT EXCHANGE AFTER



KEY

SA - SECRET AGENT

C - COURIER AGENT

INCIDENTALLY COURIER AGENT CANNOT MOVE OUT BY NORMAL MOVE. THEREFORE ANOTHER AGENT EXCHANGE WILL BE NECESSARY FOR COURIER AGENT TO CONTINUE NORMAL PLAY

HOW YOUR AGENTS TERMINATE THE OPPOSITION

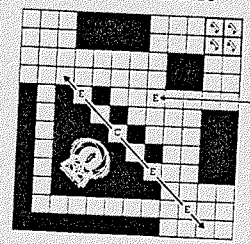
Your Agents travel in their designated lines of travel/fire (see HOW Your Agents move) and may take out (neutralise or terminate) an Agent or Agents, by travelling along their line of travel/fire and as long as you have a square after an opposing Agent too be taken, you may terminate.

This also continues to the termination of more than one opposing Agent, should the square configuration allow (see diagrams overleaf).

You may move as many white squares as you wish along your line of travel/fire.

COURIER AGENT TERMINATING OPPONENTS AGENTS

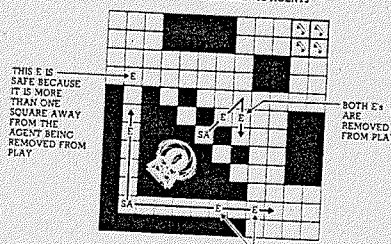
OPPONENTS AGENTS SHOWN AS E



THIS E IS SAFE BECAUSE IT HAS A BLACK AREA BEHIND IT

ALL OTHER E's COULD HAVE BEEN TERMINATED DEPENDING ON THE OPTION TAKEN

SECRET AGENT TERMINATING OPPONENTS AGENTS



THIS E IS SAFE BECAUSE IT IS MORE THAN ONE SQUARE AWAY FROM THE AGENT BEING REMOVED FROM PLAY

BOTH E's ARE REMOVED FROM PLAY

BOTH E's ARE REMOVED FROM PLAY

HOW YOUR AGENTS CAN MOVE

(a) All black areas,the 4 squares of the middle sector and termination centres are NO GO areas and Agents may only move around these areas but not across them, except to take a Micro- film from the middle sector.

(b) The six Courier Agents (valued at 2 million each) may only move diagonally across the board (see fig.B1)

(c) The four Secret Agents (valued at 6 million each) may move in any direction across the board (see fig.C1)

(d) The two Surveillance Agents (valued at 4 million each) may only move forwards, backwards or sideways (see fig.D1)

(e) All pieces may move as many squares as they wish in the direction as outlined in (b),(c) and (d) but not through black areas or the middle sector.

COURIER AGENT
DIRECTIONS OF MOVEMENT

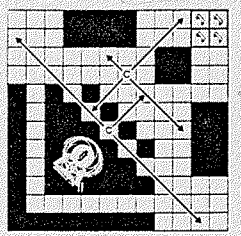


FIG. 4

SECRET AGENT
DIRECTIONS OF MOVEMENT

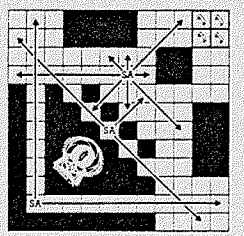


FIG. 5

SURVEILLANCE AGENT
DIRECTIONS OF MOVEMENT

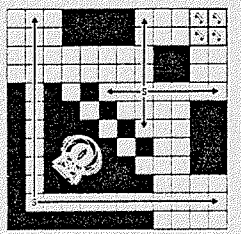


FIG. 6

ZOOM ICON

This Icon enables the board to be viewed in close-up, were the symbol representing the Agent is more easily identified. Once selected the board is displayed in close-up until the ZOOM icon is reselected.

As stated above, the Agents appear as different symbols according to the scale at which the board is viewed. Fig.4 is a table of these symbols.

PAUSE

For what ever reason you may wish to pause the game, moving the pointer over this Icon and pressing fire will freeze the game till the fire button is pressed.

?HINT

If you are new to the game of ESPIONAGE, or you're undecided as what to do, it may be useful to test this option. On selection the computer will give its 'best move' of your pieces by flashing the piece and the position(s) to move it.

QUIT

Completes the game and returns you to the setup sequence.

HELP

Gives a short but concise text detailing the objectives of the game.

COMPUTER MAKES YOUR MOVE

Not only does the computer decide what move is best suited to the situation but it also moves the pieces!

LAST MOVE

Shows what the last move was by means of flashing the board positions concerned.

SOUND ON/OF

Toggles the Sound on/off.

MOVING YOUR AGENTS

In the previous section the Options menu was activated by moving the pointer over the appropriate icon and pressing Fire. This is also the means by which all pieces are moved.

When it is your turn you may click on one of your pieces and then on the square you wish to move it to.

If the target square is not valid (your piece could move there within the rules of the game) then it is assumed that you have changed your mind and wish to select another piece.

To help you decide your moves quickly, the computer will help you by highlighting the places on the board that a piece may move after it has been clicked apon.

IDENTIFYING YOUR AGENTS

Depending on if the ZOOM option is active or not , your Agents will appear to be one of two different symbols. These are shown in Fig.3 .

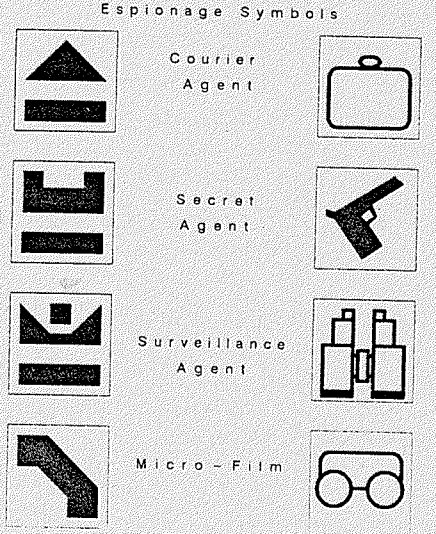


Fig.3 The AGENTS

THE BOARD

The board is displayed in a square to the left, due to the size of the play area it was not possible to show the entire board so the board may be scrolled to reveal the whole area. This is done by placing the pointer over a strip on the left side of the board , holding down the fire button and moving the joystick.

The board has black, white and red squares.

The white define the play area where your agents may move and engage other Agents in conflict.

The black are the no-go areas of the world, on which you may not move or pass over.

At the compass points of the board are the red 'Base' areas. These are the points at which the Agents begin their mission and end it if successful.

The other important area on the board is the central area which is the four squares in the very center of the board on which are positioned the Micro-film at the start of the game.

THE STATUS PANEL

Keeping track of the financial success or failure of each player is the Status panel. It is also a useful guide as to which player's turn it is, that player's Agent is the one who is looking over his newspaper.

If you are playing a game with less than four players (Computer or Human) the absent players will be represented by signs bearing the letters 'AWOL'. This is ESPIONAGE jargon and means 'Absent WithOut Leave'.

THE OPTIONS MENU

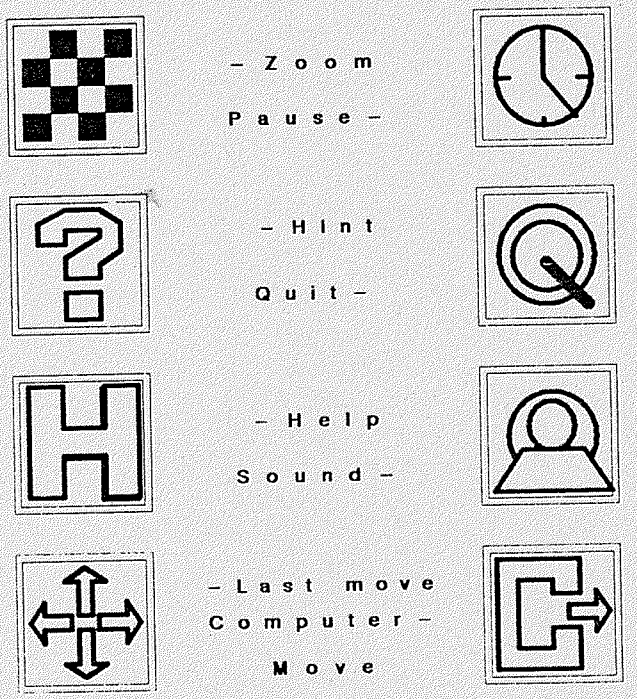


Fig.2 The ICONS on the options Menu.

CONTROLS

All game control in ESPIONAGE is with either a joystick or keyboard, the only exception to this is on the ST and Amiga where the mouse is used instead of joystick.

BEFORE YOU CAN PLAY

Before the game starts you will be requested to enter a short word from this Guide , once this is done the game can be setup as required.

TIME

The first feature you must define before you play ESPIONAGE is 'Time'.

You may either play with a time limit for the game or not, the limit may be upto 99 hours and 99 minutes. When the limit set is exceeded the game will be stopped and a victor proclaimed.

In addition a restriction on time for individual moves may also be defined, this can be either No limit, 60 seconds or 30 seconds. If one of the latter two is set then this defines 'Blitz' play - if you do not move within the time limit your turn is lost.

SANCTIONING(YES/NO)

Later in this Guide you will be introduced to the concept of Sanctioning, it is a feature which adds a little 'spice' to the play. If this is your first game of ESPIONAGE then set sanctioning to 'No', otherwise consider yourself as a serious player of ESPIONAGE.

HOW MANY PLAYERS?

Once the program has loaded you will be asked to set up how many Players you wish and of what type (human or computer).

This is done by setting the four players to one of three options: NOBODY, COMPUTER or PLAYER. This enables any combination of human players and computer opponents and is by way of a difficulty selection, i.e. the hardest option is three computers vs one human - the fewer computer players the easier they will be to play against. Human players will be prompted to enter four letters so they be used for identification during the game.

READY TO BEGIN ?

Finally the four cards will appear on the screen, one has a gun on it, this is random mechanism for selecting which players starts. The player who gets the gun card makes the first move and each player follows this move in a clockwise direction. You will now be presented with the main screen and a pointer which moves with the joystick.

THE MAIN SCREEN

The main screen is divided into two areas, the board and the status panel.(see fig 1.).

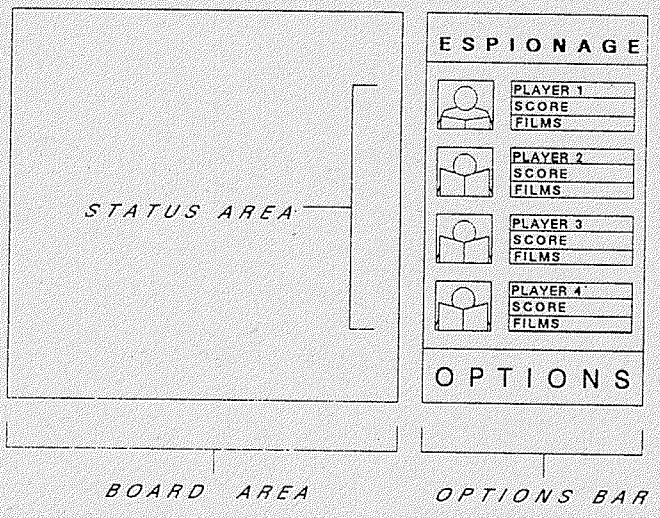


Fig.1 The Main Screen, showing the board on the left and status panel on the right.

At the bottom of the status panel is the OPTIONS bar, if you move the pointer over the OPTION bar and press fire the Status area is replaced by 8 OPTION Icons (see fig2.)

Nous vous demandons de lire très attentivement les notes ci-dessous que nous avons omises dans les instructions et qui vous permettront de bien jouer le jeu.

(1) POUR SANCTIONNER UN AUTRE JOUEUR

Si vous parvenez à sanctionner un autre joueur, vous pouvez sélectionner son Agent contrevenant puis répondre par "Yes" à la question "Sanction Yes/No". Si l'Agent détenait un microfilm, celui-ci ira à l'Agent qui n'a pas été éliminé dans le coup précédent.

(2) Appuyez sur "Q" pour quitter un jeu à 4 joueurs.

Irrtümlich wurden die nachstehenden, wichtigen Hinweise in der Anleitung ausgelassen. Bitte lesen Sie sie sorgfältig, damit beim Spielen keine Probleme auftreten.

(1) ZUM BESTRAFEN EINES ANDEREN SPIELERS

Wenn Sie in der Lage sind, einen anderen Spieler zu sanktionieren, dann wählen Sie den Agenten, der sich strafbar gemacht hat, und beantworten Sie die Frage "Sanction Yes/No" mit Yes. Falls dieser Agenten einen Mikrofilm in seinem Besitz hat, dann wird dieser an den Agenten übergeben, der im vorangehenden Zug nicht ausgeschaltet wurde.

(2) Zum Aussteigen aus einem Viererspiel dient die Taste Q.

ESPIONAGE
THE COMPUTER GAME

Below are notes which were omitted from the instructions; please read carefully for the game to be played correctly.

(1) TO SANCTION ANOTHER PLAYER

Should you be able to sanction another player, you may do so by selecting his offending Agent and then answering "Yes" to the request "Sanction Yes/No". If the Agent was holding a micro-film it will pass to the Agent who was not terminated in the previous move.

(2) Press 'Q' to Quit from a 4 player game.

The Story

As the Roman Legions compaigned through Europe, the spoils of their conquests included gold, precious stones, works of art - and slaves. A process of careful selection by the slaves' Masters decided their fate. Some were sent to the galleys to row for eternity. The beautiful were passed for the pleasure of the depraved. Many were destined to hard labour under the whip, creating fabulous monuments for the Roman Empire, a few of which are still in evidence today. But the "Crème de la Crème" of the slaves were set aside for their powerful physiques, athletic prowess and killer instinct. They were called The Gladiators.

One day in 54AD the quiet village of Massina was ransacked by the 13th Legion. After razing it to the ground, the Centurions took you, Marcus of Massina, back to Rome where you were sold as a slave. Your Owner sent you off to the School of Gladiators and you knew that you must kill or be killed.
There is one small gleam of hope for your survival: You are told that freedom is granted by the Emperor to the top ranking Gladiator, if the price can be paid!

The Game

Time moves on to 56AD and your first fight in the Arena is set for the 15th April.
The object of the game is to become the Emperor's Champion and buy your freedom. At the end of each bout, you are awarded coins, but the total amount needed to buy your freedom is larger than your prize money, so you will be forced to gamble on the outcome of other fights to increase your wealth.

The Weapons

You can choose from 45 different weapons. Each weapon has a different strength for attack and defence. Choose carefully, they all make the difference between victory and defeat.
Select weapons from the extensive Armoury by pressing the fire button - you can have many combinations. Your third choice must be a dagger, which will be put in your belt. You can control Player 1 and Player 2 from either keyboard or joystick.

The Fight

This is were the action starts, and you challenge your first opponent. There will be a minimum of 14 fights before you finally meet the Emperor's Champion. Although you are in peak physical condition, you are bound to get wounded and when you are near defeat your declining strength is shown by the garlands on either side of the Emperor's seat. If you throw a weapon at your opponent, you automatically take the dagger from your belt. To pick up a thrown weapon, you must have a free hand - so throw the dagger as well. You then pick up the weapon. At the end of the fight, the Emperor shows his pleasure by giving you a thumbs up. If you are defeated, you get a thumbs down.

You need 32,400 coins, denoted by points, to buy your freedom. When you win your final fight, you become the Emperor's Champion, but will not have earned enough coins to buy your freedom.

The only way to become a free man is to win your final fight and then gamble your winnings on the outcome of bouts between other gladiators. You will be asked how much of your wealth you wish to gamble. Start the count up by pressing the key O. Once you have reached the amount you wish to bet, press the fire button lightly. Keys F and D then select gladiators 1 or 2 respectively, so press the key for the one you wish to back. Press fire button once more and the fight will begin. If you many kills his opponent, your winnings are added to your wealth. Once you have earned sufficient coins, you can buy your Certificate of Freedom from the Emperor and the game is complete.

Lives

You have three lives. When you are killed for the third time, you go back to the beginning of the whole game.

Copyright

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Keyboard Controls

Fire Button Not Used

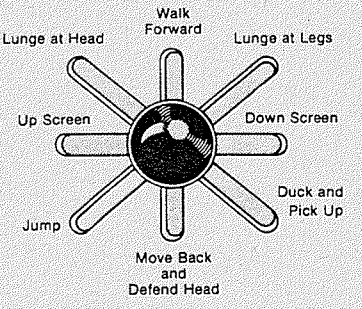
Player 1 (Left Man)		Player 2 (Right Man)
F	Forward	H
D	Move Back & Defend Head	J
1	Up Screen	9
Q	Down Screen	I
1 & F	Lunge at Head	9 & H
Q & F	Lunge at Legs	I & H
1 & D	Jump	9 & J
Q & D	Duck & Pick Up	I & J
Z	Fire	M

With Fire Button Pressed

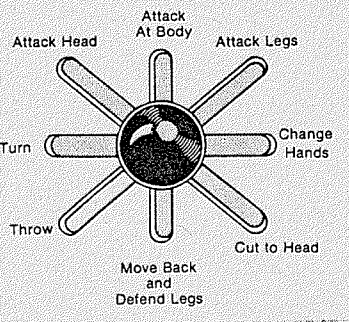
F	Attack to Body	H
D	Move Back & Defend Legs	J
1	Turn	9
Q	Change Hands	I
1 & F	Attack to Head	9 & H
Q & F	Attack to Legs	I & H
1 & D	Throw	9 & J
Q & D	Cut to Head	1 & J

Joystick Controls

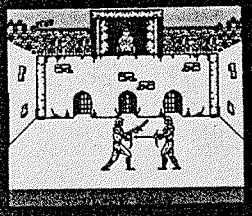
Moves With No Fire Button Pressed

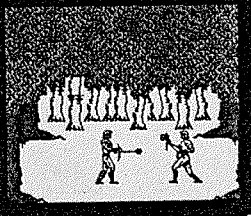


Moves With Fire Button Pressed:



GLADIATOR





To become the greatest Gladiator of all time you, Marcus of Massina, must fight your way to freedom. Otherwise death comes quickly!
After years in the Arena you are challenged by the Emperor's champion to the fight of the century. This crucial contest will have only one outcome – Thumbs up from Emperor Nero means you are now the Champion and allows you to buy your freedom – Thumbs down means certain death.
Gladiator is without doubt the most brilliant combat simulation – you will be amazed by the lifelike figures – they're truly remarkable.
The effect of this game may take years off your life!

FEATURES

1. Choose from the Armoury of 45 weapons. 2. Master your joystick or keyboard - there's 16 different moves in all. 3. Throw your weapons and pick them up before your opponent lunges at you. 4. One or two player modes.

1-85160-031-0

9 781851 600311

Screen shots from the Spectrum 48K

SEE OVER FOR FULL DETAILED INSTRUCTIONS

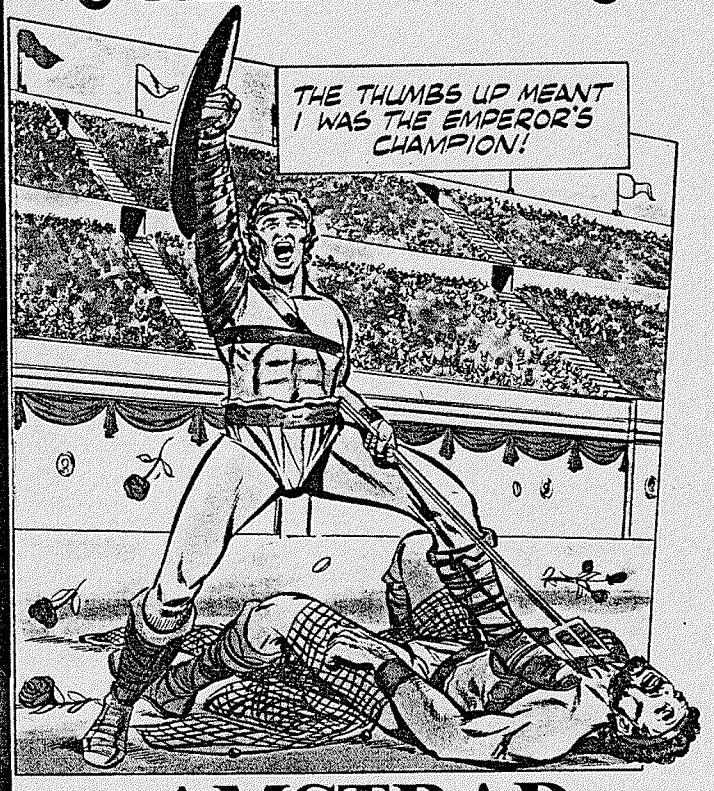
DOMARK LIMITED
204 Worple Road,
London SW20 8PN.
Tel: 01-947 5622. Telex: 894475G

GLADIATOR

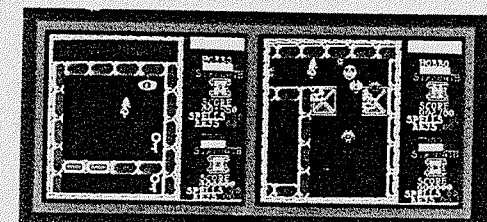
AMSTRAD

DOMARK

GLADIATOR



AMSTRAD



Hobbo the Elf, and Thor the Warrior, are imprisoned in the enchanted underground caverns of Dawnssley. To get out, they must collect keys, treasures, spells and potions. All the while they must fight off the guardians of Dawnssley - strange monsters who emerge from the solid rock. Hobbo is armed with his magic fireballs, and Thor with his mighty throwing axe! One or two player action with 12 levels.

9 781851 106011

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TAT 011

DAWNSSLEY

AMSTRAD CPC

TOP TEN

AMSTRAD CPC

TOP TEN

DAWNSSLEY



hits

DAWNSSLEY

Dungeons and caverns before are laid out,
creepies and crawlies are ready to hout.
Would-be heroes that enter this hell
must battle their way out of Dawnssley!

A number of keys you must find
to open the doors to reach mankind.
Potions and food are scattered around,
to escape Dawnssley these must be found!

All treasures you find, do use wisely,
but carefully, and not too miserly!
Be bold - be fast - be lucky - be clever,
or inside Dawnssley you'll stay forever!

LOADING - RUN"" [ENTER]

GETTING STARTED - One or two players can play, either as Hobbo the Elf, or Thor the Warrior. For controls, see title screen.

PLAYING - Your object is to find the exit of each level in order to escape from Dawnssley. All sorts of nasty monsters will have to be zapped by Hobbo's fireballs or Thor's throwing axes. The blocks from which the monsters emerge can also be destroyed, but this requires a few hits. Keys must be collected to open doors along the way (beware not to open unnecessary doors - there's only enough keys to get you out!). There are bonus treasures, spells that can be used to wipe out monsters, and potions and food to restore strength. You die if your strength runs out. In the two player game you are in competition and can fight each other.

Program by Paul Machacek



DEUTSCH

DAS SPIEL

Du mußt 5 Ebenen durchlaufen, in denen Geschicklichkeit gefordert ist und 4 Stufen, in denen es um das Zeitfahren geht. Du beginnst mit drei Maschinen und bekommst eine Extra-Maschine am Ende jeder Ebena.

AKTION		STEUERUNG KEYBOARD
ZEIT-FAHREN	GESCHICKLICHKEITS-EBENE	
Vorderrad hoch	Beschleunigen/Vorderrad runter	**Q** oder **Y**
Vorderrad runter	Bremsen/Rückwärtsgang/Vorderrad, hoch	**A** oder **H**
	Links	**W** oder **O**
	Rechts	**E** oder **P**
Sprung	Sprung	**Z** oder **N**

STEUERUNG

Drücke die Kleien **ENTER**-Taste, das Spiel anzuhalten. Durch Drücken einer beliebigen Taste kannst Du das Spiel wieder starten. Drücke auf **ESC**, um das Spiel zu verlassen.

TIPS AND HINWEISE

- ★ Zieh' das Vorderrad hoch, bevor Du einen Sprung machst, sonst fällst Du von der Maschine.
- ★ Spring über kleinere Hindernisse wie Baumstämme und Steine mit Hilfe der Sprungtaste.
- ★ Benutze die Sprungtaste zum Absprung von Rampen und Schanzen.
- ★ Jedesmal, wenn Du beim Zeitfahren einen Sprung machst, erscheint links oben auf dem Bildschirm eine Seitenansicht Deiner Maschino – nimm diese zu Hilfe, damit Du auch sicher auf Deinem Hinterrad landest.





What will oppose Narud as he searches the Pharohs Pyramid for the pieces of the hieroglyphic tablet. Help him avoid the evil denizens on his quest.

5 013248 000256

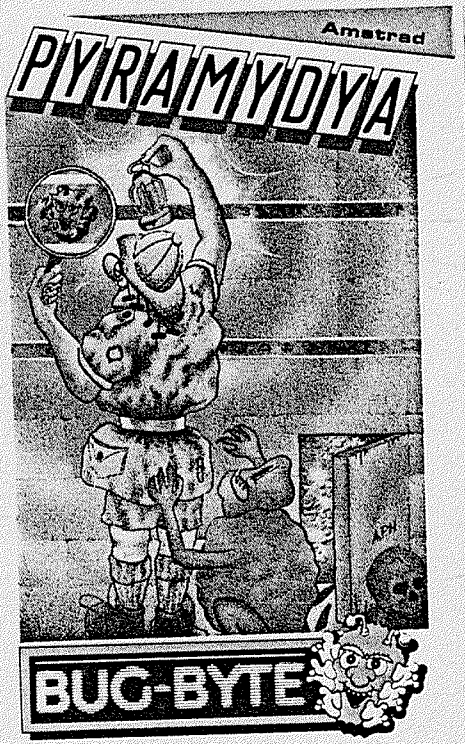
BUG-BYTE

Victory House, Leicester Place
London WC2H 7NB
Telephone 01-439 0666

BUG-BYTE

PYRAMYDYA

Amstrad



PYRAMYDYA
by PJM

THE GAME

Search through the corridors of the pyramid to find the four parts of the hieroglyphics tablet in order to locate the magical chest.
Can you then find the model pyramid to translate the hieroglyphics?

Controls:
Joystick
Keyboard
O = Up. A = Down.
@ = Left. [= Right.
Space = Fire.
P = Pause. O = Unpause.

LOADING

PRESS CONTROL/ENTER THEN PLAY

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SCUBA KIDZ

©1988 Andrew Betts
AMSTRAD conversion by Zeit Corp.

THE GAME

One of the evil Sea Lords has kidnapped some of the Kidz and is holding them in an undersea chamber! As the best swimmer, you have been asked to save them. Swim through eight reefs, unlocking the Sea Lord's doors and fighting the fish with your bubble gun. Be careful, as some routes you may take will leave you high and dry!

LOADING

AMSTRAD 64 OWNERS

1. Place the rewound cassette in the cassette unit and press PLAY.

2. Hold down CTRL and press the SMALL ENTER key.

AMSTRAD 664/6128 AND 464 + DISK OWNERS

1. Hold down the SHIFT and press the @ key. Type TAPE and press RETURN.

2. Connect a suitable cassette player to your computer, according to the User Manual, and insert the rewound cassette.

3. Hold down CONTROL and press the ENTER key.

4. Press PLAY on the cassette player.

Note: *Full loading instructions can be found in your Amstrad Manual*

PLAYING THE GAME

Controls:

Q - Left, **W** - Right, **O** - Up, **K** - Down, **P** - Fire
Joysticks are supported

Hints:

The items you can pick up are, AIR TANKS, BUBBLE GUN, DOUBLE BUBBLE, BUBBLE UP'N'DOWN, A CUNNING DISGUISE, KEYS, and FAST FLIPPERS.

You must have an air tank, you must also pick up all the keys, and don't waste any, for you will need all of them! Swimming to the surface (if you can) will replenish your air supply. Parts of the coral can and must be shot to get through them. If the timer runs out, all the doors will open, but you will lose all your keys. Avoid the mines, as you will lose lots of air if they explode. Kill fish, except for the angel fish (the one with the halo!), as touching this will up your air supply. Just before the end of the level, top up with air for your battle with the Nasty Shark - Shoot him several times to kill him, but don't let him bite you!

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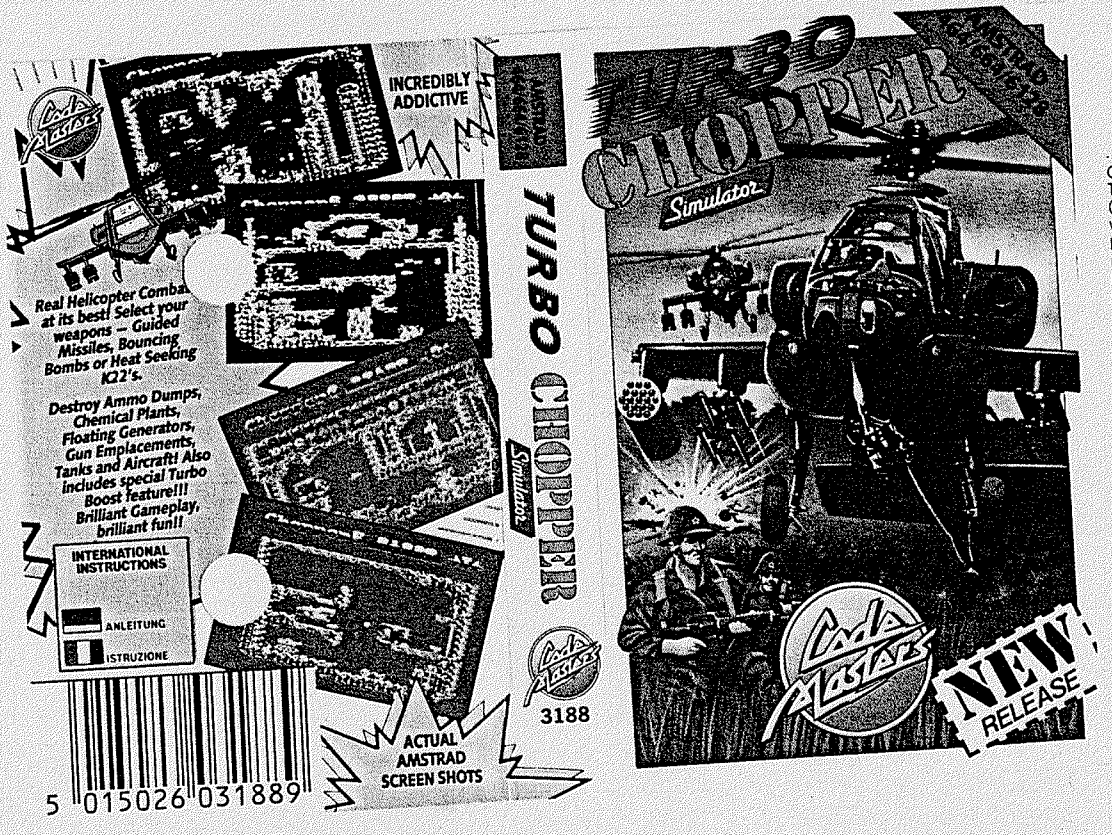

SCHLUSSEL

Q	nach oben
A	nach unten
O	links
P	rechts
SPACE	feuern

. . . . oder gebrauchen Sie einen Schalthebel.

Gebrauchen Sie nach oben/nach unten/links/rechts, um den TURBO CHOPPER zu fliegen. Wenn Sie den Chopper (Helikopter) rückwärts anstossen, drecht er sich nicht, aber wenn Sie weiterhin rückwärts gehen, dann ja.

Halten Sie MEUERN herunter und drücken Sie nach oben oder nach unten, um eine spinnende Bombe vom Stapel zu lassen.

Halten Sie FEUERN herunter und drücken Sie vorwärts (links oder rechts), um eine rakete loszulassen. Halten Sie FEUERN herunter und drücken, Sie rückwärts (links oder rechts) für TURBO RUCKZUG.

Drücken Sie CTRL, um das Spiel anzuhalten. FEUERN Sie, um es wieder in Gang zu setzen. Indem Sie SPACE drücken, wird sich die Hintergrundfarbe ändern, während des Spiel angehalten wird.

HINWEISE UND TIPS

Sie müssen alle die folgenden Teile der feindlichen Streitkräfte zerstören:

Schlacht A:
Die Flugzeuge, die am Boden stehen. Die Glaskuppel des feindlichen Hauptquartiers. Den Abfallhaufen von Munition, der aus blauen und grünen Munitionspaketen besteht.

Schlacht B:
Schwebender bombenwerfer. Super-Rakete (grün). Flugzeuge. Munitionsabfallhaufen.

Weitere Schlachten:
Chemische Anlagen (blau). Ort der fliegenden Bomben (rot). Fallender Bombengenerator. Tanks. Lufabwehrgeschütze.

INSGESAMT MEHR ALS 25 SCHLACHTEN

Nachtanken
Passen Sie auf die roten Treibstoffkanister auf. Fliegen Sie sehr tief über sie, um Treibstoff an Bord zu nehmen.



übernommen. Das einzige, das Sie wissen ist, daß die Landkarte in einer der vielen Kommoden, die über das ganze Schiff verteilt sind, versteckt ist. Aber da heißt es aufpassen: Mitgleider Ihrer abtrunnigen Mannschaft warten nur darauf, daß Sie auftauchen und versuchen alles, Sie auf den Meeresgrund zu schicken, um sich die Karte selbst unter den Nagel zu reißen.

LADEANWEISUNGEN

Schneider

KASSETTE: Kassette in den Rekorder einlegen. **CONTROL (CTRL)** und die kleine **ENTER**-Taste gleichzeitig drücken. Die **PLAY**-Taste des Kassettengeräts drücken und dann eine beliebige Taste auf der Tastatur. Dies bewirkt ein automatisches Laden und Starten des Programms.

STEUERUNG MIT JOYSTICK/TASTATUR

Man kann sowohl den Joystick, als auch die Tastatur verwenden. Die Tastaturbefehle sind wie folgt festgelegt:

Nach oben – **Q**, Nach unten – **A**, Rechts – **P**, Links – **O**, Feuern – **LEERTASTE**.

Wenn man mochte, kann man sich die Tasten selbst festlegen. Dazu muß man die "Redefine Keys"-Moglichkeit ('Neudefinition der Tasten') im Hauptmenu auswählen.

DIE AUFGABE

Waffen

Wenn man auf den verschiedenen Decks des Schiffes herumgeht, begegnet man 'Messern' und 'Pistolen'. Diese braucht man, um sich gegen die Piraten, die einen verfolgen, zu verteidigen. Mit den Messern kann man Piraten ausschließlich töten, wogegen die Pistolen zu zweierlei Dingen nützlich sind. Mit ihnen kann man sowohl Piraten töten, als auch Schränke und Kommoden öffnen, die man durchsuchen mochte.

Kommoden

Hat man einmal eine geöffnet, findet man in ihr Gegenstände die einem bei der Mission helfen. Zum Beispiel: zusätzliche Leben, einen Immunitätstrank (hält aber nur eine begrenzte Zeit an) und ein Suchlicht. Das Licht ist besonders nützlich, da man mit ihm die Möglichkeit hat, eine Kanone abzufeuern, die den einzigen Eingang der Feinde zerstört. Wenn man eine Kommode durchsucht, findet man manchmal eine Schublade, die man nicht öffnen kann. Dann zuerst alle anderen öffnen und es nochmal probieren und abwarten, was man darin findet.

Das Schiff

Das Schiff ist in vier Teile aufgeteilt. Das Deck, eine Anzahl an Kabinen und zwei Lagerräume. Um in das Innere des Schiffes vorzudringen, muß man die Treppen benutzen. Dazu geht man die Treppe hinauf und drückt den **FEUERKNOPF**. Damit kommt man auf die nächste Ebene.

Bildschirmdarstellung

Rechts auf dem Bildschirm befinden sich die Anzeigen, auf denen die verbleibende Anzahl an Leben dargestellt wird, die Waffen und die Energie (diese erscheinen in der Gestalt von Flaschen mit Rum). Man kann ein bestimmtes Energielevel halten, indem man die Flaschen sammelt und sie austrinkt. Man findet die Flaschen überall im Schiff. Aber Vorsicht ist geboten: einige der Flaschen wurden von den Feinden plaziert. Trinkt man deren Inhalt, lädt man keine Energie auf, sondern man wird für kurze Zeit total betrunken und ist jedem, der vorbeikommt hilflos ausgeliefert.

RATSCHLÄGE UND HINWEISE

- Pistolen haben einen begrenzten Vorrat an Munition. Nur benutzen, wenn notwendig.
- Kisten, Fässer Kommoden und andere Gegenstände bieten Schutz vor den Angriffen der Feinde. Vorsicht: deren Messer kommen durch jeden Spalt in den Gegenständen.
- Die Vorteile des Immunitätstranks nutzen, um sich aus brenzligen Situationen zu retten. Dabei so viele Feinde wie möglich treffen.

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Commodore 64/64c	<SHIFT> <RUN/STOP>
Commodore 138/128D	GO64 <RETURN> Y<RETURN> then <SHIFT> <RUN/STOP>
Amstrad 464	<CTRL> <ENTER>
Amstrad 664/6128	TAPE <RETURN> then <CTRL> <ENTER>

Disk:
All parts are booted from a menu program, loaded as follows:

Commodore 64/64c	LOAD"SLEAZE",8,1
Commodore 128/128D	GO64 <RETURN> Y<RETURN> then LOAD"SLEAZE",8,1 <RETURN>
Amstrad CPC	RUN"SLEAZE" <RETURN>

Playing The Game
Commands can be typed in ordinary English, eg. EXAMINE THE DANISH PASTRY, but may be shortened to a simpler verb + noun format, eg. EXAMINE PASTRY. Sometimes though, it may be necessary to be more specific. If you are in a room with 2 boxes (one red and one blue) and 2 socks (one red and one blue), it would not be sufficient to say GET BOX or GET RED. In such cases, you must include both the adjective and the noun, eg. GET RED BOX.

To converse with the other characters in the game, use SAY TO <name of character> YOU'RE UNDER ARREST HAIRBAG or whatever worthy utterances you feel would be appropriate. This must all be entered as one command and you must always specify who you wish to talk to.

Useful Commands That Always Get Listed On The Inlay
SAVE saves your place in the game to tape/disk (or RAM on CBM 64 version)
LOAD loads your saved position from tape/disk (or RAM on CBM 64 version)
RAMSAVE saves your place in the game to RAM (not on CBM 64 version)
RAMLOAD loads your saved position from RAM (not on CBM 64 version)
GRAPHICS ON sets graphics permanently on display
GRAPHICS OFF sets graphics never to display
GRAPHICS SOMETIMES sets graphics to display once only
SCORE tells you how well you are doing
INVENTORY or I lists what you have with you
QUIT ends the game
HELP may give the occasional clue, but too cryptically to be of any use

The Credits:
"THE BIG SLEAZE" is a parody concept of the great American detective. DELTA 4 wish to acknowledge such classics as "The Maltese Falcon" and "Mike Hammer" for all the inspiration they provided.

THE BIG SLEAZE
Graphics and original Commodore version:
Fergus McNeill
Spectrum and Amstrad conversions: Tim Gilberts
Background research: Piranha Software
Additional material: Anna Popkess

SCEPTICAL 3
Design and original Spectrum version:
Fergus McNeill
Amstrad conversion: Jason Somerville
Commodore conversion: Colin "CSB" Buckett

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For more information about Piranha games please contact:

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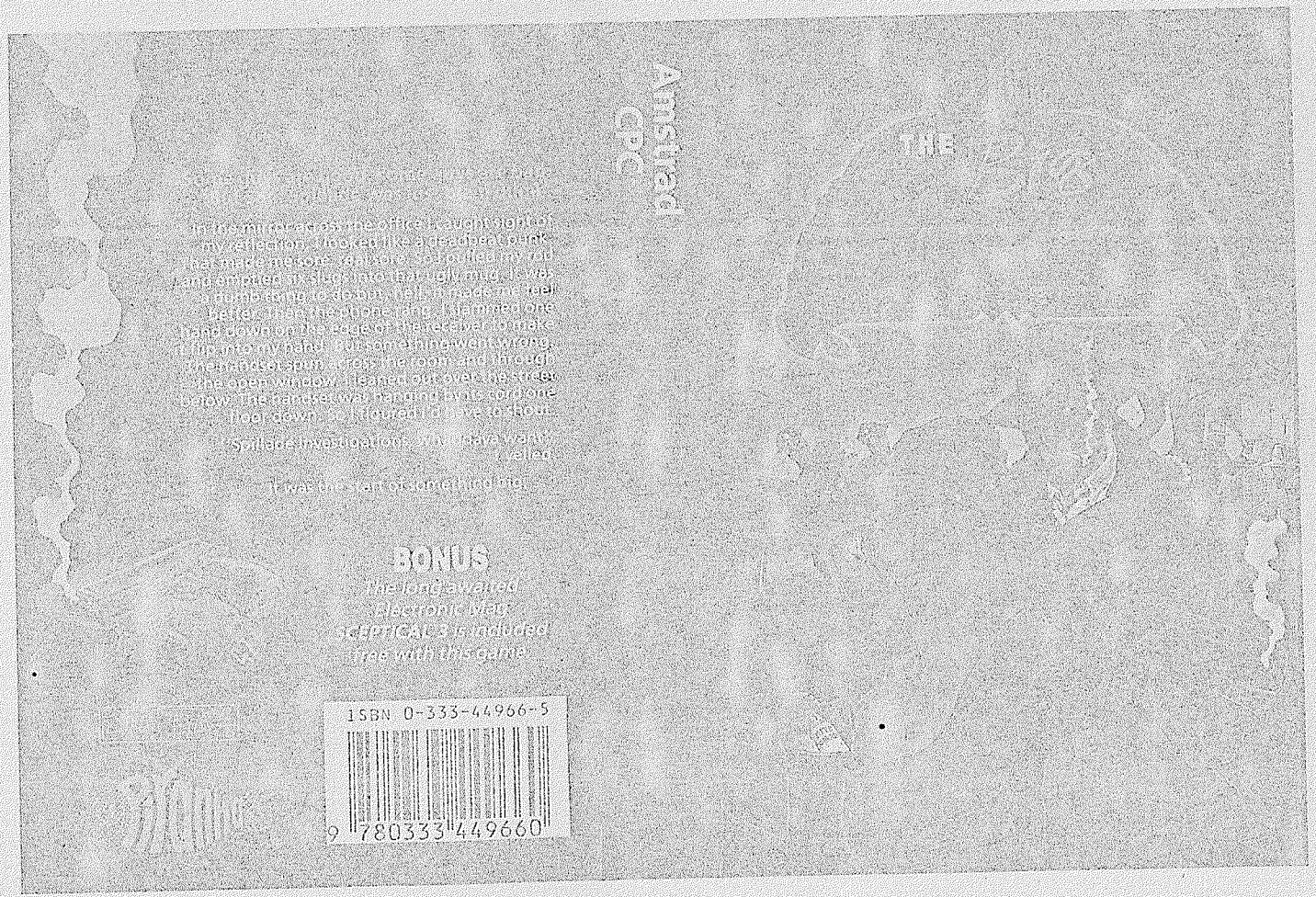

THE BIG SLEAZE

A Delta 4 adventure.
Written by Fergus McNeill.

New York, the late 1930s. You control the destiny of Sam Spillade, stereotype private detective and general all-round thicko. Sam operates his business (Spillade Investigations: "No case too small or too cheap") from a first floor office in the heart of the city. Your task is to solve the cases that come his way. . . .

Loading Instructions

The game is played across 3 parts (a bonus program, SCEPTICAL 3, is included as part 4 but this is independent of the adventure).

To preserve in-game continuity, data must be saved to tape/disk on completion of one part. This data is then loaded into the next section, allowing you to proceed with the investigations! Instructions for this will be given on-screen during play.

The procedure to load the start of the game is as follows:

Cassette:

Part 1 then part 2 are on side A. Part 3 then Sceptical 3 are on side B.

Spectrum 48k/+	LOAD "" <ENTER>
Spectrum 128/+2	Select 48k mode, then LOAD "" <ENTER>

CREDITS

Original design & concept	Ian Thomson
Amstrad code & graphics	Ian Thomson
Spectrum code & graphics	Nigel Speight
C64 code & graphics	Mark Bishop
16 bit code	Mark Software
C64 music	Wise Owl Software
Spectrum loading screen	Mark Bishop
Spectrum conversion	Mark Grafini
AY player & conversion	Sonic Severn
AY player music	Jacko Severn
16 bit music samples	Andy Harris
16 bit music supplied by	Paul Iveson
Font supplied by	Bird Iveson
Videos supplied by	Mrs Rull
	Gerard

Artwork & logo	Peter Austin
Mastering	Kevin Parker
Mail order	Sunglasses McCann
	& Belinda
Textuals, story & shots	Simon 'Wild Man' Daniels
Inlay production	Pete, Jon, Si, Steve T,
	Steve Dee, Simon & Mike
Production	Simon Daniels

PLAYERS - Mercury House, Calleva Park,
Aldermaston, Berks. RG7 4QW.

Duplication, Design & Print by Interceptor Limited
PLAYERS FOR FUTURE TITLES
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All unauthorised copying, hiring, lending or microwaving of this software or packaging is highly illegal! So don't do it!

Try to be a little more sensitive.
Okay.

LOADING INSTRUCTIONS

SPECTRUM 48K users - CENTER: 128K users
48K owners type LOAD "" (ENTER) then type RUN"
128K owners type the small ENTER
select the LOADER option from the menu. Hold down CTRL and tap the
ANSTEAD CPC 464, hold down SHIFT and press
key. 64/128: Hold down Shift and tap the
(ENTER) DOORE 64/128: Make sure that is in C64 mode.
COMMODORE 128K owners ensure that the
RUN/STOP key, please follow all on screen instructions.
When loading has settled down, type RUN
Within recently lost all contact with our mining installation on the
asteroid XR27B. Evidence suggests that our sworn enemies the
Alien Syndicate are responsible. If they are allowed to continue
Alien Syndicate's most important base system, bringing a wave of death and
destruction to the planets. You will be the only person left to stop them
You have been selected for this very dangerous mission. You will be
You and her equipment must also locate four parts of a
queen of the planet. You must destroy these parts as
surface of alien possible. You must also destroy the queen.
killing aliens as possible while you complete your mission.
many aliens which is needed to complete the sub-
top secret weapon scattered around the base.
may be found carried by aliens. You will have to destroy these
THE GAME You can control your character using a
joystick or keyboard to perform the following functions.
Can make your character perform the following action:

Jump up & climb up ladder — Q
Walk right — P
Walk left — O
Climb down ladder — A
Fire diagonal right — M
Fire diagonal left — N
Fire right — SPACE
Fire left — SPACE
Fire — SPACE

Certain pieces of heavy machinery can not be destroyed using your character at
standard weapon. You will have to use grenades to destroy these
objects. Grenades are fired by pressing SPACE. When a
When climbing ladder or wall, you must position your character on the joystick. When a
the base of the for the first time, you may be found
playing this game you practise this a few times before getting
playing will suggest you practise this by walking over
little tricky the game. Ammunition and keys may be found
stuck into the bags, these are collected by walking over
Objects such as extra lives, ammunition and keys may be found
scattered around the base. Protective suit
them. Pod parts must be collected in order to repair the shield
The display panel provides the following essential information.
Pod Parts collected, (all 4 needed to repair shield)
Ammunition remaining, Grenades remaining, Security droid
status, Scrolling information display, Time remaining
Score, Keys held, Lives left,

SHANGHAI WARRIORS
AMSTRAD LOADING INSTRUCTIONS

Set up your computer as shown in your user manual. Place your SHANGHAI WARRIORS tape in your cassette player, ensure that it is fully rewound. 464 owners hold down CTRL and tap the small ENTER key. 664 and 6128 owners first type | (shifted@) TAPE (ENTER) then type RUN" (ENTER).

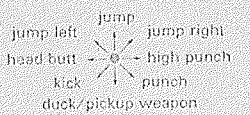
Level data is recorded on the reverse side of the cassette, carefully follow all the on-screen prompts.

THE MISSION

Mercenaries led by the evil 'Snide Gantree' have stolen a US NAVY Submarine threatening to launch its awesome arsenal of nuclear destruction on Washington and London. Attempts by the combined forces of MI5 and the CIA to destroy the sub have failed. The governments concerned have been forced to take the only course of action left open to them: Send in the latest graduates of the 'Dragon Temple Karate Academy'.

CONTROLS

Your Karate Warrior is controlled via the joystick or redefinable keys. Moving the joystick in any of its eight directions will cause your warrior to move in that direction, however these additional moves may be obtained by holding down the fire button whilst moving the joystick.



If you pick up a lethal weapon (Uzi machine pistol, knife or Ninja-star), it will be displayed at the bottom of the screen. A counter will also be displayed, showing how many times you may use your collected weapon.

Use ENTER to toggle between weapons. If you are not holding a weapon, standing still and pressing fire will cause your warrior to perform a deadly karate chop. You can take up to 12 hits before losing one of your lives.

PLAYERS - Mercury House, Calleva Park,
Aldermaston, Berks. RG7 4QW.

SHANGHAI WARRIORS CREDITS

CODE:	KEVIN PARKER
BACKGROUND GRAPHICS:	JABBA SEVERN
SPRITES AND LOADING SCREEN:	COLIN 'JB2' SWINBOURNE
MUSIC COMPOSED BY:	MIKE 'FARMER' BROWN
MUSIC CONVERSION:	ANDY 'NEVER-NEVERLAND' SEVERN
C64 VERSION:	IMPERIAL SOFTWARE DESIGN
TEXTUALS AND SHOTS:	SIMON 'DANGEROUS' DANIELS

THE LEGEND OF LO YIN

The story of Lo Yin, Karate master is well known. Pursued across Imperial China by an evil tyrant and his Ninja assassins, Lo finally defeated his sworn enemy, Wang Chen, in Shanghai's infamous Dragon Temple.
After this sensational victory, Lo established the 'Dragon Temple Karate Academy'. Where young Karate warriors were taught how to use their combat skills to uphold the traditional Karate values of Freedom, Honour and Justice: fighting evil and corruption, where ever and when ever they found it.

STILL AVAILABLE!

Shanghai
KARATE

immediately obvious. It won't necessarily pay to overdo things: for example, being too neat and tidy might arouse his mother's guilt feelings.

There are a number of random elements in the game and your course through the troubled path of adolescence may vary every time you play.

If you have already read Sue Townsend's books *The Secret Diary of Adrian Mole Aged 13¾* and *The Growing Pains of Adrian Mole*, you will find some characters you have met before and a number of familiar scenes. But, if you haven't yet read the books, you'll still be able to play the game – and knowing the books won't necessarily give you an advantage: in the game, familiar scenes may well have a new twist.

USING THE PROGRAM

The game consists of a number of separate programs. For some computer versions the whole game is recorded twice, once on each side of the cassette. For other computer versions the first half of the game is recorded on side 1 of the cassette and the second half on side 2. Details are given on the cassette label. Each program covers a few months of Adrian's life. When playing the game, press SHIFT (or RETURN on an Atari) to continue when the game pauses.

Loading the game

To load and start the cassette version of the game, insert the cassette in the recorder and ensure that it is fully rewound. Set the tape counter to zero if your recorder has one. Then follow the instructions below for your type of computer. The words that you type are those in bold print (remember to press RETURN or ENTER after each command you type).

Amstrad CPC 464	Type **RUN""** and start the tape.
Amstrad CPC 664/6128	Type **I TAPE** (for I press SHIFT and @) then **RUN""**
Atari 400/800/XL/XE	Remove any cartridges. Hold down START and OPTION while you switch on the Atari, then start the tape and press RETURN.
BBC Micro B	Type ***TAPE** then **CHAIN""** and start the tape.
Commodore 64	Press SHIFT and RUN/STOP together, then start the tape.
MSX 64K	Type **RUN"CAS:"** and start the tape.
Spectrum 48K	Type **LOAD""** and start the tape.
Spectrum +	(as Spectrum 48K)

WHEN THE GAME STARTS, STOP THE TAPE AND DO NOT REWIND IT. The next program follows this one fairly closely, and you don't want the tape to play on past it.

When you reach the end of a program, a message on the screen will ask you if you want to go on to the next program. Type YES and press

While playing the game you can save your current position (so that you can turn the computer off, yet return later to the same stage in the game). To do this, insert a spare, blank cassette in the recorder.

Type 4 instead of 1-3 when asked to make a decision on behalf of Adrian Mole. This will display the command and help system on the screen. Press the RECORD buttons on the recorder, type **SAVE** and press ENTER or RETURN. (If the program asks for a "file name", type any short word and press ENTER or RETURN.) If the tape doesn't move press ENTER or RETURN again. When a message appears on the screen to tell you the save is completed, stop the recorder.

Loading a saved game position

To load a saved game position you must be playing the same program of the game that you were playing when you saved the game. (ie. that program must be loaded). Remove the game cassette from the recorder and replace it with the one used to save the position earlier.

Type 4 instead of 1-3 when asked to make a decision for Adrian to display the command and help system on the screen. Type **LOAD** and press ENTER or RETURN. (If the program asks for a "file name", type whatever name you used to save the position and press ENTER or RETURN.) Rewind the cassette on which the position was saved and press the PLAY button on the recorder. Press ENTER or RETURN.

When a message appears on the screen to tell you the load is completed, stop the recorder. The saved game position will reappear on the screen.

The Secret Diary of Adrian Mole Aged 13¾ – The Computer Game first published in Great Britain 1985 by Mosaic Publishing Ltd, 187 Upper Street, London N1 1RQ

Game Design: Pete Austin

Progammed by: Pete Austin

Pictures: James Horsler

Transport to your computer, adventure system and graphics system: Mike & Nick Austin

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Drawings Copyright © 1982, 1984, 1985
Caroline Holden
First published in Great Britain by Methuen, London Ltd.
Additional text and story lines for the game by Pete Austin

Mosaic signature tune Copyright © 1984 David Stoll

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Production Services by Cosprint Ltd

Printed in Great Britain

I learned today that I am to be the subject of a computer game. The object of the game is to make me popular with everyone, which sounds dead brilliant. Apparently they've written an enormous programme containing 200 kilos of text, which Brainbox Henderson says is a lot. Now everyone else can have a go at coping with all the problems that beset me over an entire year of my life. It's an illustrated text game, which means you have artistic pictures to look at while you ponder about what to do next. So have a go, and see what it's like being a budding intellectual and poet who has to cope with my family, friends and the dog. Then you'll know what I have to put up with. Ha! Ha! Ha!

Design by Richard Kelly Illustrations by Caroline Holden

Distributed by WHS Distributors, St John's House, East Street, Leicester, LE1 6NE Tel: (0533) 551196

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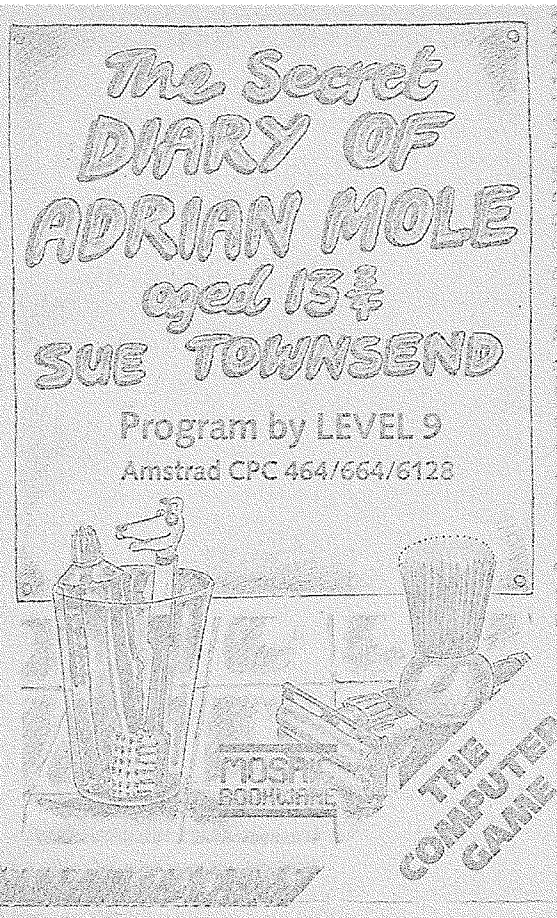
The Secret Diary of Adrian Mole Aged 13¾

Level 9

AMSTRAD
464
664
6128

MGSRIC



INTRODUCTION

Playing this game will take you through a year in the life of Adrian Mole. When you have loaded the first part of the game, following the instructions below (under the heading *Using the Program*), you will see that as you progress through the days in Adrian's diary you will be asked to make choices for Adrian. Press a number from 1 to 3 to choose one of the options suggested. Pressing key number 4 will display the command and help system menu. This gives a list of the additional features in the game and full instructions on how to use them.

THE GAME

Adrian is a worrier. The problems of existence hit him hard. Spots, bits of him that won't keep still, the cracks in his parents' marriage, all prey heavily on his mind. There are some consolations. A fourteen-year-old feminist, an eighty-nine-year-old chain smoker and his spoilt best friend all help to lift the gloomy introspection of Mole's moods. Mole believes he is an intellectual. He is dogged by ill-health as well as by an infuriatingly ever-present pet dog, and by a catalogue of misfortunes familiar to anyone over the age of thirteen.

The aim of the game is to make Adrian as popular as possible with everyone – family, friends, and the dog! At regular points in the game your score will appear on the screen to indicate how well you are doing. (You can aim to make Adrian as unpopular as possible and see how low a score you can achieve!)

The results of your actions may not be

ENTER or RETURN. Start the tape on PLAY and press ENTER or RETURN twice. The next program loads in the same way as the first one. Remember to stop the tape when the game starts again.

So playing through the entire game is simple. Load it as above, stop the tape when each program has loaded and restart it when it is time to load the next program.

If you have a tape counter on your recorder, make a note of the reading at the end of each program. This will be useful if you want to start in the middle of a game. If you know the tape counter reading, wind the cassette until the tape counter is at the reading you want and continue as if you were loading the first part of the game.

Loading advice

The cassettes are tested thoroughly and you shouldn't have any problem in loading this game. If you do have difficulties, the following may help:

- Try the other side of the cassette.
- Load another game from cassette to check everything is connected properly.
- Vary the volume and tone settings on the recorder if you can (fairly loud and fairly 'high' should work best).
- Clean and demagnetise the recorder (following the manufacturer's instructions).
- If you can, try another recorder.

Saving the game position

the side of a quad angle that is used for roll calls and serendipal purposes. In line with the Geneva Convention the prisoners must have exercise so two are [illegible] and the [illegible] situated on the inland side allowing close up inspection of the south fences.

Beneath the camp is a labyrinth of old drains and tunnels dug out by past inmates. It could prove an ideal route to escape but entering without a torch is very dangerous as it is far too easy to get lost in the dark.

WITHIN THE CAMP THERE ARE FOUR MAIN CHARACTER TYPES

1. The Commandant
2. Fellow prisoners
3. The German Guards
4. The escaping prisoner

1. THE COMMANDANT

This daunting figure controls the camp. It is he who chooses the number of soldiers to place on the various patrols and the observation positions.

As the beginning of the game security is fairly lax but the more times the player is caught out of bounds the more secure the camp will become.

The Commandant is the least predictable of the security forces, he often changes his guards to see if they are on the correct place and are following instructions and it is possible to bump into him almost anywhere in the camp. It is a good idea therefore to know his whereabouts at all times to avoid unfortunate encounters!

2. THE GERMAN GUARDS

These characters are the work horses of the camp staff. They must either trudge along on patrol, shiver on observation towers or stand about on sentry duty and ensure the prisoners keep to their daily routine.

Once allotted to a patrol, they will dutifully pace up and down taking approximately the same time on each circuit. This will allow you to time the position of the guards and modify your escape plan accordingly. The hero will be detected within the lines of sight of any of the security forces so it is possible to sneak past a guard who is looking the other way, but they are very alert and you will have to be quick.

The soldiers who look after the POW's escort the prisoners before they move about the camp, so two or three guards will follow them to the parade ground, the exercise area or the prisoners mess.

3. FELLOW PRISONERS

These unfortunate fellows have been in the camp for a long time, at first they were enthusiastic about escaping but a long series of failures have crushed their morale.

They now seem happy to bide their time until the end of the war. However some of the men retain a bit of spirit and can be bribed or persuaded to create a diversion allowing you to disappear unnoticed.

Their life is ordered by alarm bells, these tell them when to get up and when to go to roll-call, when to eat and when to exercise. An analysis of this routine will enable you to estimate at what time your escape will be noticed and the alarm bells start ringing!

4. THE ESCAPE – "OUR HERO"

You control him by joystick or keyboard putting in several patterns of behaviour. If you are in bounds i.e. the movable flag is YELLOW you will follow the routine like any other prisoner and this allows you to become familiar with the camp and camp life without having to follow the other characters around manually. You will only diverge from this path by taking over the controls, but if you would rather be out of bounds the moveable flag will turned now you are liable to arrest and have total control. You can drop/pick up objects (press fire and joystick down/up) that you find in the camp but you can only carry two objects at any one time. When you have discovered places that are infrequently searched or unlikely to be discovered by the security forces you may leave a cache of useful objects there. Any objects that are found however by the Guards or Commandant, or that you are carrying when captured will be confiscated immediately.

If you are spotted while on an escape you will have two choices, either to make a run for it or to surrender. Once caught you will lose all the objects that you were carrying and the camp security stepped up so you will also be sent to the cells but so that the action of the game can continue this is only for a moment and you will then be escorted back to your comrades.

SCREEN DISPLAY DIAGRAM

MORALE

The flag on the left of the screen is the morale indicator, its height on the flagpole denoting the current morale. Each time you find something useful or explore a different part of the camp your morale and score will increase accordingly, however each time one of your possessions is discovered and removed your morale will decrease. Red Cross parcels and other goodies will arrive randomly throughout the game and increase your morale level. Capture and consequent punishment will reduce your morale enormously and if it ever reaches zero you

CREDITS

Produced by D. C. Ward.

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This product contains only one cassette tape. The larger packaging has been introduced as a standard for this and future products. We may from time to time incorporate two tapes or possibly a disk.

The Great Escape

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LOADING

CPC 464

Place the rewound cassette in the cassette deck, type RUN" and then press ENTER key. Follow the instructions as they appear on screen. If there is a disk drive attached then type | TAPE then press ENTER key. Then type RUN" and press ENTER key. (The | symbol is obtained by holding shift and pressing the @ key).

CPC 664 and 6128

Connect a suitable cassette tape recorder ensuring that the correct leads are attached as defined in the User Instruction Booklet. Place the rewound tape in the cassette recorder and type | Tape then press ENTER key. Then type RUN" and press enter key, follow the instructions as they appear on screen.

THE GAME

The year is 1942, the place Germany. War has broken out and you have been captured and placed in a high security P.O.W. camp. Victory may be far away, so it is your duty to escape, but this will not be easy. It will take careful planning and much patience, culminating in a skilful and resourceful implementation. In the camp you are closely guarded but while you follow the daily routine you will need to slip away unnoticed to reconnoitre the situation and collect tools and materials necessary for your chosen escape route. There are many avenues of escape, some difficult, all certainly dangerous and each one requiring different skills or equipment.

CAMP GEOGRAPHY AND POSSIBLE ESCAPE ROUTES.

The camp is a small converted Castle on a promontory surrounded on three sides by cliffs and the cold North Sea. Official entry to the camp is by a narrow road through the gatehouse and all traffic must carry papers authorising their passage. Elsewhere the camp has been closed by either fences or walls and dogs are deployed to patrol the perimeter. These areas are watched by men from the observation towers and there are very few blind spots, at night powerful search lights comb the walls looking for any sign of movement.
The prisoners are housed in pre-fabricated huts within the castle ground just to will lose control and our hero will become just another member of the camp prisoners. The only remedy for this situation is a new game.

THE ALARM BELLS

The alarm bell has two functions, when it sounds in a short burst it denotes the commencement of meals, roll-calls etc and a message will appear at the bottom of the screen with the relevant information. When a potential escapee is discovered out of bounds the alarm bell will ring continuously and this is the signal to the guards that an escape is in progress.

NEWS BULLETIN

Messages will appear on screen, keeping you fully informed of all news events within the camp, i.e. the discovery by the guards of hidden items etc.

SCORING

You score points and increase your morale by discovering objects, using them and escaping – each of these activities will increase your score.

CONTROLS

KEYBOARD

Q – DIAGONAL LEFT UP

A – DIAGONAL RIGHT DOWN

P – DIAGONAL RIGHT UP

O – DIAGONAL LEFT DOWN

M – FIRE

CURSOR UP – GAME ABORT

FIRE and UP is pick up. FIRE and DOWN is drop. FIRE LEFT/RIGHT is use object.

THE GREAT ESCAPE

This software product has been carefully developed and manufactured to the highest quality standards. Please read carefully the instructions for loading. IF FOR ANY REASON YOU HAVE DIFFICULTY IN RUNNING THE PROGRAM, AND BELIEVE THAT THE PRODUCT IS DEFECTIVE, PLEASE RETURN IT DIRECT TO:
MR. YATES, OCEAN SOFTWARE LIMITED, 6 CENTRAL STREET, MANCHESTER M2 5NS.
Our quality control department will test the product and supply an immediate replacement if we find a fault. If we cannot find a fault the product will be returned to you at no charge. Please note that this does not affect your statutory rights.

BISMARCK - MAI 1941

Eine Echtzeit-Simulation inmitten des Atlantik. Der Spieler hat die Wahl, das Kommando über die Bismarck zu übernehmen, die von der britischen Flotte gejagt wird, oder im Auftrag der englischen Admalität die Verfolgung der Bismarck aufzunehmen und diese zu versenken suchen.

BISMARCK - DIE MERKMALE

SPIELSTEUERUNG

- Volle Joystick-Steuerung
- Icon-gesteuert
- Variable Spielgeschwindigkeit
- Variable Schwierigkeitsstufen
- "Set Battles" Option
- Spiel abspeichern
- Echtzeit-Aktionsabläufe

FLOTTEN-INFORMATIONSANZEIGEN

- Hauptkartenbildschirm
- Luft-Rekognisziерungsbildschirm
- Wettervorhersage

SCHIFFSSTEUERUNG

- Visuelle Suche von der Brücke
- Radarsuche
- Kurs, Geschwindigkeit usw.
- Schwere Kanonen feuern
- Flak-Abwehr
- Flugsimulator
- Schadenkontrolle über detaillierte Pläne
- Torpedo-Angriffe (nur Zerstörer)
- Fairey Swordfish

ANNALENS DER RÖMER - 273 v.Chr. - 11 Jh. n. Chr.

Ein umfangreiches Strategiespiel, basierend auf der Blüte und dem Untergang des Römischen Reiches. Sie repräsentieren die herrschende Gruppe im römischen Senat. Ihr Ziel: Überleben.

ANNALS OF ROME - SPIELELEMENTE

- Detaillierte Karte
- Beliebtheit
- Loyalität
- Inflation
- Diktatoren
- Revolten
- Phasenablauf
- Besteuerung
- Legionen
- Kaiser
- Pöbel
- Bürgerkrieg

TOBRUK - MAI 1942

Eine Simulation aus dem Krieg in Nordafrika, die den Spieler in die Rolle von Feldmarschall Rommel versetzt. Sie haben Befehlsgewalt über 10 Divisionen mit Tanks und Truppen. Ihre Aufgabe: Durchbrechung der Gazala-Linie und Einnahme von Tobruk.

TOBRUK - DIE SPIELMERKMALE

- Spieler gegen Computer
- 2-Spieler-Simulation
- 2-Computer Spiel mit "vernetzten" Amstrads (zusätzliches Kabel erforderl.)
- In Phasen unterteilt
- Wahlweise Arkaden-Aktion
- Volltank-Simulator mit: Fahren, Hauptkanone, Maschinengewehr
- Nachschub-Phase
- Minenverlegung/Entschärfung
- Luftkriegsphase mit: Bodenattacken, Luftschlacht
- Fernbereichs-Bombardement
- Ingenieursphase
- Option mit grünem Bildschirm (nur Schneider)
- Rückeroberung/Sabotage von Tanks

ENTSCHEIDUNG DEUTSCHLAND - 17. Juni 1989

Ein in Phasen ablaufendes Spiel für den ernsthaften Strategieten. Spielen Sie nicht alltägliche Zukunft. Auf der Grundlage präziser Projektionen simuliert Battlefield Germany eine totale Offensive durch die Mitglieder des Warschau-Pakts in Westeuropa.

BATTLEFIELD GERMANY - DIE SPIELELEMENTE

Übernehmen Sie das Kommando über die NATO oder die Mächte des Warschauer Pakts

- Computer-Gegner
- Künstliche Intelligenz
- 1- oder 2-Mann-Spiel
- Variable Schwierigkeitsgrade
- Variable Spieldauer
- Wahlweiser Kernwaffen-Einsatz
- Große hex-basierte Scroll-Karte
- Taktische & strategische Displays

Alle aufgeführten Simulationen sind für AMSTRAD CPC und CBM 64/128 erhältlich.

ÜBERSETZUNG DER BILDSCHIRMTEXTE

BATTLE OF BRITAIN	LUFTSCHLACHT UM ENGLAND
Main Menu	Hauptmenü
Colour/Monochrome	Farbe/Monochrom
With/Without action	Mit/Ohne Arkadensequenzen
Training game	Übungsspiel
Blitzkrieg	Blitzkrieg
Campaign	"Feldzug"
Losses "x"	Verluste
Aug(ust)	August
Sep(tember)	September
Oct(ober)	Oktober
Ftr (fighter)	Kampfflugzeug
Bmb (bomber)	Bombenflugzeug
Fue (fuel)	Treibstoff
Amo (ammunition)	Munition
Rad (radar report)	Radarreport
(Hornchurch) Airfield	Flugplatz
Airfield status	Status
operational/closed	in Betrieb/geschlossen
Squadron Number	Geschwader-Nr.
Aircraft type	Flugzeugtyp
Number	Nummer
Present status	
ready/refuel(ling)/scramble	bereit/auftanken/verteilen
Runway	Landebahn
clear/damaged/cratered	klar/beschädigt/durchlöchert
Weather	Witterung
fine/heavy rain/	schön/schwerer Regen/
showers/fog	Schauer/Nebel
Select battle	Schlacht wählen
(111 Squadron) scrambled	(x) Geschwader in Alarmstufe

(Coltishall Airfield) bomb damaged/fog cleared	Bombe zerstört/Nebel gelichtet
Radar Station non-operational	Radarstation außer Betrieb
(54 Squadron) reports low fuel	(x) meldet Treibstoff knapp
fuel gone	Treibstoff zu Ende
down, crashing into sea	Sturzflug ins Meer
(London) bombed	(London) bombardiert
(Portsmouth) under attack	(Portsmouth) unter Attacke
Intelligence report	Berichterstatiung
RAF/Luftwaffe losses	Verluste der RAF/Luftwaffe
Successful Luftwaffe attacks	Erfolgreiche Angriffe durch die Luftwaffe
Command ability "x"%	Kommandofähigkeit "x"%

Konfrontation blinken beide Einheiten. Falls Sie im Anfangsmenü die Option "Action Sequences" gewählt hatten, fragt das Programm in solchen Fällen "SELECT WHICH BATTLE?". Bewegen Sie die COMMANDO-BOX über eine Ihrer im Gefecht befindlichen Einheiten und drücken Sie den Feuerknopf. Damit werden Sie ans Steuer eines Spitfire katapultiert. Wenn eine Einheit der Luftwaffe eine Bodenstation angreift, blinkt diese ebenfalls, und Sie können auch hier eine SCHLACHT auswählen. Indem Sie die KOMMANDO-BOX auf die blinkende Luftwaffen-Einheit plazieren und den Feuerknopf drücken, übernehmen Sie die Kontrolle über eine Luftabwehrkanone. Diese Kampfhandlungen wirken sich unmittelbar auf den Ausgang der Schlacht aus.

Landen eines Geschwaders

Zum Landen eines Geschwaders muß dieses direkt über einen Landeplatz manövriert werden. Dort landet es automatisch, es sei denn, der Flugplatz ist außer Betrieb oder bereits durch 4 Geschwader besetzt. In diesem Fall wird eine entsprechende Meldung eingeblendet und das Geschwader muß an einer anderen Stelle landen, bzw. eines der bereits dort befindlichen muß den Platz freigeben.

Am Ende des Tages

Am Ende des Tages wird in allen 3 Spielen ein Punktebildschirm angezeigt, der die Anzahl der auf beiden Seiten verlorenen Flugzeuge, die Anzahl der erfolgreichen Angriffe durch die Luftwaffe und Ihre Leistung (als Prozentwert) auflistet.

Im Campaign-Spiel wird Ihnen zusätzlich eine Gesamtbewertung der bisher absolvierten Etappen angezeigt.

Zum Verlassen des Punkte-Bildschirms dient die Leertaste. Im Campaign-Spiel bringt Sie dies automatisch auf die RESUPPLY-SCREEN zurück, in den anderen Spielen zurück ins Hauptmenü.

RESUPPLY SCREEN (Nur Im Campaign Spiel)

Dieser Bildschirm dient der Zuweisung von Verstärkung über Nacht. Ganz oben ist die Anzeige des Kalibers der neuen Piloten, das zwischen exzellent bis kümmerlich (poor) variieren kann. Dies spiegelt die Tatsache wieder, daß erfahrene Piloten ihr Leben verlieren und durch Leute ersetzt werden, die wenig oder gar keine Erfahrung

aufweisen. Selbstverständlich sinkt damit auch die Wirksamkeit im Gefecht.

Darunter erkennen Sie das Verzeichnis der Geschwader, die momentane Anzahl Flugzeuge und ihren Standort. Die Geschwader in rot sind nicht mehr vollzählig, die in blau sind vollzählig. Die Position des Cursors ist in weißer Farbe markiert. Drücken des Feuerknopfs übernimmt einen Reservisten von oben in das "weiße" Geschwader. Der Cursor wird durch Auf- und Abbewegen des Joysticks bewegt. Ein Geschwader kann maximal 15 Flugzeuge umfassen.

Zum Verlassen dieses Bildschirms die Leertaste drücken. Dies bringt Sie auf das Campaign-Menü zurück. Wie Sie sehen, hat sich das Datum geändert. Zum Fortfahren die Taste 3 drücken.

Pause

Um eine Atempause einzulegen, P drücken. Im Datums/Zeitfeld erscheint das Wort "Pause". Die KOMMANDO-BOX kann nach wie vor bewegt werden, aber es ist nicht möglich, eine Einheit zu verschieben oder zu steuern. Erneutes Drücken von P bewirkt Wiederaufnahme des Spiels.

"Flucht"

Um zu irgendeinem Zeitpunkt auf ein Menü umzusteigen (ausgenommen während den Aktions-Sequenzen), drücken Sie ESC (Schneider) bzw. F1 (CBM64).

Taktik

Beim Spielen von BATTLE OF BRITAIN sollten Sie sich drei Hauptziele vor Augen halten:

1. Die RAF muß eine wirksame Luftstreitmacht bleiben
2. Die Luftwaffe muß durch Verluste geschädigt werden
3. Verteidigen Sie Ihre Städte. Der Anblick der Folgen massiver Bombenangriffe wird Ihnen bei der Zivilbevölkerung keinen guten Namen machen.

einprogrammiert, als dies tatsächlich der Fall war. In Wirklichkeit wurde kein einziger Flugplatz (mit Ausnahme vielleicht von MANSTON) wirklich lahmgelegt - die Flugzeuge konnten sich in ein nahegelegenes Feld verziehen. Immerhin konnte auf diese Weise im Spiel das Ausmaß an verheerenden Wirkungen in bezug auf Wartung und Service usw. simuliert werden.

Ein Ausfall eines Flugplatzes infolge von Witterungsverhältnissen oder Angriffen wird durch Anzeige des Namens gegen einen roten Hintergrund signalisiert, wenn die KOMMANDO-BOX sich darüber befindet. Ein gelber Hintergrund bedeutet, daß die Landebahnen durch einen Angriff schwer beschädigt sind, so daß beim Landen mit schwerwiegenden Verlusten zu rechnen ist.

Geschwader
Durch die Beschränkung auf 18 Geschwader haben wir die tatsächliche Anzahl der Flugzeuge praktisch auf die Hälfte reduziert. Dies war eine unumgängliche Notwendigkeit im Hinblick auf die "Spielbarkeit".

Hier das Verzeichnis der Geschwader:

Geschwader	Typ	Standort
234	Spitfire	Middle Wallop
609	Spitfire	Middle Wallop
87	Hurricane	Middle Wallop
213	Hurricane	Middle Wallop
602	Spitfire	Tangmere
17	Hurricane	Tangmere
43	Hurricane	Northolt
1	Hurricane	Biggin Hill
501	Hurricane	Biggin Hill
54	Spitfire	Hornchurch
111	Hurricane	Debden
257	Hurricane	Debden
19	Spitfire	Duxford
310	Hurricane	Duxford
66	Spitfire	Coltishall
74	Spitfire	Coltishall
242	Hurricane	Coltishall

Starten/Bewegen eines Geschwaders
KOMMANDO-BOX über einen Flugplatz fahren und den Feuerknopf drücken. Dies bewirkt Einblenden des Flugplatz-Bildschirms.

Am oberen Rand des Bildschirms wird der Name angezeigt, direkt darunter der aktuelle Status - entweder in Betrieb oder nicht. Dann folgen die momentan dort stationierten Geschwader, zusammen mit dem Flugzeugtyp, der Anzahl und dem Status (bereit oder am Auftanken).

Am unteren Bildschirmrand können Sie sich über den Zustand der Landebahnen orientieren - in Ordnung oder "durchlöchert". Letzteres kann beim Landen schwere Verluste mit sich ziehen.

Darunter sind die Witterungsverhältnisse abzulesen. HEAVY RAIN (SCHWERER REGENFALL) bedeutet eine längere Auftankzeit. Nebel (Fog) erzwingt ein Schließen des Flugplatzes.

Zum Starten eines Geschwaders bewegen Sie den Pfeil rechts auf dem Bildschirm zu dem ausgewählten Geschwader und drücken den Feuerknopf. Die Statusanzeige lautet jetzt SCRAMBLED, und es erfolgt eine Rückkehr auf das Karten-Display.

Um den Flugplatzbildschirm zu irgendeinem Zeitpunkt zu verlassen, bewegen Sie den Joystick-Hebel nach links oder nach rechts.

Zum BEWEGEN eines Geschwaders plazieren Sie die KOMMANDO-BOX darüber und drücken den Feuerknopf. Dadurch verwandelt sich die BOX in eine Kreuzform, welches mit Hilfe des Joysticks an die Stelle gebracht werden kann, die das Geschwader anfliegen soll. Dort nochmals den Feuerknopf drücken. Dadurch nimmt die KOMMANDO-BOX wieder ihre übliche Form an, und das Geschwader fliegt an die bezeichnete Destination.

Wenn Sie sehen wollen, wohin Sie das Geschwader beordert haben, plazieren Sie die KOMMANDO-BOX auf die Einheit, worauf ein Kreuz an der Zielposition erscheint.

KAMPFGESCHEHEN
Die Royal Air Force greift jede in der Nähe befindliche Luftwaffeneinheit an (vorausgesetzt, sie hat noch Munition). Bei einer

Bei Verschieben der KOMMANDO-BOX über einen Flugplatz, eine Stadt, eine Einheit oder eine Radarstation werden der betreffende Name und alle weiteren verfügbaren Informationen in der oberen linken Bildschirmecke angezeigt.

Direkt unterhalb der Verlustanzeige befindet sich ein Feld mit 5 Angaben:

FTR:
BMB:
FUE:
AMO:
RAD:

Hier werden Informationen sowohl über Einheiten der Royal Air Force wie auch der Luftwaffe angezeigt, wenn sich die KOMMANDO-BOX darüber befindet.

FTR: Anzahl der Kampfflugzeuge in der betreffenden Einheit. Funktioniert nur, wenn die Einheit eine Landstrecke überfliegt, da der RADAR nicht zwischen Kampfflugzeugen und Bombern unterscheiden kann, und folglich einfach die Anzahl der Flugzeuge angeben würde.

BMB: Anzeige der Luftwaffen-Bomber. Hier gilt dasselbe wie bei FTR.

FUE: Anzeige der Treibstoffmenge einer RAF-Einheit. Alle RAF-Einheiten beginnen mit 115 Minuten Flugzeit. Die Anzeige wechselt in Intervallen von 5 Minuten. Im Gefecht ist der Treibstoffverbrauch höher.

Nach 30 Minuten erfolgt eine Warnung, die auf niedrigen Treibstoffvorrat aufmerksam macht; gleichzeitig verschwindet der Mittelpunkt des Rondells.

Wenn der Treibstoff einer Einheit über Großbritannien zur Neige geht, ist dieses Geschwader bis zum nächsten Tag "weg vom Fenster". Damit wird eine Notlandung woanders als auf einem Flugplatz simuliert, und obwohl die Flugzeuge nicht abgeschrieben werden müssen, sind sie in Ermangelung von Unterstützung und Treibstoff kurzfristig außer Aktion. Passiert dasselbe über dem Meer oder über Frankreich, gilt die Einheit als verloren.

AMO: Zeigt entweder 0 oder 1. 1 bedeutet, daß eine Einheit keinen Angriff unternommen hat und in Besitz von Munition ist. Nach einem Gefecht ist der Wert 0. Gilt nur für RAF-Einheiten.

RAD: Zeigt die Anzahl der Flugzeuge in der Luftwaffeneinheit, die sich über dem Meer und in einer funktionierenden Radarzone befindet.

Städte
Auf der Karte sind 15 Städte eingezeichnet, angefangen von Derby im Norden bis zu Folkestone im Südosten und Plymouth an der Südwestküste.

Radarstationen
Der englischen Küste entlang sind 13 Radarstationen installiert. Durch Drücken von R können Sie sich in jedem beliebigen Zeitpunkt den abgedeckten Radarbereich zeigen lassen. Eine zerstörte Radarstation macht sich als eine "Lücke" bemerkbar, d.h. etwaige in diesem Sektor befindliche Luftwaffen-Einheiten bleiben unentdeckt, es sei denn, es befindet sich eine RAF-Einheit direkt daneben.

Eine zerstörte Radarstation erkennen Sie daran, daß ihr Name vor einem roten Hintergrund erscheint, wenn sich die KOMMANDO-BOX darüber befindet.

Bei unserem Design der BATTLE OF BRITAIN haben wir die Bombardierung durch die Luftwaffe um einiges wirkungsvoller dargestellt als sie in Wirklichkeit war, und nicht alle Stationen berücksichtigt. Auch haben wir uns die Freiheit genommen, die Low-Level und die High-Level Radaranlagen zu einer Einheit zu verschmelzen.

Flugplätze
9 Flugplätze stehen zu Ihrer Verfügung, angefangen von COLTISHALL im Nordosten bis nach MIDDLE WALLOP direkt nördlich von Southampton. Diese repräsentieren hauptsächlich Sektor-Flugplätze, insbesondere jene, die tatsächlich von der Luftschlacht betroffen waren. Alle verwendeten Flugplätze waren Teil der Gruppen 11 oder 12.

Genau wie bei den Radarstationen haben wir auch hier bei der Bombardierung der Flugplätze einen höheren Wirkungsgrad

furchtlosen Fliegern angegriffen. Blitzkrieg ist ein rasantes Spiel, auf das Sie sich erst einlassen sollten, wenn Ihnen die Bedienungsmanöver leicht von der Hand gehen.

III) **Campaign-Spiel** - Taste 5 (4) ruft das Campaign-Menü auf. Dieses Spiel verläuft über 30 Tage der tatsächlichen Schlacht und folgt möglichst präzise der damals angewandten Strategie der Luftwaffe. Die Angriffe gliederten sich in 5 Phasen in der Zeit zwischen dem 10. Juli bis zum 31. Oktober. Im Spiel wurde eine Konzentration auf die drei Hauptphasen vorgenommen, d.h. 2, 3 und 4. Ein sorgfältiges Studium dieser Periode wird Sie in die Lage versetzen, den Programmverlauf vorherzusehen. Die Anzahl Tage wurde von 54 auf 30 verkürzt; dafür wurde die Anzahl der Opfer verdoppelt, um ein Gleichgewicht durch das ganze Spiel zu erreichen.

Das Campaign-Menü wiederum präsentiert 5 Optionen:

1. LOAD DAY (TAG LADEN)
2. SAVE DAY (TAG SICHERN)
3. START/CONTINUE CAMPAIGN
4. SPEED (GESCHWINDIGKEIT) 1/2/3
5. RÜCKKEHR INS HAUPTMENÜ

1/2 LOAD/SAVE A DAY: Da das Campaign-Spiel sich über einen langen Zeitraum erstreckt, wurde diese LADE-/SPEICHER-Funktion eingebaut, die Ihnen erlaubt, am Ende des Tages eine Pause einzuschalten und alle Daten abzuspeichern, damit Sie am nächsten Tag an der gleichen Stelle weiterfahren können.

Einen Tag speichern: Taste 2 drücken. Bitte vorher sicherstellen, ob ein leeres Band oder eine leere, formatierte Diskette eingelegt ist. Beim Arbeiten mit Kassette C drücken, bei Verwendung von Disketten D. Sobald die Prozedur abgeschlossen ist, kehrt das Spiel automatisch auf das Campaign-Menü zurück.

Einen Tag laden: Im Campaign-Menü die Taste 1 drücken. Sicherstellen, daß die richtige Kassette/Diskette eingelegt wurde. C für Kassette, D für Diskette drücken. Sobald der Tag eingelesen ist, bringt Sie das Programm ins Campaign-Menü.

4. **Starten des Campaign-Spiels**
   Die Option 3 startet entweder ein neues Spiel, nimmt die Handlung an einem bereits abgespeicherten Tag auf oder fährt an der Stelle weiter, wo Sie zuletzt angelangt waren.

5. **Geschwindigkeit**
   Im Campaign-Spiel kann die Geschwindigkeit über Option 4 eingestellt werden. Zur Wahl stehen 3 verschiedene Geschwindigkeiten, wovon 1 die langsamste ist.

5. **Rückkehr ins Hauptmenü**
   Taste 5 schaltet vom Campaign-Menü ins Hauptmenü zurück, wenn Sie eine andere Spielart wählen wollen.

Spielbeschreibung

Die Karte

Dies ist der wesentliche Spielbildschirm und auch der erste, der nach Spielstart eingeblendet wird. Der Kartenausschnitt zeigt den südlichen Teil Englands und einen kleinen Zipfel von Frankreich.

Die oberste Bildschirmzeile dient zur Anzeige von Meldungen, welche immer von einem akustischen Signal angekündigt werden. Die verschiedenen Meldungen sind durch verschiedene akustische Signale gekennzeichnet, und nach einer Weile werden Sie imstande sein, die Meldungen bereits dem Gehör nach zu identifizieren.

Die zweite Zeile des Displays ist in zwei unterteilt. Die linke Hälfte hat zwei Funktionen. Sie zeigt entweder die entstandenen Verluste für die RAF und die Luftwaffe an oder, wenn sich die COM-BOX gerade über einem Objekt befindet, den entsprechenden Namen. Die rechte Hälfte der Zeile dient zur Anzeige des aktuellen Datums und der Tageszeit.

Das kleine weiße Feld auf dem Bildschirm ist die KOMMANDO-BOX, das wesentliche Instrument im Spiel. Es dient zum Beschaffen von Informationen und zur Ausgabe von Bewegungsordern an Ihre Einheiten. Bedient wird es über den Joystick (Ausgang 2 auf dem CBM 64).

Midway airfield destroyed	Midway Landeplatz zerstört
Task force 16 carrier destroyed	Träger der Einsatztruppe 16 zerstört
Japanese/American victory	Japanischer/amerikanischer Sieg
Japanese/American carriers sunk "x"	Anzahl versenkter japan./amerikan. Träger

BATTLE OF BRITAIN

VORBEREITUNG

Nach der Ladeprozedur wird das Hauptmenü eingeblendet:

1. WITH(OUT) ACTION
2. COLOUR (NUR SCHNEIDER-VERSION)
3. CAMPAIGN
4. TRAINING GAME
5. BLITZKRIEG

1. Wahl Aktionssequenz

Mit Option 1 wählt man, ob die Schlacht um England mit oder ohne Arkadenaktion gespielt werden soll. Die vorgegebene Einstellung ist WITH ACTION. Drücken von 1 bewirkt die Einstellung WITHOUT ACTION, d.h. ohne Arkaden-Einlagen. Wenn Sie WITH ACTION gewählt haben, jedoch eine bestimmte Schlacht nicht spielen wollen, drücken Sie bei der Frage WHICH BATTLE ganz einfach die Leertaste.

2. Monochrom/Farbmonitor (Nur Schneider)

Option 2 schaltet um zwischen Farb- oder Monochrom-Bildschirm. Standardeinstellung ist Farbmonitor.

3. Spielart

Die Optionen 3, 4 und 5 (2, 3 & 4 für CBM 64) bestimmen, welche Art von Spiel gespielt wird.

I) Training Game - Übungsspiel. Drücken von 3 (2) startet das Übungsspiel. Es findet an einem relativ ruhigen Tag statt und wurde speziell zur "Einstimmung" entworfen. Es empfiehlt sich, dieses Spiel einige Male zu spielen, um sich auf diese Weise mit den Spielabläufen der Luftschlacht um England vertraut zu machen, bevor Sie sich an die Blitzkrieg oder Campaign-Spiele wagen.

II) Blitzkrieg - Taste 4 (3) startet das Blitzkrieg-Spiel. Auch hier wird ein Tag aus dem Kriegsgeschehen herausgegriffen, doch wurde die Luftwaffe so vorprogrammiert, daß Sie einen schweren Stand haben. Alle Ihre Stellungen werden von

4. Vermeiden Sie Landangriffe - das kann nur mit einem Sieg der Japaner ausgehen!

5. Maximal können stets nur zwei Fliegereinheiten auf einer Kampftruppe oder einer Airbase sein (ohne CAP). Beim Versuch, weitere Einheiten auf einem Träger zu landen, fallen diese ins Meer und sind verloren. Wenn sich bei Landung einer Einheit bereits eine andere auf Deck befindet, bricht Chaos herein!

6. Halten Sie sich stets vor Augen: Ihr vorrangiges Ziel besteht im Auffinden der japanischen Träger. Diese müssen dann wiederholt angegriffen werden, bis sie sinken. Seien Sie agressiv mit Ihren Fliegern und defensiv mit den Bodeneinheiten. Wer seine Flugzeuge schont und in Defensive geht, zieht den kürzeren.

ÜBERSETZUNG DER BILDSCHIRMTEXTE

BATTLE FOR MIDWAY	SCHLACHT UM DIE MIDWAY-INSEL
Loading - please wait	Ladeprozedur - bitte warten
Press S for Joystick	Für Steuerknüppel S drücken
Press K for keyboard	Für Tastatur K drücken
Press 1,2 or 3 to select game level	Spielstufe mit 1, 2 oder 3 einstellen
Press 1,2, 3,4,5 or 6 to select game speed	1,2,3,4,5 oder 6 für Spielgeschwindigkeit drücken
Press P to play	Zum Spielen P drücken
Press R to reselect	Zum Neuwählen R drücken
Press B to load old game	Zum Laden eines früheren Spiels B drücken
Press S to save game	Zum Speichern des Spiels S drücken
Refer to manual	Im Handbuch nachschlagen
No.	Nr.
Type	Typus
Name	Name
Aircraft	Flugzeug
Dam(age)	Schaden

C.A.P. on deck	C.A.P. auf Deck
C.A.P. is airborne	C.A.P. in der Luft
Press L to launch	Zum Starten L drücken
Press K to land	Zum Landen K drücken
Launching under way	Landung im Gange
Ready to land	Bereit zum Landen
Air unit arming	Lufteinheit wird bewaffnet
Air units	Lufteinheiten
Task force 16	Einsatztruppe 16
Fighters	Kampfflugzeuge
Dive bombers	Tauchbomber
Torpedo bombers	Torpedobomber
Heavy bombers	Schwere Bombenflugzeuge
Bombs loaded	Bomben geladen
Bombs gone	Bomben abgeworfen
Flying time left "x' minutes	Restliche Flugzeit: "x" Minuten
Low fuel warning - flying time left minutes	Treibstoff knapp Warnung noch verbleibende Flugzeit: 60 60 Minuten
Fuel gone - crashing into sea	Treibstoff alle - Sturzflug ins Meer
(Midway island) Air alert	Luftalarm
Sea alert	Seealarm
Japanese fleet (air alert)	Japanische Flotte (Luftalarm)
American fleet (air alert)	Amerikanische Flotte (Luftalarm)
Gun destroyed by direct hit	Kanone durch direkten Treffer zerstört
U.S. Search plane	Amerikanisches Suchflugzeug
Shells in flight	Geschosse im Flug
Range long	Fernbereich
Range short	Nahbereich
Airfield	Flugplatz
U.S. Base Midway Island	Amerik. Basis, Midway-Insel

Nach Ablauf von 10 Spielminuten sollten Sie zu der Einheit zurückkehren und nochmals AIR PLOT wählen. So können Sie sich vergewissern, daß C.A.P. (zum Beispiel) in der Luft und das Dack frei geworden ist.

FLUGZEUG-TREIBSTOFF UND STATUS

Mit Ausnahme der C.A.P. können alle Flugzeugeinheiten genau wie die Schiffe manövriert und gesteuert werden. Durch Anfordern eines REPORTS kann man sich über den Status der Fliegereinheit und die Anzahl der Flugzeuge orientieren. Ferner gibt es die Meldungen BOMBS LOADED (geladen) und BOMBS GONE (abgeworfen) und die noch verbleibende Flugzeit. Voraussetzung für einen Angriff durch eine Fliegereinheit ist der Status BOMBS LOADED. Eine Warnung erscheint, wenn die Einheit nur noch 60 Minuten Flugzeit hat. Eine gelandete Fliegereinheit wird nach 40 Minuten automatisch aufgetankt und neu bewaffnet.

FLUGZEUGE LANDEN

Manövrieren Sie die betreffende Fliegereinheit neben eine Trägerflotte oder die Midway-Basis, fordern Sie den AIR PLOT für die vorgesehene Landeeinheit an und drücken Sie K.

AUFKLÄRUNGSFLÜGE

Die Aufklärungsfliegereinheiten (gelbes Quadrat/schwarzes Flugzeug auf CBM, braunes Quadrat/weißes Flugzeug auf Schneider) wie gehabt mittels der COM-BOX bewegen. Das große Quadrat stellt den Deckungsbereich dar. Etwaige innerhalb dieses Bereichs befindliche Feindeinheiten sind als rote Quadrate mit einem J (CBM) bzw. als weiße J's (Schneider) markiert. Steuern Sie dann die COM-BOX über die feindliche Einheit und drücken Sie R für Report. Dies bewirkt Einblenden einer Ansicht aus der Luft der japanischen Einheit. Ein Blick ins das UNIT BOOK gibt Auskunft darüber, mit was für einer Flotte Sie es zu tun haben. Tip: die einfachste Methode ist durch Zählen der Flugzeugträger.
Für ein Umsteigen auf den Karten-Modus die Leertaste drücken.

ANGRIFFE

Für einen Angriff auf eine feindliche Einheit manövrieren Sie eine Ihrer Einheiten direkt daneben. Dabei beginnen beide Einheiten zu "blinken". Dasselbe passiert auch, wenn der Feind eine Ihrer Einheiten angreift.

In dieser Situation wird das Kampfgeschehen arkadenmäßig umgesetzt, mit Spielablauf in Echtzeit und unter aktiver Mitwirkung Ihrerseits... sei es durch Feuern von Flugabwehrkanonen oder schweren Schiffsgeschützen.

Hinweis: Es ist auch möglich, die Flugabwehrkanonen auf eigene Flugzeuge zu richten, solange diese japanische Ziele angreifen. Dieses Feature wurde als Konzession für schießwütige Ballerspiel-Fanatiker beibehalten, die auf alles feuern, was sich bewegt!

TAG & NACHT

Wenn der Zeiger der Uhr auf 1900 rückt, fällt die Dunkelheit ein, und die Aufklärungsflugzeuge verschwinden aus der Karte. Nachts können weder Aufklärungsflüge durchgeführt noch Flugzeuge gestartet werden. Hingegen können bei Dunkelheit ankommende Flugzeuge landen. Nachts verfliegt die Zeit doppelt so schnell wie tagsüber, und um 0400 morgens ist Tagesanbruch.

SICHERN/LADEN/VERLASSEN (SAVE/LOAD/QUIT)

Innerhalb des Karten-Modus kann das Spiel jederzeit verlassen oder der momentane Spielstand abgespeichert werden. Zum Anfordern des erforderlichen Menüs drückt man auf dem CBM F1 und auf dem Schneider ESC.

Zum Abspeichern eines Spiels drücken Commodore-Besitzer C bei Verwendung von Kassette und D für Diskette. Hinweis: Bitte eine leere, formatierte Diskette einlegen. Pro Diskette kann nur eine Spielposition abgespeichert werden.

GRUNDLEGENDE TAKTIK (WIE MAN GEWINNT)

1. In Anlehnung an die Geschichte kommt es zu einer Kapitulation und einem Rückzug der Japaner, wenn die vier Flugzeugträger der Ersten Mobilen Flotte versenkt werden.

2. Sofort bei Tagesanbruch ist die C.A.P. zu starten.

3. Holen Sie Ihre Fliegereinheiten nach einer Attacke sofort zurück auf den Boden. Überwachen Sie den Treibstoffvorrat ständig.
Hinweis: Die Fliegereinheit 1 auf Midway umfaßt schwere Bomber, die nicht auf Trägern landen können.

Farbe	Symbol	Einheit
Weiß	1	T.F.16 (US Flotte)
Weiß	2 oder Z	T,F,17 (US Flotte)
Gelb	Flugzeug	US Suchflugzeuge
Weiß	Flugzeug	US Angriffsflugzeuge
Braun	Feld	US Suchzone
Rot	J	Japanische Flotte
Rot	Flugzeug	Japanisches Kampfflugzeug

Mit "Farbe" ist hier stets die Hintergrundfarbe gemeint; die Symbole selbst sind schwarz.

DAS UNIT BOOK

Innerhalb des Karten-Modus können Sie Einsicht in das Unit Book (Einheiten-Buch) nehmen, welches die amerikanischen und die japanischen Streitkräfte bei Spielbeginn zeigt. Es empfiehlt sich, aus der Luft die Identiäten der verschiedenen japanischen Flottenabteilungen zu ermitteln.

Taste 1:	US T.F.16
Taste 2:	US T.F.17
Taste 3:	US Stützpunkt Midway-Insel
Taste 4:	1. japanische mobile Flotte
Taste 5:	Japanische Hauptstreitmacht
Taste 6:	Japanische Besetzungsmacht

Die Codes zur Kennzeichnung der Schiffstypen basieren auf denen der amerikanischen Flotte. Diese und weitere Codes werden im EINHEITEN-BUCH und in den REPORTEN verwendet. Hier eine Aufschlüsselung:

CODE	EINHEITEN-TYP
AV	Seaplane Tender
AP	Truppentransport
BB	Schlachtschiff
CA	Schwerer Kreuzer
CL	Leichter Kreuzer
CV	Flugzeugträger
CVL	Leichter Flugzeugträger
DD	Zerstörer
F	Kampfflugzeug

D	Tauchbomber
T	Torpedo-Bomber
R	Aufklärungsflugzeuge
HB	Schwere Bombenflugzeuge

Einsichtnahme in das UNIT BOOK bewirkt einen kurzfristigen Stillstand des Spielgeschehens. Zum Weitermachen die LEERTASTE drücken.

REPORTE

Steuern Sie die COM-BOX auf eine Ihrer eigenen (amerikanischen) Einheiten - einschließlich Midway. Dabei wechselt die Box ihre Farbe auf BRAUN (CBM-Versionen) bzw. auf ROT (Amstrad). Jetzt R drücken. Das Display zeigt die Schiffe und Flugzeuge in der betreffenden Einheit. Zur Rückkehr auf den Karten-Modus die Leertaste drücken.

EINE EINHEIT BEWEGEN

Die COM-BOX auf eine Ihrer Einheiten fahren (Hinweis: Die Midway Insel kann nicht bewegt werden!). Sobald sie ihre Farbe ändert (wie unter REPORTE beschrieben), den Feuerknopf drücken. Dabei wird die COM-BOX auf dem Commodore grün, auf dem Amstrad hellblau. Steuern Sie die COM-BOX an die gewünschte Destination und drücken Sie erneut den Feuerknopf, worauf sich die Einheit in Bewegung setzt. Denken Sie daran, daß sich Schiffe langsamer bewegen als Flugzeuge!

FLUGZEUGE STARTEN

Cursor auf eine Ihrer Flotteneinheiten oder auf der Midway Insel plazieren und P drücken. Der Bildschirm zeigt den AIR PLOT für die Einheit, d.h. welche Lufteinheiten vorhanden sind und ihren aktuellen Status. Es können nur solche Einheiten gestartet werden, die ON DECK sind. In den meisten Fällen zeigt das Display auf Deck auch C.A.P. Dies ist Ihre COMBAT AIR PATROL - eine Gruppe von Kampfflugzeugen, die zur Verteidigung einer Einheit eingesetzt werden, und nicht für Offensiven gegen den Feind. Die Manövrierbarkeit der C.A.P.s ist auf Start und Landung beschränkt.

Zum Starten eines Flugzeugs dient die Taste L. Dabei wird auf dem Bildschirm die Meldung "LAUNCHING UNDERWAY" eingeblendet, und es erfolgt eine automatische Umstellung auf den Karten-Modus.

BATTLE OF BRITAIN

Zwischen Juni und Oktober 1940 unternahm die deutsche Luftwaffe den Versuch, die Lufthenschaft auf Kosten der Engländer an sich zu reißen, als Preludium, sozusagen, für die geplante Landung in England, die unter dem Namen "Seelöwe" lief. Das Spiel simuliert die Verteidigung durch die englischen Luftstreitmächte und ernennt Sie zum Befehlshaber über 18 Kampfflugzeuggeschwader.

Das Spielkonzept wird dem erfahrenen Strategisten und dem Anfänger gleichermaßen gerecht. Für den Experten haben wir einen "Feldzug" miteingeschlossen, der soweit wie möglich eine getreue Darstellung der tatsächlichen Geschehnisse auf den Bildschirm zaubert; eher als eine Einstimmung für Anfänger gedacht ist das Übungsspiel und eine "Blitzkrieg"-Version, in denen eine Reihe von Elementen aus Arkadenspielen für Abwechslung sorgen. Fanatische Joystick-Arkadenartisten haben wir auch nicht vernachlässigt: eigens für sie wurden WAHLWEISE Sequenzen vorgesehen, in denen der Spieler mit einem Kampfflugzeug aktiv in die Luftschlacht eingreifen oder Flaks auf Bodenstationen bedienen kann.

Beide Spiele laufen in Echtzeit und können vollständig über Joystick bedient werden.

LADEANLEITUNG

Für beide Spiele gelten die gleichen Ladebefehle:

COMMODORE 64/128 - KASSETTE

Vergewissern Sie sich, daß das Band vollständig zurückgespult ist, und drücken Sie dann gleichzeitig SHIFT und RUN/STOP.

COMMODORE 64/128 - DISKETTE

Geben Sie diesen Befehl ein:
LOAD "BOB",8,1 und RETURN (Battle of Britain)
LOAD "BFM",8,1 und RETURN (Battle for Midway)
Nach Anzeige der Systemmeldung READY schreiben Sie RUN und drücken RETURN.
(Hinweis: Bitte Joystick in Ausgang 2 einstecken)

AMSTRAD/SCHNEIDER CPC - KASSETTE

Vergewissern Sie sich, daß das Band vollständig zurückgespult ist, und drücken Sie dann die beiden Tasten CTRL & ENTER gleichzeitig.

AMSTRAD/SCHNEIDER CPC - DISKETTE

Schreiben Sie RUN "BOB" (Battle of Britain)
Schreiben Sie RUN "BFM" (Battle for Midway)
gefolgt von ENTER.

BATTLE FOR MIDWAY

VORBEREITUNG

Nach Abschluß des Ladevorgangs haben Sie die Auswahl unter 3 Spielstufen.
Stufe 1 ist die einfachste. Hier werden die Routen der japanischen Flotte auf dem Bildschirm angezeigt.
Auf Stufe 2 schlagen die Japaner einen ähnlichen Weg ein, der jedoch nicht sichtbar ist. Diese Spielstufe kommt den tatsächlichen Ereignissen am nächsten.
In Spielstufe 3 wird angenommen, daß die Japaner in Erfahrung gebracht haben, daß ihr Code von den Amerikanern entschlüsselt wurde, was sie dazu bewegt, eine Falle zu stellen.

Sie haben auch die Wahl unter 6 verschiedenen Spielgeschwindigkeiten. Bei der schnellsten (1) entsprechen 3 Sekunden Echtzeit 10 Minuten Spielzeit, bei der langsamsten (6) beanspruchen die gleichen Spielmanöver 30 Sekunden Echtzeit.

DER KARTENMODUS

Nach Installation des Spiels leert sich der Bildschirm, und es wird die Hauptkarte angezeigt. Am oberen Bildschirmrand befindet sich eine 24-Stunden Uhr. Etwa in der Mitte der Karte erkennen Sie die Midway-Insel. Auf Spielstufe 1 sind außerdem die Fahrtrouten der japanischen Flotte eingezeichnet.

Ferner enthält der Bildschirm ein weißes Quadrat, die COM BOX. Diese kann mit dem Joystick auf dem Bildschirm umhergesteuert werden und dient dazu, den Einheiten Befehle zu erteilen.
Auf der Karte können die folgenden Symbole auftauchen:

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EINFÜHRUNG

Bei vielen Arkadenspielen setzt man sich vor den Computer, lädt das Programm, nimmt den Joystick in die Hand, und dann kann ohne viel Federlesens losgeballert werden. Die Spielregeln kriegt man so nebenbei mit. Die vorliegenden PSS Spiele gehören nicht zu dieser Kategorie. Obwohl keines der beiden übermäßig komplex ist, möchten wir Ihnen empfehlen, vor Spielbeginn von BATTLE FOR MIDWAY und BATTLE OF BRITAIN die folgenden Beschreibungen sorgfältig zu studieren. Dies wird den Lernprozeß um einiges vereinfachen und Ihr Spielvergnügen erhöhen.

BATTLE FOR MIDWAY

In dieser Simulation geht es um die Seeschlacht bei den Midway-Inseln, in der sich die amerikanische und die japanische Kriegsmarinen im Juni 1942 gegenüberstanden. Sie übernehmen die Rolle des amerikanischen Oberbefehlshabers, der die Aufgabe hat, die Einnahme der Inseln durch die Japaner zu verhindern und möglichst viele ihrer Flugzeugträger zu vernichten. Ihre Hauptkriegsschiffe sind die Träger Enterprise, Hornet und Yorktown. In den Worten des damaligen amerikanischen Commander-in-Chief: "Diese drei Träger sind alles, was zwischen der japanischen und der amerikanischen Küste steht".

Das Spiel kann auf drei verschiedenen Schwierigkeitsstufen gespielt werden, wobei Stufe 2 der Realität am nächsten kommt. Sie haben auch die Möglichkeit, die Spielgeschwindigkeit beliebig einzustellen, was Ihnen die Chance gibt, sich mit den Abläufen vertraut zu machen und die verschiedenen Strategien durchzuexerzieren.

Damit die Arkaden-Freaks nicht zu kurz kommen, haben wir auch mehrere Echtzeit-Sequenzen eingebaut, die zum einen eine optische Darstellung der wichtigsten Phasen liefern und zum andern dem Joystick-Artisten zusätzlichen Spielraum geben.

INHALTSVERZEICHNIS

		Seite
Einführung		2
Battle for Midway - Szenario		2
Battle of Britain - Szenario		3
Ladeanleitung		4
Battle for Midway - Das Spiel		
(i)	Vorbereitung	4
(ii)	Der Kartenmodus	4
(iii)	Das Unit Book	5
(iv)	Reporte	6
(v)	Eine Einheit bewegen	6
(vi)	Flugzeuge starten	6
(vii)	Flugzeugtreibstoff und Status	7
(viii)	Flugzeuge landen	7
(ix)	Aufklärungsflüge	7
(x)	Angriffe	7
(xi)	Tag und Nacht	8
(xii)	Sichern/Laden/Verlassen (Save/Load/Quit)	8
(xiii)	Grundlegende Taktik	8
(xiv)	Übersetzung der Bildschirmtexte	9
Battle of Britain - Das Spiel		
(i)	Vorbereitung	12
(ii)	Aktionseinlagen	12
(iii)	Monochrom/Farbmonitor	12
(iv)	Spielart	12
(v)	Übungsspiel	12
(vi)	Blitzkrieg	12
(vii)	Campaign-Spiel	13
(viii)	Laden/Sichern (Load/Save)	13
(ix)	Kartenbildschirm	14
(x)	Städte	16
(xi)	Radarstationen	16
(xii)	Flugplätze	16
(xiii)	Geschwader	17
(xiv)	Starten/Bewegen eines Geschwaders	18
(xv)	Kampfgeschehen	18
(xvi)	Landen	19
(xvii)	Resupply Screen	19
(xviii)	Pause	20
(xix)	Taktik	20
(xx)	Übersetzung der Bildschirmtexte	21

Mercenary—Spielbeschreibung

In Mercenary spielst Du die Rolle eines Soldaten des Schicksals im 21. Jahrhundert, der auf dem von Aufruhr geschüttelten Planeten Targ gestrandet ist. Dein intergalaktisches Raumschiff Prestinium ist total zerstört und nicht mehr zu reparieren.

Die Handlung konzentriert sich hauptsächlich auf die wichtigsten bewohnten Gebiete des Planeten Targ, die nach dem mehrjährigen Krieg zwischen den Mechanoiden, einer fremden Roboterrasse, die Macht mit Gewalt an sich gerissen hat, und den ursprünglichen Targ-Bewohnern, den friedlichen Palyaren, so gut wie verlassen sind. In diesen ständigen Konflikt wirst Du höchstwahrscheinlich verwickelt.

Du mußt nun versuchen, von dem Planeten zu fliehen—aber erst gilt es, die Mittel zu entdecken, mit denen eine Flucht möglich wird. Dies kann auf verschiedenen Arten geschehen, je nachdem, wie Du das Spiel anpackst. Wie und wann du fliegst, liegt ganz an Dir. Aber je mehr Erfahrung Du im Besiegen des Systems hast, desto mehr Kriegsbeute willst Du wohl mitnehmen.

Deine einzige Hilfe ist Benson, der in Deinen Helm eingebaute Personal Computer der neunten Generation. Benson zeigt Dir Deine Leitsysteme und stellt die Lage aus Deiner Sicht in drei-dimensionaler Vektorgrafik dar. Außerdem ist Benson in der Lage, eine Anzahl von Objekten, die Du auf dem Planeten finden kannst, zu identifizieren und in Deinen Besitz zu bringen. Viele werden zur Flucht nützlich sein.

In einer weiten Umlaufbahn um Targ befindet sich die Kolonieschiffes der Palyaren, wo die paar Überlebenden dieser einst stolzen und friedliebenden Rasse ihre Rachepläne gegen die Mechanoiden schmieden.

Wie kannst Du nun fliehen? Deine Freunde sind außer Reichweite, es gibt keine Möglichkeit, sie um Hilfe zu rufen. Und bei Deinem Geschäft kosten Freunde Geld. Und davon hast Du im Moment nicht viel. Und nun legst du los.....

Flucht aus Targ

In diesem, dem ursprünglichen, Mercenary-Spiel befindest Du Dich anfangs in einer günstigen Position in der Central City. Von hier aus machst Du Dich daran, die Geheimnisse des Targ zu erforschen. Wir schlagen vor, daß Du zuerst dieses Spiel gründlich kennen und verstehenlernst, bevor Du zum nächsten Übergehst.

Die Zweite Stadt

Ganz bestimmt kein Ort für Anfänger! Dieses zusätzliche Datenset zum Originalspiel ist so konzipiert, daß es selbst für versierte Mercenary-Spieler eine echt harte Herausforderung darstellt.

Wieder bist Du gestrandet, aber diesmal in der unheimlichen roten Dämmerung der südlichen Targ-Hemisphäre. Du bist in der Zweiten Stadt. Hier werden in einer Verschwörung zur Verhinderung Deiner Flucht wirklich alle Register gezogen. Du siehst Dich Schwierigkeiten ganz neuer Art gegenüber, und alles ist ganz anders, als es scheint.

VIEL GLÜCK!

WARNUNG: VERSIERTE ABENTEURER SOLLTEN DIES LIEBER NICHT SOFORT LESEN

Hilfreiche Tips—Flucht aus Targ

Um mit dem Selbstverständlichen anzufangen: Zuerst solltest Du die ganze Anleitung sorgfältig durchlesen, da sie Hinweise enthält. Ein gewissenhafter Geflüchteter wird sich auch merken, was er bei seinen Erkundungen entdeckt hat.

Wo soll man also anfangen? Als Anfänger befolgst Du am besten Bensons Tip und kaufst den praktischen Dominion-Pfeil. Damit kannst Du ohne Hindernisse überall hinfliegen und riskierst auch beim Absturz keine Strafen!

Die Oberflächenstruktur ist von Höhen unterhalb 500 m aus zu erkennen, aber am besten kann man sie aus einer Flughöhe von weniger als 100 m einschätzen. Du mußt lernen, mit Hilfe des Kompasses und Bensons äußerst hilfreicher Positionsanzeige zu navigieren. Das Stadtgebiet befindet sich innerhalb der Koordinaten 0-15 x 0-15. Aber vergiß nicht, auch das Ödland zu erkunden, denn auch dort draußen gibt es interessante Stellen.

Du kannst wahrscheinlich nicht lange widerstehen und willst einfach zuschlagen. Feuerst Du auf die Basis von Bodeneinrichtungen, so löst Du einen spektakulären Einsturz aus. Später kannst Du vielleicht 'die Uhr zurückstellen' und ein paar Reparaturen ausführen. Aber vorläufig ist es zu spät, Dein Angriff wurde entdeckt. Ob ein Palyar oder ein Mechanoid zurückschlägt, hängt davon ab, wer den Ort beherrscht, auf den Du losgeschlagen hast. Noch etwas? Es gibt eine andere Art, festzustellen, in wessen Besitz der Ort sich befindet.

Nun bist Du bereit, mit einem Aufzugskäfig in den Untergrund zu gehen. Du wählst den Käfig auf Position 09.06, da Dich die Palyaren mit dem versprechen einer lukrativen Beschäftigung dorthingeschickt haben. Verlasse Dein Fahrzeug und erkunde den Komplex zu Fuß, nächstes Ziel: die Einsatzzentrale der Palyaren.

Bei Deinen Erkundungen wirst Du des öfteren vor verschlossenen Türen stehen. Es gibt 'Schlüssel' in passenden Formen, aber sie sind fast nie zue Hand. Es gibt auch Türen mit speziellen Markierungen. Diese führen in Transporträume, die eine geschickte Art der Fortbewegung darstellen. Einige davon (die, die mit einer Diagonale gekennzeichnet sind) gehen nur in eine Richtung. Andere Verbindungen (scheinbar für beide Richtungen) erscheinen recht unzuverlässig. Die verschiedenen Arten von Transporträumen sind mit Farben kodiert, aber nur von innen. Diese Verbindungen sind ein Mittel, um in alle sieben Hangar-Untergrundkomplexe zu gelangen.

Bist Du nun bereit, zur Kolonieschiffes der Palyaren, dem Pünktchen am Himmel, aufzusteigen? Sollte Dein Raumschiff nicht die zusätzliche Leistungskraft besitzen, die nötig ist, um dorthin zu gelangen, dann hast Dubestimmt etwas wichtiges übersehen. Anderfalls schwingst Du Dich auf 65.000 m Höhe hinauf, und da ist es!

Nun rackerst Du Dich also ab, um Reichtümer anzusammeln. Vielleicht willst Du die Flucht von Targ ja mit Geld erkaufen. Das ist eine gute Übung, und mit der Game-Save-Einrichtung, die die Dinge wesentlich vereinfacht (bevor das Geld den Besitzer wechselt), ist dies durchaus möglich—warum also nicht. Wenn man Targ jedoch genau erkundet, so erhält man schließlich ein kostenloses Gefährt. Oder wie wär's mit der 'besonderen Dankbarkeit' der Palyaren? Hier geht es nicht nur darum, zu fliehen, obwohl allein das schon eine Leistung ist. Als richtiger Mercenary-Soldat möchtest Du soviele Besitzümer wie möglich mitnehmen. 1.909.000 CR ist das Maximum von Central City; 9.000.000 von der Zweiten Stadt!

Ein nicht hilfreicher Tip—Die Zweite Stadt
Dreieckige Tore, die immer wieder an interessanten Stellen auftauchen, erlauben den Zugang zum 'Schummelzimmer' des Autors. Aber leider hat er den Schlüssel!

BEDIENUNG

Bedienungsanleitung siehe Tastatur-Übersicht

Bensons Steuerfeld

WINKEL Zeigt die Flugposition auf/ab in Bezug auf die Horizontale auf.

KOMPASS Zeigt ständig die Richtung in der Waagrechten auf.

HÖHENLAGE Gibt die Flughöhe in Meter an.

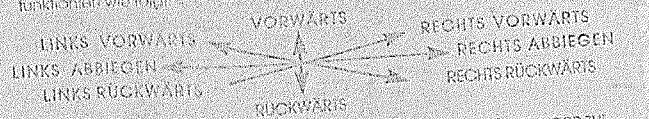
TEMPO Gibt die Fortbewegungsgeschwindigkeit in einem Fahrzeug an.

ORTUNG Während Du Dich auf oder über der Targ-Oberfläche befindest, wird Deine Koordinatenposition in Bezug auf eine der Städte wie folgt angegeben. Schwarze Zahlen 00-99 (von West nach Ost) x 00-99 Schwarze Zahlen (von Nord nach Süd) Rote (oder hervorgehobene) Zahlen zeigen eine Negativkoordinate an. zeigt an, daß Du Dich außerhalb des Koordinatenbereichs befindest.

Benson liefert die Information und leitet die eingehenden Nachrichten zum Kommunikationsfeld weiter. Ist Benson in Kommunikationsmode, so wirst Du ab und zu um eine Antwort gebeten. Für JA drückst Du 'J', andernfalls wird angenommen, daß Deine Antwort NEIN lautet. Verschiedene Benson-Modelle haben noch zusätzliche Zustandsanzeigen.

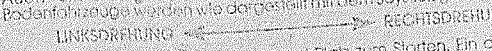
Gehen

Das gehen wird mit Hilfe des Joysticks gesteuert, die Richtungssteuerung funktioniert wie folgt:

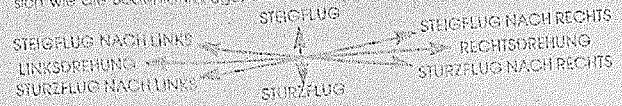


Verkehrsmittel

Es stehen zwei Arten von Bodenfahrzeugen und drei Arten von Flugzeugen zur Verfügung, die sich durch ihre verschiedenen Fähigkeiten unterscheiden. Sie funktionieren mit verschiedenen Geschwindigkeiten und Feinabstimmung sowohl vorwärts als auch rückwärts. Die Flugzeuge können auch schweben. Auch ein Intergalaktisches Raumschiff steht zur Verfügung. Die Bodenfahrzeuge werden wie dargestellt mit dem Joystick gesteuert.



Die FLUGZEUGE benötigen ausreichend Platz zum Starten. Ein allzu heftiges Landen führt zu einer Bruchlandung. Auf dem Boden gelandet bewegen sie sich wie die Bodenfahrzeuge, die Lenkung während des Flugs ist wie folgt:



Aufzüge

Untergrundkomplexe sind von der Oberfläche her zugänglich. Man stellt einen dreiseitigen Käfig auf die Oberfläche, und stellt sich selbst oder sein Fahrzeug in diesen Käfig auf die Oberfläche, bevor man den Aufzug betätigt (siehe Tastatur-Übersicht).

Auch auf der Oberseite der 'Himmelsstadt' Kolonieschiffes befindet sich ein Eingang zum Aufzug. Man stellt sich auf das quadratische Feld neben der Landebahn, um nach unten in die Flugzeughalle zu gelangen.

Kampf

In jedem Fahrzeug außerhalb des Hangars drückt man den Feuerknopf des Joysticks, um ein Geschoß abzufeuern. Um die Bodeneinrichtungen zu zerstören, zielt man auf deren Basis ab. Ein eventueller Angriff auf Dich ist erbarmungslos. Gelingt es Dir nicht, das gegnerische Gefährt außer Gefecht zu setzen, so wird es Dich schließlich bis zum bitteren Ende ins Feuer nehmen.

Objekte

Unter der Benson-Steuerung kann eine Anzahl von Objekten aufgehoben und mitgetragen werden. Nicht alle sind jedoch nützlich. Man kann bis zu 10 Objekte gleichzeitig bei sich tragen. Die Objekte werden in umgekehrter Ordnung gestapelt, das zuletzt aufgehobene Objekt wird zuerst losgelassen.

Verlassen des Spiels

Mercenary kann theoretisch ewig weitergehen. 'Getötet' wirst Du nie. Du wirst jedoch bestraft, wenn Dein Gefährt von einem Geschoß getroffen wird. Dadurch, und durch andere Zwischenfälle, kannst Du Dich gezwungen sehen, zu Fuß zu gehen möglicherweise stundenlang- um ein Gefährt wiederzuerlangen oder Untergrunkomplex zu erreichen. Es gibt noch weitere hoffnungslose Situationen.

Man kann jedoch aus dem Spiel aussteigen (siehe Tastatur-Übersicht). Dadurch gerät man wieder in die City zurück und erhält ein neues Fahrzeug. Eine Strafe gibt es jedoch – alle Objekte, die man angesammelt hat, werden in der Gegend verstreut.

LADEANWEISUNG FÜR MERCENARY

puter ist Steuerknüppelanschluß 2, für Plus/4 Anschluß 0 zu
Vorgaben auf dem Kassettenetikett überprüfen und die
sprechenden Formatseite oben in das Gerät legen.
<SHIFT> und <RUN/STOP> gleichzeitig drücken. (Plus/4: LOAD
dann die <RETURN> Taste betätigen.)
entsprechend die Taste <PLAY> am Kassettengerät
Mercenary' wird mit NOVALOAD im Schnellauf geladen und
matisch an.
Kassettengerät drücken und in der niedergedrückten
gehen. Den <START> Knopf am Computer niederhalten und
schalter einschalten. Nach Ertönen des Piepsignals
drücken.
Disketten-Laufwerk : TAPE tippen (Anmerkung : =
RUN" tippen und <RETURN> drücken. Die Taste <PLAY> am
gerät betätigen und eine beliebige Tastatur-Taste drücken.

SPIELSPEICHERUNG

Targ' als auch bei 'Die Zweite Stadt' kann man ein laufendes
um an aktuellen Ort später wieder aufnehmen.
dazu die Mercenary-Programmkassette entfernen und eine
kassette einlegen.
<S> gleichzeitig drücken.
mit: SPEICHERN VON DATEI 0-9?
Buchstaben 0 und 9 zur Kennzeichnung der gespeicherten Datei

mit: DIE RETURN TASTE
die Speicherkassette richtig eingeschoben ist.
Benson mit: SPIEL SPEICHERN? 'J' drücken und dann wie unten

<RECORD> am Kassettengerät gleichzeitig drücken.
<RETURN>, um das Spiel zu speichern.
anderen Tasten führt zu einem Abbruch des Speichervorgangs
Fehlerzustand, der Sie nach Ablauf einer Wartezeit wieder an
Spielpunkt zurückführt.

RÜCKLADEN EINES GESPEICHERTEN SPIELS

Ein gespeichertes Spiel kann an jedem beliebigen Spielpunkt (nach Ablauf der anfänglichen 'Absturzszene') mit nachstehendem Vorgang rückgeladen werden:

<CNTRL> und 'L' gleichzeitig drücken.

Benson antwortet mit: VON DATEI 0-9?

PDie erwünschte Dateinummer eingeben.

Benson antwortet mit: DIE RETURN TASTE

Sicherstellen, daß die Speicherkassette richtig eingeschoben ist.

(Bei Atari antwortet Benson mit: SPIEL LADEN? 'J' drücken und dann wie unten weiterfahren.)

<PLAY> am Kassettengerät betätigen und <RETURN> drücken, um das Spiel zu laden.

Anmerkung: Bei nicht eingebauten Kassettengeräten können Schwierigkeiten auftreten. Die für Ihre Ausrüstung erforderliche Lautstärken-Einstellung muß unter Umständen versuchsweise ermittelt werden. Bei erfolglosem Ladevorgang werden Sie nach Ablauf einer Wartezeit zum ursprünglichen Spiel zurückversetzt.

LADEN VON 'DIE ZWEITE STADT'

Ihre mit'Die Zweite Stadt' bespielte Kassette ist als 'gespeichertes Spiel' aufgebaut.
Zunächst die Kassette 'Flucht aus Targ' laden.
Nach Ablauf der anfänglichen 'Absturzszene' die Kassette der 'Zweite Stadt' mit der entsprechenden Formatseite oben in das Kassettengerät legen.
Die Kassette von vollständig zurückspulen.
Der weitere Vorgang zum Laden eines gespeicherten Spiels ist wie oben aufgeführt.
Auf Benson Frage: SPEICHERN VON DATEI 0-9? antworten Sie mit 0. (Bei Atari mit 'J').

Anmerkungen: Das Speichern von Kassetten auf Diskettenformat und umgekehrt sowie von anderen Computer oder Sprachversionen ist nicht möglich.
Gespeicherte Spiele aus 'Flucht aus Targ' und 'Die Zweite Stadt' können nicht untereinander ausgetauscht und von einem zum anderen geladen werden.

TASTATUR-ÜBERSICHT

Befehlstasten—wo zwei angegeben sind, müssen beide gleichzeitig gedrückt werden		Anmerkungen & Abweichungen
JA antworten	J	Bei Ausbleiben einer Antwort wird 'NEIN' angenommen
Fahrzeug betreten	B	Von der Fahrzeugmitte aus
Vorwärtsgeschwindigkeit	1-9	0 = Höchstgeschwindigkeit
Rückwärts-geschwindigkeit	<SHIFT>0-9	
Beschleunigung	+	Schneider→ ; Atari >
Verzögerung	–	Schneider← ; Atari <
Spielunterbrechung	<SPACE>	Um an Ort und Stelle zu schweben
Fahrzeug verlassen	V	
Aufzug bedienen	A	Von der Mitte des Bodenkäfigs oder der Abflugrampe des Kolonieschiffs aus oder im Hangar
Gegenstand nehmen	N	Von der Mitte aus aufnehmen
Gegenstand fallenlassen	F	
Spielabbruch	<CNTRL>Q	Schneider: <CNTRL><ESC>
Spiel speichern	<CNTRL>S	
Spiel rückladen	<CNTRL>L	

GALACTIC CONQUEROR
by TITUS

1- Computer loading instruction :

CBM 64 /128 CASSETTE.
On Commodore 128, type : GO64, then press SHIFT and RUN/STOP keys together.
On Commodore 64 and SX64, turn on your screen, verify that there's no cartridge plugged into your computer. Turn on your computer, insert the GALACTIC CONQUEROR cassette in your recorder and press SHIFT and RUN/STOP keys together.

CBM 64/128 DISK.
On Commodore 128, type : GO64, then : LOAD»*»,8,1.
On Commodore 64 and SX64, turn on your disk drive, then your monitor, verify that there's no cartridge plugged into your computer. Turn on your computer and insert the GALACTIC CONQUEROR disk into your disk and type : LOAD»*»,8,1.

SPECTRUM CASSETTE.
Type LOAD»*» and press ENTER keys. Press PLAY on your recorder.

SPECTRUM +2 CASSETTE.
Turn on your monitor and your computer. Insert your GALACTIC CONQUEROR cassette in your recorder and press ENTER key.

SPECTRUM +3 DISK
.Turn on your monitor and your computer. Insert your GALACTIC CONQUEROR disk in your disk drive and press ENTER key.

AMSTRAD CPC CASSETTE.
Turn on your computer, and press CTRL and SMALL ENTER keys. Press PLAY on the cassette recorder.

AMSTRAD CPC DISK
.Turn on your computer, insert your GALACTIC CONQUEROR disk in your disk drive and type RUN»GC» and press ENTER.

WARNING :
The GALACTIC CONQUEROR disk must not be write protected, and do not remove the disk while in use.

2- CONTROLS :

The Galactic fighter is controlled either by the joystick or the keyboard.

Commands will be interpreted as follows :

Amstrad CPC:

UP	lose altitude
DOWN	gain altitude
LEFT	turn left
RIGHT	turn right
SPACE BAR	FIRE

Spectrum:

Q	(UP)	lose altitude
A	(DOWN)	gain altitude
Z	(LEFT)	turn left
X	(RIGHT)	turn right
CAPS	(Fire button)	FIRE

Commodore 64/128:

A	(UP)	lose altitude
Z	(DOWN)	gain altitude
<	(LEFT)	turn left
>	(RIGHT)	turn right
SPACE BAR		FIRE

At the end of the game, you can put your name beside your score. You do this by choosing the letters of your name one by one with the cursor. You move the cursor with the arrow keys on the keyboard. Press the space bar to store each individual letter. When you have finished entering your name, move the cursor to the END display and press the space bar again. Your new score is now stored on the disk.

3- THE STORY :
After Peace on Earth was finally achieved, a rebel movement was formed; their goal : to take absolute power. The Government was forced to engage in galactic fights in order to protect the interplanetary military base, GALLION. The Stellar League was created to protect GALLION.
The League's technicians had just put the final touch to a breakthrough in modern development, the Galactic Fighter THUNDER CLOUD II, with a firepower ten thousand times superior to its ancestor, THUNDER CLOUD, and a negative ionization ultra-sensoriel protection shield.One major problem remained : to find a pilot.

After searching for several months, the League's scientists realized that the champions of the OFF SHORE Game, who possessed technique, stunning strategy and reflexes, were the most qualified to pilot THUNDER CLOUD II. Lake Baikal, Siberia - June 2080.

YOU, the new champion of the OFF SHORE battle, are offered a mission of extreme importance : annihilate the enemies of Peace throughout the Galaxy.

You will receive ten million dollars if you accept !

In order to be part of the Galactic Squadron, you will have to go through extremely intensive training. Once you have passed all the tests, you will attain the rank of Conqueror.

You will then have to be capable of the highest strategy and skill to succeed. Your life will be in danger at all times and also, for each fight you will be engaged in, the lives of millions will

be at stake ! Never let the enemy come closer than ten light-years from GALLION, where the Galaxy's defense weapons and top-secret research information are stored. Any wrong decision on your part could mean destruction for GALLION, and the end of the era of Peace ...

4 __ YOUR MISSION :

A brand new Conqueror, YOU enter the Mother-Ship which will take you to GALLION where the best equipment will allow you to detect enemy positions throughout the Galaxy. Through the surveillance probe, you will get information regarding the 416 planets of the interstellar group. We advise you to select groups of planets which are under enemy domination (red planets) or very far from ally planets (blue planets). At all times, you will have to be aware of the way the invasion is progressing, in order not to leave the blue planets which are near GALLION without protection, in front of a large number oof assailants.

THUNDER CLOUD II is equipped with a protection shield which gets reinforced after each conflict. You will be kept informed on the condition of your shield which is displayed in the top right of the screen. As your shield is depleted the blue coating recedes towards the centre of the shield, and once the coating has gone your shield has been destroyed and the next hit will destroy your space fighter ! A bright flash in the sky will indicate that the shield has receivved a violent impact; in case of destruction of the shield, the pilots are teleported at once to the Mother-Ship before THUNDER CCLOUD II explodes. Since an unlimited number of fighters is available to you, you can select a less dangerous planet and go back immediately. Each mission includes the 3 following stages :

1- The ground fight : You will be confronted with mines, probe-robotts, missiles and also meteorites.

2- The aerial fight : Doing tail-pins, you will encounter the Enemy Space Army, missiles and meteorites. Attention ! Your shield will be damaged according to your enemy's firepower.

3- The space fight : You will fight the last of the space enemy troops and then be transported back to the Mother-Ship. After the space fight you will be brought back to the Mother-Ship, examine the map of the Galaxy to evaluate enemy progression and select a new planet to defend according to priority. For each new mission you will have to win the 3 fight stages. Remember that GALLION is constantly threatened; a wrong strategic choice could be fatal to it.

5- SCORE & BONUS

Score:

Enemy Space Fighter	2500	points
Mine	1500	points
Meteorites	500	points

Bonus:

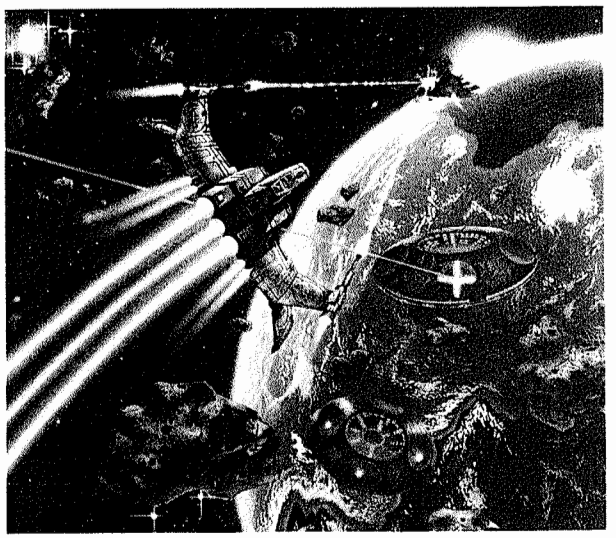
Successful fight stage 1	10000	points
Successful fight stage 2	15000	points
Successful fight stage 3	20000	points
Pacified planet	40000	points
1 of the 8 Moons pacified	50000	points

6- COPYRIGHTS :

Commodore 64, SX64 and Commodore 128 are trademarks of Commodore Machines Corp.
Spectrum, +2, +3, and Amstrad CPC are trademarks of Amstrad Consumer Electronics PLC.
GALACTIC CONQUEROR and TITUS are trademarks of TITUS

TITUS COPYRIGHT 1988

GALACTIC *conqueror*



Vorsichtsmaßnahmen:

Die Daten, die Sie gerade bearbeiten, sind wichtig und Sie sollten diese schützen, indem Sie sie regelmäßig auf eine Kassette aufnehmen (eine unbenutzte wenn möglich), die wir Datenkassette nennen werden.
Es ist wichtig, daß die angegebenen Anweisungen genau befolgt werden und daß niemals unzulässige Manipulationen durchgeführt werden.
Auf keinen Fall darf auf die Taste "ESC" gedrückt oder der Ablauf auf irgendeinem anderen Weg unterbrochen werden, denn Ihre Daten könnten unwiderbringlich verloren gehen.

Liste der Kommandozeichen:

Es ist gut sich die Positionen der folgenden Zeichen auf der Tastatur vorher anzusehen.

- **Pfeil nach oben** : Rückwärtsschritt
- **Pfeil nach links** : auf irrtümlich eingegebene Zeichen zurückzugehen.
- **Pfeil nach rechts** : Cursor nach rechts bewegen, bereits eigegebene Daten werden übersprungen.
- **TAB** : ein Zeichen in eine Zeichenkette einfügen.
- **DELETE** : ein Zeichen löschen.
- **RETURN** : eingegebene Daten übernehmen.
- **ENTER** : Bestätigung Ihrer Dateneingabe

Laden:

1. Schalten Sie den Computer ein.
2. Legen Sie die Kassette mit der Seite A in den Kassettenrekorder ein.
3. Versichern Sie sich, daß die Kassette vollständig zurückgespult ist.
4. Geben Sie ein RUN, EASY GRAPH und drücken Sie ENTER.
5. Drücken Sie auf die Taste PLAY des Kassettenrekorders.
6. Sie sehen auf dem Bildschirm:

loading EASY GRAPH block 1 bis 9

8. Nachdem das Programm geladen ist, startet es sich von selbst.
9. Für etwaige Probleme sollten Sie das Kapitel "Praktische Ratschläge" lesen.

Praktische Ratschläge:

Sie haben beim Laden Ihres Programmes Probleme gehabt. Versuchen Sie es noch einmal, das Programm zu laden. Wenn dieser Versuch erfolglos bleibt, dann befolgen Sie bitte die folgenden Ratschläge:

1. Ist die Lautstärke Ihres Kassettenrekorders auf Ihr Maximum eingestellt?

   Stellen Sie die Lautstärke auf Maximum ein.

2. Ist der Abspielkopf sauber?

   Säubern Sie den Kopf mit einem in Alkohol getränkten Wattestäbchen

3. Überprüfen Sie die Justierung des Abspielkopfes.

Sollte das Problem trotzdem andauern, muß die Kassette dem Händler zurückgebracht werden.

Start des Programms

Nach der Einführung des Programms erscheint auf Ihrem Bildschirm (Abb.1) ein Menü, das die folgenden Optionen enthält:

HAUPTMENÜ
DATENEINGABE
SICHERN, LADEN
ZUGANG GRAPHIK
HILFSPROGRAMME
QUITTIEREN

Um eine dieser Optionen benutzen zu können, brauchen Sie nur das, Fenster entsprechend Ihrer Wahl (mit Hilfe der Cursortaste) zu verschieben und auf ENTER zu drücken. Ein anderes kleines Menü erscheint dann auf dem Bildschirm. Es bietet Ihnen den Inhalt dieser Option an, Sie brauchen dann nur auf "J" für Ja und auf "N" für Nein zu drücken.

Dateneingabe:

Nachdem Sie im Hauptmenü die Option "Dateneingabe" gewählt haben, erscheint auf dem Bildschirm ein anderes Menü, das der Dateneingabe:

MENÜ DATENEINGABE
DATENEINGABE
DATENLISTING
DATENRECHNUNG

Um eine dieser Optionen zu benutzen, müssen Sie das Fenster auf diese Option stellen und ENTER drücken.

Wir werden zusammen diese drei Optionen untersuchen.

Dateneingabe:

Sie haben die Option Dateneingabe gewählt. Es erscheint auf dem Bildschirm eine Folge, die Sie um die Nummer der zu verarbeitenden Graphik bittet. Sie können bis zu 40 Graphiken verarbeiten. Um zum Menü zurück zu gehen, müssen Sie auf die Taste "-" mit dem Pfeil nach oben drücken. Wenn Sie diese Frage beantwortet haben, erscheint eine andere Folge auf dem Bildschirm. Sie werden diesmal um den Namen der Graphik gebeten. Nachdem Sie diesen eingegeben haben, erscheint auf dem Bildschirm eine Tafel mit zwei Kolonnen. Die eine stellt den Namen der Daten und die andere ihren Wert da . Sie können bis zu 12 Datenwerte pro Graphik eingeben. Wenn Sie in die Namenkolonne nichts eingeben, verlassen Sie die Tafel und gehen zurück zur ersten Folge.

Beispiel 1:

Wir werden zusammen eine Graphik erstellen.

1. **Nummer der Graphik:** drücken Sie auf "1", dann auf ENTER.
2. **Name der Graphik :** Geben Sie "Verkauf" ein, dann ENTER.

Füllen Sie die Tafel wie folgt aus:

Name der Daten	**Wert der Daten**
PROGRAMME	700,00
DISKETTEN	205,00
KASSETTEN	55,00
INFORMATIKBÜCHER	125,00

Drücken Sie auf ENTER um die Tafel "Dateneingaben" zu verlassen.

Datenlisting:

Sie haben die Option Datenlisting gewählt. Es erscheint auf dem Bildschirm eine Folge, die Sie um die Nummer der abzulesenden Graphik bittet. Wenn Sie die Nummer eingegeben haben, erscheint auf dem Bildschirm die Tafel der Daten. Sie haben dann Zugang zu einem Menü, das aus drei Optionen besteht(**eine andere Graphik, Druck der Daten, quittieren).**

Name der Daten	**Wert der Daten**
PROGRAMME	700,00
DISKETTEN	205,00
KASSETTEN	55,00
INFORMATIKBÜCHER	125,00

Datenrechnung:

Sie haben die Option Datenrechnung gewählt. Es erscheint auf dem Bildschirm eine erste Folge, die Sie um den Anfang der Rechnung bittet (geben Sie die Nummer der Graphik ein und dann ENTER), dann eine zweite Folge, die Sie um das Ende der Rechnung bittet.
Wenn Sie diese beiden Fragen beantwortet haben, erscheint auf dem Bildschirm das Ergebnis der Rechnung.

Niveau 2 bis Niveau 2

ANZAHL DER DATEN	:	4
SUMME	:	1.085,--
DURCHSCHNITT	:	271,25
TYP. ABSTAND	:	253,16
UNTERE GRENZE	:	55,00
OBERE GRENZE	:	700,00
VARIANZ	:	64.092,19
KOEFFIZIENT	:	93,33

Laden und Sichern:

Sie haben die Option Laden und Sichern gewählt und es erscheint auf dem Bildschirm ein Menü mit folgenden Optionen:

MENÜ LADEN UND SICHERN
DATENFILE LADEN
DATENFILE SICHERN
RÜCKKEHR INS HAUPTMENÜ

Um eine dieser Optionen benutzen zu können, brauchen Sie nur das Fenster auf die gewählte Option zu schieben und ENTER drücken.
Je nachdem, was Sie gewählt haben, werden Sie nun Ihren Datenfile entweder laden oder sichern können.
Geben Sie den Namen des Datenfiles ein und legen Sie die Kassette in den Kassettenrekorder ein.
Drücken Sie auf die Taste PLAY, wenn Sie laden wollen oder auf die Tasten PLAY+RECORD wenn Sie sichern wollen, dann drücken Sie auf ENTER.
Nach dem Laden oder Sichern gehen Sie zurück in Hauptmenü.

Zugang Graphik:

Sie haben die Option Zugang Graphik gewählt und es erscheint auf dem Bildschirm ein Menü, das die folgenden Optionen enthält:

MENÜ DER GRAPHIKEN
2 DIMENSIONEN
3 DIMENSIONEN
LINIEN
KUCHEN

Um eine dieser Optionen benutzen zu können, brauchen Sie nur das Fenster auf die gewählte Option zu schieben und ENTER drücken.
Es erscheint die Folge auf dem Bildschirm:

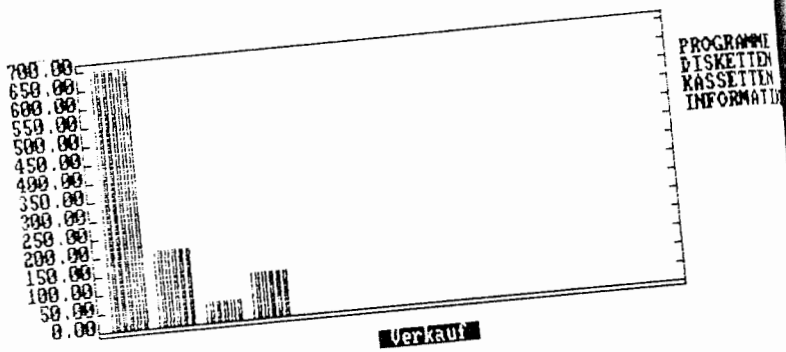
Nummer der zu behandelnden Graphik

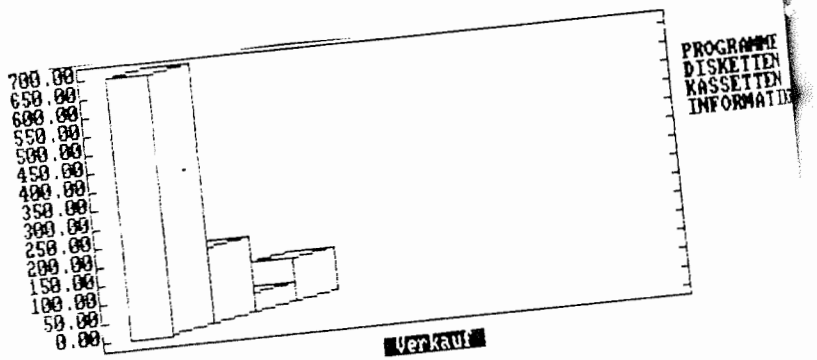
Nachdem Sie diese Frage beantwortet haben, erscheint auf dem Bildschirm die Graphik, dessen Druck Sie nun erhalten können. Sie brauchen nur die Fragen zu beantworten, die oben auf dem Bildschirm erscheinen.

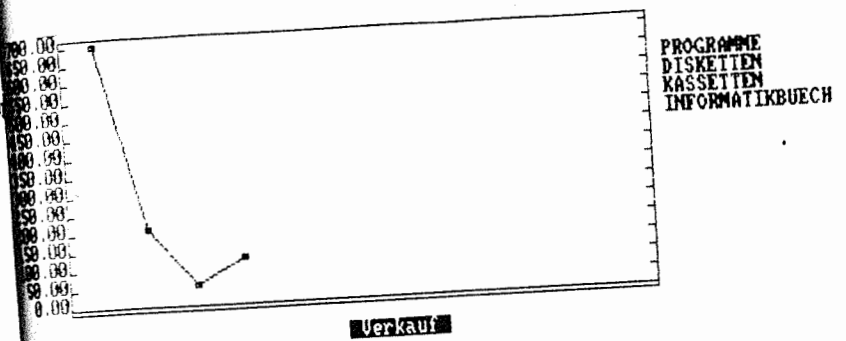
WAHL DES DRUCKERS
WAHL DES DRUCKTYPS
WAHL EINE ANDERE GRAPHIK ZU VERARBEITEN

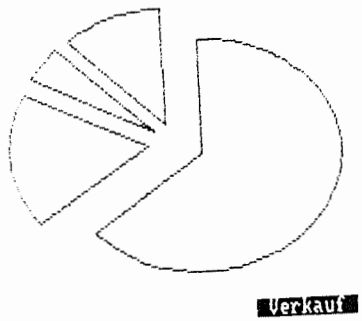
Folgend zeigen wir Ihnen einige Beispiele
ACHTUNG: Da im Längsformat ausgedruckt wird, dauert es eine Weile bis Ihr Drucker reagiert, da alle Daten umgesetzt werden müssen.

inser Graphiks









PROGRAMME	700.00
DISKETTEN	205.00
KASSETTEN	55.00
INFORMATIKBUECH	125.00

Verkauf

HILFSPROGRAMME:

Sie haben die Option Hilfsprogramme gewählt. Das Menü Hilfsprogramme erscheint auf dem Bildschirm.

MENÜ HILFSPROGRAMME
KASSETTENREKORDER
BILDSCHIRMTYPUS
RÜCKKEHR INS HAUPTMENÜ

Um eine dieser Optionen benutzen zu können, brauchen Sie nur das Fenster entsprechende Ihrer Wahl zu verschieben und ENTER zu drücken.
Wir werden zusammen die oben genannten Optionen untersuchen.

Zugang Kassettenrekorder

Sie haben zwei Möglichkeiten: große Geschwindigkeit
geringe Geschwindigkeit

Diese zwei Optionen sind für die Einstellung der Geschwindigkeit des Ladens und der Aufnahme gedacht.

Bildschirmtypus:

Diese Option ermöglicht es Ihnen sich den Bildschirm auszusuchen, mit dem Sie arbeiten wollen.

Arbeitsende:

Sie haben die Option Arbeitsende gewählt, es erscheint das Menü auf dem Bildschirm:

MENÜ ARBEITSENDE
ARBEITSENDE
RÜCKKEHR INS HAUPTMENÜ

Um eine dieser Optionen benutzen zu können, brauchen Sie nur das Fenster entsprechend Ihrer Wahl zu verschieben und ENTER zu drücken.

Wir werden zusammen diese Optionen untersuchen.

Arbeitsende:

Diese Option ermöglicht es Ihnen, daß Programm endgültig zu verlassen.

ACHTUNG! Wenn Sie die Daten nicht gesichert haben, sind sie für immer verloren.

Rückkehr ins Hauptmenü:

Diese Option ermöglicht es Ihnen ins Hauptmenü des EASY GRAPH Programmes zurückzugehen.



präsentiert von
ACTIVISION (UK) Ltd.

Spielanleitung

für

COMMODORE 64/128
SINCLAIR SPECTRUM
SCHNEIDER CPC

und

ATARI ST

(erfordert FARB-Monitor/Fernseher und
im ROM installiertes TOS)

STRENG GEHEIM – STRENG GEHEIM – STRENG GEHEIM
--- USA MARINE-KORPS --- MELDUNG DES GEHEIMDIENSTS --
... ENTZIFFERUNGSKODE UATRT/S/072...
Empf. STN/RVX/09...15:34:54..07/21/87
Einsatzstation..BBHIT/RE 21dNW

Verf/Vert. GENERAL PHILIPS / MAJOR SHAEFER, A

--- ANFANG ---+++ US ARMEEHUBSCHRAUBER VERMISST+++
VERMUTLICH IM BACH GELANDET+++ HÖCHST GEHEIMER
EINSATZ+++ ABSTURZSTELLE IM DICHTESTEN, UNBEKANNTEN
URWALD+++ 3 MITGLIEDER DES REGIERUNGSKABINETTS AN
BORD+++ ANZAHL DER ÜBRIGEN PASSAGIERE UND BESATZUNG
NICHT BEKANNT.+++
+++IM FRAGLICHEN GEBIET BEFINDEN SICH UNSEREN
INFORMATIONEN ZUFOLGE MEHRERE GUERILLA STÜTZPUNKTE+++
ANTIAMERIKANISCHE TRUPPEN OPERIEREN AUS DEM
REGENWALD+++
+++RETTUNG DER ÜBERLEBENDEN HÖCHSTE PRIORITÄT+++
RETTUNG NUR UNTER ABSOLUTER GEHEIMHALTUNG MÖGLICH+++
WENN NÖTIG, HART DURCHGREIFEN+++
+++DIES IST KEINE SIMULATION+++
---ENDE---
..13:35:03..LGF/Xx

LADEN DES PROGRAMMS "PREDATOR"

1. Computer vorschriftsgemäß installieren und Fernseher oder Monitor anschließen. *Bitte noch nicht einschalten.* Etwaige Cartridges (Moduln) oder Peripheriegeräte (Diskettenlaufwerke, Kassettenrekorder, Drucker usw.) vom System trennen und nur anschließen, wenn Sie in dieser Beschreibung dazu aufgefordert werden. Nichtbeachtung dieser Maßnahme kann u.U. Ladeschwierigkeiten verursachen. (Auf eingebaute Disketten- oder Kassettenlaufwerke trifft dies natürlich nicht zu.)

2. **Bei Verwendung eines Commodore 64 oder 128 mit der Kassettenversion von PREDATOR:**
   a) Datasette an den Computer anschließen, Fernseher/Monitor und Computer EINSCHALTEN. *C128 Besitzer :* GO64 und RETURN eingeben, dann Y und RETURN, um auf 64er Betrieb umzuschalten.
   b) PREDATOR Kassette in die Datasette einlegen und sicherstellen, daß das Band ganz zurückgespult ist.
   c) SHIFT festhalten und gleichzeitig RUN/STOP drücken, dann die PLAY-Taste der Datasette drücken.

3. **Bei Verwendung eines Commodore 64 oder 128 mit der Diskettenversion von PREDATOR:**
   a) Diskettenlaufwerk an den Computer anschließen. Fernseher/Monitor, Computer und Diskettenlaufwerk EINSCHALTEN.
   b) PREDATOR Diskette mit dem Etikett nach oben in das Laufwerk einschieben. Dann LOAD "*",8,1 eingeben und RETURN drücken.

4. **Bei Verwendung eines Schneider CPC464, 664 oder 6128 mit der Kassettenversion von PREDATOR:**
   a) Fernseher/Monitor und Computer EINSCHALTEN.
   b) Auf Systemen mit eingebauten Diskettenlaufwerk: kompatibles Kassettengerät anschließen, dann mit |TAPE auf Kassettenbetrieb umstellen und RETURN drücken.
   c) PREDATOR Kassette in den Kassettenrekorder einlegen und sicherstellen, daß das Band ganz zurückgespult ist.
   d) Gleichzeitig CTRL und die kleine ENTER-Taste drücken, dann die PLAY-Taste des Kassettengeräts betätigen.

5. **Bei Verwendung eines Schneider CPC464, 664 oder 6128 mit der Diskettenversion von PREDATOR:**
   a) Fernseher/Monitor und Computer EINSCHALTEN.
   b) Auf Systemen mit eingebauten Kassettenrekorder Computer AUSSCHALTEN und ein geeignetes Diskettenlaufwerk anschließen. Dann das Laufwerk und den Computer EINSCHALTEN und durch Eingabe von |DISC und RETURN auf den Diskettenmodus umschalten.
   c) PREDATOR Diskette mit Beschriftung nach oben einlegen.
   d) RUN "DISC eingeben und die ENTER-Taste drücken.

6. **Bei Verwendung eines Sinclair ZX Spectrum, Spectrum+, Spectrum 128, Spectrum +2 oder Spectrum +3 mit der Kassettenversion von PREDATOR:**
   a) Kassettenrekorder in der gewohnten Weise an den Spectrum anschließen. (Dieser Schritt entällt natürlich, wenn das System über einen eingebauten Rekorder verfügt.)
   b) Wenn mit einem Joystick gespielt werden soll, die erforderlichen Interfaces jetzt einstecken (siehe Hinweis weiter hinten bezüglich kompatibler Joysticks.)
   c) Fernseher/Monitor, Kassettenrekorder und Computer EINSCHALTEN (wenn jetzt ein Menü eingeblendet wird, kann dort 48K oder 128K BASIC gewählt werden).
   d) PREDATOR Kassette in den Rekorder einlegen;sicherstellen, daß das Band ganz zurückgespult ist.
   e) LOAD "" eingeben, dann ENTER drücken und anschließend die PLAY-Taste des Rekorders.

7. **Bei Verwendung eines ATARI ST mit der Diskettenversion von PREDATOR:**
   a) Diskettenstation an den Computer anschließen (es sei denn, Ihr System ist mit einem eingebauten Laufwerk ausgerüstet).
   b) Fernseher oder Monitor, eine etwaige externe Diskettenstation und den Computer einschalten.
   c) Die PREDATOR-Diskette 'A' in die Station A einlegen — Beschriftung nach oben.
   d) Mit Hilfe der Maus Station A öffnen, um sich das Verzeichnis anzeigen zu lassen und dort die Datei mit dem Namen "PREDATOR.PRG" mit einem Doppelklick starten. (Sollten Sie mit dieser Technik zum Laden von Programmen nicht vertraut sein, bitten wir Sie, den entsprechenden Abschnitt im Atari Benutzerhandbuch zu Rate zu ziehen.

Der erste Teil von PREDATOR wird nun automatisch in den Arbeitsspeicher geladen. Bei den Kassettenversionen geschieht dies in mehreren Phasen; der Ladevorgang wird durch verschiedene blinkende Farben angezeigt.

Wenn es im Verlauf des Spiels notwendig ist, die Kassette zu STARTEN, zu STOPPEN oder auf die andere Seite zu DREHEN, erscheint auf dem Bildschirm eine entsprechende Aufforderung.

ST-Benutzer erhalten eine Meldung, wenn die Diskette A herausgenommen und stattdessen B eingelegt werden muß.

Die weiteren Teile von PREDATOR werden vom Programm automatisch eingelesen, wenn es Ihnen gelingt, mit Shaefer erfolgreich den ersten Teil zu absolvieren.

HINWEISE ZUR STEUERUNG ÜBER TASTATUR UND JOYSTICK

Zur Steuerung unseres Helden Major Shaefer kann eine Kombination von Joystick und Tasten verwendet werden, oder auf Wunsch die Tastatur allein.

(Für den C64 gibt es keine "Nur-Tastatur-Version".)

Commodore 64 Benutzer können jeden beliebigen mit dem C64 kompatiblen Joystick benutzen, der über Steckplatz 2 anzuschließen ist.

Schneider CPC Benutzer verwenden einen beliebigen mit ihrem System kompatiblen Joystick.

Für Spectrum kommen Kempston, Protek und Sinclair Joysticks in Frage.

Atari ST Besitzer können mit einem beliebigen, über Steckplatz 1 angeschlossenen Joystick spielen.

FALLS SIE BEIM LADEN SCHWIERIGKEITEN HABEN SOLLTEN...

Wir sind um eine ständige Verbesserung unserer Produkte bemüht und unterziehen diese vor der Auslieferung den strengsten Qualitätskontrollen. Aus diesem Grund ist es praktisch ausgeschlossen, daß etwaige beim Laden auftretende Schwierigkeitenauf einen Produktfehler zurückzuführen sind, sondern haben zumeist andere Ursachen. In dem unwahrscheinlichen Fall, daß auf Ihrem System beim Laden Schwierigkeiten auftreten, empfehlen wir Ihnen, den Computer auszuschalten und die einzelnen Schritte der Ladeanleitung ein zweites Mal sehr sorgfältig durchzuführen. Bitte vergewissern Sie sich, daß Sie auch wirklich die Beschreibung verwenden, die auf Ihr System und Ihre Spielversion (Kassette/Diskette) zutrifft. Sollte das Problem sich nicht beheben lassen, schlagen Sie bitte in der Dokumentation zu Ihrem Computer nach oder wenden Sie sich an Ihren Softwarehändler um Rat. Wenn Sie sämtliche Hardware auf mögliche Fehler überprüft haben und das Problem dennoch weiter anhält, dann schreiben Sie doch bitte an unseren Kundendienst:

ACTIVISION Customer Advice (PREDATOR)
Units 3 and 4
Lloyds Close
Finedon Road Industrial Estate
Wellingborough
Northampton NN8 4SR

Vergessen Sie in Ihrem Brief die folgenden Punkte nicht:

- Ihren Namen und Ihre Anschrift
- Die Telefonnummer, unter der Sie tagsüber erreichbar sind
- Den Namen des Programms, mit dem Sie Probleme haben
- Angabe, ob Disketten- oder Kassettenversion
- Genaue Bezeichnung Ihres Computersystems und aller Peripheriegeräte — Joysticks usw. — die zusammen mit dem Programm verwendet werden
- Wo gekauft und wann
- Genaue Beschreibung des Problems

BITTE SENDEN SIE UNS DAS PRODUKT NICHT ZU, ES SEI DENN, WIR FORDERN DIES AUSDRÜCKLICH FÜR TESTZWECKE.

DIE JAGD GEHT LOS

"Ein Routineeinsatz, hieß es — streng geheim — daß ich nicht lache, das sagen die doch immer."

Aber diesmal ist es anders...

"...Ein Hubschrauber hat irgendwo eine Sturzlandung gemacht. Wir müssen drei enge Vertraute des Präsidenten 'rausholen, und möglichst auch die anderen Passagiere und Besatzungsmitglieder. Dürfte kein Problem sein. Diese Clubsesseltypen würden natürlich im Urwald glatt draufgehen. Da herrscht noch ein richtiger Kampf um's Überleben. Was wollten die Typen vom Weißen Haus denn überhaupt in diesen Breitengraden? "Streng geheim", da kannst Du Gift drauf nehmen.

Aber, wie gesagt, diesmal ist es anders...

"...irgendwelche Guerillas sollen die Gegend unsicher machen. Das mag andere abschrecken, aber ehrlich gesagt: mich bringt das erst so richtig auf den Geschmack. Schließlich bin ich nicht umsonst der größte Legionär aller Zeiten. Ich jage alles, was es zu jagen gibt.

Aber diesmal wird der Spieß umgedreht. Diesmal bist Du der Gejagte.

Du spielst die Rolle von Major Alan Schaefer, einem eingefleischten Militär an der Spitze eines Teams, das mit einem der berüchtigten streng geheimen Einsätze beauftragt ist. Jede Sekunde zählt. Du beobachtest, wie Deine Kumpel Dillon, Ramirez, Mac, Hawkins, Billy und Blain aus dem schwebenden Hubschrauber abspringen und in der undurchdringlichen Vegetation des tropischen Regenwalds verschwinden.

Es dauert nicht lange, bis Du den abgestürzten Hubschrauber entdeckst. Weit und breit kein Lebenszeichen. Eigentlich hast Du ja auch nichts anderes erwartet... und trotzdem, irgendwas stimmt hier nicht. Keine Spur von Deinen Teamkameraden.

Der erste, den Du findest, ist Hawkins, besser gesagt, was von ihm übrig ist. Was ist ihm widerfahren, wer kann ihn so zugerichtet haben?

Wenigstens ist seine Waffe noch in der Nähe. Die kannst Du vielleicht noch gebrauchen. Wer weiß, ob die Guerillas nicht irgendwo im Hinterhalt lauern.

Eine ganze Schar von Geiern schießt plötzlich auf ein Ziel los, nicht weit weg von hier. Sie haben schon die ganze Zeit gelauert. Du reibst Dir die Augen — ungläubig, schockiert. Vor Dir hängen Green Berets an den Ästen. Kein schöner Anblick.

Hier ist was nicht in Ordnung. Und es ist nicht das Werk einer Guerilla-Truppe. Da kann Dir einer erzählen, was er will. Aber ist ja keiner da.

Wo in drei Teufels Namen bleiben Deine Kumpel? Kalte Schweißperlen treten Dir auf die Stirn.

Die Atmosphäre ist stickig, unheilverkündend. Je weiter Du eindringst in das Dickicht des Tropenwalds, desto stärker wird Dein Unbehagen. Ein seltsames Gefühl überkommt Dich... das Gefühl...

...beobachtet zu werden!

Du wirst all Deine Fähigkeiten und Deine Geistesgegenwart brauchen, um zu überleben und den Kampf zu gewinnen gegen das Unheimliche, in dessen Gegenwart Du Dich hier befindest.

...und vielleicht einen nuklearer Sprengkopf...

PREDATOR - SPIELOPTIONEN

Nach dem Laden des Spiels wird auf dem Bildschirm ein Menü mit den verfügbaren Spieloptionen eingeblendet.

Bitte wählen Sie aus, nachdem Sie die nachstehende Beschreibung gelesen haben. Die Optionen sind je nach Version etwas unterschiedlich:

START GAME (Alle Versionen)

Dient zum Starten des Spiels. Die gleiche Wirkung kann auch durch Drücken des Feuerknopfs auf dem Joystick erzielt werden.

Keyboard (1)/Keyboard (2) (ST, CPC und Spectrum Versionen)

Zur Wahl der Tastatur (statt des Joysticks) als Bedienungsinstrument. Für die Hauptsteuerung kann unter zwei verschiedenen Tastaturbelegungen gewählt werden. Vgl. hierzu die Darstellung weiter unten.

Joystick (ST und CPC Versionen)

Zur Einstellung der Bedienung über Joystick, zusammen mit einigen speziellen Tasten. Vgl. hierzu die Darstellung weiter unten.

Kempston Joystick (Spectrum-Version)

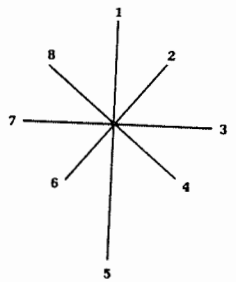
Protek Joystick (Spectrum Version)

Sinclair Joystick (Spectrum Version)

Bitte wählen Sie Ihren Joystick. Dieser wird dann hervorgehoben, und Sie können jetzt das Spiel mit der Option START GAME beginnen.

KURZÜBERSICHT
JOYSTICK-BEDIENUNG

COMMODORE SPECTRUM SCHNEIDER



BEWEGUNGEN OHNE FEUERKNOPF

1 **Sprung**
2 **Nach oben/rechts gehen**
3 **RECHTS**
4 **Nach unten/rechts gehen**
5 **Ducken**
6 **Nach unten/links gehen**
7 **LINKS**
8 **Nach oben/links gehen**

BEWEGUNGEN MIT GEDRÜCKTEM FEUERKNOPF

1 **Stoß/Schlag**
2 **NACH OBEN/RECHTS FEUERN**
3 **RECHTS FEUERN**
4 **NACH UNTEN/RECHTS FEUERN**
5 **BLOCKIEREN/SPERREN**
6 **NACH UNTEN/LINKS FEUERN**
7 **LINKS FEUERN**
8 **NACH OBEN RECHTS FEUERN**

FUNKTIONSTASTEN AUF DER TASTATUR

Die folgenden Spezialtasten können zusätzlich zum Joystick oder zu den anderen Tasten benutzt werden:

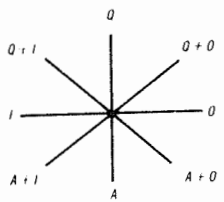
GRANATE WERFEN (kurzer Wurf)	**LEERTASTE**
GRANATE WERFEN (weiter Wurf)	**SHIFT**
Objekt aufnehmen/ablegen	**RETURN oder ENTER**

BEDIENUNG ÜBER DIE TASTATUR

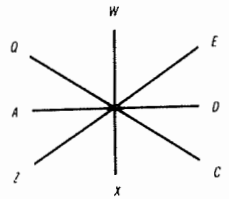
Bei Spielstart haben Sie die Wahl unter zwei möglichen Tastaturbelegungen. Eine Beschreibung der einzelnen möglichen Bewegungen finden Sie in der Joystick-Darstellung.

(Hinweis: Zwei durch ein Pluszeichen (+) verbundene Tasten bedeuten, daß diese gleichzeitig gedrückt werden müssen.)

Tastatur (1)



Tastatur (2)



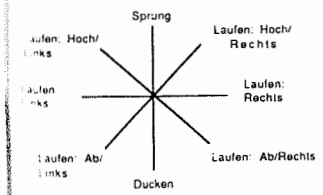
FEUER - [S] Taste

Tasten zur Erzielung der gewünschten Bewegung

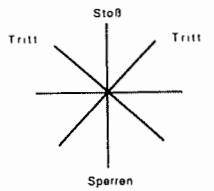
KURZÜBERSICHT: ST-VERSION

BEWEGUNGEN OHNE FEUERKNOPF

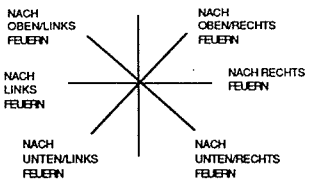
BEWEGUNGEN MIT GEDRÜCKTEM FEUERKNOPF, OHNE WAFFEN



BEWEGUNGEN MIT GEDRÜCKTEM FEUERKNOPF, BEWAFFNET



BEDIENUNG ÜBER JOYSTICK



Funktionstasten
Die folgenden Funktionstasten können sowohl bei Bedienung über Joystick als auch über die Tastatur verwendet werden:
GRANATE werfen (kurzer Wurf) — linke SHIFT-Taste
GRANATE werfen (weiter Wurf) — LEERTASTE
Objekt hochheben/ablegen — RETURN

Steuerung über die Tastatur
Auf Wunsch kann zur Steuerung auch die Tastatur verwendet werden. Für die möglichen Tastenkombinationen verweisen wir auf die schematische Darstellung zu den Joystick-Bewegungen.

Hoch — **Q**
Abwärts — **A**
Links — **<**
Rechts — **>**
FEUER — **rechte SHIFT-Taste**

PREDATOR — HINWEISE ZUM SPIEL

Nach Auswahl der Option START GAME geht der Helikopter in Schwebeflug über, damit Deine Teamkameraden sich abseilen können. Sie verschwinden sofort im dichten Urwald. Bald trittst Du selbst in Erscheinung, in der Person des Major Alan Schaefer, in voller Kampfuniform und zum Einsatz bereit. Jetzt hängt alles von Dir ab.

Bei jedem Schritt ist größte Vorsicht geboten. Vergiß nicht, daß Du Dich hier im unbekannten Regenwald befindest, wo sich noch keiner hingewagt hat. Hier kann alles passieren, was man sich nur in der wildesten Phantasie ausdenken kann — und Schlimmeres!

Am oberen Bildschirmrand befindet sich eine Anzeige mit der Anzahl der Leben, Die Dir verbleiben, und direkt darunter das Energieniveau. Wenn beide auf Null stehen, ist es um Dich geschehen!

Die Waffe, die Du mit Dir herumträgst, wird am oberen Bildschirmrand (in der Mitte) angezeigt, zusammen mit dem Vorrat an Munition. Diese Waffe kannst Du gegen eine andere tauschen. Mehrere liegen im Urwald verstreut, und auch Munition gibt es zu finden. Bei der Auswahl und beim Einsatz der Waffen ist mit äußerster Vorsicht vorzugehen.

Beim weiteren Vordringen in den Dschungel stößt Du auch nach und nach auf Deine Teamkameraden — die meisten in verheerendem Zustand. Du mußt kühlen Kopf bewahren: Überleben ist der Name des Spiels. Sieh' Dir ihre Waffen genau an und entscheide Dich, ob Du Deine stattdessen liegen lassen willst.

Wenn es Dir gelingt, Deine Kameraden zu überlegen, dann mußt Du das Gelände zu Deinem Vorteil zu nutzen wissen und den Feind überlisten. In dieser Naturlandschaft ist das Gewehr nicht die Antwort auf alle Probleme!

Die Granaten, die ebenfalls am oberen Bildschirmrand angezeigt werden, sind ebenfalls nicht zu verachten, wenn Du plötzlich in einen Hinterhalt gerätst. Zu Anfang hast Du drei davon.

Hörst Du das seltsame Rascheln im Gebüsch? Da — schon wieder. Aber sehen kannst Du nichts. Eines ist sicher: ein grausames Wesen hat es auf Dich abgesehen. Es bleibt Dir auf der Spur, dank seiner wärmeempfindlichen Augen. Ehe Du Dich's versiehst, wechselt der Bildschirm die Farbe, und Du beginnst heftig zu glühen. Du siehst Dich selber mit den Augen der unbekannten Kreatur — eine verzweifelte Figur, die durch den Urwald rennt...die unbarmherzig verfolgt wird. Ein Dreieck erscheint auf dem Bildschirm. Fliehe, oder es ereilt Dich ein grausames Ende, es sei denn, Du schaffst es, die Kreatur zu überlisten.

Am oberen Bildschirmrand befindet sich eine Anzeige der insgesamt erreichten Punktezahl und eine Uhr. Du mußt versuchen, Deine Mission erfolgreich abzuschließen, ehe Deine Zeit abläuft, d.h. bevor die Uhr auf 00:00 steht.

Dieser Einsatz ist nichts für Leute mit schwachen Nerven. Die Chancen, mit heiler Haut davonzukommen, sind absolut minimal — selbst für Helden Ihres Kalibers! Vielleicht sollten Sie doch den Beruf wechseln?

PREDATOR™

präsentiert von Activision (UK) Limited

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Spieldesign von System 3

C64 Grafik von Hugh Riley

Programmierung, Musik und Grafik der übrigen Versionen: Source

Spielanleitung von E.M. Dean, Übersetzungen: Alpha



KONTROLLEN

Nach Laden des Programms kann es mit einem Schalthe
gespielt werden Sie konnen es auch verschlusselt spiel
wenn Sie zur DEFINE KEYS (Schlusseloder Tas
Definition) Option auf dem Startmenu gehen
Um irgendeine Option zu wahlen, drucken Sie nur
entsprechende Zahlentaste Drucken Sie **1**, um das Spi
beginnen
Drucken Sie **ESC**, um das Spiel zu pausieren – Sie ko
dann **1** drucken, um fortzufahren, oder **2**, um Ihre Mis
aufzugeben

SIMULATION

Ihnen stehen mehrere verschiedene Waffen zur Verfu
Während der Simulation drucken Sie die **SPACE** Tast
die nachste Waffe auf dem Indikator zu laden. Die Ziffe
jeder Waffe zeigt an, wieviele Sie noch übrig haben –
Sie auf 0 stossen, haben Sie keine mehr, aber Sie k
immer mehr von den Ersatz-Fallschirmen aufnehme
Gelegentlich konnen Sie nukleare Sprengkopfe vo
Versorger-Fallschirmen bekommen – sie sind mit
Hydrogen Bombe) gekennzeichnet Wenn Sie eine 'H
haben, drucken Sie FEUER, um sie abzuwerfen,
wird alle sichtbaren Feinde vernichten

ANWEISUNGEN UND TIPS

* Hubschrauber konnen nur mit hitze-suchenden
abgeschossen werden (die dritte Waffenkategor
* Fliegen Sie in fallende Ersatz-Fallschirme,
aufzunehmen
* Vergewissern Sie sich, dass Sie genug Brennstof
Halten Sie ein Auge auf der Benzinuhr und neh
Benzin-Fallschirme auf, um sicher zu sein.
* Beobachten Sie Ihren Entfernungsmesser, um fe
len, wie weit Sie eine Zone durchdrungen hat
Messgerät mit S am Anfang und F am Ende).
* Tauchen Sie oft unter und weben Sie viel, so
Feind keine Chance hat. Sie ins Blickfeld zu be
* Nehmen Sie die ß Fallschirme als Bonus-Punk
Bonus-Ebenen auf

yrtle rende zo snel als haar benen haar konden dragen naar haar cottage terug. Binnen gekomen gooide ze de deur achter zich dicht en liep ze naar het raam. Ze stierf bijna van st. In de velden voorbij haar bijenkorven zat de Korf. Een vreesaanjagende metallieke structie zo groot als een wolkenkrabber. Toen met een geluid als de donder kwamen ze naar en. Insecten zo groot als verhuiswagens barstten uit de zijkanten en zoemden over de velden neuvels weg.

Myrtle twijfelde er geen moment aan dat de autoriteiten op de hoogte moesten worden racht. Aan een eenzaam bureau in de kantoren van M19 in Londen kwamen de rapporten nen. Het was 20.47 uur en binnen dertien minuten zou de evacuatie van Oxfordshire beginnen. chts één voertuig zou het gebied binnengaan: de vrachtwagen die de enige hoop tegenwoordigde, de enige kans op veiligheid. Het Schip van de Sprinkhanen zou Upper ughter snel bereiken.

Toen ze de laatste kruising van de M40 naderden, beet agent Brabham zijn tanden op elkaar. was slechts zijn tweede echte missie en hij was zo nerveus als de pest. Hij legde zijn hoofd in nek en dronk zijn blikje bier leeg. Hij eas er zich maar al te sterk van bewust dat dit wellicht zijn itste biertje zou kunnen zijn. Op de zitplaats naast hem lag een manilla map met de zeer mmiere gegevens die het lag beschikbaar had gemaakt. Hij was er altijd al van overtuigd weest dat het woord militair en de term intelligente verkenning, met elkaar in tegenstelling iren.

De situatie was kritiek. Thermosonische onderzoeken hadden uitsluitend gegevens verstrekt er de structurele buitenkant van de Korf. Ze wisten dat die uit maximaal acht lagen bestond, aar konden alleen naar bij stukjes en beetjes een plan samenstellen van Strata 0. Het was lstrekt onvoldoende. De enige bemoedigende factor was de beschikbaarheid van wapen - en andstofvoorraden binnen de Korf. Brabham wist dat het Schip van de Sprinkhaan op zichzelf t genoeg zou zijn: de daarin aanwezige voorraden zouden de sleutel vormen tot dit raadsel. Niet dat er fjouten in het schip zelf zaten, maar het was gewoon niet gebouwd op dit soort eratie. Het was een S.E.A.C. MkII, speciaal ontworpen op aanvalsituaties in een vijandige geving. De bijnaam "Sprinkhaan" was gebaseerd op het vermogen om heen en weer te nnen springen en als het ware te "hurken". Brabham wou dat het "Cycade" was genoemd. Hij d alle hulp nodig die hij maar zou kunnen krijgen en zelfs een klein beetje psychologische rbaarsheid zou nut hebben gehad.

Myrtle was op het evacuatiecentrum in Banbury. Het was 22.04 uur. De insecten zoemden hoog de lucht rond.

Brabham leunde naar voren en drukte op de gele knop met het opschrift "Start". De Sprinkhaan vam plotseling in actie en wankelde naar voren, waarbij in het grasveld van Myrtle enorme diepe oren werden achtergelaten. Hij wist nu waar de ingang zich bevond en de missie was onderweg. Het doel - het opsporen en vernietigen van het bedieningscentrum. Het doden van Koningin.

PECTRUM

ype **LOAD**"" Druk de **ENTER** - toets in. Druk de **PLAY** - toets op uw recorder in.

MSTRAD CASSETTE CPC 6128, 664 en CPC 464 met schijf.

hift ingedrukt houden en de Ø toets indrukken. **TAPE** inbrengen en vervolgens **RETURN** drukken.

olg nu de ladinstructies voor de **CPC 464 cassette.**

AADINSTRUCTIES VOOR DE CPC 464 CASSETTE.

TRL ingedrukt houden en de kleine **ENTER** - toets indrukken. De **PLAY** - toets op uw recorder drukken.

MSTRAD DISC

iun **"HIVE"** inbrengen en vervolgens **RETURN** indrukken.

NERGIE

Het sprinkhanenschip wordt aangedreven door elektronische "Zuilen" die overal in de Korf vorden aangetroffen en makkelijk kunnen worden opgepikt. Deze Zuilen worden geleidelijk pgebruikt tot er geen één meer over is. Op dat moment zal de energie worden afgetapt van uw nterne levenskracht. Als uw levenskracht het nulpunt bereikt, zult u sterven.

De snelheid waarmee die energie wordt afgetapt, hangt af van de hoeveelheid uitrusting die u raagt en hoe snel u rent.

Als u twee of meer Zuilen draagt, zal uw levenskracht toenemen tot maximaal 99 eenheden.

ANOEUVREREN

Uw schip zal automatisch langs het buizensysteem omlag reizen, geheel onafhankelijk van de ichting waarin u kijkt. Als het schip in beweging is, zullen de richtings-bedieningsorganen itsluitend uw hoofd bewegen en deze worden gebruikt voor óf het richten van uw aser/pickup-vizieren, óf voor het kiezen van de buis die op het kruispunt moet worden binnengegaan. Als u stilstaat kunt u echter omkeren.

Overal in de Korf, zult u verschillende obstakels tegenkomen, zoals pieken, webben, struikeldraden en angels. Hier moet u overheen springen, onderdoor kruipen of kapotschieten. De keus is aan u. Bepaalde buizen zijn geblokkeerd door valhekken en deze kunnen alleen met de juiste sleutel worden geopend.

UITRUSTING

U zult drie merkbakens hebben ontvangen die u op ieder willekeurig punt in de Korf kunt achterlaten, teneinde het u makkelijker te maken het labyrint van het buizenstelsel in kaart te brengen.

Door de hele Korf zijn ook verschillende uitrustingsstukken verspreid die u kunt oppikken en gebruiken.

Om iets op te pikken moet Q worden ingedrukt, waarna een vierkant vizier zal verschijnen. Hou het voorwerp dat u wenst op te pikken in het vizier en zodra u dicht genoeg bij het voorwerp "Ikoon-Selectieweergave" worden toegevoegd.

Voor het gebruiken van een uitrustingsstuk moet L worden ingedurkt. Hierdoor worden de bedieningsorganen van het schip in positie vastgezet, waarna u de cursor in de "Ikoon-Selectieweergave" kunt bewegen. Plaats de cursor nu op de ikoon die u wenst te gebruiken en druk L nogmaals in. Nu heeft u uw controle over uw schip weer terug.

Bpaalde uitrustingsstukken zoals sleutels zullen, na selectie, automatisch functioneren, terwijl u andere, zoals de merkbakens, eerst moet laten vallen. De wapensystemen kunnen worden gebruikt door A/Fire in te drukken.

Belangrijk: Op ieder willekeurig moment kan slechts één voorwerp teglijk worden geselecteerd.

Freitag, der 13. Mai 1988 sollte diesen Frieden zerstören. Es war ein Tag, an den Myrtle noch lange Zeit denken würde.

Kurz von dem Abendessen verliess Myrtle ihr kleines Wohnhasu und überquerte den Rasen zu ihrem Bienenhaus. Gerade das Beobachten der hektischen Geschäftigkeit der Tausenden von Bienen erfüllte sie immer mit einem Gefühl der Ruhe, während die Insekten summend ihren Weg zu den Bienenkörben machten, ihre Körper dick angeschwollen von Nektar. Heute aber schien etwas verändert zu sein. Myrtle war sich nicht sicher warum und wieso, sie empfand einfach, dass nicht alles so war wie es sein nächiger und irendwie unheilverkündend. Also sie so dastand und beobachtete, war sie sich sicher, dass der Lärm, und der Himmel, wurde er nicht dunkler? Es konnte nicht sein, denn es war noch nicht einmal Zeit fürden Nachmittagstee, und die Abenddämmerung war noch weit weg.

In diesem Augenblick schaute Myrtle auf. Sie erblasste und ihr Geisicht wurde zu einer Maske des Schreckens. Uberhalb bot sich ein ungerheurerliches Bild: ein Bienenkorb, aber nicht aus dieser Welt. Er füllte die Hälfte des Himmels aus und wurde grösser in dem Augenblick, als er zur Erde fiel.

Myrtle rannte so schnell es ihre Beine er laubten zurück zum Wohnhaus. Als sie ersteinmal drinnen war, schlug sie die Tür hinter sich zu und bewegt sich auf das Fenster zu. Sie verging fast vor Furcht. In den Feldern hinter dem Bienenhaus stand der 'Bienenkorb', von furchterregendem, metallenem Ausseren und den Ausmassen eines Turmes. Dann, mit donnerähnlichem Krach kamen sie zum Vorschein: Insekten von der Grösse eines Möbelwagens schossen von allen Seiten hervor und surrten über die Felder und Anhöhen.

Für Myrtle bestand kein Zweifel, die Behörden mussten unterrichtet werden. An einem abseits stehenden Schreibtisch in den Londoner Büros des M19 wurden die Anrufe entgegengenommen. Es war 20.47 Uhr und innerhalb von 13min sollte die Evakuierung Oxfordshires, beginnen. Nur ein Fahrzeug sollte in dieses Gebiet fahren, ein Last-wagen, der die einzige Hoffnung, die einzige Sicherheits-Chance mit sich führte.

Das Grashüpfer-Schiff solte bald in Upper Slaughter ankommen.

Als sie sich der letzten Kruezung auf der M40 näherten, biss Agent Brabham die Zähne zusammen. Dies war erst sein zweiter Auftrag ausserhalb, und er war unwahr-scheinlich nervös. Er lehnte seinen Kopf zurück und leerte seine Bierdose bis zum letzten Tropfen. Er war sich nur zu sehr darüber im klaren, dass dies sein Itezter Auftrag sein könnte. Auf dem Sitz neben ihm lag eine lederfarbene Mappe mit der Nachricht und ihren spärlichen Einzelheiten, die das Militär verfügbar gemacht spruch in sich selbst seien.

Die Situation war kritisch. Die Thermo-Schall-Abtastung hatte einzig die bauliche Peripherie des 'Bienenkorbes' erhellen können. Sie wussten, dass er sich aus acht stükeln; dieser war peinlich unzulänglich. Der einzig ermutigende Faktor war der Hinwis auf vorhandene Waffen und einen Brennstoffvorrat innerhalb des 'Bienenkorbes'. Brabham wusste, dass das Grashüpfer-schiff allein nicht ausreichen würde; es war die Versorgung, die eine Schlüsslfunktion innehatte.

Nicht das Schiff selbst war in sich unzulänglich, sondern es war einfach nicht im Hinblick auf diese Wirkungsweise gebaut worden. Es handlte sich um eine S.E.A.C. Mk.II, speziell geplant, um mit einem Angriff in feindlicher Umgebung fertig zu werden, wobei ihm seine Sprung-und Duckfähigkeit den Spitznahmen 'Grashüpfer' eingebracht hatte. Brabham wünschte, es wäre 'Heuschrecke' genannt worden. Er würde alle Hilfe brauchen können.

Myrtle war im Evakuierungzentrum in Banbury, ES war 22.04 Uhr. Droben schwirrten die Insekten.

Brbham lehnte sich nach vorn und bedient den gelben Knopf mit der Aufschrift 'START'. Der Grashüpfer belebte sich, torkelte nach vorn und grub vorsichtig Furchen in Myrtles Rasen. Er hatte den Engangspunkt gesichtet und die Mission war im Gange. Das Operationsziel - lokalisieren und zerstören Sie das Kontrollzentrum Vernichten Sie die Königin.

EINGABE-ANWEISUNGEN

SPECTRUM

Tippen Sie **LOAD**, drücken Sie die **ENTER** - Taste, drücken Sen den **PLAY**-Knopf auf Ihrem Recorder.

AMSTRAD CASSETTE CPC 6128, 664 und CPC 464 mit Scheibe.

Halten Sie **SHIFT** unten und drücken Sie die Taste Enter **TAPE** und drücken Sie dann **RETURN.**

Folgen Sie nun den Engabeanweisungen der **CPC 464 Cassette.**

CPC 464 CASSETTE EINGABE

Halten Sie den **CTRL** unten und drücken Sie die kleine **ENTER-TASTE.** Drücken Sie den **PLAY**-Knopf auf Ihrem Recorder.

AMSTRAD DISC

Geben Sie **RUN 'HIVE'** ein und drücken Sie dann **RETURN.**

ENERGIE

Der Grashüpfer wird mit Hilfe von elektronischen 'Pylons' betrieben, die um den 'Bienenkorb' herum verstreut sind und mühelos aufgenommen werden können. Diese Pylons werden mach und nach aufgebraucht, bis keine übrig sind, zu welchem Zeitpunkt die Energie aus der inneren Lebensstärke genommen wird. Wenn diese Null erreicht, werden Sie sterben.

Der Abzug von Energiemenge hängt davon ab, wieviel Ausrüstung Sie mit sich führen und wie schnell Sie sich fortbewegen.

Tragen Sie zwei oder mehr Pylons mit sich, steigert sich die Lebensstärke bis zu einem Höchstwert von 99 Einheiten.

MANÖVRIEREN

Das Schiff wird automatisch die Tunnelwege entlangfahren, ungeachtet der Richtung, in welche es zeigt. Während das Schiff in Bewegung ist können die Richtungskontrollen nur den Kopf bewegen und werden benutzt, um entweder das Laser- und Aufnahme-Sehver-mögen zu lenken oder um sich für einen Tunnel an einer Kreuzung zu entscheiden. Steht das Schiff einmal still, kann es um die eigene Achse gedreht werden. Innerhalb des ganzen 'Bienenkorbes' werden zahlreiche Hinernisse entgegentreten, wie zum Beispiel Stachel, Dorenen, Spinnweben und Stolperdraht. Unter diesen muss hergbekrochen werden, sie müssen übersprungen ober abgeschossen werden, je nachdem was angemessen erscheint. Bestimmte Tunnel werden von Fallgattern wrsperrt und können nur mit dem richtigen Schlüssel geöffnet werden.

Annullieren	2	Code-Eingabe	3
Auftauen	4	Bewegen des Schiebers	Space
Umkehren von X & Y	U	Eingeben des Codes	Return
Normal X & Y	I	Vermeiden der Code-Eingabe	CAPS
Umkrehren von X	P		
Umkrehren von Y	O		

MAP OF STRATA 0 **KARTE DER EBENE 0** Spiral up to strata 1,2,3,4

Spirale hinauf zu den Ebenen 1,2,3,4. Strata 1 Ebene 1 Gate Tor

Start Gate Tor für den Start Spiral down from strata 2

Spirale hinunter von Ebene 2 Key Schlüssel Gun Gewehr

Portcullis Fallgatter

Myrtle Rowbottom oli aina viettänyt kesälomansa Oxfordshiren kreivikunnassa sijaitsevassa Upper Slaughterin kylässä. Hän oli tutustunut kylään sodan aikan, kun hänet oli evakuoitu sinne Lontoosta, ja niistä ajoista lähtien hän oli päättänyt viettää eläkepäivänsä Tootingissa hän tunsi itsensjä vanhaksi ja väsyneeksi, nyt hän kaipsai enää rauhaa ja hiljaisuutta.

Perjantaina, 13. päivänä toukokuuta 1988, tuo rauha kuitenkin rikkoutui. Se oli päivä, jonka Myrtle tuli muistamaan hyvin pitkään.

Pian iltapäivätéen jälkeen Myrtle lähti pikku mökistään ulos puutarhaan, käveli hilhjalleen nurmikon poikki hoitamiensa mehiläisten persien luokse. Hänestä oli hauska seurata pesissä asustavien tuhansien mehiläisten ahkeraa touhuilua. Nilden pörräily pesien ympärillä sai hänen mielensä aina rauhoittumaan. Mutta tänään ne vaikuttivat erilaisilta kuin tavallisesti. Myrtle ei ollut varma miten tai miksi, mutta hänestä tuntui, että kaikki ei ollut niin kuin piti. Mehiläisten pörräily kuulosti omituisesti äänekkäämmältä kuin yleensä, sahaavammalta ja jollain tavalla paaenteiseltä. Hän oli varma siinä seisoessaan ja katsellessaan, että, mehiläisten ääni jatkuvasti koveni. Entä taivas, oliko se tummenmassa? Eihän toki niin vounut olla pimeän tuloonhan oki vielä runsaasti aikaa.

Juuri tällä hetkellä Myrtle sattui katsomaan ylös taivaale. Hän kalpeni kauhusta ja pelko levisi hänen kasvoilleen kuin nihekä naamio. Hänen yläpuolellaan näkyi jotain kamalaa, mehiläispesä, joka oli kuin hirviö. Se täytti puolet taivaan kannesta ja kasvoi hetki hetkeltä suuremmaksi. Pesä tuntui olevan avaruudesta kotoisin ja se lähestyi maata uhkaavasti.

Myrtle juoksi takaisin mökkiinsä niin pian kuin vanhoilta jaloiltaan pystyi. Päästyään sisälle hän pamiautti oven takanaan kiinni ja siirtyi ikkunan ääreen. Vilkaistessaan ulos hän melkein kuoli kauhusta. Hänen omien herttaisten mehiläispesiensä taakse niitylle oli laskeutunut valtava mehiläispesä, peloittava metallinkiiltoinen rakennelma, koka oli korkea kuin kerrostalo. Sitten yhtäkkiä sen sisältä alkoi tulvia kiitolinja-auton kokosia hyönteisiä, joiden surina muistutti ukkosen jyrinää. Niitä ilmestyi yhtenä virtana pesän sivuilta ja ne alkoivat lentää pitkin peltoja ja metsiä.

Yhdestä asiasta Myrtle oli varma - tästä oli ilmoitettava viranomaisille.

Englannin sisäministeriön osastolla M19 puhelimet olivat kuumina. Kello oli 20.47 ja kolmentoista minuutin sisällä Oxfordshiren kreivikunnan evakuointi tulisi alkamaan. Alueele oli lähdössä vain yksi ajoneuvo, kuorma-auto, johon sisältyi kaikki toivo jo ainoa ratkaisu tilanteen pelastamiseksi.

Nimittäin heinäsirkkalaiva oli tulossa Upper Slaughterin kylään aivan näillä minuuteilla.

Lähestyessään viimeistä tienhaaraa M40-moottoritiellä agentti Brabham kiristi hampaitaan. Tämä oli hänelle vasta toinen komennus ja hänen oli terästettävä itsensä äärimmilleen pitääkseen hermonsa kurissa. Kallistaen päätään taaksepäin hän siemaisi tyhjäksi viimeisen olutpurkkinsa. Brabham tiesi, että se saattoi hyvinkin olla myös hänen elämänsä viimeinen. Hänen vieressään matkustajanistuimella lepäsi ruskea kansio, joka sisälsi puolustuslaitoksen hänelle antamat niukat tiedot tilanteesta - Brabham oli aina ollut sitä mieltä, että puolususlaitoksen niin santuissa tiedoissa olisi ollut parantamisen varaa.

Tilanne oli äärimmäisen vaarallinen. Lämpö- ja kaikuluotaimella oli pystytty tutkimaan ainostaan avruudesta ilmestyneen Hive-mehiläispesän ulkokuori. Sen tiedettiin koostuvan kahdeksasta kerroksesta, mutta vain Strata 0 -kerroksen rakenne oli pystytty päättelemään. Toisin sanoen tiedot olivat vakavasti puutteellisia. Jonkinlaisia viitteitä oli saatu siitä, että Hiven sisällä oli mahdollista kaapata lisää aseita ja polttoainetta, ja nämä tiedot olivat tietysti edes jossain määin rohkaisevia. Brabham tiesi, että Grashopper Ship -heinäsirkkalaiva ei yksinään riittäisi, ase- ja polttoainetäydennykset olivat avainasemassa.

Ei silti, että aluksessa sinänsä olisi ollut mitään vikaa, mutta sitä ei vain oltu rakennettu tällaista tehtävää varten. Se oli S.E.A.C. Mk.II, joka oli varta vasten suunniteltu vaikeassa maastossa tapahtuvan hyökkäyksen torjuntaan, ja se oli saanut lempinimen heinäsirkka - Grasshopper - koska se pystyi hyppimään ja kyyristelemään. Brabham toivoi, että niille olisi annettu nimeksi edes Locust hävittäjäheinäsirkkojen mukaan. Hän tarvitsi nyt kaiken mahdollisen avun ja pieni annos henkistä raakuutta ei olisi ollut pahitteeksi.

Myrtle oli Banburyn evakuointiasemalla. Kello oli 22.04. Hyönteiset surisivat ilmassa.

Brabham nojasi eteenpäin ja painoi keltaista nappulaa, johon oli kirjoitettu "Start". Grasshopper sähähti toimintaan ja ponkaisi eteenpäin jättäen jälkeensä terävästi piirtyneet raiteet Myrtlen nurmikolle. Brabham oli huomannut sisäänmenoaukon ja hyökkäys oli alkanut.

Tavoite - löydä ja tuhoa hallintakeskus. Surmaa kuningatar.

LATAUSOHJEET

SPECTRUM

Kirjoita **LOAD" "** Paina **ENTER**-näppäintä. Paina kasettiaseman **PLAY**-näppäintä.

AMSTRAD CASSETTE CPC 6128. 664 ja CPC 464, levykkeellä varustettu.

Pidä **SHIFT**-näppäintä alhalla ja paina @-näppäintä. Syötä **ENTER** ja paina sitten **RETURN**-näppäintä.

Seuraa nyt **CPC 464** kasetin latausohjeita.

Pidä **CTRL**-näppäintä ja paina pientä **ENTER**-näppäintä.

Paina kasettiaseman **PLAY**-näppäintä.

AMSTRAD LEVY

Syötä **RUN "HIVE"** ja paina sitten **RETURN**-näppäintä.

DE VIJAND

In de Korf vliegen vele verschillende soorten elektronische insecten rond. Als u voortgaat door de strata, zullen die in aantal toenemen en ook sterker worden. Deze kunt u attackeren als u eerst de sterke lasers heeft gevonden en de zware bepantsering waarmee u zich moet beschermen.

Ook zijn er cipiers die in de Korf rondzwerven. Die zien eruit als enorme demonische maskers die u langzaam benaderen. Ze hebben echter hun zwakke plek, maar die zwakke plek moet herhaaldeelijk worden geraakt voordat ze worden gedood. Als een Cipier u doorslikt, zult u zijn opgesloten in een gevangenis ergens op strata 1. U kunt alleen ontsnappen als u een celsleutel (gevonden op strata 2) heeft. Zo niet, dan moet u het spel opgeven door eerst 1 en dan 2 in te drukken.

VEILIGSTELLEN EN LADEN

In plaats van het laden en veiligstellen van uw positie naar de tape/schijf, moet u alleen maar de code opschrijven in de "Codeweergave". Deze code wordt steeds bijgewerkt als u een poort passeert.

Voor de input van een oude code hoeft u alleen maar 1 in te drukken, zodat in het spel een pauze wordt ingebouwd. Druk vervolgens 3 in. U kunt nu de code intypen.

SPACE zal de cursor naar één positie bewegen. **CAPS** beëindigt het inbrengen van een code, waarna het spel weer zal beginnen.

Zodra u er zeker van bent dat uw code correct is, moet **ENTER/RETURN** worden ingedrukt.

SPECTRUM
AMSTRAD CPC

1 **CODEWEERGAVE**
2 **INDICATIE VOOR EEN AANVAL VAN ACHTEREN**
Deze gaat rood knipperen als een insect achter u opduikt.
3 **KRUISING-INDICATOR**
Deze gaat branden als er een kruising achter u is. Om die kruising op te gaan, moet u teruggaan
4 **UW SCHIP**
Dit toont grafisch of u stilstaat, rent of hurkt.
5 **LEVENSKRACHT - INDICATOR**
99 is zeer gezond en D betekent dat u dood bent.
6 **HOGE SCORE**
7 **HUIDIGE SCORE**
8 **BEPANTSERING - WEERGAVE**
Dit toont hoeveel bepantsering u san de voor- en achterkant draagt. De kleur van de bepantsering toont hoe zwaar het is. Een gloeiende rode bal wil zeggen dat u een schild draat.
9 **IKOON - SELECTIEWEERGAVE**
Dit geeft aan welke uitrustingsstukken u draagt en welk uitrustingsstuk op dat moment is gekozen
10 **STRATA - INDICATORE**

TOETSENLIJST

Links	N of B	Hurken/Opstaan	K of H
Rechts	M of N	Achter/vooraanzicht	Z
Omhog	S of C	Accelereren	SPACE (RUIMTE)
Omlaag	X of D	Decelereren	V
Vuur	A	Ikoon/schip-controle	L
Pickup	Q	Laten vallen	W
Sprong	J of G	Immobiliteits-modus	1

In de immobiliteits-modus:

Onderbreken	**2**	**Code-inbreng**	**3**
Mobiliteit	**4**	**cursor bewegen**	**Space (ruimte)**
Terug X & Y	**U**	**code inbrengen**	**Return**
Normaal X & Y	**I**	**ontsnappingscode inbreng**	**CAPS**
Terug X	**P**		
Terug Y	**O**		

KAART VAN STRATA Ø Spiraal omhoog tot strata 1,2,3,en 4. Strata 1 Poort
Startpoort Poort Omlaag spiralen tot strata 2 Sleutel Vuurwapen Valhek
Sleutell

Myrtle Rowbottom hatte die Sommermonat in Upper Slaughter, einem Dorf in Oxfordshire, immer genossen. Seidem sie während des Krieges von London dorthin evakuiert worden war, hatte sie ihr Herz an den Wunsch gehängt, in dieser voll-kommenen Umgebung die Jahre ihres Ruhestandes zu verbringen. Die 35 Jahre als Post-meisterin in Tooting hatten Spuren hinterlassen: Sie war müde, erschöpft und brauchte Ruhe.

Freitag, der 13. Mai 1988 sollte diesen Frieden zerstören. Es war ein Tag, an den Myrtle moch lange Zeit denken würde.

Kurz von dem Abendessen verliess Myrtle ihr kleines Wohnhasu und überquerte den Rasen zu ihrem Bienenhaus. Gerade das Beobachten der hektischen Geschäftigkeit der Tausenden von Bienen erfüllte sie immer mit einem Gefühl der Ruhe, während die Insekten summend ihren Weg zu den Bienenkörben machten, ihre Körper dick angeschwollen von Nektar. Heute aber schien etwas verändert zu sein. Myrtle war sich nicht sicher warum und wieso, sie empfand einfach, dass nicht alles so war wie es sein näckiger und irendwie unheilverkündend. Also sie so dastand und beobachtete, war sie sich sicher, dass der Lärm, und der Himmel, wurde er nicht dunkler? Es konnte nicht sein, denn es war noch nicht einmal Zeit fürden Nachmittagstee, und die Abenddämmerung war noch weit weg.

AUSRUSTUNG

Sie sind mit drei Leuchtbomben ausgestatte, die überall innerhalb des 'Bienenkorbes' abgeworfen werden können, um beim Zurechtfinden in den verschlungenen Tunneln behilflich zu sien.

Im ganzen Bienenkorb' verstreut liegen zahlreiche Ausrüstungsgengenstände, die aufgenommen und benutzt werden können. Um etwas aufzunemen, drückt man Q und ein quadratisches Sichtzeichen erscheint. Behalten Sie das Objekt, das aufgenommen werden soll innerhalb dieses Sichtzeichens, und sind Sie nahe genug am Objekt, wird es aufgelesen und dem 'Icon Selection Display' (Schaubild der ausgewählten Gegestände) hinzugefügt.

Um einen Gegenstand zu benutzen, drückt man L. Dies friert die Kontrollen des Schiffes ein und ermöglicht Ihnen, den Schieber in der 'Icon Selection Display' zu bewegen. Man plaziert den Schieber nun über den Gegenstand, den man zu nutzen wünscht und drückt mochmals L, um wieder Kontrolle über das Schiff zu bekommen. Bestimmte Gegenstände, wie zum Beispiel Schlüssel arbeiten automatisch, nachdem sie einmal gewählt wurden während ander, wie zum Beispiel Sichtzeichen fallengelassen werden sollen, und Waffen werden benutzt, indem man A/Feuern drückt. Beachten Sie: Nur ein Objekt kann zu einam Zeitpunkt gewählt werden; man kann nicht die Tore öffnen und gleichzeitig ein Insekt in die Luft sprengen.

DER FEIND

Viele unterschiedliche Arten von elektronischen Insekten fliegen um den 'Bienenkorb' herum. Sie werden immer zahlreicher und widerstandsfähiger währen Sie durch die Ebenen vordringe. Um diese in Angriff zu nehmem und sich selbst zu schützen, finden Sie wirksame Laser und starke Bewaffnung vor. Innerhalb des 'Bienenkorbes' befinden sich darüberhinaus Wärter, die umherstreifen und die wie sich Ihnen langsam nähernde, gigantische, teuflische Gesichter aussehen. Sie haben allerdings einen schwachen Punkt, doch dieser muss wiederholt getroffen werden, um sie zu töten. Verschlukt Sie ein Wärter, dann finden Sie sich im Gefängnis wieder, irgendwo auf der Ebene 1. Sie können nur entkommen, wenn Sie einen Gefänisschlüssel besitzen (auf der Ebene 2 gefunden), andernfalls müssen Sie das Spiel annullieren, indem Sie 1 und dann 2 drücken.

SICHERN UND EINGEBEN

Anstelle des Eingebens und Sichems der Position in das Band/dieScheibe, muss man einfach nur den Code, der im 'Code-Display' gezeigt wird niederschreiben. Dieser Code wird bei jedem Durchschreiten eines Tores auf den neuesten Stand ge-bracht. Un eine alten Code einzugeben drückt man einfach 1 zur Unterbrechung des Spiels und dann drückt man 3. Man kann nun den Code eintippen. 'Space' wird den Schieber in die eine Position bringen, CAPS wird von der Code-Eingabe wegrücken und das Spiel wiederaufnehmen. Sin Sie davon überzeugt, dass der Code korrekt ist, drücken Sie ENTER/RETURN.

1 **CODE-SCHAUBILD**
2 **ANZEIGER FUR ANGRIFF VON HINTEN**
Dieser leuchtet rot auf immer dann, wenn ein Insekt hinter Ihnen ist.
3 **KREUZUNG-ANZEIGER**
Dieser leuchtet auf, wenn eine Kreuzung hinter Ihnen liegt. Um diese zu betreten, drehen Sie sich zu sich selbst.
4 **IHR SCHIFF**
Dies zeigt graphisch ob es im Stillstand, in Bewegung oder in Hockstellung ist.
5 **ANZEIGER DER LEBENSSTÄRKE**
99 bedeutet sehr gesund, 0 dass Sie tot sind.
6 **HOME PUNKTZAHL**
7 **GEGENWÄRTIGE PUNKTZAHL**
8 **WAFFEN - SCHAUBILD**
Dies zeigt wieviel vordere und hintere Bewaffnug Sie bei sich tragen. Die Farbe dieser weist auf das Gewicht hin. Ein glübhen roter Ball bedeutet, dass Sie ein Schild bei sich tragen.
9 **SCHAUBILD DER AUSGEWÄHLTEN GEGENSTÄNDE**
Dies zeight welche Gegenstände Sie bei sich tragen und welche gerade ausgewählt werden.
10 **EBENEN-ANZEIGER**

TASTENLISTE

Links	N oder B	Hocken/Aufrechtstehen	K oder H
Rechts	M oder N	Ausblick Rückseite/ Vorderseite	Z
Hinauf	S oder C	Beschleunigen	SPACE
Hinunter	X oder D	Verlangsamen	V
Feuern	A	Kontrolle über Gegenstände/Schiff	L
Aufnehmen	Q	Fallenlassen	W
Springen	J oder G	Gefrierzustand	1
	Während des Gefrierzustandes		
Annullieren	2	Code-Eingabe	3
Auftauen	4	Bewegen des Schiebers	Space
Umkehren von X & Y	U	Eingeben des Codes	Return
Normal X & Y	I	Vermeiden der Code-	
Umkehren von X	P	Eingabe	CAPS
Umkehren von Y	O		

MAP OF STRATA 0 **KARTE DER EBENE 0** Spiral up to strata 1,2,3,4
Spirale hinauf zu den Ebenen 1,2,3,4. Strata 1 Ebene 1 Gate Tor
Start Gate Tor für den Start Spiral down from strata 2

ENERGIA

Heinäsirkkalaiva saa käyttövoimansa elektronisista voimajohtopylväistä, Pylonei esiintyy siellä täällä Hive-avaruuspesän ympärillä ja joita voi helposti kerätä. Nämä p vähitellen loppuun kunnes niitä ei ole enää yhtään jäljellä, jolloin energiaa on otetta sisäisestä elinvoimavarastostasi. Jos elinvoimavarastosi pienenee nollaan, kuolet.

Energiankulutus riippuu siitä, kuinka suuri määrä laitteita sinulla on kannettavana nopeasti juokset.

Jos kannat kahta tai useampaa Pylon-pylvästä, elinvoimasi nousee, mahdollises yksikköön, joka on suurin lukema.

TOIMINNAT

Ohjaamasi alus kulkee automaattisesti pitkin käytäviä riippumatta siitä mihim su Liikkuessasi suunnanohjaimet kääntävät ainoastaan päätäsi ja ohjaimia käytetään käyttämäsi laser/kerääjä -tähtäimien kohdistamiseen tai valitsemaan mihim käytäv risteyskohdassa. Pysähdyksissä ollessasi voit kääntyä ympäri.

Hive-pesän sisällä tulet kohtaamaan monia esteitä, esimerkiksi mehiläisen pisto piikkejä, verkkoja ja ansalankoja. Näiden yli pitää hyupätä, ryömiä niiden ali tai am mukaan. Määrätyt käytävät on suljettulaskuristikoin, jotka voidaan avata ainoastaa avaimella.

LAITTEET

Sinulla on käytettävänäsi kolme mrekitsijää, jotka voit tipauttaa minne tahansa H sisällä ja jotka auttavat sinua kartoittamaan kiduttavien käytävien kulkusuuntia.

Hive-pesän sisälle on sirotettu erilaisia laitteita, joita voit poimia ja ottaa käyttöön

Halutessasi poimia jotain paina Q-näppäintä, jolloin nelikulmainen tähtäin ilmest

Pidä laite, jonka haluat poimia, tähtäimien alueella ja päästyäsi tarpeeksi lähelle si sen ja se lisätään laitevalikoimanäyttöön.

Halutessasi käyttää jotain laitetta paina L-näppäintä. Tämä pysäyttää aluksen hal samalla voit siirtää kohdistinta laitevalikoimanäytön puitteissa.

Aseta nyt kohdistin haluamisi laitteen kohdalle ja paina uudestaan L-näppäintä, jälleen hallita aluksen toimintaa.

Määrätyt laitteet, kuten esimerkiksi avaimet, toimivat automaattisesti, kun ne on v toiset, kuten merkitsijät, on tipautettava haluttuihin paikkoihin. Aseita voidaan käyt A/Fire -näppäintä.

Huom: Vain yksi laite voidaan valita kerrallaan, joten et voi avata porttia ja ampu yhtääikaa.

VIHOLLINEN

Hive-pesässä ja sen ympärillä lentelee monenlaisia elektronisia hyönteisiä, ja niic sekä voimakkuus kasvaa sen mukaan mitä syvemmälle pesään tunkeudut. Pysty puolustautumaan näitä vastaan tarvitset voimakkaita laseraseita ja tehokkaan par

Hive-pesässä liikuskelee myöskin vanginvartijoita, jotka näkyvät sinua hitaasti l valtavina, irvistelevinä naamoina.

Niillä on kaikilla oma heikko kohtansa, mutta tähän heikkoon kohtaan on osutta kerran ennen kuin vanginvartija kuolee. Jos vanginvartija imaisee sinut, joudut luk ensimmäisessä kerroksessa olevaan vankilaan. Pääset pakenemaan ainoastaan vankilan avain (jollaisen voit löytää toisesta kerroksesta). Muussa tapauksessa si luovuttava pelistä painamalla ensin 1-näppäintä ja sitten 2-näppäintä.

SÄILYTÄ MUISTISSA JA LATAA

Sen sijaan että joutuisit säilyttämään ja lataamaan paikkasi nauhalle tai levylle, yksinkertaisesti kirjoittaa koodi, joka näkyy koodinäytössä. Tämä koodi uusiutuu j menet portin läpi.

Voidaksesi syöttää vanhan koodin, yksinkertaisesti paina 1-näppäintä pysäyttä paina sitten 3- näppäintä.

Tämän jälkeen voit kirjoittaa koodin.

Space-näppäin siirtää kohdistinta yhden askeleen, CAPS-näppäin lopettaa koo syöttötoiminnan ja saa pelin jatkumaan.

Kun olet varma, että koodisi on oikea, paina ENTER/RETURN-näppäintä.

1 **KOODINÄYTTÖ**
2 **HYÖKKÄYS TAKKA**
Tämä punainen valo alkaa vilkkua, jos takanasi on hyönteinen.
3 **RISTEYSOSOITIN**
Tämä valo syttyy, jos takanasi on risteys. Voidaksesi mennä sinne sisään ympäri.
4 **OMA ALUKSESI**
Tämä näyttää graafisesti oletko pysähdyksissä, juoksetko vai ryömitkö.
5 **ELINVOIMANOSOITIN**
99 on erittäin byvä terveydentila ja 0 tarkoittaa, että olet kuollut.
6 **KORKEA TULOS**
7 **TÄMÄN HETKEN TULOS**
8 **ASEISTUSNÄYTTÖ**
Tästä näkyy kuinka paljon aseistusta sinulla on edessä ja takana. Aseistu ilmoittaa sen voimakkuuden. Punainen pallovalo ilmoittaa, että kannat kil
9 **LAITEVALIKOIMANÄYTTÖ**
Tästä näet mitä laitteita sinulla on käytettävänäsi ja minkä niistä olet kulla valinnut.
10 **KERROSOSOITIN**

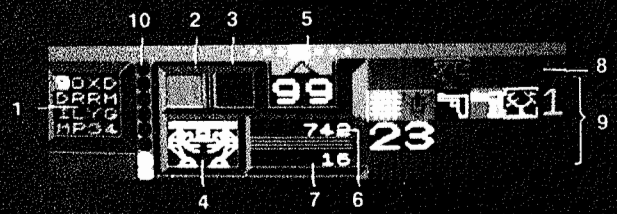
NÄPPÄINTOIMINNOT

Vasen	N tai B	Ryömi/Nouse ylös
Oikea	M tai N	Näkymä takaa/edestä
Ylös	S tai C	Kiihdytys
Alas	X tai D	Hidastus
Tulitus	A	Laitteiden/aluksen

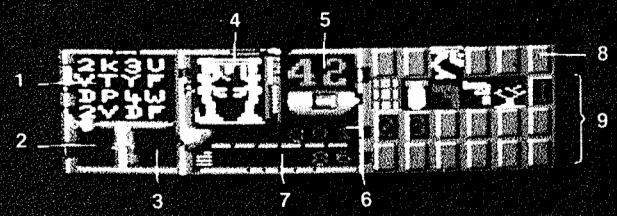
progress through the strata. To tackle these, you will need to find powerful lasers and heavy armour to protect yourself.
There are also Jailers roaming the Hive, which look like gigantic demonic faces which approach you slowly. They do have a weak spot, but this spot must be hit repeatedly in order to kill them. If a Jailer swallows you, you will find yourself locked in a prison somewhere on strata 1. You can only escape if you have a prison key (found on strata 2), otherwise you will have to abort the game by pressing 1 then 2.

SAVE AND LOAD
Instead of loading and saving your position to tape/disk, you simply have to write down the code shown in the 'Code Display'. This code is updated whenever you go through a gate.
To input an old code, simply press 1 to pause the game and then press 3. You can now type in the code.
Space will move the cursor on one position, CAPS will escape from code entry and resume the game.
Once you are satisfied that your code is correct, press ENTER/RETURN.

SPECTRUM



AMSTRAD CPC



1 CODE DISPLAY

2 REAR ATTACK INDICATOR
This flashes red whenever an insect is behind you.

3 JUNCTION INDICATOR
This lights up if there is a junction behind you. To enter this junction, turn back on yourself.

4 YOUR SHIP
This shows graphically if you are stationary, running or crouching.

5 LIFE FORCE INDICATOR
99 is very healthy and Ø means that you are dead.

6 HIGH SCORE

7 CURRENT SCORE

8 ARMOUR DISPLAY
Shows how much front and rear armour you are carrying. The colour of the armour indicates how heavy it is. A glowing red ball indicates that you are carrying a shield.

9 ICON SELECTION DISPLAY
Indicates what items you are carrying and which one is currently selected.

10 STRATA INDICATOR

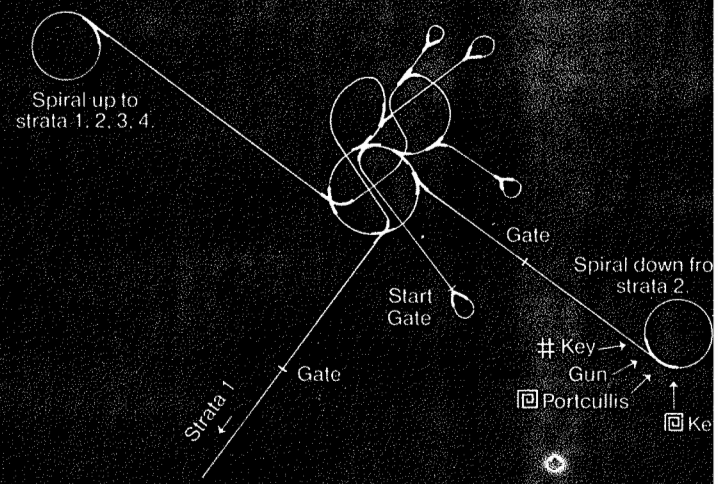
KEYLIST

Left	N or B	Crouch/Stand up	K or H
Right	M or N	Rear/Front view	Z
Up	S or C	Accelerate	SPACE
Down	X or D	Decelerate	V
Fire	A	Icon/ship control	L
Pick up	Q	Drop	W
Jump	J or G	Freeze mode	1

While in freeze mode:

Abort	2	Code entry	3
Unfreeze	4	move cursor	Space
Reverse X&Y	U	enter code	Return
Normal X&Y	I	escape code entry	CAPS
Reverse X	P		
Reverse Y	O		

MAP OF STRATA Ø





ANOL

TROLES

opción a otra en el menú y
r la opción.
jego de uno ó dos jugadores
u para preparar un juego que
destreza
los jugadores mantienen
ismo tiempo que avanza o se

S (CONTROLES ESCOGI
as o palancas para controla

Jugador 1	Jugador 2
ARRIBA	Q
ABAJO	A
IZQUIERDA	W
DERECHA	E
FEU	Z

) JUGAR

mbro de tu equipo tiene un
este es el jugador que tu

electros diferentes
con el balón, pulsa KICK
on en que estás corriendo
es el KICK control, el balón

mes, el control del balón,
equipo que este mas cerca del
trol
ndo al portero pulsa KICK

DE LA LUCHA

ro una disputa muy fuerte
a IZQUIERDA y DERECHA
ente para golpear a los
La lucha se acaba cuando
drillas se agota.

TIONES

ara el encender el autokick
partido sea mas divertido.
con el aumento de nivel de
l de dificultad en el juego
jugar bien.

DEUTSCH

STEUERUNG

Mit der SPACE kannst Du durch die Optionen auf dem Menü gehen und mit ENTER eine Option wählen.
Wähle ein Spiel für einen oder zwei Spieler.
Mit dem Optionsmenü kannst Du Dir ein Spiel zusammenstellen, das Deinem Leistungsgrad entspricht.
Die Option **"Autokick** entscheidet darüber, ob die Spieler während des Dribbelns am Ballbesitz bleiben oder ihn wegschießen.
Mit **"CHOOSE CONTROLS"** (Wähle die Kontrollen) kannst Du Dir aussuchen, ob Du das Spiel mit Tasten oder mit dem Joystick spielen möchtest.

	Spieler 1	Spieler 2
Rauf	RAUF	Q
Runter	RUNTER	A
Links	LINKS	W
Rechts	RECHTS	E
Schießen	FEUERN	Z

SPIELVERLAUF

Bei genauem Hinsehauen wirst Du feststellen, daß ein Mitglied Deiner Mannschaft eine Zahl über seinem Kopf hat. Dies ist der Spieler, den Du augenblicklichkontrollierst.
Deine "STEUERKONTROLLER" hat drei verschiedene Funktionen.
Drücke auf Kick (Schießen) während Du mit dem Ball rennst, um ihn in Deine Laufrichtung zu kicken. Je länger Du die Kick Kontrolltaste hiereuntergedrückt hälst, desto höher wird der Ball gekickt.
Wenn Du auf Kick druckst ohne im Ballbesitz zu sein, bekommst Du den Spieler aus Deiner Mannschaft unter Kontrolle, der am nächsten zum Ball steht.
Wenn Du den Torwart kontrollierst, läßt Du ihn mit der Kick Taste hechten.

DIE SCHLÄGEREI

Wenn sich die Mannschaften sehr heftig streiten, werden sie miteinander zu kämpfen beginnen. Drücke schnell abwechselnd Links und Rechts, um die Mitglieder der anderen Bande zu schlagen. Die Schlägerei kommt zu einem Ende, sobald einer der Banden die Energie ausgeht.

HINWEISE

Bei einem Spiel mit zwei Spielern wird das Spiel meistens lustiger, wenn Du den Autokick einschaltest.
Bei einem Spiel mit einem Spieler mußt Du, je höher der Schwiengkeitsgrad ist, um so mehr kicken und Pässe schlagen, um ein gutes Resultat zu erzielen.

SPY HUNTER®

LOADING INSTRUCTIONS

AMSTRAD CPC CASSETTE

Press CTRL and small ENTER keys simultaneously.
Press PLAY on your cassette recorder.

Keyboard/Joystick Control

KEYBOARD CONTROL

Z = left; X = right; + = accelerate.
? = break;) = Fire; Q = quit.

JOYSTICK CONTROL

Compatible with a variety of joystick interfaces.

Without use of FIRE button, movements are:

UP – Forward, up the screen, accelerating to maximum speed.

LEFT & RIGHT – Moves vehicle to left and right.

DOWN – Down the screen, decelerating until car stops.

FIRE button initiates weapons systems selection.

The joystick movements below select and discharge particular weapons, if collected, but do not control vehicle direction of speed until FIRE button is released.

UP/DOWN + LEFT/RIGHT – Machine gun, or Rocket if it has been collected and helicopter is in close proximity of Spy Hunter Car.

MIDDLE – Waits for weapons choice.

LEFT – Oil Slick.

RIGHT – Smoke Screen.

HOW TO PLAY

SCREEN AND GAME PLAY

Your Spy Hunter adventure game starts as the Weapons Van rolls up from the bottom of the screen and pulls over to the shoulder of the road. The van stops and your Spy Car rolls out of the back, armed with machine guns. You then manoeuvre your car onto the road as the action begins.

The road will branch and fork as you go. You must be careful as you dodge and chase enemy agents not to swerve off the road. If you do, you'll lose one of your Spy Cars. When you lose a Spy Car and you still have Spy Cars in reserve, a Weapons Van appears from the bottom of the screen and pulls over to the road shoulder to let the new Spy Car roll out of the back onto the road for more action. If you have no remaining Spy Cars, the game is over.

The terrain will change as you traverse the course. Screen backgrounds will change colour as indication of a new terrain. As the course continues, you'll come to a waterway. Here your Spy Car enters a boathouse and automatically become amphibious and skims along the surface of the water. Don't think you're safe. The water is teeming with other Enemy Agents.

There is also a stretch of bridges and a stretch of Icy Road in other screens.

WEAPONS

A Weapons Van appears on the road, ready to supply your Spy Car with the appropriate new weapon. To gain access to the new weapons, you must "dock" with the Weapons Van. To do this, allow the Van to pass you, then get behind it and drive up into it. The Van will automatically let the Spy Car roll out once the weapons have been transferred.

The weapons you have available to you at any given time are displayed at the bottom right of the screen.

You can also use your Spy Car to destroy some enemy agents by ramming them off the road for points.

ENEMY AGENTS

The Spy Car faces various Enemy Agents along the course. Each Enemy Agent, except the Road Lord, has its own unique weaponry. They are:

The Road Lord (bulletproof)
Must be rammed off the road by Spy Car.

Switch Blade
Extended buzz-saw hubcaps to slash cars.

Barrel Dumper
Dumps barrels in water ahead of Spy Boat

The Enforcer
Fires a shotgun.

The Copter (Mad Bomber)
Drops bombs onto Spy Car.

Doctor Torpedo
Fires torpedoes at Spy Boat

Running off the road or running into a screen boundary at any time will also cost you a Spy Car.

SCORING

You will lose points if you destroy any of the innocent civilian vehicles.

The player's score is displayed at the bottom left corner of the screen. Current High Score is displayed on the menu screen.

Here's how the score adds up.

Travelling on the water	15 points every ¼ of screen
Travelling on the road	25 points every ¼ of screen

If you destroy:

The Road Lord	
Switch Blade	150 points
The Enforcer	150 points
The Copter (Mad Bomber)	500 points
Barrel Dumper	700 points
Doctor Torpedo	150 points
	500 points

Each time you enter or exit the boathouse, as you move from land to water and back again, you earn 1,500 points.

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LOADING INSTRUCTIONS

SPECTRUM: 48K owners type LOAD "" (ENTER). 128K users select the LOADER option from the menu.
AMSTRAD CPC: 464, hold down CTRL and tap the small ENTER key. 664/6128: Type | (shifted @) TAPE (ENTER) the type RUN"" (ENTER).
COMMODORE 64/128: Hold down SHIFT and tap the RUN/STOP key. 128K owners ensure that it is in C64 mode.

When loading please follow all on screen instructions.

PART 1: TRAINING (EAST SIDE STYLE)

Before going up against the West-sides toughest fighters, you must first, ensure that you and your buddies have got what it takes. To qualify each of your six boxers you must complete a gruelling physical test. You must waggle your joystick, in a left, right, left, right motion until the boxing gloves shown at the bottom of the screen turn yellow. The more fighters you qualify, the more lives you are given in the subsequent sections.

PART 2: THE GYM

Joe Lebrinski has left you and your buddies in charge of the gym. Just as you are about to lock up, six mean looking West side street fighters arrive. You can see that they are looking for trouble. You soon realise what they are up to: their yuppie masters have ordered them to smash up Joes equipment, forcing him out of business. Only you and your comrades stand in their way.

PART3: THE REVENGE

Once all the enemy fighters have been defeated you decide to find the yuppies and politely ask them to stop their bullying. You and your wounded buddies must battle your way to the West-side, defeating anyone who crosses your path.

CONTROLS

Spectrum/Amstrad: You may select your control method from the title page. The game supports most joysticks and has a user definable keys option.
C64: Use a joystick in port 2.
Controls operate when facing left, reverse controls when your fighter is facing right.

Press Space to pause: Fire resumes play.

C64 SCF
Suitable
ALL AM
© 1988

Moeglichkeiten:	MODE 0 Keine MODE 1 Schrift von MODE 0/1 MODE 2 Schrift von MODE 0/1/2
:HMIRROR	¥Spiegelt den Bildschirminhalt um seine horizontale Mittelachse.
:VMIRROR	Spiegelt den Bidschirminhalt um seine vertikale Mittelachse.
:SCROLLUP	Scrollt den Bildschirm, mit ausnahme von Zeile 24, um eine Textposition nach oben.
:SCROLLDOWN	Wie "SCROLLUP" aber nach unten.
:BSCROLLUP,L,R,O,U	Scrollt einen Bildschirmbereich um eine Textposition nach oben. Parameter: L=Linke Seite R=Rechte Seite O=Obere Reihe U=Untere Reihe Alle angaben in Textpositionen!
:BSCROLLDOWN,L,R,O,U	Wie oben aber abwaerts.
:ZRSCROLL,n	¥Scrollt die Zeile n um ein BYTE nach Rechts. 1 BYTE=:MODE 0...2 PIXEL MODE 1...4 PIXEL MODE 2...8 PIXEL (1 TEXTPOSITION)
:ZLSCROLL,n	¥Wie "ZRSCROLL" aber nach Links.
:LEFTSCROLL	¥Scrollt den gesamten Bildschirminhalt um 1 BYTE nach Links.
:RIGHTSCROLL	¥Wie "LEFTSCROLL" aber nach Rechts.
:BLANK,n	Wenn n=0 ist uebernimmt der Computer jede Zeile so wie sie eingegeben wird. Wenn n=1 ist werden alle ueberfluessigen Leerzeichen in den Zeilen geloescht.
:LOCK,§a$	Sperrt den Computer fuer alle eingaben bis auf "UNLOCK". a$ muß ein Codewort mit 8 Zeichen laenge enthalten.
UNLOCK	Mit "UNLOCK" muß das bei "LOCK" angegebene CODEWORT angegeben werden. (8 Zeichen Lang!") ACHTUNG...ACHTUNG...ACHTUNG...ACHTUNG...ACHTUNG...A "UNLOCK" wird nur OHNE RSX-Balken und in GROß-BUCHSTABEN mit EINEM Blank zwischen "UNLOCK" und CODEWORT akzeptiert !!!!!!!!!!!!!!!!!!!!!!!!!!!
:CIRCLE,X,Y,DX,DY	Zeichnet einen Kreis oder eine Ellipse, wobei X,Y der Mittelpunkt ist, DX der Radius auf der X-ACHSE und DY der Radius auf der Y-ACHSE.
:DISC,X,Y,DX,DY	Wie "CIRCLE" aber ausgefuellt.
:WINDOW,S,L,R,O,U	¥Definiert ein PULL-DOWN WINDOW. S=Kanal/L,R,O und U wie bei "BSCROLL"
:CLW	Loescht das PULL-DOWN WINDOW und setzt den alten hintergrund wieder ein.

ExBasic 464
(C)1985 Ralf Waldeck

Grundsaetzliches

Man sollte den HARDWARESCROLL, der z.B. beim LISTen von Programmen auftaucht stets vermeiden, da die Befehle die mit "¥" gekennzeichnet sind nach einem HARDWARESCROLL nicht mehr einwandfrei arbeiten!
Man kann den HARDWARESCROLL vermeiden, indem man z.B. die Zeile:

```
10 MODE m:WINDOW#0,1,n,1,23
```

vor das Programm setzt, wobei m der gewünschte Bildschirmmodus ist und n d Nummer der letzten Rechten Spalte angiebt. (m=0/n=20:m=1/n=40:m=2/n=80)

Wenn man bei einem Befehl zuviel oder zuwenig Parameter angiebt, so erhält ma die Fehlermeldung "Bad Parameter Error" mit einem Piepston.

Bei allen Befehlen bei denen Numerische Parameter zurueckgegeben werden koenne diese nur in INTEGER-VARIABLEN uebergeben werden !

Immer wenn ein String zurueckgegeben werden soll muß dieser erst einmal mit einer mindestlaenge von einem Zeichen vorher definiert werden.

Es wird mit zwei Bildschirmen gearbeitet. Der eine (NORMALE) liegt von &C000 bis &FFFF und hat die Nummer 0. Der andere (ZWEITE) liegt von &4000 bis &7FFF und hat die Nummer 1.
Alle Befehle die mit "¥" gekennzeichnet sind arbeiten nur mit Bildschirm 0, auch, wenn dieser zur Zeit der ausfuehrung des Befehls nicht sichtbar ist!

:BREAK.ON	Schaltet die "ESC" Taste ein. Nach dem Befehl "BREAK.ON" kann man BASICPROGRAMME wieder mit der "ESC" Taste abbrechen.
:BREAK.OFF	Schaltet die "ESC" Taste aus. Nach diesem Befehl koennen BASICPROGRAMME nicht mehr gestopt werden!
:RESET.ON	Gibt den Reset durch "CTRL/SHIFT/ESC" frei.
:RESET.OFF	Sperrt den Reset durch "CTRL/SHIFT/ESC". Nach diesem Befehl ist ein vollstaendiges zuruecksetzen des System nicht mehr moeglich!
:VIDEO,r,w	Dieser Befehl schreibt den Wert w in direkt in das Register r des Video-Chips.

Die Bedeutungen der wichtigsten Register sind:

Bedeutung	Register	Voreingestellter Wert
Horizontale Breite	0	63
Horizontal dargestellt	1	40
Horizontale Syncro.Posn.	2	46
Vsyncro.,Hsyncro. Breite	3	&8e
Vertikale Breite	4	38
Vertikal Einstellung	5	00
Vertikal dargestellt	6	25
Vertikal Syncro.Posn.	7	30
Interlace und SKew	8	00
Max. Raster Adresse	9	07

:VRESET	Setzt die Videoregister auf die Standardwerte zurueck.
:CURSOR,a,s	Gibt den Anwender-(a) oder System-(s) cursor frei oder sperrt denselben. Dieser Befehl eignet sich zur Unterdrueckung des Cursors bei INPUT-anweisungen, oder erzeugt ihn bei PRINT befehlen.
:SOUND,r,w	Dieser Befehl schreibt den Wert w in das Register r des Sound-Chips.

Die Rigister und ihre Bedeutungen:

Register	Bedeutung
0/1	Tonhoehe Kanal A
2/3	Tonhoehe Kanal B
4/5	Tonhoehe Kanal C
6	Rauchfrequenz
7	Freischaltung der einzelnen Toene
8	Lautstaerke Kanal A
9	Lautstaerke Kanal B
10	Lautstaerke Kanal C
11/12	Geschwindigkeit der Huellkurwe
13	Nummer der Huellkurwe
14/15	Fuer Joystickabfrage und Tastatur

:GRA.PEN,n	Setzt die Grafikstiftfarbe auf den Wert n.
:GRA.PAPER,n	Setzt die Grafikpapierfarbe auf den Wert n.
:FRAME	Wartet auf den Strahlenruecklauf beim Monitor.
:TPRINT,a	Gibt den String a$ an der aktuellen grafikposition aus.
:GET,a	Wartet auf ein Zeichen von der Tastatur, und uebergibt es in a$. Bedingung ist, das der String der benutzt wird vorher mit einer mindestlaenge von einem Zeichen definiert wurde!
:COPYCHAR,a	Uebergibt das Zeichen an der momentanen Cursor-position in a$. Bedingung wie bei "GET"!
:BOX,x,y,b,h	Dieser Befehl zeichnet einen Rahmen. Die Parameter: X,Y definiert die Linke-Untere Ecke B ist die Breite in punkten H ist die Hoehe in punkten
:SQUARE,x,y,b,h	Wie "BOX" aber ausgefuellt.
:PICTURE,n	Nach diesem Befehl wird der Bildschirm n angezeigt. 0=normal/1=zusatzbildschirm
:PPICTURE,n	Mit diesem Befehl wird die ausgabe der Befehle PRINT,PLOT u.s.w. auf den Bildschirm n umgeleitet.
:SETCOLOUR,i,p	Setzt die Standardfarben,auf die bei jedem "READY" zurueckgestellt wird. i=stift/p=papier
:COLOURON	Schaltet das automatische zuruecksetzen der Farben bei "READY" ein.
:COLOUROFF	Schaltet das automatische zuruecksetzen der Farben bei "READY" aus.
:DOKE,a,w	Dieser Befehl ist wie der POKE Befehl des CPC aber er kann 16-BIT Werte verarbeiten (0-65535). a=Adresse/w=Wert (0-65535)
:DEEK,a,$a%	Der Befehl arbeitet wie PEEK aber mit 16-BIT Werten a=Adresse, der gefundene Wert wird in der INTEGER-VARIABLE a% uebergeben.
:ROMDEEK,a,$a%	Wie "DEEK" aber greift auf das ROM zu.
:ROMPEEK,a,$a%	Wie "PEEK" aber greift auf das ROM zu.
:INKSCROLL,r	Dieser Befehl bewirkt ein zueklisches vertauschen der INKs untereinander. r=0:INK 1 wird INK 2..INK 15 wird INK 1 u.s.w. r=1:INK 1 wird INK 15..INK 2 wird INK 1 u.s.w. Ausgeschlossen von diesem Befehl ist INK 0, weil es sonst zu unanschaulichen effeckten Kommen koennte, da der Hintergrund flimmern wuerde.
:PAUSE,n	Wartet n/300 Sekunden mit der Programmausfuehrung.
:BEEP	Gibt einen kurzen Piepston aus.
:ZIP,n	Erzeugt ein LASERartiges geraeusch mit der Geschwindigkeit n. n=1 schnell/n=255 langsam (0=256!)
:CRASH	Gibt ein krachendes gergeusch aus.
:FILL,x,y	Fuellt eine geschlossene Flaeche um den Punkt x,y aus. ACHTUNG: Wenn eine Flaeche nicht geschlossen ist kann es sein, das der Computer sich erst nach MEHREREN STUNDEN wieder meldet !!!!!!!!!!!!!!!!
:CMODE,n	Legt die groeße fuer die Textausgabe fest.

The Train

Amstrad Cassette
English

To start the game:

Cassette:

- Insert the tape label side up.
- Rewind the tape fully.
- Hold ctrl and press the small enter key.
- Press play on your recorder, followed by any key.

For the Amstrad, there are some special instructions which are not included in the manual:

Once The Train has loaded, you are given the option to select your method of control:

1. Keys.
2. Joystick.

* If you are using the keyboard for control, follow the joystick instructions and substitute the following keys.

Q : Up/forwards
A : Down/back
O : Left
P : Right
Enter : Fire button

Special Keys

* At any time you may press:

R To restart the Game.
S To toggle the sound on/off.
5 To pause the game and view the status screen (except while taking a bridge or station).

Spacebar To pause the game at all times except while taking a station.

* While the train is running (if you are not at a bridge or a station) you may press the number keys:

1 Front gunner view
2 Rear gunner view
3 Engine cab
4 Map screen

Note: the Amstrad version of the Train differs from the manual in a few ways as outlined below:

* You **do not** have the facility to use the joystick and double clicking to access the four view as stated in the manual.

* The name of the control you are currently at is printed **below** the time.

* To operate the Steam Blowoff, you should press and hold down the fire button, then push **forward** to blow off steam.

* You **cannot** enter your name in the high score table.

* Bridges are marked in **red** and not green on the map screen and no roads are marked on the map either.

SCORING

You are awarded points as follows:

- soldiers at stations = 50 pts. each
- boats sunk before they fire up to:
  - 4 shells = 250 pts.
  - 5 shells = 200 pts.
  - 6 shells = 150 pts.
  - 7 shells = 100 pts.
  - 8 shells = 50 pts.
  - 9 shells = train destroyed
- enemy fighters from front or rear = 300 pts. each

DAMAGE

- Damage to the boiler is caused by taking too much machine gun fire, excessive demands for speed and steam pressure.
- Brakes are damaged from the misuse at high speeds.
- You yourself may be shot in any of the firing sequences.
- Damage to the art treasure is a direct reflection of the amount of fire taken or destruction of the train.

REPAIRS, COAL & WATER

Repairs can be obtained from the Resistance repair crews. See telegraph for instructions.

Running out of water or coal slows the engine to an eventual standstill - as does damage to the boiler. Plan the station stops. If you must stop and either are uncertain whether a station is safe or not, you will have to be prepared to take the station by force if necessary. Coal and water are supplied at each station.

ENDING THE GAME

The game ends when you meet the advancing Allies line (eg. after you take the Riviere), damage is so excessive the train cannot move, the art car itself is hit and the mission lost, or you abandon the train in a hopeless situation. If you inadvertently shoot your companion the game is over.

THE MAP

The map show the position of the bridges marked in green. German held stations are shown as blue dots while Resistance held stations are red. Major and secondary roads are marked in red and light red crossing tracks at various spots. The main yard stations are labeled, Metz, Nancy, etc. The smaller "whistle stops" and stations are shown on the accompanying topo map.

THE TRAIN & CARS

The train and cars consist of:

- single piston type H engine
- coal car with machine gun mounted atop
- the three cargo cars with the art work
- the mid-train cannon 155mm mounted on a flat car
- the telegraph car or caboose - rear gun

STRATEGY & TIPS

Remember, as a general strategy rule, that it is in both parties interest to preserve the tracks, bridges, etc. at all times. The Germans for instance will not outright bomb the train - as they need the lines for their impending retreat. The Allies need the track for their advance. The Germans do no want a derailment either!

The main line is vital. You may find that the Germans are more eager to risk the track on some of the minor rails and sidings.

The reverse lever allows you to back up if you miss a station or a switch. Stop near a switch to practice using the whistle to set and reset lines. Some crossings and siding lines simply join without switches.

Furnace

PUSH AND HOLD the fire button, then press:
DOWN to open the furnace door,
RELEASE the fire button and push the joystick to the *RIGHT* to shovel coal then,
PUSH AND HOLD the fire button, and press *UP* to close the furnace door.

Brake

PUSH AND HOLD the fire button, then press:
DOWN to turn *ON* the brake,
UP to turn *OFF* the brake.

Forward Reverse Lever

PUSH AND HOLD the fire button, then press:
DOWN to put the train into *REVERSE* gear,
UP to put the train into *FORWARD* gear.

Steam Blowoff

PUSH AND HOLD the fire button, then press:
DOWN to blow off steam.

Whistle

PUSH AND HOLD the fire button, then press:
DOWN to blow the whistle once.

Cab Signal Indicators

The cab signal box has three green lights that indicate the signals and semaphore conditions on the line.
top light red = switch is set right
middle red = middle (left on double switches or middle on triple.)
bottom red = switch is set left (only on triple switches.)

To Switch Lines

The Resistance will switch the line for the speeding train if you are near a switch. The light changes red as the train approaches a switch to show the current switch position.:
Whistle once to light top position
Whistle twice to light the middle position
Whistle thrice to light bottom position

Special Events

Taking the Train

- Use the joystick (all positions) to aim your gun, fire button to shoot.
- Use the *SPACEBAR* to duck enemy fire. If the trail of enemy fire should hit you the game will be over.
- Le Duc will signal...he runs as you give him cover
  - if stop firing he ducks for cover himself
- Use the joystick (left/right) to select between the three levels, indicated bottom of the screen, when he reaches the switch
- Points are awarded for each hit

Taking a Bridge

- YOU MUST TAKE ENEMY BRIDGES! ATTEMPTING TO RUN A BRIDGE WILL END THE GAME.
- Use joystick to aim you cannon, fire button to shoot.
- If the boat that is currently firing should fire seven shots before you destroy it, the game will be over.

Taking A Station

- YOU MAY RUN A STATION!
- Plays the same as Taking the Train.

Using the Telegraph

If a station has been taken or is otherwise free, the telegraph may be used to send or receive messages to the underground Resistance. German intelligence reports and previous communications will also be found.
To send communication to the Resistance select one of the option requests - take next station, next bridge or make repairs to the train. If there are two stations he "next" station name is given. You must choose One selection only.

After a message is sent a confirmation is received from the Resistance. If they cannot comply (the player has no more requests left) the player is informed. Repairs are made at the station indicated in the return message. You have two hours to reach the stop and enter the telegraph room there. "making Repairs" is announced. Other confirmations are "Will take station or bridge at xx:xx hours:minutes." A station or bridge taken remains free for two hours. A station which is in Resistance hands is shown as a red dot on the the map. A German held station is blue.

Entering a High Score

Enter your name in using the keyboard making sure it is no longer than 11 characters long. If a mistake has been made use the INST DEL key to delete the last character typed. When you are finished press RETURN.

THE TRAIN

PLAYING INSTRUCTIONS

To Start The Game

1. Connect your joystick to port #2.
2. Turn on your Commodore 64/128.
3. Insert the cassette label side up and rewind tape fully.
4. Hold down SHIFT and press the RUN/STOP key.
5. Press PLAY on your recorder.
6. The Train will load in approximately 5 minutes.
7. Follow the on screen prompts at the end of each section.

THE STORY

August 1944. Occupied France is soon to be liberated by the advancing Allies. The German grip on Europe is crumbling and an evacuation of men, materials and plunder is under way. The prize and pride of France, its entire art collection, is to be expropriated and shipped by rail to Berlin. The German hope is to hold the art treasure for ransom, in the now inevitable surrender negotiations.

You and other members of the French Underground Resistance Movement must first "take" the heavily guarded train in the main yards at Metz. If you manage to escape and make your way onto the main line then the real game begins. Casualties may be high. You must be prepared to engineer the train yourself but you will have help.

The train is on a siding, heavily guarded. The steam pressure is up, ready to go awaiting orders to head east for Berlin at midnight. (Daylight runs were suicide at this point in the war.) You must take possession of the train and head west to the border to meet up with the Allies by dawn. Your cargo - priceless Monets, Guaguins, Renoirs, Picassos, Miros - an unimaginable art treasure - is in your charge. Onboard the train, a Resistance crew will assist you in deciphering the whistles, signals, lights and signs necessary to make your way safely on the line.

While on the train you will be receiving help from the underground movement. Then will Provide you with information updates and signals and assist you in track switching and support. However, due to bombing and sabotage the usual safety systems and track circuits may be damaged or be unreliable. Be careful!

Bonne Chance!

THE CHARACTERS

Pierre LeFeu (played by you) who is a first-time engineer by circumstance, and his injured companion - Le Duc - who has had some previous experience as a fireman on a train. Both are members of the French Underground Resistance Movement.

OBJECT OF THE GAME

- Take the art train to Riviere to meet the advancing Allies.
- Achieve a high score by:
  - shooting as many enemy fighter planes as possible
  - taking as many enemy stations as possible
  - taking as many enemy bridges as possible
  - protecting the train and its precious art cargo from damage

Special Keys

- At any time you may press:

F1	to restart the game
F3	to toggle the sound on/off
F7	to pause the game and view the status screen (except while taking a bridge or station)
SPACEBAR	to pause the game at all times except while taking a station.

- While the trains is running (if you are not at a bridge or a station) you may press the number keys:

1	front gunner view
2	rear gunner view
3	engine cab
4	map screen

- You may also switch screens (not while you're at a station or a bridge) by *DOUBLE* clicking the fire button and then pushing the joystick:

UP	for the front gunner view
DOWN	for the rear gunner view
RIGHT	for the engine cab
LEFT	for the map screen

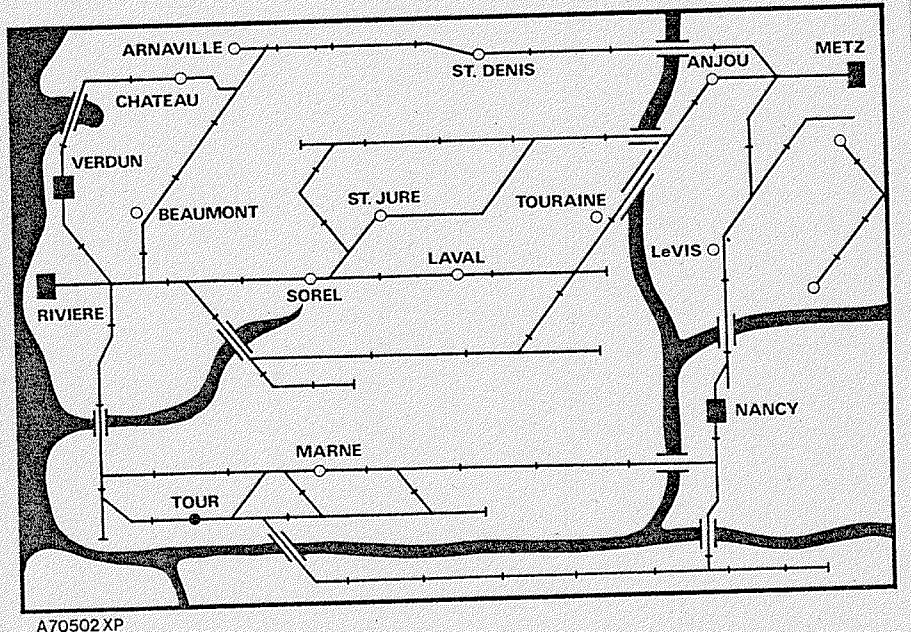
- When you are on the cab screen, the joystick left/right moves the cursor (red triangle shape) to each of the various controls. The name of the control you are currently at is printed at the bottom left, just above the time.

- To operate any of the controls you must PUSH AND HOLD the fire button, as well as operate the joystick.

Throttle

PUSH AND HOLD the fire button, then press:
BACK to accelerate
FORWARD to decelerate

"THE TRAIN" MAP



A70502 XP

KONTROLORGANER	STEURUNG	COMMANDES	CONTROLLI	BESTURING
Fyr Fuoco Feuer Vuur Tir	RUM SPACE LEERTASTE ESPACE	COPY COPIE	Affyringsknap Pulsante TIRO Feuertaste VUURKNOP Bulon de Tir	Styrepind Joystick Steuerknüppel Manette Stuuknuppel
Højre A destra Rechts Rechts Droite	P	➧	Styrepind Til Højre Joystick a Destra Knuppel rechts Stuurknuppel naar rechts Manette a Droite	
Venstre Links Links A sinistra Gauche	O	➧	Styrepind Til Venstre Joystick a Sinistra Knuppel links Stuurknuppel naar links Manette a Gauche	
Styrt Discesa Fallen Duik Descente	A	➧	Styrepind Frem Joystick in Avanti Knuppel vor Stuurknuppel naar voren Manette en Avant	
Stigning Ascesa Steigen Klim Montèe	Q	➧	Styrepind Tilbage Joystick Indietro Knuppel zurück Stuurknuppel naar achter Manette en Arriere	

STARSTRIKE II

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Z ..... Reduces hasti heden
X ..... Forog ha stighéden
H ..... Visninger i hovehøjde, varige
J ..... Visninger i hovehøjde, automatisk

D ..... Dokning
ESC ..... Pause
RETURN ..... Start spillet igen
DEL ..Opgiv spillet (under en pause)

Z ..... Bremsen
X ..... Beschleunigen
H ..... Frontvisier ständig ein
J ..... Frontvisier-Automatik

D ..... Anlegen
ESC ..... Pause
RETURN ..... Spielfortsetzung
DEL Spielabbruch (während Pause)

Z ..... Ralentissement
X ..... Accélération
H ..... Affichages à lecture tête haute permanents
J ..... Affichages à lecture tête haute automatiques

D ..... Agganciamento
ESC ..... Pausa
RETURN ..... Riprenda del gioco
DEL ..... Annullamento (durante la pausa)

Z ..... Rallentare
X ..... Accellerare
H ..... Visualizzatore permanente
J ..... Visualizzatore automatico

D ..... Dok
EXC ..... Pause
RETURN ..... Hervat het spel
DEL ..... Sluit het spel voortijdig af (tijdens pause)

Z ..... Vertrag
X ..... Versnel
H ..... Head-up displays permanent
J ..... Head-up displays automatisch

DIN OPGAVE

Oustiders hjemmeplaneter er grupperet omkring tre stjerner i Lesser Magellanic Cloud. Der er ialt 22 planeter i tre grundtyper: industri, militær og landbrug. Du må neutralisere alle Oustiders planeter for at Federationens styrker kan overtage kontrollen.

Til neutralisering af en planet, er du nødt til at lillinlegore dans kæmpecomputer.

Militærets efterretningstjenester mener, at den militær planet, Delta V, den industrielle planet, Alpha 1, og landbrugsplaneten, Beta III, er dårligt forsvarede eksempler på deres respektive typer.

RUMSKIBET

Rumskibet er bevæbnet med adskillige laser-kanoner, hvoraf et dissees egne energibanker. Affyring af laserne opbruger energiforsyningen i disse banker, der gradvist genopfades, når laserne ikke er i brug.

Startrike II-rumskibene er omgivet af et beskyttende kraftfelt, der absorberer energi fra kollisioner og Oustider-skud. Hver kollision tapper en del af feltets energi, og dersom energien nogensinde når nulpunktet, vil den næste kollision ødelægge skibet. Kraftfeltet kan genopfades fra skibets brændstofbeholdning på visse punkter under et angreb.

Rumskibets brændstofbeholdning er begrænset, og reduceres langsomt, mens skibet er i kamp. Brændstof kan efterfyldes fra Support Module eller ved indsamling af brændstofbeholdere fra ødelagte fjendtlige jagere. Det er katastrofalt at løbe lør for brændstof.

Under en kamp med fjendtlige jagere, kommer to navigations-skærmbilleder 'i hovedvinduet' til syne, for at du kan følge fjendtlige operationsmål. Højre skærmbillede viser operationsmålenes højde over eller dig, og venstre skærmbillede giver et overblik over kampområdet, som om det ses fra ovenfra.

Operationsmålene vises på skærmen som + Enemy Ship (fjendtligt skib, x Scavenger Ship (renovationsskib), – Fuel Pod (brændstofbeholder).

SUPPORT MODULE

Starstrike II rumskibe er forsynet til at angribe planeter og omfatter ikke udstyr til at udføre hyperrum-spring mellem stjernerne.

For at nå Oustider-systemerne er hvert rumskib forsynet med et Support Module, der sidder inde med en interstellar hyper-drivmotor og ekstra brændstoflorsyrning.

STJERNEVALG

Stjernevalgskærmen kommer frem, hver gang du indtaster Support Module, og giver dig mulighed for at vælge et af de fem stjernesystemer eller forsyne dit skib med brændstof igen. Ved siden af hver stjerne findes et skærmbillede af planeterne i vedkommende system: neutraliserede planeter vises i rødt, ubesøgte planeter vises i gult. Til hver for skærmen er der et miniapparat, de viser mængden af reservebrændstof, der er tilbage.

PLANTVALG

Planetvalgskærmen viser dig de øvrige operationsmål i et system og gør det muligt for dig at vælge dit bestemmelsessted.

HYPERSPACE (Hyperrum)

For at kunne bevæge dig mellem planeterne i et stjernesystem, er du nødt til at rejse gennem hyperrummet. Normalt er dette uden risiko, men af og til kan du komme ud for uvejr, forårsaget af de elektro-statiske kraftfelter, som vil reducere din afskærmningsenergi, dersom du rammes.

RUMHJULET

Nogle militære og industrielle planeter har hjultromede, kredsende rumstationer. For at kunne ødelægge er det disse enorme rumhjul, må du skyde forsvarskspelene, der er anbragt med mellemrum omkring dets kant.

Mål alle kaspsler for ødelagt, kommer en indgang til syne på hjulets hovedkonstruktion. For at kunne dokke med hjulet, skal det centreres i dine sigtekorn, hvorefter du trykker på 'D'-tasten. VENSTRE og HØJRE virker nu som rotationskontrolanordninger, således at du kan rulle dit skib. Til opnåelse af en vellykket dokning, skal din rulning passe til hjulets, således at indgangen er vandret, når du bevæger dig ind gennem den.

En vellykket dokningsmanøvre fører til rumhjulets indvendige hangar. Udgangen fra hangaren er en inrsenttil på bagvæggen, der åbnes og lukkes konstant. Der er tre styreenheder omkring risen. Når sidste styreenhed er tilintetgjort, standses risens bevægelse, og skydningen af sidste enhed skal tidsindstilles til at standse risen, mens den er åben.

FORSVARSFELTER

Alle Oustider-planeter er omgivet af defensive kraftfelter. Den enkelte vej gennem disse kraftfelter er gennem små åbninger, der oprettholdes til at Oustider-skibe kan passere. Disse åbninger bliver stærkt forsvaret, og det kræver hvstvat hastighed at slippe helskindet gennem dsse.

Planeter med dedsende rumhjul har flere forsvarsfelter end planeter uden disse. En vellykket dokning med rumhjulet gør det muligt for dig at komme uden om disse ekstra forsvarsfelter.

KREDSENDE JAGERE

Når dit rumskib er nået gennem planetens forsvarsfelter, går det ind i omdobsbanen omkring måIplanelen, og du konfronteres med dens jagerforsvarsstyrker. Når et skib er ødelagt, efterlader det undertiden en brændstofbeholder; skod sammen med denne til supplering af din egen brændstofbeholdning. Dersom en brændstofbeholder ikke fjernes hurtigt, vil Oustider-renovationsskibe komme løjende for at kræve den tilbage.

Når alle kredsende jagere er ødelagt, kan du landø på planetens overflade.

ANGREB FRA LANDJORDEN

Flyv over dét fjendtlige terræn, idet du undgår operationsmål på landjorden og undgår forsvarsoperationer i luften. Dine laseres nedslagspunkter vises med et korstormet sigte, der løber langs med jorden foran dig.

VENTILATIONSKANALEN

Flyv ned ad ventilationskanalen, idet du bør undgå ventilatorer og andre forhindringer. I denne sektion er dine kanoner ude af funktion, og affyringsOgien åbner sig, når reaktoren er sat ud af funktion.

REAKTORSYSTEMET

Den terrahedrale reaktorlank sættes ud af funktion og flyv ud gennem rissvenlilen på bagvæggen; risen åbner sig, når reaktoren er sat ud af funktion.

KAMPCOMPUTER

Ødelæg kampcomputeren og slip ud gennem risvenlilen, der åbner sig i den ydeste væg.

LANDBRUGSKONTROLCENTRET

Som med kampcomputeren må du sætte kontrolsystemet ud af funktion og undslippe gennem udgangen i bagsete væg.

Isætningsanvisninger
Kassette
CPC 6128,664 og CPC 464 med disk.
Hold **SHIFT** nede og tryk på ⇙ -tasten.
TAPE sættes i og tryk herefter på **RETURN**
Følg herefter følgende CPC 464
kassetteisætnings-anvisninger.

CPC 464 Kassetteisætning
CTRL holdes nede og tryk én gang på **ENTER** -taste.
Tryk på PLAY-knappen på dit optælgerapparat.

Disk
Indtæs **RUN "DISC"**.
Tryk på **RETURN**.

)IN OPGAVE

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VENTILATIONSKANALEN

Flyv ned ad ventilationskanalen, idet du bør undgå ventilatorer og andre forhindringer. I denne sektion er dine kanoner ude af funktion, og affyringsnCglen aktiverer dine styreorganer, således at CLIMBE forøger og DIVE reducerer dit rumskibs hastighed (bruges styrepinden er det omvendte tilfældet, således at JOYSTICK FORWARD forøger og JOYSTICK BACK reducerer hastigheden). Det er ikke muligt samtidigt at forøge eller reducere farten og manøvrere.

REAKTORSYSTEMET

Den tetrahedrale reaktrotank sættes ud af funktion og flyv ud gennem irisventilen på bagvæggen; irisen åbner sig, når reaktoren er sat ud af funktion.

KAMPCOMPUTER

Ødelæg kampcomputeren og slip ud gennem irisventilen, der åbner sig i den yderste væg.

LANDBRUGSKONTROLCENTRET

Som med kampcomputeren må du sætte kontrolsystemet ud af funktion og undslippe gennem udgangen i bageste væg.

Isætnigsanvisninger

Kassette

CPC 6128,664 og CPC 464 med disk.

Hold **SHIFT** nede og tryk på @ -tasten.

TAPE sættes i og tryk herefter på **RETURN**

Følg herefter følgende CPC 464 kassetteisætnings-anvisninger.

CPC 464 Kassetteisætning

CTRL holdes nede og tryk på den lille **ENTER** -taste.

Tryk på **PLAY**-knappen på dit optagerapparat.

Disk

Indlæs **RUN "DISC"**.

Tryk på **RETURN.**

IHRE AUFGABE

Die 22 Heimatplaneten der Outsider gruppieren sich um fünf Sterne in der Kleinen Magellanschen Wolke und gehören jeweils zu einem der drei Grundtypen von Industrie-, Militär- und Lanwirt- schaftsplanet.

Sie erhalten den Auftrag, sämtliche Planeten der Outsider zu neutralisieren, damit die Streitkräfte der Föderation die Herrschaft übernehmen können.

Jeder Planet kann durch Zerstörung seines Schlachtcomputers neutralisiert werden.

Die vorliegenden Geheimdienstinformationen lassen erkennen, daß der Militärplanet Delta V, der Industrieplanet Alpha I und der Landwirtschaftsplanet Beta III über die geringste Kamplkraft in ihrer jeweiligen Gruppe verfügen.

DAS RAUMSCHIFF

Das Raumschiff ist mit Mehrfach-Laserkanonen bestückt, die über ihre eigenen Energiezellen verfügen. Jeder Feuerstoß leert die Energiezellen, die sich zwischen den Feuerstoßen wieder aufladen.

Starstrike-II-Raumschiffe sind von einem schützenden Kraftfeld umgeben, das die Energie von Kollisionen und kann. Jeder Aufprall zehrt einen Teil der Feldenergie auf. Falls die Energiereserven erschöpft werden, zerstört die nächste Kollision das Raumschiff. Das Kraftfeld kann zu bestimmten Zeiten des Schlachtverlaufs aus dem Treibstoffvorrat des Raumschiffs wieder aufgeladen werden.

Der begrenzte Treibstoffvorrat des Raumschiffs verringert sich während der Schlacht allmählich, kann jedoch durch das Entlastungsmodul oder durch Aufnahme von Treibstoffbehältern aus den Kamfschiffen des Feindes wieder aufgefüllt werden. Der Verbrauch sämtlichen Treibstoffs ist tödlich.

Während des Kampfs mit den feindlichen Jägern erscheinen zwei Frontscheibenmonitore, mit deren Hilfe Sie die feindlichen Ziele verfolgen können. Der rechte Bildschirm gibt die Höhe des Ziels über oder unter Ihnen an, während der linke Bildschirm das betreffende Kampfgebiet in der Aufsicht zeigt. Die Ziele werden mit folgenden Symbolen angezeigt:

+ Feindschiff x Räumschiff

– Treibstoffzelle

ENTLASTUNGSMODUL

Starstrike-II-Raumschiffe sind für den planetaren Angriff ausgelegt und nicht für interplanetare Sprüge ausgerüstet.

Damit ein Schiff das Outsider-System erreichen kann, ist es mit einem interstellaren Hyper-Antrieb und Kraftstoffreserven ausgestattet.

AUSWAHL VON STERNEN

Bei Einschaltung des Entlastungsmoduls erscheint stets der Bildschirm für die Ansteuerung von Sternen, mit dessen Hilfe Sie eines der fünf Sternsysteme auswählen oder Ihr Raumschiff auftanken können. Neben jedem Stern befindet sich eine Darstellung des zugehörigen Planetensystems, wobei neutralisierte Planeten rot und unbesuchte Planeten gelb dargestellt werden. Die Treibstoffanzeige rechts auf de, Bildschrim meldet den Treibstoffvorrat.

AUSWAHL VON PLANETEN

Der Bildschrim für die Ansteuerung von Planeten meldet Ihnen die Position der verbliebenen Ziele im System und ermöglicht Ihnen, Ihren Bestimmungsort anzusteuern.

HYPER-WELTRAUM

Ihre Reise zwischen den Planeten in einem Sternsystem führt Sie durch den Hyper-Weltraum, was normalerweise ungefährlich ist. Gelegentlich treffen Sie jedoch auf Stürme elektrostatischer Energiefelder, die das Kraftfeld ihres Schutzschildes schwächen können.

DAS RAUMRAD

Alle militärischen und einige Industrieplaneten werden von radförmigen Raumstationen umkreist. Zwecks Zerstörung dieser gewaltigen Raumräder müssen Sie die an ihren Rändern gelegenen Verteidigungszellen abschießen.

Wenn alle Zellen zerstört sind, erscheint am Rumpf des Rades ein Eingang. Um an diesem Eingang anzulegen, müssen Sie Ihr Raumschiff mittles ser Visiere zentrieren und die Taste 'D' drücken. LINKS und RECHTS fungieren nun als Steuerung für die seitliche Rotation des Raumschiffs. Das Anlegen gelingt Ihnen nur, wenn die Drehung des Schiffs an die Drehung des Rades angepaßt wird und der Eingang beim Anlegen waagerecht zum Schiff liegt.

Nach erfolgreichem Anlegen gelangen Sie in den inneren Hangar des Raumrads. An der hinteren Hangarwand befindet sich der Ausgang in Form einer Lamellenblende, die sich ständig öffnet und schließt und von drei Steuereinheiten umgeben ist. Wenn alle drei Steuerungen zerstört sind, bleibt die Lamellenblende in der gerade erreichten Position stehen Sie müssen daher die letzte Steuerung im richtigen Augenblick zerstören, damit die Lamelle in geöffneter Position anhalt.

VERFEIDUNGSSCHILDE

Alle Outsider-Planeten sind zur Verteidigung mit Kraftfeldern umgeben, die nur durch kleine, für die Schiffe der Outsider bestimmte Öffnungen passierbar sind und heftig verteidigt werden. Für einen solchen Durchbruch stehen Ihnen nur Sekunden bruchteile zur Verfügung.

Planeten mit unlaufenden Raumrädern verfügen über mehr Verteidigungsschilde als andere Planeten ohne Raumräder. Ein erfolgreiches Anlegen am Raumrad ermöglicht Ihnen, diese zusätzlichen Verteidigungsschilde zu durchbrechen.

UMLAUFBAHN - JÄGER

Wenn Sie das planetare Verteidigungsfeld durchbrochen haben, gelangt Ihr Schiff in die Unlaufbahn des Zielplaneten, und Sie musen sich nun den Verteidungsjägern stellen. Wenn ein Schiff zerstört wird, bleiben manchmal die Treibstoffzellen übrig, die es für die Ergänzung Ihres Treibstoffs schnell einzusammeln gilt, damit sie nicht von den Räumschiffen der Outsider aufgegriffen werden.

Wenn alle Unlaufbahn-Jäfer zerstört sind, können Sie auf der Oberfläche des Planeten landen.

BODNANGRIFF

Sie müssen nun über das feindliche Terrain fliegen und beim Zerstören der feindlichen Ziele der Luftabwehr aus dem Weg gehen. Die Feuerkraft Ihrer Laserkanone wird von einem kreuzförmigen Visier angezeigt, das vor Ihnen auf dem Boden mitläuft.

BELÜFTUNGSSCHACHT

Wenn Sie durch den Belüftungsschacht nach unten fliegen, müssen Sie sich vor Ventilatoren und anderen Hindernissen in acht nehmen. Ihre Kanonen sind in dieser Phase funktionsuntüchtig, da die Feuertaste zur Steuerung des Schiffs verwendet wird. Das bedeutet, daß Sie mit CLIMB (Steigen) und DIVE (Fallen) Ihre Schiff beschleunigen bzw. bremsen. Bei Verwendung des Steuerknüppels ist es umgekehrt, so daß FORWARD (vorwärts) das Schiff beschleunigt, während es von BACK (ruckwärts) gebremst wird. Sie

können nicht gleixhzeitig beschleunigen bzw. bremsen und dabei manövrieren.

REAKTORANLAGE

Setzen Sie den tetraederförmigen Reaktorkesse außer Betrieb und versuchen Sie, durch die Lamellenblende an der hinteren Wand zu entkommen, die sich erst nach der Abschaltung des Reaktors öffnet.

SCHLACHTCOMPUTER

Zerstören Sie den Schlachtcomputer und versuchen Sie, durch die Lamellenblende zu entkommen, die sich an der entgegengesetzten Wand öffnet.

LANDWIRTSCHAFTSKONTROLLZENTRUM

Wie beim Schlachtcomputer müssen Sie auch hier das Aleuersystem außer Beitrieb setzen und durch die Öffnung in der Wand zu entkommen versuchen.

ANLEITUNG ZUR PROGRAMMINGABE

Kassette

CPC 6128, 664 und CPC 464 mit Diskette:

Halten Sie die Taste **SHIFT** gedrkuckt und drücken Sie die Taste @. Geben Sie das Wort **TAPE** ein und drücken Sie die Rucktaste **RETURN.** Anchließend verfahren Sie entsprechend den folgenden Hinweisen für **Kassette CPC 464**

Eingabe der Kassette CPC 464

Halten Sie die Taste **CTRL** gedruckt und drucken Sie die Kleine Taste **ENTER.** Anschließend drücken Sie die Wiedergabetaste **PLAY** an Ihrem Kasssettenrekorder.

Diskette

Geben sie den Text **RUN "DISC"** ein und drucken Sie die Rucktaste **RETURN.**

A MESSAGE FROM GAL-CORP CENTRAL

TAU-CETI III GENERAL INFORMATION

The planets day.

Tau Ceti III has a very short day, approximately equal to one Earth hour. The cetans call this period a 'SPIN' and group 16 spins to a "DAY". As the planet has no moon you will need to use the Infra-red equipment to see anything after sunset.

Docking on the planet.

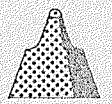
Many of the buildings on the planet's surface are equipped with DFP's latest model energy screened airlock, recognisable by the characteristic flickering pattern, and your craft will allow you to dock with these buildings if you wait for the airlock to open to full aperture and fly in SLOWLY!
Once inside a building the computer will return you to ground mode giving you full access to any facilities available.

Navigation on CETI III

The planet has the now standard system of JUMP PADS to allow easy transport from one city to the next. Unfortunately the pads are of the old non-programmable 'Super Traveller' type and each pad is mapped to a single destination. Luckily your ships computer has a complete map of the jump network, to jump from one city to the next simply find the correct jump-pad (they are found at the NORTH, SOUTH, EAST and WEST ends of the city) and press J.
Gal-corp recommends caution on exit from a jump as reports indicate that small 'sand hoppers', a native life-form, tend to cluster around the feeder pipes of jump pads and lives have been lost in the past due to collisions.

Defence estimates.

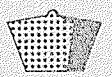
It is known that many of the cities will be defended by late-model robot hunters marks I, II and III, sophisticated and well armed hunter-killers and reports indicate that land-based guardian crawlers and heavily armoured fortresses may be found in larger cities. Radar scans also detect the presence of proximity mines. An identification chart for known robot defences is given at the end of this report. . . .

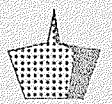

MAIN CENTRAL REACTOR


REACTOR SUBSTATION

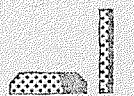

HUNTER MK I


HUNTER MK II


SUPPLY CENTRE (CIVILIAN)


SUPPLY CENTRE (MILITARY)


HUNTER MK III


JUMP PAD COMPLEX


FORTRESS


CONTROL TOWER


DOME


SPHERE

FINALLY A PERSONAL MESSAGE FROM OUR CHAIRWOMAN. . .

Please try to avoid wanton destruction of unarmed buildings. Gal-corp central do want to COLONISE this world after you've finished with it and each undamaged dwelling will save millions on next years budget!!

GOOD LUCK

. . . . . .

Message ends.

STATUS
Gives a damage and progress report (also available in flight)

EQUIP
Allows access to a building repair, refuelling and rearming facilities (if any)

NAME
Use at the start of the game to give the computer a pilot's name

PAD
An on-screen note pad. Allows you to make notes of progress etc.

NEW PAD
Selects a fresh page in the note pad

SAVE
Saves game to tape

LOAD
Loads a game from tape

KEYS
Allows you to totally redefine the single key commands in flight mode

QUIT
Abandons a game

SCORE
Gives a rating of your progress so far

PAUSE
Freezes the game (fire restarts)

SIGHTS ON

SIGHTS OFF

To start the game type LAUNCH (and press ENTER).

Your skimmer will leave the safety of the lander and venture on the surface of the planet.

Exploration of the planet is carried out in FLIGHT MODE. When first loaded the following keys are used (but you may redefine any or all of these for your own preference/Kempston or cursor joysticks etc.).

Left.....	O
Right....	P
Increase thrust	S
Decrease thrust	X
Fire laser	Space
Fire missiles	M
Fire flare	F
Fire AMM	A
Change view	V
Status report	R
Infra red on/off	I
Increase height	H
Decrease height	G
Jump (if near jump pad)	J
Land	L
Pause ESCAPE (Fire restarts)	



TAU CETI

The story begins in 2047 with the invention of the Interstellar drive. Using hydrogen scoops mankind could collect fuel from the thin spread of hydrogen between the stars. This made it possible for the exploration and colonisation of nearby systems.

In 2050 the first wave of colonists left Earth for four nearby G type stars, Alpha Centauri, Tau Ceti, Van Maanen's Star and Beta Hydri. Seven months later the first wave of colonists arrived at Tau Ceti and began to build a civilation on the third planet, an inhospitable desert world with very little life. For over 90 years the colony grew and prospered. The Cetans built over 30 cities across the planet and a strong trade based on mining, robot technology and hydroponics.

Then, in 2150 disaster struck this and one other of mankinds four growing colonies. A vicious plague, Encke's syndrome swept across the planet. Once contracted the disease was invariably fatal and as it swept from city to city the few remaining colonists finally admitted defeat and fled, leaving the planet to the robot maintenance systems.

Two years passed and on Earth a cure for the disease was found and links between the two remaining colinies, Alpha Centauri and Beta Hydri, were resumed. About this time all radio contact was lost with the automatic systems remaining on Tau Ceti III as a massive meteor smashed into the planet.

As the remaining starbases recovered from the loss it was decided to recolonise Tau Ceti and Van Maanen's star. In 2164 the first expedition left for Tau Ceti. A single ramscoop entered the system and safely landed on the planets surface. Minutes later, a mayday message was received, followed by total silence. Experts decided that the robots, so skillfully designed by the first colonists, had run amok after the meteor impact. After seven years, and the successful recolonisation of Van Maanen's Star, a second expedition was organised. The only way to stop the defence systems without destroying the remaining buildings was to send in an armed ground-skimmer to shut down the massive Fusion reactor in the planet's capital city, Centralis. A single skilled pilot might be able to succeed where fifty would surely fail, and like a fool, you volunteered!!!

CONTROLLING THE SKIMMER

The gal-corp armed skimmer is a powerful and dangerous craft and challenging for even the most experienced pilots. The skimmer is equipped with . . . .

A single mounted ruby laser

Defensive shields

Eight (8) heat seeking missiles + targeting system

Eight Anti missile missiles (AMM's)

Eight starlight flares

Infra-red night sights

A hoffman 360 degree scanner and 4-way selectable viewscreen to avoid blind spots

Planetary compass and computer ADF (automatic direction finding) beacons

A JCN command computer (guaranteed fully debugged for normal use).

On loading the program you will be presented with a view of the skimmer's instrument panel. The screen is divided into three areas. The large window on the left is your viewscreen, below that is a long blue area. This is your contact with the skimmer's powerful inbuilt computer. Finally on the right of the screen are five information windows. At the top is a compass and real-time clock along with a message showing the view selected, the city you are in and the ship's flight state. Below that is the scanner, and below that three more smaller windows. The first gives the pilot's name and the scanners complement of missiles/AMM's and flares. The second shows speed, shield energy, fuel remaining, laser temperature and height and the third displays 2 ADF's:- the upper one locked onto the city and the lower onto your LANDER (if in the same city).

The skimmer operates in two modes, flight mode and ground mode. In flight mode control of the program is via single keys or a joystick. In ground mode you are in direct communication with the crafts computer via the computer window. On loading the program will go into a demo sequence. To stop the demo press BREAK.

The commands available are given below along with a short description.

HELP
Lists commands as below.

LAUNCH
Normally ground mode is only active when you are docked. Launch will send the skimmer out onto the planets surface and activate flight mode.

MAP
The computer will display a map of the planet showing information about the cities. Use Left, Right, Up, Down and Fire keys to move the cursor over the map and fire to select a function.

RODS
This will allow you to assemble cooling rods found throughout your mission.

REACTOR
When docked with the Main Central Reactor on Centralis will give you access to the reactor room.

LOOK
Shows a view inside the building. Also any objects of use there.

WAIT
Waits 5 Earth minutes (about 1/12 of a Cetan "spin")

– scanner mine (Mine mit Richtantenne): folgt dem Umfang eines beliebigen Gegenstands im Uhrzeigersinn

– bounder mine (Springende Mine): fliegt in einer geraden Linie, bis sie mit einem festen Gegenstand zusammenstößt und wechselt dann die Richtung um 90 Grad im Uhrzeigersinn

– hover mine (Schwebemine): bewegt sich senkrecht (es ist tödlich, sie zu berühren)

– Teleport: berühren Sie einen Teleport und drücken Sie den Feuerknopf, um schneller transportiert zu werden



– Ziegenkopf:
spuckt säurehaltigues Blut
es ist tödlich, ihn zu berühren)

– Sanduhr: man bekommt 30 Sekunden Extrazeit, wenn man eine Sanduhr einsammelt

Nach dem Abschießen von Außerirdischen lassen einige von ihnen glühende Icons zurück.
100, 250, 500 – Extrapunkte

– zusätzliche Geschwindigkeit: man sollte sie nicht mehr als dreimal einsammeln, denn sonst werden die Schille langsamer.

– demon killer (Teufelkiller):
wenn man einen Teufel berührt, so wird er zerstört



– brick smasher (Ziegelzertrümmerer):
sobald man mit einem Ziegelstein zusammenstößt, so wird dieser abgeblockt



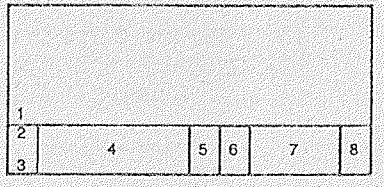
– surprise bonus Überraschungsbonus: 4 Merkmale
1. Extraleben
2. Unbezwingbarkeit (das Schiff ändert seine Farbe)
3. Unkontrollierbares Schiff (es hört auf, sich zu drehen)
4. Umgekehrte Steuerungen (das Schiff ändert die Richtung, in die es sich dreht



Vermeiden Sie die Überraschungsbonus-Icons, wenn Sie keine Lust auf Glücksspiel haben!

ANZEIGE-INFORMATIONEN

1. Anzahl der Diamantem, die eingesammelt wurden
2. Anzahl der Teufelkiller (maximal 9)
3. Anzahl der Ziegelzertrümmerer (maximal 9)
4. Spielstand
5. Level
6. Schutzschild (maximal 12 Schüsse)
7. Verbleibende Zeit
8. Verbleibende Schiffe



MITARBEITERVERZEICHNIS

Entworfen und geschrieben von Jukka Tapanimaki.
C64 Musik von Jori Olkkonen.
Spectrum- und Amstrad-Versionen von Chris Wood.
Musik und Geräuscheffekte für Spectrum und Amstrad von Dave Rogers.
Atari ST- und Amiga-Versionen von Imagitec Design.
Produziert von Paul Chamberlain.

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NETHERWORLD

de Jukka Tapanimaki

Pour Commodore 64 et 128 (en mode 64K).
48K ZX Spectrum, ZX Spectrum Plus, ZX Spectrum 128, +2, +3.
Amstrad CPC 464, CPC 664 et CPC 6128.
Ordinateurs Atari ST.
Ordinateurs Commodore Amiga.

SCÉNARIO

Vous êtes pris au piège dans un autre monde, un monde entièrement différent de celui que vous connaissez, un monde de structures fabuleuses et d'êtres étranges et merveilleux, mais vous êtes quand même pris au piège. Le seul moyen de revenir au monde réel est de ramasser suffisamment de devises locales et payer pour votre sortie; autrement, vous passerez le restant de vos jours à éviter sans cesse les bulles d'acide, les dragons et autres créatures similaires.

LES COMMANDES

Sur le Commodore 64, Commodore Amiga et Atari ST, le contrôle se fait par manche à balai uniquement.

Sur Spectrum et Amstrad, vous pouvez utiliser le soit manche à balai soit les touches de commandes de défaut suivantes:

Gauche	=	O
Droite	=	P
Haut	=	Q
Bas	=	A
Feu	=	Espacement
Pause	=	Runstop (C64)
		Caps Shift (Spectrum)
		Return/Enter (Amstrad, Atari ST et Amiga)
Avortez le jeu	=	O (C64)
		ESC (Amstrad, Atari ST et Amiga)
		Symbol Shift (Spectrum)

Appuyez sur Feu pour jouer et bougez à gauche ou à droite pour sélectionner le niveau 1, 5 ou 9 puis appuyez de nouveau sur Feu.

LE JEU

Votre objectif est de ramasser un nombre défini de diamants dans un temps fixé puis de sortir par l'intermédiaire d'un téléport. Après chaque niveau, il y a un entracte. Une vie supplémentaire vous est accordée quand vous terminez un entracte avec succès. Vous ne recommencez le niveau à partir du début que si vous êtes à cours de temps.

Dans une zone de jeu, on peut trouver les éléments suivants:

– une brique

– une porte secrète: ressemble à une brique mais a un graphisme légèrement différent.

– les démons:
ils crachent des bulles mortelles.



– les générateurs extra-terrestres:
ils crachen toutes sortes de méchants trucs,



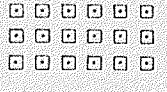
– oeufs extra-terrestres: pulvérisez-les s'ils vous barrent le chemin.

– les rochers mobiles: utilisez-les pour bloquer les générations d'extra-terrestres, transformez-les en diamants en les poussant dans un presse-diamants et utilisez-les pour modifier le cours des mines.

– presse-diamants:
un rocher mobile poussé dans un pressediamants devient un diamant.



– murs de métamorphose:
si l'un d'eax est touché par une mine, il se transforme en quatre diamants.



– mine à scanner: suit le périmètre de tout objet dans le sens des aiguilles d'une montre.

– mine bondissante: vole en ligne droite puis change sa direction de 90° dans le sens des aiguilles d'une montre quand elle heurte un objet solide.

– mine planeuse: se déplace verticalement (fatale quand on la touche).

– téléport: pour être transporté rapidement, touchez un téléport et appuyez sur le bouton feu.



– Tête de Chèvre:
elle crache du sang acide (fatal au toucher).

– sablier: en le ramassant, vous bénéficiez d'une prolongatio de temps de 30 secondes.

Certains extra-terrestres laissent derrière eux des icônes brilliantes lorsqu'ils ont été abattus.
100, 250, 500 – points supplémentaires

– vitesse supplémentaire: ne la ramassez pas plus de trois sinon les vaisseaux voleront plus lentement.
tueur démon: touchez un démon pour le détruire.

– tueur démon:
touchez un démon pour le détruire.



– casseur de briques: heurtez une brique pour le bloquer.



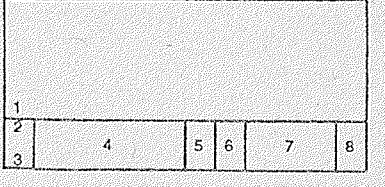
– bonus surprise: 4 caractéristiques:
1. vie supplémentaire.
2. invulnérabilité (le vaisseau change de couleur).
3. vaisseau incontrôlable (s'arrête de tourner).
4. commandes inverses (le vaisseau change de direction de rotation).



Evitez les icônes à bonus surprise si vous no voulez pas pre de risques!

AFFICHAGE D'INFORMATIONS

1. Quantité de diamants que vous devez ramasser.
2. Quantité de tueurs démons. (maximum 9)
3. Quantité de casseurs de briques (maximum 9)
4. Score
5. Niveau
6. Bouclier (maximum 12 tirs).
7. Temps qui reste.
8. Vaisseaux restants.



GÉNÉRIQUE:

Conçu et écrit par Jukka Tapanimaki.
Musique C64 de Jori Olkkonen.
Version Spectrum et Amstrad de Chris Wood.
Musiques et effets sonores Spectrum et Amstrad de Dave Rog
Versions Atari ST et Amiga de Imagitec Design.
Produit par Paul Chamberlain.

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NETHERWORLD

by Jukka Tapanimaki
Spectrum and Amstrad version by Chris Wood

For the Commodore 64 and 128 (in 64K mode.)
For the 48K ZX Spectrum, ZX Spectrum Plus, ZX Spectrum 128, +2, +3
Amstrad CPC 464, CPC 664 and CPC 6128

SCENARIO

You are trapped in another world, a world completely different to the one you know, a world of fantastic structures and strange, wonderful beings, but you are trapped. The only way back into the real world is to collect enough of the local currency to pay your way out otherwise you'll spend the rest of your days continually dodging acid bubbles, dragons and other such creatures.

CONTROLS

On the Commodore 64, control is by joystick only.

On spectrum and Amstrad a joystick or the following default control keys can be used.

Left	=	O
Right	=	P
Up	=	Q
Down	=	A
Fire	=	Space
Pause	=	H (Spectrum) ESC (Amstrad)
abort game	=	A (when in pause mode.) Esc (Amstrad, when in pause mode.)

When in pause mode:

1	=	Music volume down
2	=	Music volume up
3	=	Sound FX volume down
4	=	Sound FX volume up
9	=	Music on/off (effects become fuller)
0	=	FX on/off (doesn't interrupt music)

PLAYING THE GAME

Your objective is to collect a set amount of diamonds within a time limit and then exit through a teleport. You have to start the level from beginning only if the time limit runs out.

In a playing area the following features can be found:

a brick

a secret door: looks like a brick but has slightly different graphics

demons:
these spit deadly bubbles



aliens generators:
spit various nasties



alien eggs: blast them away if they obstruct your path

moveable rocks: use them to block alien generators, change them to diamonds by pushing them inside a diamond squeezer and use them to change the course of the mines

diamond squeezer:
a moving rock when pushed into a diamond squeezer changes to a diamond



metamorphosis walls:
if a mine hits one of these it changes to four diamonds



scanner mine: follows the perimeter of any object clockwise

bounder mine: flies in a straight line until it collides with a solid object when it changes direction 90° clockwise

hover mine: moves vertically (deadly to touch)

teleport: touch a teleport and press fire button to get a fast transport



Goat's head:
spits acid blood
(deadly to touch)



an hour glass: pick it up to get 30 seconds extra time

After shooting the aliens some of them leave behind glowing icons.
100,250,500 - extra points

demon killer:
touch a demon to destroy it



brick smasher:
collide with a brick to break it up



surprise bonus: 4 features
1. extra life
2. invulnerability (the ship changes colour)
3. uncontrollable ship (it stops spinning)
4. reverse controls (the ship changes spinning direction)

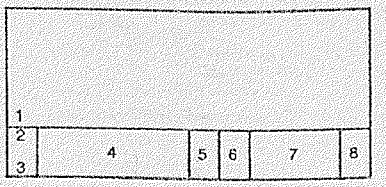


Avoid the surprise bonus icons if you don't want to gamble!

DISPLAY INFORMATION

1. Amount of diamonds you have to collect
2. Amount of demon killers (maximum 9)
3. Amount of brick smashers (maximum 9)
4. Score
5. Level
6. Armour (maximum 16 shots)

7. Time remaining
8. Ships remaining



CREDITS

Designed by Jukka Tapanimaki
Spectrum and Amstrad version by Chris Wood
Spectrum and Amstrad music and sound effects by Dave Rog
Produced by Paul Chamberlain.

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NETHERWORLD

von Jukka Tapanimaki

Für den Commodore 64 und 128 (im 64K Modus).
48K ZX Spectrum, ZX Spectrum Plus, ZX Spectrum 128, +2, +3.
Amstrad CPC 464, CPC 664 und CPC 6128.

SZENARIO

Sie sind in einer anderen Welt gefangen, die sich vollständig von der unterscheidet, die Sie kennen. Es ist eine Welt der phantastischen Strukturen und fremden, wundervollen Wesen, aber Sie sind dort eingeschlossen. Der einzige Weg zurück in die wirkliche Welt besteht darin, genug von der einheimischen Währung zu sammeln, um den Weg nach draußen zu bezahlen, sonst werden Sie den Rest Ihrer Tage damit verbringen, ständig Säureblasen, Drachen und anderen solchen Kreaturen auszuweichen.

STEUERUNG

Commodore 64, Commodore Amiga und Atari ST können Sie nur dem Joystick kontrollieren.

Für Spectrum und Amstrad können Sie den Joystick oder die folgenden schon vorhandenen Kontrolltasten benutzen:

Links	=	O
Rechts	=	P
Hoch	=	Q
Runter	=	A
Feuern	=	Leertaste (SPACE)
Pause	=	Run/Stop (C64) Caps Shift (Spectrum) Return/Enter (Amstrad, Atari ST und Amiga)
Spiel abbrechen	=	Q (C64) Esc (Amstrad, Atari ST und Amiga) Symbol Shift (Spectrum)

Drücken Sie den Feuerknopf um zu spielen und machen Sie dann eine Bewegung nach links oder rechts, damit Sie Level 1, 5 oder 9 auswählen können. Dann drücken Sie den Feuerknopf noch einmal.

SPIELEN

Das Ziel des Spiels ist es, eine bestimmte Anzahl Diamanten innerhalb einer test-gesetzen Zeit zu sammeln und dann durch einen Teleport hinauszugehen. Nach jedem Level gibt es eine Pause. Es wird ein Extra-Leben verliehen, wenn eine Pause erfolgreich absolviert wurde. Der Level muß nur dann von begonnen werden, wenn die Zeit abgelaufen ist.

In einem Spielgebiet können folgende Dinge gefunden werden

– ein Ziegelstein

– eine Gehelmfür: sieht wie ein Ziegelstein aus, wird aber anders graphisch darge stellt

– demons (Teufel):
sie spucken tödliche Blasen



– alien generators:
(auß erirdische Generatoren):
spucken verschiedene verspernen



– moveable rocks (bewegliche steine): man kann sie benut
um die außerirdischon Generaloren zu blockieren,
Sier können in Diamanten verwandelt werden, indem m
sie in eine Diamantenpresse hineinschiebt und sie dazu
benutzt, um den Kurs der Minen zu ändern

– diamand squeezer
(Diamantenpresse):
ein sich bewegender Stein kann in einen Diamanten verwandelt werden, wenn er in eine Diamantenpresse geschoben wird.



– metamorphosis walls (sich verwandelnde Mauern):
wenn eine Mine mit einer von diesen Mauern zusammentrifft, so verwandelt sie sich in vier Diamanten





AUSGANG
Mit diesem Icon können Sie das Haus wieder verlassen.



ANGEBOT
Hier erscheinen die Angebote des Bewohners für einen Handelsaustausch. In diesem Fall bietet der Drache einen Zeit – Zauberspruch gegen einen Sack voll Gold und einen Kerzenleuchter an.

ANERKENNUNGEN

Das Programm wurde von Stephen Crow entworfen und geschrieben, der im Jahre 1985 von "Cornputer and Video Games" zum "Programmierer des Jahres' ernannt wurde und Autor von "Starquake" und "Wizards Lair" ist. Die Konvertierung von Spectrum zu Commodore 64 und 128 wurde von John Cumming angefertigt. Veröffentlicht von Hewson Consultants Ltd.

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FIRELORD

de Stephen Crow
(Conversion de John Cumming)

Commodore 64 et 128 (en mode 64)
(contrôle par manche à balai seulement)

Le sentier sinueux s'enfonça plus profondément dans la forêt, aff[illegible] Sir Galaheart dans les ombres vacillantes. Une voix se fit entendre dans la terne obscurité.

"Mon fils, tu es revenu à cette terre de Torot pour découvrir ses profonds secrets. Tu dois retrouver la Pierre de Feu sacrée et la remettre au Dragon."

Galaheart trembla de peur en se rappelant comment la Méchante Reine avait saisi la Pierre de Feu et utilisé ses pouvoirs pour maudire la terre et la remplir de feu et d'apparitions fantomatiques qui déambulaient à travers les rues, essayant lamentablement d'imiter les habitants jadis heureux. Il fut un temps où les gens se promenaient librement mais, à présent, ils se tapissaient chez eux. Le prix exigé par la reine pour rendre la Pierre était qu'un guerrier courageux lui ramène les quatre charmes de la jeunesse éternelle. Le brave guerrier tomba à genoux, prix de peur et de pressentiments.

"Ne crains rien", dit la voix, "car la réponse se trouve à l'intérieur du royaume. Fait usage des cristaux enchantés et n'échoue pas."

Sir Galaheart était seul. Un sentiment de mystère remplit la forêt. Même l'air respirait les secrets de cette terre hantée.

LES PERSONNAGES DANS TOROT

En plus des fantomes que Sir Galaheart doit affronter, il y a tout un tas de personnages qu'il doit rencontrer et avec lesquels il doit négocier. Les paysans connaissent bien les paysages et les forêts, bien qu'ils soient souvent lourdaux. Le voyage peut s'organiser en payant le Portier dans une Maison de Péage ou en achetant un sort de Saut dans le Temps chez un herboriste ou autre personage magique. Les Gardiens du Pavillon des Dimes garderont les objets en sécurité.

Les Sorcières et les Magiciens ont des sorts et les dents du Dragon peuvent être utiles. Les armes peuvent être obtenues chez les Chevaliers et le Vieil Homme Sage est une source d'informations utile, de même que l'Hermite qui, selon la rumeur, habite dans les forêts.

Les Evêques sont souvent rapides et cupides; il est donc avantageux de ne pas essayer de les tromper. La justice est rendue par les Premiers Magistrats qui peuvent se montrer conciliants s'ils sont traités avec respect. La Princesse Eléanor est retenue prisonnière par la Méchante Reine et elle pourrait être très gentille avec ceux qui essaient de la délivrer.

INSTRUCTIONS DE CHARGEMENT

Branchez votre manche à balai sur l'entrée deux, mettez la cassette dans le magnétophone et réembobinez si nécessaire. Appuyez sur les touches SHIFT et RUN/STOP simultanément et appuyez sur le bouton de jeu du magnétophone. Attendez quelques minutes, le temps que le jeu se charge puis appuyez sur feu pour commencer.

COMMENT CONTROLER SIR GALAHEART

Guidez Sir Galaheart à l'aide du manche à balai et appuyez sur le bouton feu pour lancer des armes ou pour sélectionner des icônes, etc... Pour mettre le jeu en pause, appuyez sur la touche F7. Pour recommencer, appuyez sur F7 de nouveau ou utilisez un mouvement quelconque du manche à balai. Pour faire avorter le jeu, appuyez sur la touche F1.

COMMENT FAIRE DES ECHANGES DANS TOROT

Quand vous entrez dans une maison, vous pouvez négocier avec l'occupant. Placez le curseur au-dessus d'une icône et appuyez sur Feu pour la sélectionner. Pour annuler une sélection, appuyez sur feu de nouveau.

Chaque occupant fournit un ou plusieurs types de services. Sélectionnez le type que vous voulez et un à quatre des objets que vous voulez échanger. Si votre paiement est suffisant, l'occupant vous fera une offre en affichant une icône convenable. Si vous voulez achever l'echange, sélectionnez l'icône affichée.

TYPES DE SERVICES



BALANCE
Echangez un objet.



POTEAU INDICATEUR
Informez-vous de votre position.



SAUT DANS LE TEMPS
Jetez un sort à un endroit magique.



RUBANS
Les couleurs différencient les personnages similaires – Sorcière Verte, Sorcière Rouge, etc.



TRICHERIE
En sélectionnant ceci, vous n'aurez peut-être pas à remettre les objets avec lesquels vous devez payer. Si vous vous faites prendre, la justice sera rapide.



SORTIE
Sélectionnez cette icône pour quitter la maison.



OFFRE
Quand un échange est organisé, l'occupant affiche son offre ici. Dans ce cas-ci, le Dragon offre son sort de Saut dans le Temps en échange d'un sac d'or et d'un chandelier.

GENERIQUE

Conçu et programmé par Stephen Crow qui a remporté le Programmeur de l'Année des Jeux Vidéo et d'Ordinateur d et auteur de Starquake et Wizards Lair. Converti du Spect Commodore 64 et Commodore 128 par John Cumming. Pu Hewson Consultants Ltd.

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FIRELORD

by Stephen Crow
converted by John Cumming

Commodore 64 and 128 (in 64 mode)
(joystick control only)

The path wove deeper through the forest beckoning Sir Galaheart further into the flickering shadows. A voice spoke out in the dimming gloom.

"My son, you have returned to this land of Torot, to discover its hidden secrets. You must seek out the sacred Firestone and return it to the Dragon's safekeeping."

Galaheart trembled with fear as he recalled how the Evil Queen had seized the Firestone and used its power to curse the land with fire and ghostly apparitions who drifted the streets in ghastly imitation of the once happy inhabitants. At one time the people had roamed freely but now they cowered in their homes. Her price for the release of the Stone was for some brave warrior to win for her the four charms of eternal youth. The brave knight sank to his knees overpowered by fear and foreboding.

"Fear not," said the voice, "for the answer lies within the kingdom. Use the enchanted crystals and fail not."

Sir Galaheart was alone. A feeling of mystery filled the forest. The very air breathed the secrets of this haunted land.

CHARACTERS IN TOROT

As well as the ghosts which Sir Galaheart must dispel there are a host of characters for him to meet and trade with. The Peasants know the villages and forests well although they are often slow-witted. Travel may be arranged by paying the Gatekeeper at a Toll House or by buying a Timescape spell from a Herbalist or some other magic character. The Tithe Ward Keepers will keep objects safe and sound.

The Witches and Wizards have spells available and the Dragon's teeth may be of use. Weapons can be obtained from the Knights and the Wise Old Man is a useful source of information as is the Hermit who is rumoured to live in the forests.

The Bishops tend to be quick and greedy so it pays not to try and cheat them. Justice is administered by the Reeves who may be helpful if treated with respect. Princess Eleanor is held captive by the Evil Queen and she may look kindly on those who are trying to free her.

LOADING THE GAME

Plug your joystick into port two, place the cassette in the player and rewind it if necessary. Press the SHIFT and RUN/STOP keys simultaneously and press the Play button on the player. Wait a few minutes for the game to load and press fire to begin.

CONTROLLING SIR GALAHEART

Direct Sir Galaheart using the joystick and press the fire button to fire weapons or to select icons etc. To pause the game press the F7 key. To restart press F7 again or use any joystick action. To abort the game press the F1 key.

BARTERING IN TOROT

When you enter a house you may trade with the occupant. Place the cursor over

an icon and press fire to select it. To cancel a selection press fire a second time. Each occupant provides one or more types of service. Select the type you require and between one and four of your objects which you are prepared to trade in exchange. If your payment is sufficient the occupant will make an offer by displaying a suitable icon. If you wish to complete the deal select the icon displayed.

TYPES OF SERVICES



SCALES
Trade an object



PORTCULIS
Pay a toll to pass through the house



SIGNPOST
Find out where you are



SUPPLIES
Buy food, weapons or trading tokens



TIMESCAPE
Cast a spell to a magic place



INFORMATION
Find out how to accomplish your quest



RIBBONS
Colour distinguishes similar characters – Green Witch, Red Witch etc.



CHEAT
Select this and you may not have to surrender the objects that you are paying with. Get caught and justice will be swift.



EXIT
Select this icon to leave the house.



OFFER
When a deal is set up the occupant displays his offer here. In this case the Dragon is offering the Timescape spell in exchange for a bag of gold and a candlestick.

CREDITS

Designed and programmed by Stephen Crow, winner of the 1985 Computer and Video Games Programmer of the Year award and author of Starquake and Wizards Lair. Converted from the Spectrum to the Commodore 64 and 128 by John Cumming. Published by Hewson Consultants Ltd.

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FIRELORD

von Stephen Crow
Konvertierung von John Cumming

Commodore 64 und 128 (in 64-Modus)
(Nur für Joystick)

Der Weg führte tiefer in den Wald, und Sir Galaheart drang weiter in Richtung der flimmernden Schatten vor. Eine Stimme kam aus der Dunkelheit.

"Mein Sohn, nun bist du zum Land Torot zurückgekehrt, um seine versteckten Geheimnisse zu entdecken. Du mußt den heiligen Feuerstein finden und dem Drachen zur sicheren Verwahrung zurückgeben."

Sir Galaheart ließt der Gedanke an die böse Königin erzittern, die den Feuerstein stahl und seine Kräfte dazu benutzte, das Land zu verfluchen, das daraufhin von Feuer und Gespenstern heimgesucht wurde, die jetzt anstelle der einst glücklichen Bewohner die Straßen bevölkerten. Zeit konnt die Bewohner noch frei herumlaufen, doch jetzt verbringen sie aus Furcht die meiste Zeit in den Häusern. Als Preis für die Freigabe des Feuersteins nannte sie, daß ein tapferer Krieger ihr die vier Zauberformeln der ewigen Jugend gewann. Der tapfere Ritter ging vor diesem Omen ehrfürchtig in die Knie.

"Fürchtet euch nicht," sagte die Stimme, "denn die Antwort liegt irgendwo im Königreich verborgen. Benutzet die verzauberten Kristalle und erfüllt eure Aufgabe."

Sir Galaheart war alleine. Ein Zauber erfüllte den Wald. Die Luft, die er atmete, war von den Geheimnissen dieses heimgesuchten Landes erfüllt.

CHARAKTERE IN TOROT

Neben den Geistern, die Sir Galaheart verjagen muß, gibt es noch viele andere Spiel-Charaktere, die er treffen und mit denen er Handel treiben muß. Die Bauern kennen sich gut in den Dörfern und Wäldern aus, doch sie sind oft etwas langsam beim Denken. Eine Reise wird arrangiert, wenn der Hüter an der Mautstelle bezahlt oder ein Zeit-Zauberspruch von einem Kräutersammler oder einer anderen der Magie kundigen Person erworben wird. Die Zehnt-Eintreiber halten Objekte an einem sicheren Ort verwahrt.

Die Hexen und Zauberer besitzen Zaubersprüche, und der Drachenzahn kann von Nutzen sein. Waffen können von den Rittern erworben werden, und der weise alte Mann ist eine wertvolle Informationsquelle, wie auch der Eremit, der irgendwo in den Wäldern leben soll.

Der Bischöfe neigen dazu, schnell und gierig zu sein. Es zahlt sich also aus, sie nicht zu betrügen. Recht wird von den Vogten gesprochen, die bei respektvoller Behandlung ebenfalls behilflich sien können. Die Prinzessin Eleanor wird von der bösen Königin gefangen gehalten, und sie mag sich demjenigen gegenüber gütig erweisen, der sie befreit.

LADEN DES SPIELS

Schließen Sie den Joystick an Port 2 an, legen Sie die Kassette in den Kassettenrekorder ein und spulen Sie diese, wenn nötig, zurück. Dann drücken Sie SHIFT und RUN/STOP gleichzeitig und schließlich die PLAY-Taste des Kassettenrekorders. Warten Sie einige Minuten, bis das Spiel geladen ist, und drücken Sie Feuer, um mit dem Spiel zu beginnen.

DIE STEUERUNG VON SIRGALAHEART

Steuern Sie Sir Galaheart wird mit Hilfe des Joysticks und Drücken des Feuerknopf, um die Waffen abzufeuern, Ic wählen etc. Drücken von F7 unterbricht das Spiel für eine Das Spiel wird durch nochmaliges Drücken von F irgendeine Joystickbewegung wiederaufgenommen. Drück F1, wenn Sie das Spiel abbrechen wollen.

TAUSCHHANDEL IN TOROT

Wenn Sie ein Haus betreten, können Sie mit dem Bew Handel treiben. Plazieren Sie den Cursor auf einem Ic drücken Sie Feuer, um es zu wählen. Wenn Sie die vor getroffene Wahl aufheben wollen, drücken Sie ein zweit Feuer. Jeder Bewohner bietet einen oder mehrere D (Service) an. Wählen Sie den von Ihnen gewünschten Dien zwischen ein bis vier Ihrer Objekte, die Sie als Gegenl austauschen würden. Ist die Bezahlung angemessen, w Bewohner Ihnen ein Angebot machen, indem er ein pas Icon anzeigt. Wenn Sie den Handel abschließen wollen, Sie das angezeigte Icon.

DIENSTE (SERVICE)



WAAGE
Austausch eines Objekts.



FALLGATT
Zahlen S eine Ma gebühr, Haus zu passiere



STRASSENZEICHEN
Finden Sie heraus, wo Sie gerade sind.



VERSORG
Hier kön Sie Prov Waffen Handels eine kau



ZEIT – ZAUBERSPRUCH
Spricht einen Zauberspruch zu einem magischen Ort aus.



INFORMAT
Finden S heraus, Ihre Auf erfüllen können.



BÄNDER
Farbe unterscheidet Charaktere – Grüne Rote Hexe, etc.



BETRUG
Wenn Sie dieses Icon wählen, müssen Sie vielleicht nicht das Objekt als Bezahlung übergeben. Lassen Sie sich jedoch erwisc wird Ihnen schnell der Prozeß gemacht

zu Anfang gekauft werden, da für die Benutzung evtl. eine höhere Sicherheitsstufe erforderlich ist. Dies geschieht zu Deiner eigenen Sicherheit, denn Freund Computer will, daß nur wirklich erfahrene Troubleshooter sich hochkomplizierter und gefährlicher Ausrüstung bedienen! Zum anderen mußt Du genug Geld (Credits) haben, um das entsprechende Teil zu erstehen (s. a. Kontostand). Ferner kann ein Ausrüstungsteil nur gekauft werden, wenn im Ausrüstungsfenster noch ausreichend Platz ist. Das Einkaufsmenü kann durch anfahren des Exit-Symbols oder durch Drücken der RETURN-Taste verlassen werden.

3. Essenskarte programmieren: Um die Troubleshooter mit lebenswichtigen Vitaminen und Aufbaustoffen zu versorgen, gibt es im Paranoia-Komplex Essenskarten. In diese kann ein Tagesmenü einprogrammiert werden (z. Bsp. Wiener Schnitzel mit Pommes Frites). Hierzu müssen nach Anweisung des Computers verschiedene Tasten gleichzeitig (!) gedrückt und gehalten werden. Nach erfolgreichem Abschluß nimmt die Karte den gewünschten Geschmack an und kann verzehrt werden. Wird die Karte fehlerhaft oder unprogrammiert gegessen, kann es zu Verdauungsstörungen kommen — die Toilette muß dementsprechend schneller erreicht werden.

2. Kontostand: Hier kann man erfahren, über wieviele 'Credits' man derzeitig verfügt.

4. Bot aufladen: Ist der Bot mit Batterien ausgestattet, so müssen diese nach einer bestimmten Betriebszeit wieder aufgeladen werden, damit der Bot funktionsfähig bleibt. Die für das Laden erforderlichen Tätigkeiten sind gemäß den Anweisungen des Computers durchzuführen!

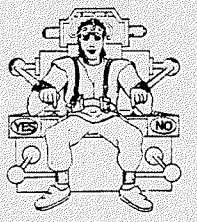
5. Log off: Hiermit meldet man sich vom Terminal ab. Am Terminal gibt es noch weitere Funktionen, die aber für einen computertreuen Troubleshooter uninteressant sind . . .

Hinweis: Textausgaben können durch Halten des Feuerknopfes beschleunigt werden.

Die Toilette

Man erkennt sie an der Aufschrift '00'. Die Benutzung der Toilette (sie kann von allen Seiten betreten werden) ist Dir hoffentlich bekannt. Dein Freund, der Computer, wird Dir großzügigerweise Instruktionen geben. Die Verwendung von Toilettenpapier ist zu empfehlen.

Die Cofession Booth

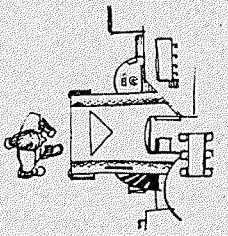


Sie trägt die Aufschrift 'CB'. In diesen Raum wirst Du gerufen werden, wenn Du einen Auftrag abgeschlossen hast. Du wirst nach und nach befördert werden und Belohnungen erhalten. Außerdem wird noch ein kleiner Test durchgeführt, den Du mit Leichtigkeit bewältigen wirst. Dir werden Fragen gestellt, für die Du nacheinander 3 Antwortvorschläge vorgelegt bekommst, die Du annehmen (Joystick links) oder ablehnen (Joystick rechts) kannst. Solltest Du keinen der ersten beiden Vorschläge annehmen, so ist der dritte verbindlich.

Die Fahrstühle

Sie sind als dunkle Quadrate oder Kreise dargestellt. Mit Ihrer Hilfe kannst Du in die verschiedenen Stockwerke des Paranoia-Komplexes gelangen. Hast Du einen Fahrstuhl betreten, kannst Du auswählen, in welches Stockwerk Du gelangen möchtest. Joystick nach unten in das darunterliegende Stockwerk. Die Farben der Stockwerke werden durch die Farben der blinkenden Pfeile angezeigt. Deiner Sicherheitsstufe entsprechend kann es Dir aber auch verboten sein, eine höhere Ebene zu betreten. Auch dies geschieht zu Deiner eigenen Sicherheit, denn Freund Computer will gewährleisten, daß Du nicht — aus Mangel an Erfahrung — in den anderen Ebenen unnötig gefährdet wirst. Der Computer meint es gut mit Dir!

Das Druckluftbeförderungssystem



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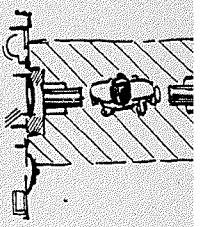
Die Kontrollstationen



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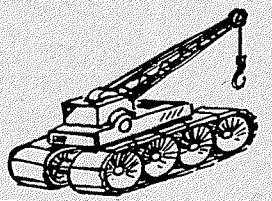
Die Wachen

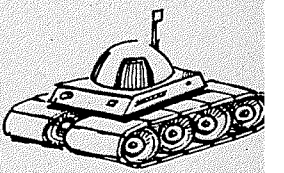
Als ambulante bewaffnete Kontrollstationen werden vom Computer bla Wachen eingesetzt, die eine Befragung durchführen, wenn man sie anremp Ihnen gebührt besonderer Respekt!



Transbot

Der Transbot ist für den Abtransport Gelähmten verantwortlich. Gib acht, denn kennt bei der Erfüllung seiner Aufgabe k Pardon. Geh ihm daher besser aus dem Weg.

Dein Robot



Der Robot ist ein besonders wertvolles Ausrüstungspaket, das Du Dir im späteren Verlauf deines Lebens kaufen solltest. Beachte dabei, Daß Du alle für die Funktion des Robots notwendigen Konstruktionsteile kaufst. Er muß sehen und hören können. Er muß sich bewegen und D erkennen können und braucht eine Stromversorgung. Fehlt eine die Fähigkeiten, so funktioniert der Bot gar nicht oder fehlerhaft!

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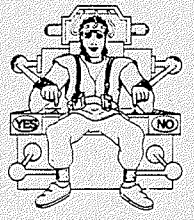

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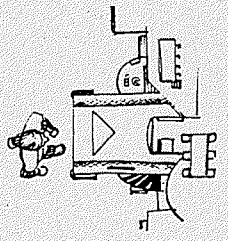

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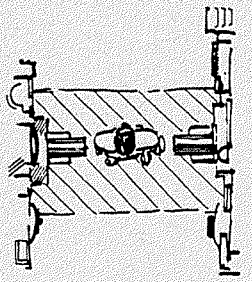

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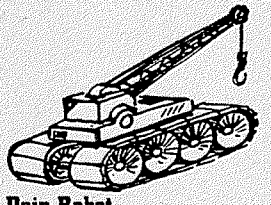

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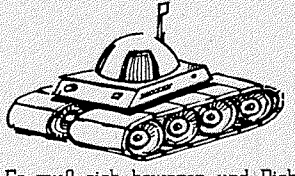

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Das Leben im Paranoia-Komplex

Da Dein Freund weiß, wie gefährlich es ist, Verräter zu jagen, stellt er Dir 6 Clones zur Verfügung. Clones sind Kopien Deiner selbst, die aktiviert werden, wenn Du einmal einem Verräter unterliegst oder Dir ein Mißgeschick wiederfährt. Dank sei dem Computer!

Wenn Du nun den Weisungen des Computers immer gehorchst und all Deine Aufträge erfolgreich abschließt, wird Dein Einfluß und Dein Ansehen immer weiter steigen. Betrachte es nicht als ein Spiel, betrachte es als ein Abenteuer!!! Doch nun bist Du auf Dich selbst gestellt. Du hast Dein Schicksal in der Hand! Freund Computer wird Dich mit den notwendigen Dingen versorgen und mit Interesse verfolgen, wie Du an Erfahrung gewinnst oder Entdeckungen machst. Sei folgsam und wachsam, aber hüte Dich vor Neugier und Gerüchten, sonst bringst Du Dich und andere in Gefahr!!! So wie es ist, ist alles gut. Dein Freund, der Computer, ist sicher, daß Du ihn nicht enttäuschen wirst. Es doch zu tun wäre Verrat!

Hoch lebe der Computer!

Idea: Thomas Brendel, Rolf Lakämper, Hartwig Nieder-Gassel
Realization: Hartwig Nieder-Gassel
Graphics: Hartwig Nieder-Gassel
Sound + additional graphics: Georg Brandt

Programmed by:
Georg Brandt, Andreas Wellie (marvellous first C 64-Version)
Carsten Neubauer (Amstrad/Schneider CPC)
Olaf Marohn, Udo Graf (Spectrum)
Andreas Kaeser, Expert Software (Amiga)
Jörg Walkowiak, Expert Software (Atari ST)

Thanks to:
Maus, „Grobi" Witte, Virginia Zini, Thomas Schichtel, Phillip Ridgeway-le-Gresley, Rolf RDG Lakämper, Friend Computer, Bettina Mieder the guys who played the PARANOIA RGP with me (pour little wretches), Cpt. Wetzelberger, all those, who will enjoy this game.

A Product of Magic Bytes

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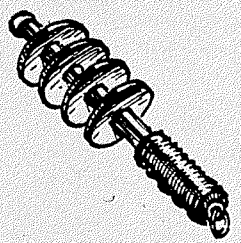
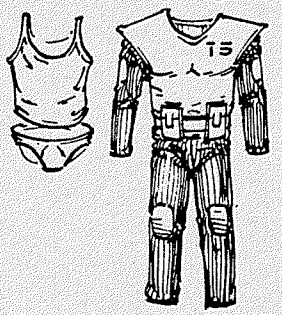
Deine Startausrüstung umfaßt: Einsatzanzug (EINZ), 1 Unterwäsche (UNTE), 1 Energiemagazin (ENAZ), 1 Essenskarte (EKA), 1 Kreditkarte und ein Lähmstock (LOCK) sowie einige Credits.



Die Ausrüstung

Es gibt bei der Ausrüstung verschiedene Gruppen:
1. Waffen: Die einfachste Waffe ist der LOCK, er gehört zu Deiner Grundausstattung. Die besseren Waffen besitzen eine höhere Reichweite. Der GAGE verwendet hingegen eine andere Munition. Dementsprechend verhält sich auch der Energieverbrauch, den Du mit Energiemagazinen decken mußt.



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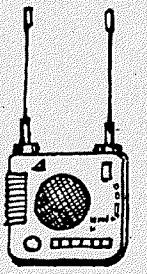
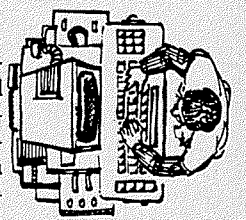


4. Bots: Ausrüstungsgegenstände für Deinen Bot (hier gibt es ähnliche Gruppen). Einige Ausrüstungsgegenstände sind kostenlos erhältlich, da sie noch im Erprobungsstadium sind. Sie sind als 'Experimental' gekennzeichnet.
Sammle Ausrüstung und sammle Erfahrung.
Anmerkung: Das 'Knacken' von Programmen ist Verrat und wird mit Dummheit bestraft. Da viele Cracker zwar das Programm unerlaubt kopieren und weiterverbreiten, nicht jedoch die Anleitung, gibt Freund Computer an dieser Stelle eine wichtige Information für alle Bürger der Sicherheitsstufe R und darüber frei: Du sollst Dir zuallererst einen Communicator (COMMI) kaufen. Wenn der Computer sich über diesen bei Dir meldet ("Message"), sollst Du ihn im QUIP-Feld betätigen. Erst dann erhältst Du am genannten Terminal Deinen Auftrag.
Da Freund Computer seine Bürger liebt, stellt er verschiedene Leistungen zur Verfügung (Anzahl je nach Stockwerk verschieden). Benutzt werden diese, indem man sich vor sie stellt und darauf zuläuft.

Das Terminal



Die Terminals sind seitlich an manchen Häusern angebracht. Sie stellen eine Art Schnittstelle zu Freund Computer dar. Wird man von ihm mit einer Aufgabe betraut, so erhält man hier seine Auftragserteilung. Ansonsten kann man am Terminal folgende Funktionen benutzen, die Du durch Aufwärts- und Abwärtsbewegungen des Joysticks und Feuer auswählen kannst:
1. Einkaufen: Hier gibt Dir Dein großzügiger Freund, der Computer, die Möglichkeit, Dich mit der phantastischen und vielfältigsten Ausrüstung auszustatten. Um einen Gegenstand zu kaufen, sucht man ihn durch Umherfahren mit dem blinkenden Fenster aus und drückt 'Feuer'. Oben wird die Abkürzung des Namens und der Preis angezeigt. Besitzt Du hingegen ein sogenanntes 'MANUAL', erscheint der volle Name! Drei Dinge sind jedoch hierbei zu beachten: nicht jedes Teil kann

Willkommen im Paranoia-Komplex!

Die Lage im Paranoia-Komplex ist angespannt und Dein Freund, der Computer, ist daher hocherfreut, daß Du Dich bereiterklärt hast, ihm zu dienen und Deinen Teil als Troubleshooter dazu beizutragen, daß im Paranoia-Komplex Ruhe und Ordnung herrscht. Der Computer wird Dich dafür reichlich belohnen. Befolge immer die Anweisungen des Computers! Gelobt sei der Computer.

Verräter treiben ihr Unwesen im Paranoia-Komplex. Sie haben sich in Geheimgesellschaften organisiert und bedrohen die Sicherheit von Freund Computer und allen rechtschaffenen Bürgern. Wer zum Beispiel bohrt Löcher in den Boden des Komplexes und schießt Kugeln hinein? Deine Aufgabe wird es sein, diese Verräter zu jagen, zu lähmen und sie nach wichtigen Informationen zu durchsuchen, bevor ein Transbot sie in die nächste Confession Booth schleppt. Wenn Du erfolgreich bist, sind Dir große Credit-Summen und Beförderungen gewiß.

Wie man in den Paranoia-Komplex gelangt

Stecke den Joystick in Port 2, befolge die Ladeanweisungen auf der Diskette und bewundere das schöne Ladebild. Dort wird Dich Freund Computer auf seinen 16-Bit-Brüdern zuerst nach Deinem Namen fragen. Kurze Zeit später wirst Du Dich im Paranoia-Komplex wiederfinden. Sei ohne Sorge, denn von nun an wird Dich Freund Computer beschützen! Freund Computer garantiert für die Sicherheit im Komplex, indem er unverbesserliche Verräter jagt und aus dem Verkehr zieht. Du solltest also mit Stolz erfüllt sein, wenn Freund Computer Dich zu einer solchen Aufgabe beruft. Nicht stolz zu sein bedeutet Verrat!

Multifunktions-Anzeigenfenster

In der unteren Bildschirmhälfte ist der Ausschnitt der Stadt zu sehen, indem Du Dich gerade befindest. Im oberen Teil des Bildschirms befindet sich Dein Kontrollanzeigefeld. Der rechte Teil besteht aus zwei großen Fenstern, im linken wird Deine Ausrüstung angezeigt (Equipment-Fenster), im rechten die Ausstattung Deines Roboters (Robot-Fenster). In beiden befindet sich rechts unten eine Trashcan (Mülleimer), in die nicht mehr benötigte Ausrüstung

geworfen werden kann. Links oben siehst Du die Anzahl der übrig gebliebenen Clones (= Leben), darunter Deinen Namen. Diesem Namen ist als Abkürzung Deine Sicherheitsstufe angehängt (S. Tabelle 1). Bsp.: Spieler „Frank" mit der Sicherheitsstufe Gelb (Yellow) ergibt Frank-Y. Alle Troubleshooter beginnen mit der Sicherheitsstufe Rot. Freund Computer verspricht Dir, daß Du neue und höhere Sicherheitsstufen erreichst, wenn Du erfolgreich bist. Außerdem kannst Du auf dem Bildschirm einen Zeitbalken finden, der Dir sagt, wie lange die Erledigung deines jeweiligen Auftrages noch dauern darf. Schließlich ist da noch das Textfenster, das Dir alle wichtigen Informationen übermittelt.

Tab. 1:
Sicherheitsstufe, Abkürzung
rot/red = R
orange/orange = O
gelb/yellow = y
grün/green = G
blau/blue = B
Violett/Violet = V

Zur Bedienung

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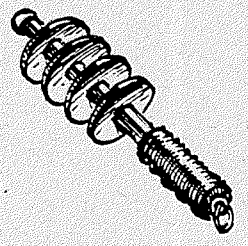

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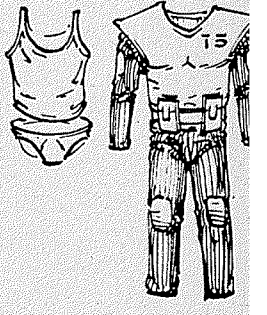

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TITAN
by TITUS

1 - GETTING STARTED :

CBM 64/128 Cassette
- On Commodore 128, type : GO64, then press SHIFT and RUN/STOP keys together.
- On Commodore 64 and SX64, turn on your screen, verify that there's no cartridge plugged into your computer. Turn on your computer, insert the TITAN cassette in your recorder and press SHIFT and RUN/STOP keys together.

SPECTRUM Cassette
- Type LOAD»» and press ENTER key. Press PLAY on your recorder.

SPECTRUM +2 Cassette
- Turn on your monitor and your computer. Insert your TITAN cassette in your recorder and press ENTER key.

AMSTRAD CPC Cassette
- Turn on your computer and press CTRL and SMALL ENTER keys. Press PLAY on the cassette recorder.

AMSTRAD CPC Disk
- Turn on your computer, insert your TITAN disk in your disk drive and type /CPM and press ENTER

2- Controls :

- Commodore 64/128 :
RESTORE go to menu
F3 key switches the sound on/off
F7 key to hold/pause the game
A..... Up
Z.....Down
<..... Left
>..... Right
SPACE BAR ..... Changes the speed of the scrolling.

- Spectrum :
P key to hold/pause the game
During the game, you are controlling your racket with a joystick or one of following keys: Q,A,Z and X
Q.....UP
A.....DOWN
Z.....LEFT
X..... RIGHT
CAPS....Changes the speed of the scrolling.

- Amstrad CPC :
ESC key to lose current life
CTRL+ESC go to the menu screen
SHIFT+ESC to quit current game
SHIFT+CTRL+ESC reset computer

During the game, you are controlling your racket with a joystick or one of the arrow keys.
Space Bar changes the speed of the scrolling.

At the end of the game, you can put your name beside your score. You do this by choosing the letters of your name one by one with the cursor. You move the cursor with the arrow keys on the keyboard. Press the space bar to store each individual letter. When you have finished entering your name, move the cursor to the END display and press the space bar again. Your new score is now stored on the disk.

3- THE STORY :

The year is 2114, the place: Vegapolis.

Professor Hybrys, the genius behind all analytic conceptors, is the creator of a brand new leisure axle wich has been driving crowds mad. The fabulous 1000 Kronurs bonus to the winner of TITAN attracts the wildest adventurers.
But the game is deadly and all have died somewhere along the 80 levels.
To succeed you must guide the power ball accross 80 immense and synthetic worlds using just one magical and magnetic racket, whilst avoiding all manner of death icons.

The ultra fast scrolling, the multi coloured graphics, the variety of gameplay, and the sheer speed of the game have already caused mental breakdowns.
You have been warned !!

4- YOUR MISSION :

You must complete each of the 80 levels (16 in the amstrad cassette version) either by eliminating all the bricks on the screen or by hitting the EXIT brick with the ball.
At the start, you have to choose your player number (between 0 - 9). In subsequent games by entering your number you will be able to start each new game at the level you finished your previous game. Also by pulling down on the joystick you can start at a lower level. (This option does not exist in the cassette versions).

You will lose a life if the racket hits a white skull or if the ball hits a white or green skull.
If you move your racket over the ball, then the ball will move in the opposite direction to that of the racket.
You can catch and freeze the ball by moving the racket over the ball. From this position the ball will move in the opposite direction to that of your racket, when you move your racket again.
The ball can go through red passage ways but not green ones.
The racket can go through green passage ways but not red ones.

One element has an extraordinary quality, namely the ENERGIZER (a brick with a shaded blue E in its centre). If you move your racket over this brick then the positions of the ball and the racket are reversed.

There are also solid indestructable bricks in certain levels and these can be moved around the screen by your racket and used to cover entrances to skulls etc...
Watch out for the blue oil spots, as your racket will become uncontrollable until you make contact with the wall area.
There are some blocks with dots on them which you can pass through, however each time you do so, they become darker until they become totaly solid. Once this happens you are no longer able to pass through them and so you may find yourself trapped in the wrong area of the screen!

Scores:
Each eliminated brick will give you 100 points on the first stage, 200 points on the second stage... 8000 points on the 80th stage.

A slowly dissapearing brick will only give you points once it has fully dissapeared. (value being the same as around).

IMP. METAIS s.a. - 95110 SANNOIS

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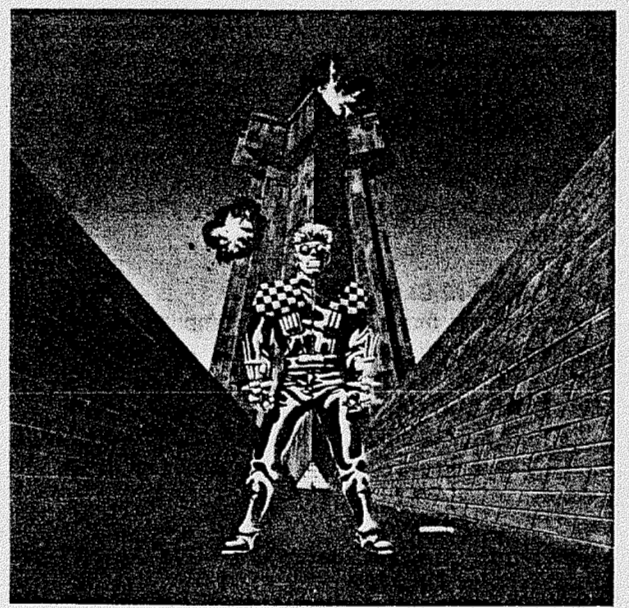
TITAN



iii) **Suggestion.** Using the cursor keys a player can choose a suspect and weapon for the current room and suggest that (for instance) the murder was committed in the lounge by the **Reverend Green** with the spanner. The person and weapon then appear on a **"suspect sheet"** on the screen.

After such a suggestion has been made, the next player in turn must (if possible) show one clue card which refutes this suspicion. A card shown may be either a room, person or weapon. The program pauses here and covers up a section of the screen, then asking that you either obscure the covered section or ask that the other players look away. The card may be shown after responding **"Y"** to the question **"Are you ready?"**.

If the next player in turn is unable to show a card, the enquiry passes on to the next player after that until one card has been shown. Obviously, if no one has a card to show, the player making the suggestion has isolated one or more of the **"Murder Cards"**.

6. **Clue Cards.** Any player can see their own clue cards dealt to them on selection from their main menu.

7. **Notes.** Any player can make notes by using the cursor keys to move to an entry and then highlighting it with a letter or number. To erase the highlight use the space bar.

8. **Accusation**. When a player feels sure that all the clues have been examined, a full accusation can be made. In the same way as a card is shown, the program provides a covered area for the player and allows the accusation to be made in secret.

   If the accusation is correct, the program exposes the Murder Cards and declares the winning player. If the accusation is wrong, the player is out of the game and only participates in order to be a suspect and to show cards as appropriate.

9. When a player's piece has been moved to a room to answer an enquiry, it remains there and is not replaced in the original position. Players must resume moving their pieces from their new positions on the board.

10. If (one assumes it is an accident), a player fails to show a card in response to a **"suggestion"** (on their third try) then they are penalised by being out of the game in the same way as if a wrong accusation had been made.

11. If at any time, you wish to end the game or **"give up"**, simply press the **CTRL** and **C** keys simultaneously. The program will respond by showing you the Murder Cards.

AT THE END OF A GAME:

1. The Computer **CLUEDO®** program recognises the end of the game when a correct accusation has been made.

2. When the end has been reached, the program announces the name of the winner and displays a suitable message.

3. You have an opportunity to play again with the same players and levels.

The questions are described below:—

i) **Are you using a colour television? (Y)**

The Computer **CLUEDO®** program substitutes special shapes for the character colours to enable play on a black and white television set. It always assumes a colour television to start with (this is also the default).

ii) **Do you want sound effects? (Y)**

The program does appear to pause while producing sounds. The **N** reply ensures that there are no apparent delays due to sound generation.

7. The last prompt deals with the speed at which the program moves pieces on the board—not the time it takes **"thinking"**. The speed can be varied from **0** (fastest) to **9** (slowest)—if you are playing Computer **CLUEDO®** for the first time then **3** or **4** are good values to try.

8. The program will randomly select a person, room and weapon and remove their **"clue cards"** from the game—these are the **"Murder Cards"** and are placed face down in the centre of the board.

9. Each player now rolls the computer dice (by pressing any key) and the player with the highest number becomes the **"clue dealer"**. The program now deals with clue cards for the dealer.

THE PLAY:

1. The Computer **CLUEDO®** program draws a floor-plan of the ground floor of **"Tudor Close"**. The corridors between rooms are marked out in squares for the movement of pieces.

2. The pieces representing the players are placed on their starting positions. The play always starts with **Miss Scarlett** and continues clockwise.

3. Each player rolls the dice and moves that number of squares along the passage to any room desired. When it is your turn to move your piece will flash. The cursor can be directed to the point where you want to move your piece using the cursor control keys (at the top right of the keyboard). Then press **ENTER** when you reach the desired square.

   The program will only let you move the number of squares appropriate to the roll of the dice.

4. The next player may then roll the dice and move an appropriate number of squares.

5. When a player reaches a room, that player can immediately make a **"suggestion"** about the crime by calling a suspect and weapon into the room for enquiries. The screen display changes to that of the room which the current player has entered.

   On recognising that a player is in the room, the program presents **3** choices to that player:—

   i) **Roll the dice.** A player may roll the dice and leave a room by any door—making a normal move.

   ii) **Secret passage.** A player may use up one turn by taking a secret passage to another room.

B Rules for playing CLUEDO®

1. Players may move their pieces anywhere on the board on the squares (except the staircases) according to throw of dice.
2. Pieces must move in straight lines only, i.e. forward, and/or crosswise, but never diagonally.
3. Players may enter rooms by the doors only, but cannot leave a room in the same move, i.e. entering a room ends the move (it is not necessary to throw the exact number of units on the dice to enter a room, i.e. if a player needs 4 to bring him into a room and throws a 6, he ignores the last 2 units after entering the room).
4. No two pieces may occupy any one square, nor may a player move his piece through the square on which another piece stands. A room, however, may be occupied by any number of pieces and weapons.
5. A player's piece may remain stationary in any room during any number of his turns to play.
6. Secret passages—enable players to move from certain rooms to those indicated in one move. This can be done at a player's turn without throwing the dice but constitutes a move.
7. A player may make a "suggestion" (which **must** include 3 factors: Room/Person/Weapon) on any of his turns of play when (and ONLY WHEN) his playing piece is IN THE ROOM CONCERNED in the "suggestion".
8. Playing pieces and weapons transferred to a room as the result of a "suggestion" being made, are not replaced in their original places afterwards. Players must resume moving their pieces from their new positions on the boards.

C Playing Computer CLUEDO®

1. **RUN** the Computer **CLUEDO®** program by typing the command **RUN "CLUEDO"** and then press the **ENTER** key.
2. The program will prompt you for the first player's name. Simply type up to **8** letters of the player's name and press the **ENTER** key on the right-hand side of the keyboard.
3. The entry of the player's name is followed by a request for a play level. If the computer is to be this player then press one of the **keys 1-3** at the top of the keyboard for the appropriate skill level. If this is not a computer player, then press **ENTER**.
2. A **"cast of characters"** is displayed on the screen and the program will choose one to represent the player whose name has just been entered.
5. The computer repeats the prompts asking for the next player's name and skill level. Up to 6 players can be entered, and any of them may be designated as computer players. (Remember that all the occupants of **"Tudor Close"** are suspects—whether they are players or not). Once you have entered the names of all those playing then simply press **ENTER** instead of entering another name. This tells the program that all the players have been entered and you are ready to start the game. (The program will automatically continue after a sixth player has been entered.)
6. The Computer **CLUEDO®** program follows with a series of **YES/NO** questions which can be answered with one keystroke (**Y** for yes and **N** no). Each question has a default value (shown below in brackets) which is entered by simply pressing **ENTER**.

The Computer Edition of:
WADDINGTONS CLUEDO®

INSTRUCTIONS FOR THE AMSTRAD

A Introduction
B Rules for playing CLUEDO®
C Playing Computer CLUEDO®

A Introduction

CLUEDO® is a detective game of investigation, skill and luck. The game takes place on the ground floor of **"Tudor Close"**, where a mysterious murder has taken place!

The object of the game is to solve by elimination and deduction the mysterious murder of **Dr Black**, the owner of the house, whose body has been found at the foot of the stairs. The **WINNER** is the first person to identify in **ONE** accusation all of the following: the murderer; the weapon used; and the room in which the crime was commmitted.

At the time of the investigation, there are 6 occupants at **"Tudor Close"** and some (or all) of them may also be investigating the crime—even the villain will not know that he (or she) is the guilty person until the end of the game! **The 6 occupants are: Colonel Mustard, Professor Plum, The Reverend Green, Mrs Peacock, Miss Scarlett and Mrs White**. There are also **6 weapons**, any one of which may have been used to commit the crime. They will be placed in rooms in which they might be found, for example: **Dagger**—Lounge, **Candlestick**—Dining room, **Revolver**—Study, **Rope**—Ballroom, **Lead Piping**—Conservatory, **Spanner**—Kitchen. The game starts with each player being given a limited set of clues which they then use as a basis for their investigations. The search for further clues is conducted room by room—where each suspect may be questioned and the possible weapons examined.

Computer **CLUEDO®** is a sophisticated and entertaining computer program which allows you to play **CLUEDO®** on or against your computer. The program can provide you with up to **5** opponents whose skill levels (novice, intermediate and experienced), can be set to suit your own ability.

You are also supplied with a pad for making your **"DETECTIVE NOTES"**.

DETECTIVE NOTES

Suspected Persons:

Col. Mustard
Prof. Plum
Rev. Green
Mrs. Peacock
Miss Scarlett
Mrs. White

Probable Implements:

Dagger
Candlestick
Revolver
Rope
Lead Piping
Spanner

Suspected Scene of Murder:

Hall
Lounge
Dining Room
Kitchen
Ball Room
Conservatory
Billiard Room
Library
Study

Stainless Steel Loading Instructions

Amstrad 464/664/6128

To load the game on an Amstrad 664 or 6128 type in ! TAPE press RETURN then type RUN "" and RETURN. If using an Amstrad 464 just type RUN "" and press RETURN. Then press PLAY on the tape recorder. If you have any difficulties, consult your Manual and try adjusting the volume.

The keys are:-

Q - Up/Thrust Z or A - Down/Turn O - Left P - Right
SPACE - Fire N or I - Bomb/Shield

When using a joystick UP - Thrust LEFT - Left
DOWN - Turn RIGHT - Right
FIRE - Fire

The 'bomb/shield' function drops bombs when you are flying in Nightwind; otherwise this activates the shield, which lasts for a short period of time, which makes you indestructible. (Don't waste your shield -you only get one per life!).

To start game press SPACE.

To Pause a game - Press CONTROL and ESC together, to continue press ESC.

To Abort a game - Press CONTROL, SHIFT and ESC together.

There are 3 different stages to the game, these are:

WALKING: You can walk and fire in eight directions.

DRIVING: Press THRUST to speed up. To slow down stop thrusting. To turn around press TURN. Don't drop any bombs or you will blow yourself up. Don't drive into walls, rocks etc...

FLYING: The keys respond the same as driving however you can now use the Uranium Thunderbombs to wipe out any Enemy Submarines.

Gameplay:

In ZONE ø you must battle your way on foot until you reach your car Nightwind. (It is parked somewhere at the top of the Zone!)

In ZONE 1 you must wipe out all of the android troops before you can continue to the Second zone.

In ZONE 2 you can use your bombs to annihilate enemy submarines.

In ZONE 3 you must find Dr. Vardos and destroy him!

On Screen

Your score is on the top left hand corner of the screen. Below that are your FUEL & BOMB level sliders. You will lose a life if you run out of FUEL. Therefore there are fuel canisters scattered around each zone. To collect these just go into them. On the right is a Bonus counter, this will be added to your score upon successful completion of each zone. BEWARE: if you are too slow the bonus will become negative. (ie. Kiss goodbye to your score!) Below the bonus is an ENEMY counter, as you kill each alien it will click down one. When it reaches ø you have completed that zone.

Along the bottom of the screen is an alien scanner for the present zone, your indicator starts at the far right hand side and as you move up through the zone your indicator moves left. All the other symbols on the scanner are aliens and must be destroyed!

Die Mission Return to Eden

Sie, Kim Kimberley, haben soeben Snowball 9 vor der Katastrophe bewahrt. Die Snowball wurde sabotiert und konnte nicht gänzlich repariert werden. Alle Sendeeinrichtungen wurden zerstört, und es gab wirklich dringenderes zu tun als ein Radio zu basteln. Die Mannschaft hatte keine Verbindung nach draußen.

Im Orbit angekommen wurde eine Untersuchung eingeleitet. Das automatische Logbuch der Brücke, obwohl vom Feuer teilweise zerstört war, trotzdem hochinteressant. Es zeigte, wie Kim Kimberley eine Bombe auf die Brücke warf um das Schiff zu zerstören. Kim wurde schuldig erkannt, obwohl niemand wußte, was wirklich geschehen war. Das Urteil war hart - der Tod. Im Gleiterhangar sollte Kim dem Vakuum ausgesetzt werden. Ohne Raumanzug hatte sie nur eine Chance. Kim brach aus und erreichte einen Strato-Gleiter, bevor die Droiden sie erreichten. Eine Stunde später war Kim der erste Mensch auf Eden.

Snowball 9 ist im Orbit, kurz vor dem Übersetzen der Passagiere, und die Mannschaft sieht in Ihnen einen Mörder. Die einzige Zivilisation auf Eden ist eine Roboter-Stadt fern im Osten. Angeblich leben auf dem Planeten wilde, feindliche Wesen aller Art: Nur erbarmungslose Verfolgung mit modernsten Waffen konnte sie am Überrennen der Städte hindern.

Das Abenteuer beginnt mit der Landung des Stratogleiters auf Eden. Die, Kim, sind gerade einem häßlichen Schicksal entkommen, doch die Probleme sind nicht weit. Die Crew der Snowball meint, eine Gleichung mit Ihnen offen zu haben...

Eine Stadt wurde auf Eden gebaut. Zuerst lief alles glatt, doch dann häuften sich die Probleme, denn Eden war bereits besetzt. Nicht durch denkendes Leben, jedoch von Myriaden von Pflanzen und wilden Kreaturen. Und die schlugen zurück...

Normalerweise hätten die Roboter alles Leben um die Stadt vernichten können. Doch die späteren Bewohner waren Menschen, empfindlich gegen Gifte und Strahlung.

So wurde ein Wall errichtet und der Krieg kam zum Stillstand. Jede Maschine, die in den Dschungel eindrang wurde vernichtet, und kein plantetares Leben von Eden war in der Stadt oder auf den angrenzenden Farmen geduldet. Die Verluste auf beiden Seiten waren groß, die Roboter waren jedoch zufrieden. Hinter dem Wall arbeiten Sie an der Perfektionierung der Stadt für die zukünftigen Eigentümer.
Die Kommunikation ist nicht die einzige Aufgabe der Raumstation, sie dient auch der planetaren Verteidigung.

Doch nichts ist wie es sein soll. Jahrzehntelang haben die Väter der Stadt den Dschungel bekämpft, um nun den Preis dafür zu zahlen. Das Fundament ist von millionen Wurzelrissen durchzogen und Ungeziefer verseucht die untersten Ebenen. Die Kuppel ist wieder und wieder geflickt und die eingedrungenen Sporen haben die Gebäude im Innern angegriffen. Die Stadt sieht neu aus, doch der Eindruck taüscht.

Und, wie könnte es anders sein, die Roboter haben zu lange gekämpft. Ihre Reaktionen sind zu tief verwurzelt; sie haben Probleme den Feind zu erkennen.

Die Roboter-Stadt Enoch liegt an einer Äqutorialküste an der Mündung von vier Flüssen. Alles, was man von außen erkennen kann ist eine 3klom große Klimakontroll-Kuppel, von einem grünen Ring aus Farmen und einem hohen Verteidungswall umgeben. Wie Wespen umschwirren Kampfboote die Kuppel, dicht über dem Dschungel.

Im Inneren glaubt man auf der Erde zu sein. Eine gelbe Sonne scheint durch wieße Schäfchenwolken im Himmel. Grüne Parkanlagen liegen um hohe Wohnpyramiden und der Boden summt komfortversprechend. Enoch bietet jeden Luxus eines Heimes; nur die Menschen fehlen.

Enoch ist über eine riesige Raumstation in geostationärer Ümlaufbahn mit den Weltraum-Fabriken verbunden. Transporte werden mit den Himmels-Fahrstühlen - speziellen Shuttles - durchgeführt. Die Kommunikations-Verbindung läuft über Laser. So ist die Stadt in die allgemeine Präsenz von Eridani E eingebunden.

Genau wie die Orbit-Fabriken wurden die Raumstation aus einem einige Kloms großen Eisen-Asteroiden herausgearbeitet. Diese Masse garantiert die nötige Stabilität für die Anlege- und Start-Manöver der Shuttles, bei denen hunderte von Tonnen Material zwischen Orbit und Planeten-Oberfläche bewegt werden.

Als nun Snowball 9 ohne sich zu identifizieren und ohne auf eine Radioanfrage zu reagieren in den Orbit ging und dann auch noch die Stadt bedrohte, hatte die Raumbasis ein Problem. Weitere Kontakversuche zum "Alien" wurden unternommen, alle ohne Reaktion, eine Entscheidung mußte fallen, denn die Roboter durften keine unbekannte Macht im Orbit dulden.

Die Mission Worm in Paradise

Die Mission findet auf dem Planeten Eden statt, 100 Jahre nach der Zeit der Missionen Snowball und Return to Eden. Sie sind ein Bürger der Millionenstadt Enoch.

Befehl	Kürzel	Deutsch
NORTH	N	Norden
NORTHEAST	NE	Nordosten
EAST	E	Osten
SOUTHEAST	SE	Südosten
SOUTH	S	Süden
SOUTHWEST	SW	Südwesten
WEST	W	Westen
UP	U	hoch, hinauf
DOWN	D	hinunter
INSIDE	I	hinein
OUTSIDE	O	hinaus
CLIMB		klettern
JUMP		springen
CROSS		überqueren
EXIT		verlassen; listet alle möglichen Ausgänge

II. Aktionen

Die meisten der Befehle, die Sie geben, werden Aktionen sein, um Dinge aufzunehmen, Türen zu öffnen, Lampen einzuschalten, usw. Einige Beispiele für besonders haüfige Aktionen...

Befehl	Deutsch
GET SPANNER	Nimm den Schraubenschlüssel auf
DROP THE BLACK PISTOL	Leg die schwarze Pistole weg
GIVE THE DRINK TO THE ROBOTOR	Erfrische den Robotor mit einem Getränk
PUSH THE RED BUTTON	Drücke nur den roten Knopf
WEAR HELMET	Setz den Helm auf.
OPEN THE DOOR	Öffne die Tür
CUT THE TUBE WITH THE SCALPEL	Stich mit meinem Skalpell in den Schlauch
EXAMINE THE COFFIN	Untersuche den Sarg
INVENTORY	Inventar; was trage ich?
SCORE	Wie gut bin ich?
QUIT	Gib das Abenteuer auf....
AGAIN (A)	Wiederhole den letzten Befehl, den gab

Sie können den Punkt (.) oder das Wort AND (und) benutzen, um Befehle zu verketten, als Beispiel...

OPEN THE DOOR. GO SOUTH AND CLOSE THE DOOR. GO EAST AND PULL THE GREEN LEVER.
(Öffne die Tür. Gehe nach Süden und schließe die Tür. Gehe nach Osten und ziehe den grünen Hebel).

Der Parser versteht auch die Wort ALL und EVERYTHING (alles) um alle beweglichen Dinge zu beschreiben, die in Sicht sind. Dies sind sehr nützliche, zeitsparende Hilfen. In vielen anderen Abenteuern müssen Sie sich ständig wiederholen:

GET RATCHET	Nimm die Knarre
GET BOLT	Nimm den Gürtel
GET CLOTH	Nimm die Kleidung

Soll nich ALL benutzt werden, so kann auch die Befehlsform

GET RATCHET, BOLT AND CLOTH

benutzt werden. Die einfachste Form ist jedoch

GET ALL Nimm alles

Den zuletzt benutzten Gegenstand bezeichnen Sie kurz mit IT (es):

EXAMINE THE BLUE SWITCH AND PRESS IT.
(Untersuche den blauen Schalter und drück ihn).

oder

GET THE GREEN FLASK AND FILL IT WITH WATER
(Nimm den grüne Glaskolben und fülle ihn mit Wasser)

Selbst Einschränkungen versteht das Programm:

TAKE EVERYTHING BUT THE COMPASS
(Nimm alles außer dem Kompass)

oder

EXAMINE ALL EXCEPT THE WATCH
(Untersuche alles außer der Uhr)

Mit diesen Möglichkeiten des Parser können Sie ganze Sätze hoher Komplexität, die normalem Englisch sehr nahe kommen, eingeben:

EXAMINE ALL BUT THE WATCH, SPANNER AND TORCH AND GO EAST
(Untersuche alles außer der Uhr, dem Schraubenschlüssel und der Fackel und gehe nach Osten)

DROP EVERYTHING BUT THE FLASK. OPEN IT AND GIVE IT TO THE ROBOT
(Lege alles weg außer dem Glaskolben. Öffne ihn und gib ihn dem Robotor)

GET THE KEYS. OPEN THE SLIDING DOOR AND RUN NORTHWEST THEN

Vor hundert Jahren erreichten menschliche Kolonisten den Planeten Eden, der nun eine Bevölkerung von einer halben Milliarde hat. Die meisten von ihnen Eingeborene und einige Menschen. Die Bevölkerung verteilt sich auf eine handvoll Kuppeln, von denen Enoch die erste und kleinste ist.

Es gibt keine Kontakte zwischen den Menschen und der eingeborenen Fauna und so grassieren Gerüchte über Aliens. Man sagt, fliegende Untertassen würden regelmäßig gesehen und in tiefen Tunneln gäbe es intelligentes Leben . Beweise gibt es keine.

Dieses Abenteuer findet während der Regentschaft von Kim III statt, einer Phase freundlicher Bürokratie. Ein echtes Paradies für die ruhige Mehrheit, mit Frieden, ohne Kriminalität und mit Vollbeschäftigung - in einer 15-Sekunden-Woche - luxuriösen Wohnungen, mehr Unterhaltung als man nutzen kann, usw. usw.

Natürlich gibt es niemanden, der das System ablehnt - und welcher normal denkende Bürger würde das wollen?

Politik

Die Regierung kann theoretisch einen Profit erwirtschaften, nicht aus den Steuern der Bürger, sondern aus der Verbrechensbekämpfung und der Währungswirtschaft - einem positiven Ergebnis in einer wachsenden Ökonomie. Das Bedarf einer festen Kontrolle des Geheimdienstes und routinemäßige Überprüfung der Bevölkerung um Unruhestifter unschädlich zu machen. Die Regierung von Enoch kommt ohne Steuern aus, unterstützt von einem Millionenheer von Robotern, die frei von Korruption sind.

Das Enoch Gesundheits-System

Die Krankenhäuser von Enoch ziehen Profit aus der Krankenpflege und der Organtransplantation. Weitere Kosten werden erhoben für :

- Medikation des Trinkwassers,
- freien Zugriff auf Medikamente über die Computer,
- Minimierung der Zeiten der Patienten im Krankenhaus,
- Belohnungen für Schutzimpfungen und Meldung infizierter Personen als Maßnahme für die Gesunderhaltung der Bevölkerung - Krankheitsherde werden gefunden,
- Kontrolle geistig Behinderter und deren Einsatz in sinnvollen Tätigkeiten, wenn möglich - diese Gruppe von Menschen erledigt die niedersten Arbeiten, wie in so vielen Gesellschaften.

Das Ergebnis ist größter Vorteil für die größtmögliche Zahl zum niedrigsten Preis und wenig Glück für die Minderheit mit teueren Krankheiten.

Die Polizei von Enoch

Auch die Polizei macht Profit:

- Mehr Geldbußen als Gefägnisstrafen.
- Belohnungen für Informanten - wieviele abgelaufene Steuermarken sieht man wohl, wenn die Polizei jede gemeldete mit ¥200 belohnt?
- Verfolgung und Aufforderung wohlhabender Personen zur Änderung. Sie könne eine Buße zahlen.
- Massenprozesse senken die Kosten der Gerichte. Der Angeklagte wird schuldig erklärt, kann aber mit dem Risiko höherer Strafe eine Verhandlung fordern.
- Intensive Überwachung um kriminelle Aktivitäten zu entdecken.
- Das Decken von Kriminellen, was die Kosten der Polizei sehr erhöht, wird schwer geahndet.
- Ersetzen der letzten Steuern durch Bußgelder - im Deutschland des zwanzigsten Jahrhunderts wurde Alkohol besteuert, der Besitz anderer Drogen aber mit Bußen bestraft. Auf Eden sind alle mit Geldbußen belegt.

Die Menschen auf Eden sind potentiel unsterblich, wenn sie alle ausfallenden Organe ersetzen lassen können. Geldlose Kriminelle finden leicht das Geld, eine Buße zu zahlen. indem sie das Eigentum anderer veräußern...

Arbeit

Roboter bewegen das System Eridani E, indem sie alle wichtigen und die meisten niedrigen Arbeiten erledigen. Ob die Menschen nun die Aristokraten oder die Haustiere der Roboter sind, ist schwer zu sagen. Die Menschen sind durch Gesetz zu einigen Arbeiten verpflichtet:

- Umfangreiche "Übungs"-Listen
- Viele Schreibarbeiten
- Kontrollierte und brüderliche Verteilung der wenigen, guten Jobs
- Status ist das wichtigste, nicht Geld

Spielanweisungen - Befehle

Silicon Dreams hat einen verbesserten Kommando-Auswerter - einen sehr umfangreichen und komfortablen Parser - der sowohl einfache Ein- und Zweiwort-Befehle als auch ganze Befehlsketten versteht. Dieser Abschnitt beschreibt die Möglichkeiten dieses Parsers.

I. Bewegungen

Um durch das Land zu ziehen nutzen Sie folgende Befehle:

INVENTORY. WHAT IS MY FINAL SCORE?
(Nimm die Schlüssel. Öffne die Schiebetür und laufe nach Nordwesten, dann liste mein Inventar. Wieviele Punkte habe ich?)

III. Sonderbefehle

Es gibt einige Befehle, die weder Bewegungen noch Aktionen steuern. Zwei davon schalten die Darstellung des Abenteuers:

WORDS	Wörter, schaltet die Grafiken ab
PICTURES	Bilder, schaltet die Grafiken wieder ein

HELP Hilfe
gibt Ihnen, besonders zu Beginn eines der drei Abenteuer, wertvolle Hinweise und Unterstützung.

Die weiteren Sonderbefehle dienen dem Sichern des Zwischenstandes sowie dem Laden eines Zwischenstandes und die Fortsetzung des Spieles aus der geladenen Position. Die mit einem Stern (*) gekennzeichneten Befehle sind nicht in allen Versionen vorhanden.

SAVE	Sichert die erreichte Position in einem Abenteuer auf dem Datenträger. Legen Sie eine Cassette bzw. Diskette ein. Wenn Sie mit Cassetten arbeiten, müssen Sie vor dem Befehl die Tasten PLAY und RECORD Ihrer Datacassette drücken. Bei Commodore C 64/128 Systemen mit Diskettenstation muß der Befehl SAVE "name", 8 lauten.
RESTORE	Lädt eine mit SAVE gesicherte Position. Sie müssen mit der Lenslok die Position bestätigen. Näheres im Abschnitt Lenslok Anweisungen. Wenn Sie mit Cassetten arbeiten starten Sie den Recorder nach der Lenslok-Bestätigung. Bei Commodore C 64/128 Systemen mit Disket- tenstation muß der Befehl LOAD "name", 8 lauten.
RAM SAVE*	Installiert die Spielposition im Speicher des Rechners.
RAM STORE*	Lädt eine mit RAM SAVE im Speicher des Rechners.
OOPS*	Führt das Spiel an der Position weiter, wo es vor der letzten Bewegung/Aktion war. Der OOPS -Befehl bietet Ihnen auf größeren Rechner- Systemen die Möglichkeit auch längere Wege zurückzugehen.

Natürlich können Sie die Befehle OOPS, RAM RESTORE und RESTORE auch nutzen, wenn Sie gerade "gestorben" sind, um das Spiel aus der Situation vor dem Unfall fortzusetzen.

Punkte und Tips

Sie können die drei Abenteuer von Silicon Dreams als drei unabhängige Spiele lösen. Die maximale Punktzahl, und den Rang eines "Meister-Abenteurers" erreichen Sie nur, wenn Sie die Abenteuer in der Reihenfolge Snowball, Return to Eden und Worm in Paradise lösen und Ihre Punkte von einem zum nächsten Abenteuer mitnehmen. Wie, das erfahren Sie, wenn Sie am Ende von Snowball die maximale Punktzahl dieses Spieles erreicht haben.

Anders als in anderen Abenteuern erhöhen Sie Ihre Punkte nicht, indem Sie Schätze sammeln und irgendwohin bringen. Die richtige Aktion ist hier das Maße der Dinge.

Snowball

Ihr Ziel ist es, die Kontrollen des Hauptmaschinenraumes einzunehmen und dort zu verhindern, daß das Raumschiff auf den Planeten Eden kracht.

Erwischen die Nachtigallen Sie, kostet das Punkte...

Norden, Süden, usw. ist definiert. Oben und Unten ist jedoch von der relativen Gravitation abhängig. Zu Spielbeginn sind Sie auf dem untersten Passagier-/Deck. Sie müssen nach 'Oben'.

Return to Eden

Das erste Ziel ist es, in die neue Stadt von Enoch zu gelangen. Haben Sie das geschafft, müssen Sie nur noch die Robotor von Eden daran hindern, das "feindliche" Raumschiff Snowball 9 zu vernichten.

Worm In Paradise

Finden Sie heraus, was mit der Stadt Enoch nicht stimmt. Für Ihre Erfolge bekommen Sie Punkte. Besorgen Sie sich Geld und werden Sie Mitglied der Regierungspartei. Sollten Sie die Chance haben, die Welt zu retten, ergreifen Sie sie.

Punkte verlieren Sie, wenn Sie wiederaufbereitet werden - man sagt auch 'sterben' dazu.

Nutzen Sie die Möglichkeiten von SAVE, RESTORE und, wenn in Ihrer Version vorhanden, RAM SAVE/RAM RESTORE und OOPS regelmäßig.

Viele Hinweise zur Lösung finden Sie mit dem Befehl EXAMINE (untersuche).

Silicon Dreams

von Level 9 Computing

Ladeanweisungen und Spielführer

Einleitung

Gruß Euch, Abenteurer!

Seid bereit für die Welt der Zukunft in Silicon Dreams, in der die Menschheit beginnt ferne Galaxien zu besiedeln.

Dieses Abenteuer ist die Trilogie der Level 9 Adventures Snowball, Return to Eden, und Worm in Paradise. Die Trilogie behält das hohe Qualitäts-Niveau der Originalversionen bei und vertieft die Einbindung des Spielers durch erweiterte Textbeschreibungen, Grafiken, einen außerordentlich flexiblen englischen Wortschatz für die Befehlseingabe und einer großen Zahl weiterer unterstützender Maßnahmen, die die Bedienung erleichtern und die Kommunikation verbessern.

Der erste Teil dieses Handbuches soll dem neuen Freund des Abenteuer-Spieles erläutern, wie die Tastatur den Weg in die Futuristische Zeit der Roboter, Ramuschiffe, aufblasbaren Puppen und pelzigen Tiere bar jeden Humors ermöglicht.

Damit Sie sich schneller in die Abenteuer hineinversetzen können, ist zu jedem Teil der Trilogie eine Beschreibung des Scenarios erstellt. Weitere Informationen finden Sie im Abschnitt 'Punkte und Tips'.

Der zweite Teil dieses Heftes ist die Novelle "Eden Song" von Peter McBride, die Sie mit der Athmosphäre der Fantasy-Welt von Silicon Dreams vertraut macht.

Glück für Ihre Suche, und um den Erfolge zu sichern, Mut, Entscheidung, Schnelligkeit und ein Gedächtnis so groß wie ein mittleres Sonnen-System...!

Hängen Sie wirklich fest?
Hinweise erhalten Sie von uns...

Sie versuchen ein unbewegliches Objeckt zu verschieben, das einen wichtigen Gegenstand verbergen MUß? Sie finden nicht den Weg aus dem Labyrinth? Sie kriegen das Zauberwort nicht heraus? Nicht verzweifeln! Auch wenn Rainbird die gemeinsten Abenteuer herausbringt, selbst wir haben ein Herz. Wenn Sie so richtig festsitzen, füllen Sie das beiliegende Hint Request Formular aus und wir werden Ihnen den nötigen Tip geben.

Kim Kimberley

Kim ist 1,7m groß, wiegt 55kg, ist recht intelligent, athletisch und hat braune Augen und blondes Haar. Ihr Alter ist 22, oder 25, oder 131 Jahre... von welcher Basis man es gerade berechnen will.

Geboren wurde sie am 29. September 2172 AD. Aufgewachsen ist Kim in Hampstead Creche, einem seltsamen Ort zwischen verfallenen Häusern, der sich auf einer Mischung aus Beziehungs-Ingenieurwesen, Verhaltens-Kontrolle und Höllenfeuer-Religion gründet. 2185 wurde sie wegen der Einbrüche der Android Protection Acts aufgegeben. Kim scheint das nicht weiter berührt zu haben, bis auf eine Tendez zur Introvertiertheit vielleicht.

Dann folgt die Milton Keynes School of Life, einem feinen Stift auf Malta (verflucht sei der Name). Der Stab der Schule war Kims Familie, eine Situation, die im späten 22. Jahrhundert ungewöhnlich war; durch die Fortschritte in den Bereichen der Unterhaltung und Reisen plus der sexuellen Revolution resultierend aus der Parthenogenese und der Cloning-Technik wurde die Familie zur Ausnahme.

Bevor Kim in England ihr Studium in Oxford aufnahm, wurde sie zum Wehrdienst einberufen. Sie war eine gute Studentin, hatte viele Beziehungen, aber kein festes Verhältnis. Während des Wehrdienstes fand unbemerkt von Kim das Schlüsselereigniss zur Mission Snowball statt. Kim wurde zu geheimen Tätigkeiten herangezogen, zu Anfang ein einfaches Training in der Erkennung subversiver Elemente, entwickelte es sich sehr schnell zur Gegenspionage.

Als das Projekt Snowball in die aktive Phase ging wurde Kim zur Freiwilligen der Sterne. Das Snowball-Raumschiff war so weit wie möglich automatisiert und darüber hinaus mit einer gut ausgebildeten Mannschaft besetzt, falls etwas schief gehen sollte. Was aber, wenn etwas mit der Besatzung geschieht? Was gebraucht wurde waren ein oder zwei gut ausgebildete Leute, die ohne das spezielle Wissen der Mannschaft übernehmen konnten, wenn etwas passierte.

Die terranische Expanisionphase, 2120 - 2210

Im 21. Jahrhundert nahm die interplanetare Raumfahrt in starkem Maße zu.

Fusionsenergie stand noch nicht zur Verfügung, die fossilen Energieträger gingen rapide zur Neige, doch der Energiebedarf der Industriestaaten stieg, wie immer. Die Lösung lag im All. Solarspiegel könnten, wenn sie nur groß genug wären, genug Energie auffangen und einfach zur Erde strahlen, um dort jeden Bedarf zu decken.

Nicht so einfach war es, das Material für Tausend-Kilometer-Reflektoren ins All zu befördern. Es war wesentlich einfacher, zu nutzen, was schon da war.... und so wurden die ersten Beschleunigungs-Ketten gezündet, um Asteroiden aus der Mars- in die Erdumlaufbahn zu bringen.

2120 kam 30% der Energie für die Erde aus den Solarspiegeln, und der Anteil nahm weiter zu. Das ganze Sonnensystem war von einem Verkehrsnetz zur Versorgung der riesigen Solar-Industrie überzogen.

Dann kam die außerordentlich billige Fusionsenergie auf.

Die gesamt Weltraum-Industrie wurde überflüssig, und nicht wenige Politiker liefen Gefahr, ziemlich dämlich auszusehen.

Es wurde ein Bedarf für die Raumschiffe, Solarspiegel und Orbit–Fabriken gebraucht und in der Kolonisation der Sterne gefunden. Viele der Wähler und Mitglieder lasen SF und die Kolonien waren sehr popluär - zu Anfang.

Die Beschleunigungs-Ketten wurden in zehntausende kleine Kundschafter aufgelöst und in alle Richtungen entsandt. Mit nur einer Mission wurden die Roboter in das weite All geschickt: Erdähnliche Planeten zu finden und zu melden. Da sie unbemannt waren, konnten sie bis in die Ewigkeit weiterfliegen.

Zehn Jahre später kamen Vermessungsschiffe, jedes mit einem großen Ball aus Ammonium als Treibstoff. Folgte eines einem erfolgreichen Kundschafter, hatte es gerade genug Zeit, von der Höchstgeschwindigkeit von 0,3 Licht abzubremsen und den Stern zu erreichen. Nach dem Eintreffen wurde das System nach bewohnbaren Planeten erforscht und das Ergebnis an die Erde gefunkt.

Dann wurde der Planet für die Jahrzehnt später eintreffenden Kolonisten vorbereitet.

Zuerst die lange, ermüdende Periode der Erzsuche auf Asteroiden, um die ersten Roboter-Fabriken aufzubauen. Der erste Roboter brauchte zehn bis zwanzig Jahre zur Fertigstellung, der nächste zehn oder zwanzig Minuten, dann liefen sein tausenstel Sekunden vom Band.

In einem Prozeß vorsichtiger Erweiterung wurden neben hochintelligenten Weltraum-Fabriken auch riesige Schüsselantennen errichtet, um den konstanten Strom technologischer Daten von der Erde nutzen zu können.

Als nächstes kam die Landung auf dem gewählten Planeten, der Aufbau von Städten und ihre Vorbereitung für die kommenden Kolonisten. Zur selben

Ladeanweisungen

Um den Zwischenstand sichern zu können, brauchen Sie für Diskettenversionen eine formatierte, leere Diskette, und für Cassettenversionen eine leere Cassette. Im Punkt III. Sonderbefehle des Abschnitts Instruktionen finden Sie weiteres zum Sichern des Spielstandes.

Jede Version von Silicon Dreams hat ein Menü-Programm, das erklärt, wie das Abenteuer geladen wird - wenn nötig. Sie finden die Anweisungen auch in der folgenden Tabelle.

Computer	Cassette	Diskette
Apple II	-	Diskette in Diskettenstation einstecken und Computer einschalten
Amiga/Atari ST	-	Laufwerksymbol anklicken Datei MENU anklicken
Atari XE/XL*	START - und - OPTION-Taste drücken und halten, Rechner einschalten.	Diskettenstation einschalten. Spiel-Diskette einlegen.
Commodore 128	nur Commodore C 128 im 128-modus: GO 64	nur Commodore C 128 im 128-modus: GO 64
Commodore 64	Gleichzeitig die Tasten SHIFT und RUN/STOP drücken. Play-Taste des Recorders drücken.	LOAD"MENU",8,1
IBM PC	-	Diskette in Laufwerk A einlegen MENU
MSX 64k	RUN "CAS:"	-
Schneider CPC 464	RUN""	-
664	¦TAPE und	-
6128	RUN""	RUN "MENU"
Schneider PCW	-	MENU
Spectrum 48k	LOAD"" Play-Taste des Recorders drücken.	-
Spectrum 128	Mit der Leertaste den Tape Loader wählen. ENTER drücken.	-

Ladehilfen

Versuchen Sie folgendes, wenn Sie Ladeprobleme haben....

Cassette

1. Laden Sie das Programm von der anderen Cassettenseite.
2. Laden Sie ein Programm, mit dem Sie bisher keine Probleme hatten, um das System zu überprüfen.
3. Kontrollieren Sie die Lautstärke und Toneinstellung des Recorders.
4. Reinigen und entmagnetisieren Sie den Tonkopf des Recorders.
5. Versuchen Sie, wenn vorhanden, von einem anderen Recorder zu laden.

Diskette

1. Nehmen Sie die Diskette aus dem Laufwerk und schalten Sie alle Geräte aus und wieder ein. Versuchen Sie erneut das Programm zu laden.
2. Haben Sie die Diskette mit der richtigen Seite nach oben eingelegt (beliebter Schneider CPC Fehler)?
3. Versuchen Sie ein anderes Programm von einer anderen Diskette zu laden, um das System zu überprüfen.
4. Haben Sie Ihr System mit Geräten von Fremdanbietern erweitert?
5. Reinigen Sie das Diskettenlaufwerk.

Zeit wurden neue Kundschafter-Sonden und Vermessungsschiffe entwickelt.

Das Maß der Expansion nahm mit der Zeit ab und die Phase wurde schließlich beendet - soweit es die Erde betraf. Die heimischen politischen Kräfte wechselten und die Politiker waren mehr und mehr mit der Lebensqualität der sogenannten freien Nationen beschäftigt - die Erkundung des Weltraumes wurde uninteressant. Doch die Sternenschiffe flogen, die Gründung des menschlichen Sternenreiches war gesichert.

Die Scenarios

Die Snowball-Mission

Sie sind Kim Kimberley, Geheimagent zbV.

Ihre Mission: Begleiten Sie den Interstar Transport Snowball 9 also letzte Sicherung gegen Katastrophen und Sabotage.

Sie wissen, als Sie im Hibernations-Tank erwachen und die Snowball noch im Transit ist, das irgendetwas nicht in Ordung ist. Sie sind von der langen Hibernation erschöpft und desorientiert, doch das Schicksal von zweimillionen Passagieren liegt in Ihren Händen!

Snowball 9 ist eines der fünfzig Kolonistenschiffe, die 2190 von der Basis Ceres der EEC gestartet sind. An Bord sind die ersten Kolonisten für Eridani E.

In zehn riesigen, um Schwerkraft zu simulieren ständig rotierenden Scheiben wurden, je 200.000 Passagiere ins All befördert, jede vorsichtig von einem Schwarm kleiner Schlepper gezogen.

Dahinter folgte die Triebwerkseinheit der Snowball, vorwärtsgestoßen von der unbändigen Kraft ihrer vier gigantischen Fusionsmotore. Das Rendezvous der Einheiten, das einige Wochen später stattfand, wurde weltweit übertragen (wenn auch von wenigen gesehen).

Glitzernd wie ein Perlenhalsband reiste Snowball 9 hinaus in den tiefen Raum, in ein Zeitalter des Obskuren.

Doch der wichtigste Teil des Startes sollte noch kommen - und er fand in aller Stille und ohne Publicity statt. Für drei Jahre wurden jenseits von Pluto die Triebwerke mit all ihrer Macht zum Leben erweckt: Zehn-Tonnen-Blöcke gefrorenen Ammoniums wurden gezündet, um das Schiff auf die nötige Geschwindigkeit zu bringen. Das Eis war in eine riesige Hohlkugel um die Passagier-Scheiben Snowballs gesammelt worden. Ein Schild für die Reisenden, solange es nicht benötigt wurde.

Diese Schale aus Eis - sie gab der Snowball ihren Namen - bildete die Hauptmasse des Schiffes. Ohne dieses System aus Antrieb und Sammeleinheit wäre die Interstellare Reise unmöglich gewesen.

Wie in einem Leben waren die ersten dreißig Jahre der Reise die interessantesten. Die Mannschaft und die Computer mußten soviel Eis einfangen wie möglich. Doch selbst zu dieser Zeit waren nur noch acht Mitglieder der Crew aktiv.

Dann wurde das Schiff sich selbst überlassen, die Mannschaft ging mit den Passagieren in die Hibernation. Kurze Hektik zur Aktivierung des Bremsvorganges und wieder auf automatische Steuerung. Sicher und ohne menschliche Hilfe übernahm das Schiff die Führung. Erst ein Jahr vor Ende der Reise würde das erste Mannschafmitglied geweckt werden.

Der Plan sah vor, daß von nun an der Bremsvorgang lief, der das restliche Eis verbrauchen würde, und dann um den Zielplaneten, Eden, in eine geostationäre Umlaufbahn zu gehen. Shuttles sollten die Passagiere auf den Planeten hinunterbringen, ein Vorgang der Jahre dauern würde, da die Zahl der Gleiter klein war. So der Plan...

Die Roboter des Vermessungsschiffes hatten im Eridani-System inzwischen harte Arbeit zu tun. Die primitiven Droiden des Schiffes selber waren zu wenig mehr als einfacher manueller Arbeit fähig. Doch sie waren schon lange durch ein Heer spezialisierter Roboter ersetzt; hochintelligent und für jeden Zweck.

Die ersten Beschleunigungsketten waren gebaut. In kurzer Zeit schon konnten Kolonisten von Eden auf die Suche zu entfernteren Welten geschickt werden.

Über hundert Jahre brauchten die Kolonisten bis Eden, Roboter verarbeiten Daten jedoch nahezu mit Lichtgeschwindigkeit. Sie sind ihren zukünftigen "Herren" im technologischen Wissen unendlich überlegen. Selbst wenn Snowball 9 sicher ankommt, heißt es nicht, daß die Passagiere in ihrer Welt der Zukunft leben und überleben können.

Das physikalische Wohlbefinden der Kolonisten ist durch die Arbeit der Robotor gesichert. Gleitwege, Bildtelephon, TriDi-Netz, vorbestimmte Arbeit...alles was zu einem zivilisierten Leben gehört ist vorbereitet. Warum also das Risiko einer Zerstörung der Sozialfabrik wegen einer Manifestation des sogenannten "Pioniergeistes" eingehen?

Alles was Sie, Kim Kimberley, zu tun haben, ist Snowball 9 zu retten.

Sue Townsend

THE GROWING PAINS OF ADRIAN MOLE

lcome to the second computer game to feature the tents of my diary – is there no such thing as privacy? Such is rice of fame I suppose.

aim of the game is to make me as popular as possible with ryone. You make decisions for me through multiple choice stions. Now I am more mature, life is even more plicated and I have even more decisions to make, so e's a lot of text in there and some very nice illustrations too. e may think it's a game; I prefer to think of it as a sort of quest he Meaning of Life – not easy to find in Laurel Close, ester!

good luck, being popular as well as an intellectual is not so y. I should know, I've spent all my life trying!"

Adrian Mole

duced by Mosaic Publishing Ltd.

n Games Limited, 2-4 Vernon Yard, obello Road, London W11 2DX le in England.

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THE GROWING PAINS OF ADRIAN MOLE

AMS
CPC
464/
664/
6128

Sue Townsend

THE GROWING PAINS OF ADRIAN MOLE

PROGRAM BY **LEVEL 9**

Amstrad CPC 464/664/6128



THE COMPUTER GAME

INTRODUCTION

Playing this game will take you through eighteen months in the life o Adrian Mole. When you have loaded the first part of the game, following the instructions below (under the heading *Using the Program*), you will see that as you progress through the days in Adrian's diary you will be asked to make choices for Adrian. Press a number from **1** to **3** to choose one of the options suggested. Pressing key number **4** will display the command and help system menu. This gives a list of the additional features in the game and full instructions on how to use them.

THE GAME

Whether you have read Sue Townsend's best-selling books or not, you should have no trouble guiding Adrian through the trials and tribulations of school and family life! Knowing the books won't necessarily give you an advantage: in the game, familiar scenes may well have a new twist. There are a number of random elements included so each game may be different. Adrian's view of the world is unique and entertaining and you help make decisions about all aspects of his life. He is surrounded by colourful characters and you will need to consider carefully the best way to impress them! Your ultimate aim is to make Adrian as popular as possible with everyone and at regular points in the game your score will appear as an indication of how well you are doing. (You could, of course, play it the other way and try to make Adrian as unpopular as possible!)

USING THE PROGRAM

The game consists of a number of separate programs. Please see the cassette label for the position of the different parts of the game. Each program covers a few months of Adrian's life. When playing the game press **SHIFT** (or **RETURN** on an Atari) to continue when the game pauses.

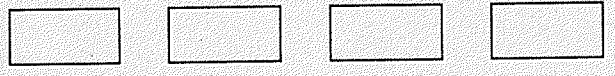
LOADING THE GAME

To load and start the cassette version of the game, insert the cassette in the recorder and ensure that it is fully rewound. Set the tape counter to zero if your recorder has one. Then follow the instructions below, don't forget to press **RETURN** or **ENTER** after each command.
For Amstrad disc versions, please see disc label.

Amstrad CPC 464	Type **RUN""** and start the tape.
Amstrad CPC 664/6128	Type **|TAPE** then **RUN""** (for **|** press **SHIFT** and @)

WHEN THE GAME STARTS, DON'T FORGET TO STOP THE TAPE AND DO NOT REWIND IT.
Stop the tape when each program has loaded and restart it when it is time to load the next program.

When you reach the end of a program, a message on the screen will ask you if you want to go to the next program. Type **YES** and press **ENTER** or **RETURN.** Start the tape on **PLAY** and press **ENTER** or **RETURN** twice. The next program loads in the same way as the first one. Remember to stop the tape when the game starts again.
You do not need to play the whole game through from the beginning, but may load each part separately. To permit this, there may be a couple of short loader programs between each part. These will be ignored when you are chaining on from one part to another, so do not assume you have a loading fault if your computer does not immediately load the next part. If you have a tape counter on your recorder, make a note of the reading at the end of each program. This will be useful if you want to start in the middle of a game, so you can rewind to the exact place on the tape.



LOADING ADVICE

You shouldn't have any problems loading this game, but if you do have try the following:
Try the other side of the cassette, if possible. Load another game from your recorder to check everything is connected properly. Vary the volume and tone setting on the recorder if you can. Clean and demagnetise the recorder (following the manufacturer's instructions). If you can, try another recorder.

SAVING THE GAME

While playing the game you can save your current position (so that you can turn the computer off, yet return later to the same stage in the game). To do this, insert a spare, blank cassette in the recorder.

Type **4** instead of **1-3** when asked to make a decision on behalf of Adrian Mole. This will display the command and help system on the screen. Type **SAVE** press the **RECORD** and **PLAY** buttons on the recorder, and press **ENTER** or **RETURN**. (If the program asks for a "file name," type any short word and press **ENTER** or **RETURN**.) If the tape doesn't move press **ENTER** or **RETURN** again. When a message appears on the screen to tell you the save is completed, stop the recorder.

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RELOADING

When reloading your saved game, make sure the section
game you saved from is loaded into the computer. Type
of **1-3** when asked to make a decision for Adrian then ty
and press **ENTER** or **RETURN**. (If the program asks f
name," type whatever name you used to save the positio
press **ENTER** or **RETURN**.) Rewind until you are at th
beginning of the saving tape and press the **PLAY** butto
recorder. Press **ENTER** or **RETURN**.

When a message appears on the screen to tell you the lo
completed stop the recorder. The saved game position
on the screen.

Game Design: Pete Austin
Programmed by: Pete Austin
Pictures: Joan Lamb
Transport to your computer, adventure system and graphics system: Mike and Nick Austin
Program copyright © 1987 Level 9 Computing
Published by Virgin Games Ltd.
Additional text and story lines for the game by Pete Austin

Based on The Adrian Mole Diaries by Sue Townsend
Copyright © 1982, 1984, 1985 Sue Townsend
First published in Great Britain by Methuen, London Ltd.
Drawings Copyright © 1982, 1984, 1985 Caroline Holden

You really don't appear to have any choice – if it's:
1) your Mum's verbals
or
2) Griffiths, Imelda, a locked school and the horrors of the sewers then it has to be school!

She still hasn't forgiven you for having your first walkman stolen. It wasn't your fault that some swine stole it from the staff room after it had been confiscated during a maths lesson. Now she asks to see it every night when you get home – you sometimes think that you could return home direct from the hospital with two broken legs and her first words would be – "Where's your cassette player?" Does anyone understand parents?

The basic plan is to get into the staff room and then steal the walkman back before going home to your mum. It is going to need a little planning though and you had better get some help too. Hollo is bound to help you – isn't he? Problem is that he's always complaining and might bottle out at any time. You'll just have to try to keep him happy.

The rest of the difficulties you find will be minor compared to braving your Mum – it's all a matter of a little thought and brilliant flashes of inspiration. There's bound to be everything you need somewhere around the school – it's a right dump you know.

You'd better get going – your mum is expecting you home and you can't return any later than midnight under any circumstances.

Gameplay

Grange Hill – The Computer Game is an adventure game with a difference!

Instead of entering the tedious GO NORTH, GO WEST type instructions you control Gonch by moving a joystick or pressing movement keys. This makes the game fast and fun to play but still gives you the puzzle and strategy elements that are present in most good adventures.

Other commands common to adventures, such as EXAMINE, USE and PICK UP, can be selected from a drop down menu. This means that the only time you ever have to type commands is when you want to talk to another player or use an object in a particular way.

GETTING STARTED:
Load Grange Hill by following the instructions printed on the cassette or disk label.

To start the game you press FIRE and the first location will appear.

The screen has two windows, the top window shows Gonch (you), any other characters on that screen and any objects that you might need later. The lower window gives a description of the location and displays anything said by other characters in the screen.

MOVING AROUND:
You can move Gonch by using a joystick or the keyboard. If you move towards the left, right or top edge of the screen a new location will appear. You climb up objects to get to the top of the screen.

If you want another character, eg Hollo, to follow you from one screen onto another you must wait for them to catch up with you.

CONTROL KEYS:
All versions can use joystick. Commodore users can use either port and Spectrum users Interface II or Kempston.

CONTROL KEYS:

Movement	Joystick	Amstrad	Spectrum	Commodore
Left	left	Cur. left	O	O
Right	right	Cur. right	P	P
Up	up	Cur. up	Q	Q
Down	down	Cur. down	A	A
(Menu only)				
Jump	Diagonal		Up & Right or Up & Left Keys	
End text input		Esc	Cap Shift/1	CLR/HOME
Menu down	Fire button	SPACE	M	SPACE

USING THE MENU:
Press the fire key or button and a menu will drop into the lower screen. This will display the following options:
Pick UP – Drop – Examine – Use – Take – Give – Talk – Exit Menu

You can select the action you wish to take by pressing keys or moving the joystick until the arrow highlights are indicating your choice. Pressing fire then activates that option.

OPTIONS IN MENU:

Pick up: Allows you to carry any object on the present screen. A second window drops down showing the possible objects that can be picked up – press fire on the ones you want to collect. You can only carry a certain number of objects at any one time. If you try to carry too many objects you may need to drop one in order to pick something else up.

DROP: The opposite of the above option. Drops the selected objects, press fire when the correct object in the second window is selected to drop.

EXAMINE: Provides you with a full description of any object that you are carrying. Use the second window to select the object you want to know more about. The full description appears in the lower window and is cleared by pressing fire again.

USE: Allows you to make use of any object that you are carrying. The second window requires you to select the object you wish to use and then you may need to give full details of what you want to do by typing at the keyboard. Press the end text key to go back to normal control.

TAKE: May allow you take an object from another player.

GIVE: Allows you to give a carried object to another player. You select the object to be given from the second drop down menu and then the person to give it to from the third window.

TALK: Enables you to speak to other characters and persuade them to help you, give you something or even to follow you. A cursor appears under the lower window ready for your speech. Normal delete functions are used to correct input. Responses from those spoken to appear in the lower (text) window. Use the End text input key to return to normal control systems.

Exit Menu: Selecting this option returns you to the normal (upper window/graphic) control system. This option also allows you to exit from the drop down menus if you selected them by mistake.

CLOCK DISPLAY:
The lower right of the screen displays your game time clock. This always starts at 15.50 and the game ends if this clock goes beyond midnight. Please note that one game minute takes just 15 second ie time runs four times faster than reality.

GAME OBJECT:
To find the confiscated walkman and then return home before midnight with it.

If you return home without the walkman you lose the game. There are also several other ways of ending the game and having to start again. You have been warned!

i ALIEN PLAYERS GUIDE

TELEPORTS:
Essential for travelling between floors on the starship and planet.

BOMB RESET STATIONS:
Push up on control panel to reset the timer on the bomb. If the bomb timer reaches zero, it is game over.

MUTANTS:
Twisted mutations of your own people. Contact with any mutant will reduce your energy. Certain mutants, when shot, will leave a pile of "acid flesh" behind, this can be collected to replenish your firepower. Others will leave behind "transmitters" that have been implanted in their brain. The "transmitters" must be avoided at all cost as it will make you feel "sick" and lose control of your legs.

DROIDS:
On your travels you will meet a number of droids. These too will drain your energy on contact, apart from the "miner droid", who will not drain your energy instantly, but will perforate your skin causing your energy to drain slowly away. Unfortunately, this droid is not affected by your firepower. Certain droids, when shot, will leave behind an "energy crystal". This can be collected to replenish your energy.

ICE DRAGONS:
Your Predecessor. The last survivors of the humans Previous onslaught. Ice Dragons will not harm you providing your energy is fairly high, however, let it fall too low and the Ice Dragon will freeze you to the spot only temporary.

TRAN-CELLS:
Used for transporting prisioners. Contact with a tran-cell will set the prisioner free. Relase ten prisioners and you will be awarded an extra life. However, shooting a tran-cell will kill the prisioner and your "captives freed" counter have a point taken away from it.

PATROL LEVELS:
Certain levels are patroled by security droids. The droids come in different shapes and izes and all kill on contact. There are two basic differences between security droids. One type will produce "energy crystals" and the other will produce "acid flesh".

GENERAL HINTS:
Make a map. This will stop you getting lost and help you to locate the BOMB RESET STATIONS. Learn which patrol levels contain energy, and which contain firepower. Remember, BOMB RESET STATION also contains medical equipment, useful for treating skin punctures!

GOOD LUCK!



PROGRAMMERS:
Is your software good enough for CRL. If it is contact Michael Hodges on 01-985 2391 or write to the ZEN ROOM, UNIT 7D KINGS YARD, CARPENTERS ROAD, LONDON E15 2HD.

Anyhow, their quaint little man o'war found itself in still waters one sun-soaked afternoon, and Dizzy thought he would organize a game of cricket on the aft deck. In a fit of blinding stupidity he used LI's spare leg collection as makeshift stumps, and when they were lost overboard he was made to **walk the plank!**

That was how he came to find himself gently poaching on the silent, sun-kissed beach of a seemingly deserted island . . . He had to somehow find a way back to the Yolkfolk and lodge his compensation claim with the travel agent . . .

CONTROLS

KEYS	ACTION	JOYSTICK
Z	LEFT	LEFT
X	RIGHT	RIGHT
SPACE	JUMP	UP
ENTER	PICK UP/DROP/USE	FIRE

Press **Q** to quit during a game

HINTS

— Be careful in the water – everyone knows that eggs are air breathers!
— Don't wind up fried . . . be careful of fire!
— The wildlife is dangerous, Dizzy looks good enough to eat . . .
— The old chest makes a good step in the right place . . .

There are two ways to complete the game . . .
Solution 1 — Tricky – Find a way off the island and back to the Yolkfolk
Solution 2 — Very Tricky – There are THIRTY pieces of gold hidden on the island; find these before making good your escape . . . some of them are VERY well hidden!

GOOD LUCK

FRANCAIS

CONTROLES

TOUCHES	ACTION	MANETTE
Z	GAUCHE	GAUCE
X	DROITE	DROITE
ESPACEMENT	SAUTEZ	HAUT
ENTREZ	RAMASSEZ/ LAISSEZ TOMBER/ UTILISEZ	FEU

Appuyez sur **Q** pour abandonner la partie

CONSEILS

— Attention dans l'eau. Tout le monde sait que les oeufs respirent de l'air.
— Ne vous faites pas frire . . . Attention au feu
— La nature sauvage est dangereuse. Dizzy semble assez bonne à manger.
— Le vieux coffre représente une bonne marche au bon endroit . . .

Il y a deux façons de compléter le jeu . . .
Solution 1 — Astucieux – Trouvez un chemin pour vous éloigner de l'île puis de retour au Yolkfolk
Solution 2 — Très astucieux – Il y a trente dollars espagnols cachés sur l'île; trouvez-les avant de mener à bien votre évasion . . . certains sont très bien cachés.
Bonne chance.

ESPANÖL

CONTROLES-MANDOS

TECLAS	ACCION	PALANCA
Z	IZQUIERDA	IZQUIERDA
X	DERECHA	DERECHA
ESPACIO	SALTAR	ARRIBA
ENTER	COGER/DEJAR/ CAER/USAR	FUEGO

Pulsar **Q** para abandonar el juego cuando se está jugando.

SUGESTIONES

— Tener cuidado en el agua . . . todo el mundo sabe que los huevos respiran aire!
— No acabes frito . . . ten cuidado con el fuego.
— La vida salvaje es peligrosa. 'Dizzy' parece bastante bueno para comer!
— El viejo arcón es un buen escalón en el lugar preciso.

Hay dos caminos para completar el juego . . .
Solución 1. — Difícil. – Encuentra un camino para dejar la isla y vuelve a los Yolkfolk (la gente-yema)
Solución 2. — Muy difícil. – Hay treinta doblones escondidos en la isla: encuéntralos antes de conseguir escapar . . . algunos están MUY bien escondidos!
Buena suerte!

DEUTSCH

KONTROLLEN

TASTEN	AKTION	SCHALTHEBEL
Z	LINKS	LINKS
X	RECHTS	RECHTS
SPACE	SPRINGEN	RAUF
ENTER	AUFHEBEN FALLEN LASSEN, GEBRAUCHEN	FEUERN

Drücken Sie **Q**, um während des Spiels auszuscheiden.

HINWEISE

— Seien Sie vorsichtig im Wasser. Jeder weiss, dass Eier Luftatmer sind.
— Ziehen Sie nicht gebraten auf . . . Vorsicht Feuer.
— Das Wildleben ist gefährlich. Dizzy sieht gut genug aus, um gegessen zu werden.
— Die alte Truhe dient als gute Stufe am richtigen Platz.

Es gibt zwei Wege, das Spiel zu beenden:
Lösung 1 — Schwierig. Finde einen Weg weg von der Insel und zurück zum YOLKvolk.
Lösung 2 — sehr schwierig, da sind 30 Goldmünzen auf der Insel versteckt: finden Sie diese, bevor Sie fliehen können – einige von ihnen sind sehr gut versteckt.

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L.E.D. STORM ™

LADEANWEISUNGEN

SCHNEIDER KASSETTE
Die CTRL-Taste und die kleine ENTER-Taste gleichzeitig drücken. Dann die PLAY-Taste auf dem Kassettenrecorder drücken. Folgen Sie den Bildschirmbefehlen. Die Tastatur kann vom Benutzer bestimmt werden.

SCHNEIDER DISKETTE
RUN"DISK eintippen und die ENTER-Taste drücken. Das Spiel lädt und läuft automatisch. Folgen Sie den Bildschirmbefehlen. Die Tastatur kann vom Benutzer bestimmt werden.

JOYSTICK/TASTATUR STEUERUNGEN

Vorwärts	– Beschleunigen	Rechts	– Rechts
Rückwärts	– Bremsen	Feuer	– Sprung
Links	– Links	Feuer + Rückwärts	– Wechseln zu Motorrad

EINSAMMELBARE GEGENSTÄNDE

BENZINKANISTER
Biem Fahren über diese Objekte leuchten die einzelnen Buchstaben des Wortes 'Energy' (auf der rechten Bildschirmseite) auf. Wenn Sie den letzten Buchstaben zum Aufleuchten bringen, erhalten Sie einen großen Treibstoffbonus.

BODENSYMBOLE
Diese werden von vorüberfliegenden Raumschiffen abgeworfen. Die Objekte können sich bei Ihrer Reise als nützlich erweisen. Es gibt drei verschiedene Typen:
E – Energie · B – Barriere · P – Punkte

ENERGIEHÜLSEN
Springen Sie, um diese einzufangen. Sie fliegen an Fallschirmen hängend über Ihnen.

HINWEISE UND TIPS

WAHSINNIGE FRÖSCHE – Diese hängen sich an Ihr Auto und verlangsamen es, wodurch sich Ihre Sprungkapazität verringert. Bewegen Sie Ihren Joystick ruckartig nach links und rechts, um sie abzuschütteln.

COMPUTERAUTO – Dies ist Ihr größter Gegner. Vermeiden Sie es, wo immer dies möglich ist, denn es wird alles Mögliche versuchen, um Sie ins Jenseits zu befördern. Zerstören Sie das Computerauto, indem Sie in die Luft springen und auf ihm landen.

TNT-LASTER – Wegen der Natur ihrer Ladung sind diese Fahrzeuge empfinglich gegen jegliche Art von Kollision. Vermeiden Sie unter allen Umständen diese Laster.

MINENLEGER – Dieser Gegner legt, wie sein Name bereits sagt, hochexplosive Minen in Ihren Weg. Weichern Sie den Minen aus und überholen Sie den Minenleger oder springen Sie auf ihn.

BODENLÖCHER & OILPFÜTZEN – Diese tauchen von Zeit zu Zeit verstreut auf der Straße auf. Weichen Sie Ihnen aus, so gut Sie es können, denn andernfalls führt es dazu, daß Sie sich um die eigene Achse drehen und dabei verlangsamen, was Ihnen wertvolle Zeit kostet.

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L.E.D. STORM ™

CARICAMENTO

AMSTRAD CPC CASSETTA
Premere CTRL e ENTER piccolo. Premere PLAY sul registratore. Seguire le istruzioni su video. I tasti possono essere ridefiniti dall'utente.

AMSTRAD CPC DISCHETTO
Battere RUN"DISK e premere ENTER. Il gioco si carica e gira automaticamente. Seguire le istruzioni su video. I tasti sono ridefinibili dall'utente.

CONTROLLI JOYSTICK/TASTIERA

Avanti	– Accelerare	Destra	– Destra
Indietro	– Rallentare	Fuoco	– Salta
Sinistra	– Sinistra	Fuoco e indietro	– Trasforma in motocicletta

ARTICOLI DA RACCOGLIERE

TANICHE DI BENZINA
Passando sopra a queste illumina una lettera della parola "ENERGY" (che si trova sulla destra della videata). Appena sara accesa l'ultima lettera, riceverai un grosso premio di benzina.

that direction.

On the Orbivator control screen use the **FIRE** button to engage and select the quadrant lever and to push the system buttons.

3. Cybo-grenades may be used for close combat, they are detonated by pressing the **SPACE BAR** whilst moving into the target cybo (see Mole Report).

   Remember both supplies of shields and grenades are limited. (Although there are ways to replenish your supplies, if you can find out how!)
4. Always check the quadrant information before leaving the safety of the Orbivator control panel (this is the game start position). Always check that your immunity is above the Decks' Toxicity level... else you DIE!
5. Press **F1** if you can't stand it anymore!
6. Remember, this is REAL-TIME... IT'S LIMITED!!!
7. If you haven't done so already, READ ALL OF THE REPORTS!

Data update, firing shield at both Cyborgs will open doors.

CONTROLS

SPECTRUM 48K/128	AMSTRAD CPC
UP – **1**	UP – **1**
DOWN – **2**	DOWN – **2**
LEFT – **9**	LEFT – **CLR**
RIGHT – **Ø**	RIGHT – **DEL**
FIRE – **N/M/CAPS**	FIRE – **;**
BOMB – **SPACE**	GRENADE – **SPACE**
PAUSE – **P**	PAUSE – **P**
UNPAUSE – **Q**	UNPAUSE – **ESC**

GOOD LUCK CAPTAIN!

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CAPTAIN AMERICA™ IM KAMPF UM DOOM TUBE VON DR MEGALOMANN

LADEANLEITUNG

CBM64/128 Kassette

Die Tasten **SHIFT** und **RUN/STOP** gemeinsam drücken. **PLAY** (WIEDERGABE) an Kassettenrekorder drücken.

CBM64/128 Diskette

LOAD"*",8,1 eingeben und **RETURN** drücken.

Spectrum Kassette

LOAD"" und **ENTER** eingeben. **PLAY** (WIEDERGABE) an Kassettengerät drücken.

Schneider CPC Cassette

CTRL und die **KLEINE ENTER** Taste drücken dann **PLAY** (WIEDERGABE) an Kassettengerät.

Schneider CPC

Geben Sie **RUN"DISK** ein und drücken Sie **ENTER**. Das Spiel wird dann eingeladen und automatisch gestartet.

Atari ST Diskette

Disketten laufwerk einschalten und Diskette einlegen, danach Computer einschalten.

4. Juli, ganz Amerika ist auf die größte Feier seit der 200-Jahr-Feier vobereitet.

In der Morgendämmerung hat der Präsident jedoch einen unerwarteten Besucher – einen ganz in schwarz gekleideten Mann, der diesen Tag in einer Weise feiern will, die für die restliche Nation nicht günstig ist, in einer Weise, die das Ende der Vereinigten Staaten von Amerika bedeuten könnte, ein langsames, Ende voller Agonie für die gesamte Bevölkerung!

Der Besucher ist Dr. Megalomann, ein Mann, der eigentlich hätte tot sein sollen! (Sein Tod wurde von der CIA in Kuba Anfang der 60er Jahre gut dokumentiert.)

Dr. Megalomann hat lange auf seine Rache gewartet, und jetzt ist die Zeit gekommen. Er stellt sein Ultimatum: entweder räumt der Präsident sein hohes Amt und übergibt dem Doktor alle Vollmachten (was die Bevölkerung dazu verurteilt, entweder die Verrücktheit der Selbstauslöschung zu dulden) oder die Nation, die nichts vermutet, wird in den Terror und das Leiden gestürzt, durch die Dr. Megalomann vor seinem belegten Tod zum MEISTGESUCHTEN Mann der Welt wurde.

Seit über 20 Jahren hat Megalomann seinen tödlichen Flugkörper vorbereitet. Sein Sprengkopf enthält ein genetisches Virus, die Saat der menschlichen Zerstörung, und er ist geladen und auf Nordamerika gerichtet.

Der Präsident muß bis Mitternacht abtreten und seine Macht diesem unmöglichen Regenten übergeben. Wenn dies nicht geschieht, wird der Flugkörper abgeschossen, und Amerika ist erledigt!

Der Sicherheitsrat wird zu einer Notsitzung einberufen, und es wird beschlossen, daß nur die Möglichkeit besteht, das Hauptquartier des Dr. Megalomann anzugreifen, der sich, Vermutungen zufolge, in einem unterirdischen Bunker in der Mojave Wüste befindet, den Flugkörper zu entschärfen und das tödliche Virus zu zerstören.

OPERATION 'MOLE'

Der Mole Report ist eine Schilderung von Corporal Deegan, dem einzigen Überlebenden eines erfolglosen Angriffes auf das Hauptquartier von Dr. Megalomann, nachstehend 'Doom Tube' genannt.

In der frühen Morgenstunden des 4. Juli verschafft sich eine Elitetruppe der Marine Zugang zur Doom Tube. Der Mission wurden 100 Leute als ERSTE Priorität über den Präsidenten zugewiesen.

viele hundert Megacyborgs bekämpfen zu müssen, den Zugangscode zum Flugkörper-Kontrollquadranten zu knacken und gleichzeitig sicherzustellen, daß die einzelnen Immunitätswerte hoch genug waren, um in einer Atmosphäre am Leben zu bleiben, die absichtlich mit einem Virus in der Luft verseucht worden war. Die Toxizität der Doom Tube war für die Mehrzahl der Todesfälle verantwortlich.

Corporal Deegan ist die einzige zuverlässige Informationsquelle über die Zustände und Gefahren der Doom Tube.

DIE DOOM TUBE

Sie besteht grundsätzlich aus drei riesigen ineinander befindlichen Zylindern. Die gesamte Metallkonstruktion wurde tief unter der Wüste versenkt.

Die Innenmaße sind unbekannt, der Oberflächendurchmesser beträgt etwa 100m. In der Tube befinden sich verschiedene Stockwerke. Jedes enthält Zimmer, sogenannte Quadranten. Jeder Quadrant gibt starke psionische Energie ab und hat seine eigenen Megacybo Wächter, die all tödlich sind.

(Die Beschreibung der Tube wurde unseren Untersuchern gegeben und führte sie zu der Annahme, daß sich der Flugkörper unten in der Mittelröhre unter dem untersten Geschoß befindet. Der Zugang soll, Annahmen zufolge, über ein enormes Gewölbe erfolgen.)

ANMERKUNG: Kein Mitglied des Angriffsteams war in der Lage, weiter als zum 2. Geschoß vorzudringen.

DER ORBIVATOR

Ein Aufzug oder genauer gesagt ein Orbivator befindet sich zwischen dem äußeren und mittleren Zylinder oder der Außenwand der Quadranten. Die Quadranten selbst scheinen sich ständig zu drehen. Durch diese Drehung können sich die Orbivator-Türen an einem Quadranteneingang verriegeln, so daß Zugang möglich ist.

Die Wahl eines Geschosses und Quadranten erfolgt durch Verwendung des großen computerisierten Hebels auf der rechten Seite der Orbivator-Schalttafel. So lange der Orbivator nicht FINGESCHALTET ist, kann keine der vier Kontrolltasten auf der Schalttafel funktionieren!

Unsere Leute waren in der Lage, den Zugangscode zur Bedienung des Computer-Informationssystems Momente vor ihrer Niederlage zu knacken. Dieses System sollte noch zur Verfügung stehen, falls ein weiterer Angriff versucht werden sollte.

Corporal Deegan sagte folgendes aus:

Die Verseuchung (oder Toxizität) auf STOCKWERK EINS war sehr hoch. Bei Betreten dieses Stockwerkes wurde festgestellt, daß die Garmax Meßgeräte der Schutzanzüge Spitzenwerte im roten Bereich anzeigten.

Die angreifende Mannschaft wurde in Gruppen geteilt. Diejenigen, die in die unteren Stockwerke abstiegen, kehrten nie zurück. Es besteht Grund zu der Annahme, daß man, je tiefer man in die Röhren absteigt, immer stärkeren, unerträglichen Verseuchungen ausgesetzt ist.

DIE QUADRANTEN

Mein Auftrag bestand daraus, Stockwerk eins zu 'durchsuchen und zu zerstören'. Der erste Quadrant, den wir betraten, war voller seltsamer metallischer Cybos. Sie griffen mit einer Art toxischem Strahl an. Unsere Männer fielen wie Fliegen um mich herumum. Ihr Geschrei war furchterregend.

Es gelang uns, die Cybos zu zerstören, als sich ein riesiger Rotator auf uns senkte. Als er die beiden Männer berührte, wurden sie geröstet. Es gelang mir, das Ding zu sprengen, und damit schien sich eine gewisse Kettenreaktion auszulösen, und als sie gerade verebbte, blinkte, 'Codewort' auf. Wir konnten das nicht verstehen, aber es scheint etwas mit einem der Monitorquadranten zu tun zu haben, in die wir später einbrachen. Ich bin sicher, es muß sich um den Code für den Zugang zum Gewölbe handeln.

In einem anderen Quadranten, dem wir den Spitznamen Doom Pods gaben, befand sich eine verschlossene Kammer. Wir sprengten die Türen, bis sie sich öffneten, worauf ein Doom Pod herausschwebte. Daraus erhielten wir das rohe Ying und Yang, die wesentlichen Bestandteile zur Erzeugung eines Antitoxins für die Immunität im Konvertorquadranten. Der Doom Pod wurde so genannt, weil er manchmal einen roten toxischen Strahl erzeugte. Dieser schoß direkt auf uns zu. Ich sah, wie ein Mann getroffen wurde. Er sackte auf dem Boden zusammen. Sein zerteilter Körper lief aus und verbrodelte!

Stockwerk eins, Quadrant vier war das Ende unserer Mission. Wir nannten es den Konvertorquad. Cybos peilen auf Dich zu, und wenn Du sie berührst, verbrennst Du. Wenn Du sie zerstörst, werden sie durch mehr ersetzt.

Wir stellten fest, daß wir den Konvertor durch Berühren gewisser Platten in diesem Quadranten in Betrieb setzen konnten. Ying und Yang Empfängerplatten tauchten von der Rückwand des Quadranten auf. Wenn wir ausreichende Rohstoffe in beide seitliche Empfängerplatten luden, waren wir in der Lage, das eigene Antitoxin des Dr. Megalomann zu erzeugen. Wir konnten es aber einfach nicht schnell genug herstellen. Als schließlich mein Freund Joe starb, beschloß ich, mich aus dem Staub zu machen... alles, was ich hinterließ, war Blutvergießen!

Unsere toxikologische Abteilung konnte einen Impfstoff erzeugen, durch den man erhöhte Immunität gegen das Virus erhält. Es wird jedoch darauf hingewiesen, daß diese Immunität unzuverlässig und kurzfristig ist, und der Zugang zum eigenen Impfstoff des Dr. Megalomann muß eine Priorität sein, um die Aufgabe, den Start des Flugkörpers zu unterbinden, zu erfüllen.

ENDE DES BERICHTS

DER ZWEITE ANGRIFF

Durch den abgebrochenen Angriff verlor der Präsident wertvolle Zeit. Der Termin von 24 Uhr ist nur Stunden entfernt. Mit seiner persönlichen direkten Telefonverbindung bestellt er den Verteidiger der Verfassung zum Weißen Haus.

Als sofortige Reaktion auf den Ruf seines Landes begibt sich CAPTAIN AMERICA an Bord seines Avengers Sky Cycle und trifft zur Entgegennahme genauer Instruktionen ein. Nach Anhören der düsteren Einzelheiten bietet sich Captain America an, einen Ein-Mann-Angriff auf die Doom Tube durchzuführen, in dem letzten Bemühen, den verrückten Megalomann zu bekämpfen und den Völkermord der amerikanischen Nation zu verhüten!

Der Mann, der das Symbol für Freiheit und der amerikanische Traum ist, begibt sich zur Doom Tube in dem Bewußtsein, daß der Versuch, dem Flugkörper von Megalomann Einhalt zu gebieten, die schwierigste Aufgabe seiner Laufbahn ist.

Es wird nicht leicht sein, aber wenn Sie ein einfaches Leben führen wollten, wären Sie nicht.

CAPTAIN AMERICA!

deux joueurs, les messages "1-Up" ou "2-Up" clignoteront pour vous indiquer quand sera votre tour.
La barre des dégâts située en bas de l'écran vous indique les dégâts de votre station spatiale. Si la barre disparaît entièrement, le jeu se terminera.
Il y a 12 niveaux dans SDI dans lesquelles vous affronterez vos ennemies, leurs missiles, leurs satellites et leurs chasseurs. Si vous manquez un seul des missiles ou autres armes, vous serez obligé d'opter pour stratégie défensive. A la fin de chaque "demie-offensive", votre score s'affichera donnant le résultat de cette première "moitié" de jeu. Un score élevé sera récompensé par un bonus de 20 000 points (et un canard qui se mettra à danser!).
Pendant le jeu, vous rencontrerez également des satellites transportant des "gousses" de bonus:
BLEU: augmentera la vitesse de votre satellite
ROUGE: curseurs multiples (jusqu'à trois)
JAUNE: puissance de tir supplementaire (explosions importantes).
Pour obtenir les "gousses" de bonus, tirez sur les satellites pour les libérer puis dirigez votre satellite dans les "gousses" avant qu'il ne quitte l'écran.
La disquette B devra rester dans le lecteur afin que vous puissiez sauvegarder la table des scores.

SPECTRUM 48K/128K

Les commandes au clavier sont les suivantes:

J	HAUT
N	BAS
Z	GAUCHE
X	DROIT
ENTER	TIRER

Autres touches

0	démarre le jeu
1	permet de jongler entre la version à 1 ou 2 joueurs
2	définit les commandes

LE JEU
Le joueur contrôle à la fois le satellite et le curseur; en appuyant sur la touche de tir, vous dirigerez un laser du satellite vers la position actuelle du curseur.
En utilisant le joystick ou le clavier, le satellite et le curseur répondront aux mouvements du joystick. Si vous appuyez sur le bouton de tir, seul le curseur sera activé ainsi que les lasers.
SDI peut aussi se jouer en équipe, un joueur contrôlant le satellite à l'aide du clavier at un second joueur contrôlant le curseur et les lasers avec le joystick.
En appuyant sur la barre d'espace, vous pourrez jongler entre les contrôles ci-dessus et la version alternative dans laquelle le satellite ou le curseur seront activés selon que lo bouton de tir sera activé ou non.
Autres touches

P	Pause OUI/NON

SDI umfaßt zwölf Ebenen, in denen Sie mit feindlichen Wellen konfrontiert werden, Raketenangriffen, Satelliten und Kämpfern. Wenn Sie es zu irgendeinem Zeitpunkt während der offensiven Phase zulassen, daß ein Feindflugzeug in Ihre Verteidigungsreihen einbricht, dann sind Sie gezwungen, auf Defensiv-Strategie umzuschalten. Nach Abschluß jeder Hälfte wird ein Bericht über die erzielten Ergebnisse ausgegeben. Ein perfektes Resultat wird mit 20,000 Prämienpunkten (und einer tanzenden Ente) belohnt.
Im Verlauf des Spiels werden Ihnen auch Satelliten begegnen, die Prämienkapseln mit sich führen.
BLAU Beschleunigung beim Manövrieren des Satelliten
ROT Mehrere Cursor (bis 3)
GELB Zusätzliche Feuerkraft (heftigere Explosionen)
Zum Einsammeln der Bonus-Kapseln müssen Sie auf sie schießen, damit sie sich vom Satelliten lösen, dann Ihren Satelliten zu der Kapsel bringen, bevor diese von der Bildschirmfläche entschwindet.
Bitte belassen Sie disk B während des Spiels im Diskettenlaufwerk, damit die High-Score-Tabelle abgespeichert werden kann.

BEDIENUNG ÜBER DIE MAUS

Die normalen Bewegungen mit der Maus dienen zum Umhermanövrieren des Cursors. Durch Festhalten der linken Maustaste wird die Bewegung des Satelliten aktiviert.
Drücken Sie die rechte Maustaste, um Laserstrahlen auf die aktuelle Cursorposition zu richten.

MAUS- UND JOYSTICK-STEUERUNG

Benutzen Sie den Joystick in Steckplatz 1 zum Bewegen des Satelliten. Die Maus in Port 0 bewegt den Cursor, die rechte Maustaste dient zum Feuern der Laserstrahlen.

SDI
GUIDE D'INSTRUCTIONS

INTRODUCTION

SDI – un jeu de stratégie-arcade parfait!
Ce hit classique de SEGA inspiré du Plan de Défense Stratégique à la Ronald Reagan, testera vos capacités et votre habilité face à une guerre à la fois offensive et défensive. La guerre nucléaire a éclaté et votre mission consiste à défendre votre pays des attaques des armes nucléaires de vos ennemis et de sauver la planète d'une catastrophe imminente.

CARACTERISTIQUES

- peut se jouer seul ou à plusieurs
- guerre offensive et défensive à chaque niveau de jeu
- 1040 charges en une seule fois!

STEUERUNG ÜBER DEN JOYSTICK

Den Joystick (ohne Drücken der Feuertaste) benutzen, um sowohl den Cursor wie auch den Satelliten zu manövrieren.
Den Joystick (mit gedrücktem Feuerknopf) benutzen, um den Cursor allein zu bewegen und die Laserkanone zu bedienen.

EINZELHEITEN DES SPIELS

Taste	
Rückschritt	Pause ein/aus
ESC	Neustart des Spiels
F10	Musik ein/aus

Auf der Bildschirmanzeige erkennen Sie sowohl den Punktestand beider Spieler wie auch die noch verbleibenden Leben. In einem 2-Spieler-Spiel blinkt jeweils 1-UP oder 2-UP, damit man weiß, wer am Zug ist.
Die Schadensanzeige am unteren Bildschirmrand informiert über den Zustand Ihrer Raumstation. Wenn der Balken ganz gefüllt ist, endet das Spiel.
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Bitte belassen Sie Disk B während des Spiels im Diskettenlaufwerk, damit die High-Score-Tabelle abgespeichert werden kann.

COMMODORE 64/128, DISKETTE

1. Diskettenlaufwerk und Computer einschalten.
2. Bei Verwendung eines Commodore 128 folgendes eingeben:
   GO64, dann RETURN Y drücken, gefolgt von RETURN.
3. Diskette mit der Aufschrift nach oben in das Laufwerk einlegen.
4. Einen Joystick über Steckplatz 2 anschließen.
5. LOAD "*",8,1 eingeben und RETURN drücken. In wenigen Sekunden erscheint der Titelbildschirm.

votre ordinateur et de répéter attentivement les instructions de chargement en vous assurant que les instructions que vous suivez sont celles qui correspondent à votre système. Si, après avoir vérifié l'ensemble de votre matériel, vos difficultés persitent, nous vous conseillons de vous adresser par écrit à notre service d'assistance à la clientele:
Activision Customer Advice (SDI)
Blake House
Manor Farm Estate
Manor Farm Road
Reading
BERKSHIRE RG2 0JN
Dans votre lettre, vous devrez préciser clairement les renseignements suivants:
– votre nom et adresse
– votre numéro de telephone
– le nom du produit
– préciser si c'est une disquette ou une cassette
– préciser le systeme d'ordinateur que vous utilisez, unités périphériques ...

COMMANDES ET JEU
COMMODORE 64/128
OPTIONS DE COMMANDES

Lorsque vous voyez la page de présentation, appuyez sur la barre d'espace pour retourner à l'écran d'options.
Commandes au clavier:

Q	HAUT
A	BAS
I	GAUCHE
O	DROITE
P	FEU

Barre d'espace MOUVEMENT (satellite/curseur)

F1	Version à 1 joueur
F2	Version à 2 joueurs
RUN/STOP	Pause
Q	Quitter (quand la touche pause est activée)

Commandes au joystick:
Utilisez le joystick sans appuyer sur le bouton de tir pour bouger à la fois le curseur et le satellite.

Utilisez le joystick en appuyant sur le bouton de tir pour déplacer seulement le curseur et utiliser les lasers.
Autres touches utiles.

Barre d'espace	Pause OUI/NON
ESC	Redémarrer le jeu
F10	Musique OUI/NON

L'écran affiche les deux joueurs et le nombre de vies qu'il leur reste. Dans la version à

Die Spectrum-Version bietet außerdem die Möglichkeit, durch Drücken der LEERTASTE von der oben beschriebenen Steuermöglichkeit auf eine andere umzuschalten, bei welcher stets gleichzeitig Satellit und Cursor bewegt werden, unabhängig davon, ob der Feuerknopf gedrükt wird oder nicht.

EINZELHEITEN DES SPIELS

Taste
P Pause ein/aus
Q Neustart des Spiels

Auf der Bildschirmanzeige erkennen Sie sowohl den Punktestand beider Spieler wie auch die noch verbleibenden Leben. In einem 2-Spieler-Spiel wird jeweils das 1-Up oder 2-Up hervorgehoben, damit man weiß, wer am Zug ist.

Die Schadensanzeige am unteren Bildschirmrand informiert über den Zustand Ihrer Raumstation. Wenn der Balken ganz gefüllt ist, endet das Spiel.

SDI umfaßt zwölf Ebenen, in denen Sie mit feindlichen Wellen konfrontiert werden, Raketenangriffen, Satelliten und Kampfern. Wenn Sie es zu irgendeinem Zeitpunkt während der offensiven Phase zulassen, daß ein Feindflugzeug in Ihre Verteidigungsreihen einbricht, dann sind Sie gezwungen, auf Defensiv-Strategie (d.h. auf die defensive Hälfte) umzuschalten. Nach Abschluß jeder Hälfte wird ein Bericht über die erzielten Ergebnisse ausgegeben. Ein perfektes Resultat wird mit Prämienpunkten (und einer tanzenden Ente) Belohnt.

Im Verlauf des Spiels werden Ihnen auch Satelliten begegnen, die Prämienkapseln mit sich führen. Sie müssen versuchen, die Satelliten zu treffen, damit diese die Kapseln abwerfen; docken Sie dann an der Kapsel an, um zusätzliche Cursors zu erhalten.

ATARI ST

DIE STEUEROPTIONEN

Drücken Sie bei Anzeige der Titelbildschirmseite die LEERTASTE, um auf die Optionsseite zurück zu gelangen.

Taste
F1 Solo-Spiel (oder 2-Spieler Team-Modus)
F2 2-spieler-Variante
F3 Neudefinition der Tasten

EINZELHEITEN DES SPIELS

Taste
Rückschritt Pause ein/aus
ESC Neustart des Spiels
F10 Musik ein/aus

Auf der Bildschirmanzeige erkennen Sie sowohl den Punktestand beider Spieler wie auch die noch verbleibenden Leben. In einem 2-Spieler-Spiel blinkt jeweils 1-Up oder 2-Up, damit man weiß, wer am Zug ist.

Die Schadensanzeige am unteren Bildschirmrand informiert über den Zustand Ihrer Raumstation. Wen der Balken ganz gefüllt ist, endet das Spiel.

PROBLEME, DIE BEIM LADEN AUFTRETEN KÖNNEN

Wir sind um eine ständige Verbesserung unserer Produkte bemüht und unterziehen diese vor der Auslieferung den strengsten Qualitätskontrollen. Von daher müssen etwaige beim Laden auftretende Schwierigkeiten in den meisten Fällen woanders gesucht werden und gehen nicht auf einen Defekt zurück. Sollten Sie irgendwelche Probleme haben, empfehlen wir Ihnen, den Computer auszuschalten und die einzelnen Schritte der Ladeanleitung ein zweites Mal sehr sorgfältig durchzuführen. Bitte vergewissern Sie sich, daß Sie auch wirklich die Beschreibung verwenden, die auf Ihr System und Ihre Spielversion zutrifft. Sollte das Problem sich nicht beheben lassen, schlagen Sie bitte in der Dokumentation zu Ihrem computer nach oder wenden Sie sich an Ihren Softwarehändler um Rat. Wenn Sie sämtliche Hardware auf mögliche Fehler überprüft haben und das Problem dennoch weiter andauert, dann schreiben Sie doch bitte an unseren Kundendienst:

Activision Customer Advice (S.D.I.)
Blake House
Manor Farm Estate
Manor Farm Road
Reading
BERKSHIRE, England

Ihr Brief sollte unbedingt die folgenden Punkte enthalten:

- Ihren Namen und Ihre Anschrift
- Die Telefonnummer, unter der Sie tagsüber erreichbar sind
- Den Namen des Programms, mit dem Sie Probleme haben
- Angabe, ob Disketten – oder Kassettenversion
- Genaue Bezeichnung Ihres Computersystems und aller Peripheriegeräte – Joysticks usw. – die zusammen mit dem Programm verwendet werden.

SPIELVERLAUF UND STEUERUNG
COMMODORE 64/128

STEUEROPTIONEN

Von der Titelbildschirmseite aus die LEERTASTE drücken, um auf die Optionenseite zurückzugelangen.

Die Tastaturbelegung ist wie folgt:
Q Hoch
A Runter
I Links
O Rechts
P Feuer
LEERTASTE: Umschalten der Bewegung (Satellit/Cursor)
F1 Solo-Spiel
F2 2-Spieler – Variante
Run/Stop Pause
Q Beenden (aus dem Pausenzustand)

I Left
O Right
P Fire
SPACE –TOGGLE MOVEMENT (Satellite/cursor).
F1 One player game
F2 Two player game
Run/Stop Pause
Q Quit (when paused)

Joystick Control

Use the joystick, without pressing the fire button, to move both the cursor and satellite.
Use the joystick, when pressing the fire button, to move the cursor only and fire the lasers.

Game Details

Press BACKSPACE Pause On/Off
ESC Restart game
F10 Music On/Off

The screen displays both players and lives remaining – in a two-player game the relevant "1-Up" or "2-Up" will flash to show which player's turn.
The damage bar at the bottom of the screen relates to damage to your space station. If the bar fills up completely the game will end.
There are 12 levels in S.D.I. during which you will face waves of enemy and enemy base missiles, satellites and fighters. If at any time during an offensive half you allow any enemy craft to penetrate your defences you must play a defensive half. At the end of each offensive half you will receive a report on the results of that half: a perfect score will be rewarded with 20,000 bonus points (and a dancing duck!).
During play you will also come across satellites bearing bonus pods:
BLUE – Extra speed when moving Satellite.
RED – Multiple cursors (up to 3).
YELLOW – Extra fire power (bigger explosions)
To collect the bonus pods shoot at them to release them, then steer your satelite into the pod before it leaves the screen.

Disk B should be left in the disk drive in order to save the high score table.

SPECTRUM 48K/128K/+

Control Options

Press 0 To start game.
1 To toggle between 1 & 2 Player game.
2 Defne controls.

The keyboard controls are as follows:

J UP
N Down
Z Left
X Right
ENTER Fire

COMMODORE 64/128, KASSETTE

1. Computer einschalten. Bei Verwendung eines Commodore 128 folgendes eingeben: GO64, dann RETURN Y, dann RETURN.
2. Kassette in die Datasette einlegen, mit der Seite A nach oben. Sicherstellen, daß das Band vollständig zurückgespult ist.
3. Einen Joystick über Steckplatz 2 anschließen.
4. SHIFT-Taste festhalten, dann die Taste mit der Aufschrift RUN/STOP drücken.

SPECTRUM 48IK/128K, KASSETTE

1. Bei Benutzung eines 128K/+ computers zunächst in den 48K Modus umsteigen.
2. LOAD"" eingeben, gefolgt von ENTER.

ATARI ST

1. Diskette 1 einlegen, dann Monitor und Computer einschalten.
2. Nach wenigen Sekunden erscheint die Ladebildschirmanzeige, und die Musik setzt ein. Sobald die Musik aufhört, wird das Spiel automatisch geladen. (Durch Drücken der LEERTASTE kann man die Musik "abschalten"). Das Programm fordert zum Einlegen von Diskette 2 auf.
3. Bei Benutzung eines 520 ST werden die einzelnen Spielstufen jeweils nach Abschluß einer Stufe geladen; der 1040 St lädt sämtliche 12 Stufen gleichzeitig in den Speicher.

SPECTRUM 48K/128K/+ DIE STEUEROPTIONEN:

Taste

0 Spielstart
1 Hin- und Herschalten zwischen 1- und 2-Spieler-Modus
2 Definition der Steuerung

Die Tastaturbelegung ist wie folgt:

J Hoch
N Runter
Z Links
X Rechts
ENTER Feuer

DIE SPIELSTEUERUNG

Der spieler steuert den Satelliten und den Cursor. Bei Betätigung des Feuerknopfs wird ein Laserstrahl von einem Satelliten auf die aktuelle Cursorpsition gerichtet. Bei Verwendung eines Joysticks oder der Tastatur reagieren sowohl der Satellit wie auch der Cursor auf die üblichen Joystick-Bewegungen. Wenn gleichzeitig der Feuerknopf gedrükt wird, bewegt sich nur der Cursor, während die Laserkanonen feuern.
SDI kann auf Wunsch auch als Team-Spiel organisiert werden, wobei der eine Spieler die Tastatur zur Steuerung des Satelliten verwendet, während der andere mit dem Joystick den Cursor und den Laser bedient.

The damage bar at the bottom of the screen relates to damage to your space station. If the bar fills up completely the game will end.
There are 12 levels in S.D.I. during which you will face waves of enemy and enemy base missiles, satellites and fighters. If at any time during an offensive half you allow any enemy craft to penetrate your defences you must play a defensive half. At the end of each offensive half you will receive a report on the results of that half: a perfect score will be rewarded with 20,000 bonus points (and a dancing duck!).
During play you will also come across satellites bearing bonus pods:
BLUE – Extra speed when moving Satellite.
RED – Multiple cursors (up to 3).
YELLOW – Extra fire power (bigger explosions)
To collect the bonus pods shoot at them to release them, then steer your satelite into the pod before it leaves the screen.
Disk B should be left in the disk drive in order to save the high score table.

SDI
NOW THE ODDS ARE EVEN
(ORDER: DAS PREKÄRE GLEICHGEWICHT)

EINFÜHRUNG

SDI – Strategie und Arkaden-Action, wie man es sich wünscht!
Dieser Klassische Sega Arkaden-Knüller im Sinne von Ronald Reagans Strategic Defense Initiative stellt Ihre Geschicklichkeit in offensiver und defensiver Kriegsführung auf die Probe! Der totale Atomkrieg ist ausgebrochen, und Ihre Aufgabe ist es, Ihr Land von den feindlichen Kernwaffen zu schützen und den Planeten Erde von der unausweichlichen Katastrophe zu retten!
SPEZIALFUNKTIONEN
- Solo – oder Multi-Spieler-Betrieb
- Auf jeder Ebene offensive und defensive Phasen
- 1040 "Landungen" aufs Mal
- Sieben musikalische Themen
- Über 300 verschiedene Sprites: belebte Feinde in zahllosen Kollisionen.

LADEANLEITUNG

Bitte richten Sie Ihr Computersystem unter Beachtung der Anleitungen in der Begleitdokumentation ordnungsgemäß ein, und schließen Sie einen Fernseher oder Monitor an. Vergewissern Sie sich, daß etwaige Cartridges oder Peripheriegeräte (Diskettenlaufwerke, Kassettenrekorder, Drucker u.ä.) vom Computer getrennt sind. Nichtbeachtung dieser Vorschrift kann zu Schwierigkeiten beim Laden führen. (Bei Systemen mit eingebauten Disketten – oder Kassettenlaufwerken müssen diese natürlich nicht entfernt werden, doch bitte sorgen Sie dafür, daß alle übrigen Geräte vom System getrennt sind.)

SPECTRUM 48K/128K/+ CASSETTE

1. If you are using a 128K/+ machine then select 48K mode.
2. Type LOAD"" and then press ENTER.

ATARI ST

1. Insert disk 1 and switch on monitor and computer.
2. After a short while the loading screen will be displayed and the music will play. After the music stops the main game will load automatically. (Pressing SPACE while the music plays will skip the rest of the music.) You will be prompted to insert disk 2.
3. If you are using a 520 ST the levels will be loaded from disk on completion of each level. If using a 1040 ST all twelve levels will load into memory.

LOADING DIFFICULTIES

We are always seeking to improve the quality of our product range, and have developed high standards of quality control to bring you this product. Therefore, in the event that you experience any difficulties whilst loading, it is unlikely to be a fault with the product itself. We suggest that you switch OFF your computer and repeat the loading instructions carefully, checking that you are using the correct set of instructions for your computer and software. If you still have problems, consult the User handbook that accompanied your computer or consult your software dealer for advice. In the case of continued difficulty, and you have checked all of your hardware for possible faults, may we suggest that you contact your Customer Advice Department in writing for assistance:
Activision Customer Advice (S.D.I.)
Blake House
Manor Farm Estate
Manor Farm Road
Reading
BERKSHIRE
Your letter should clearly state the following:
– your name and address
– a daytime telephone number
– the name of the product you are having difficulty with
– whether it is on cassette or diskette
– the computer system you are using and any peripherals, joysticks etc you use with the software.

GAMEPLAY AND CONTROLS
COMMODORE 64/128

Control Options
From the title screen press SPACE to return to option screen.
The keyboard controls are as follows:
Q Up
A Down

NAME	DATE	HI-SCORE/LEVEL

P.N. – 00717/BK

für Ihre Raketen. Die Übertragung des überhitzten Treibstoffes in Ihren Tanks wird vom Kontrollschiff aus gesteuert.
Generatoren: Sie versorgen, wenn sie zerstört wurden, Ihr Fahrzeug mit der Energie, die Sie benötigen um die Schutzschilde wieder aufzuladen. Festungen: Die Festungen haben zwei Funktionen – die eine ist, Konflikte innerhalb des Netzes zu überwachen und die andere ist, sich gegen ungewöhnliche Feindaktivitäten zu verteidigen. Werden sie zerstört, so erfüllen sie ebenfalls zwei Funktionen. VARG-Festungen verschaffen Ihnen nicht nur Extra-Raketen sondern auch ein Bruchstück des Kodes für das Tarnschild des Mutterschiffes. Man braucht kaum zu erwähnen, daß die Zerstörung einer Festung keine leichte Aufgabe ist.
Schließlich sind da noch die Meteoriten: die versprengten Stücke von Asteroiden, die mit dem Netz kollidierten. Diese Felsbrocken sind unberechenbar, weil sie immer wieder von den Tunnelwänden abprallen und somit eines der größten Navigationshindernisse darstellen. Der obere Kreuzungsanzeiger beginnt zu blinken, wenn Sie sich einer Kreuzung nähern.
Das Textfenster: Gibt verschiedene Meldungen und zeigt Ihren Punktestand an, wenn dies mit der entsprechenden Taste aufgerufen wurde.
Schutzschild-Anzeiger: Gibt die Stärke Ihres Schildes an, wobei diese getrennt für die linke und rechte Seite des Schirmes angegeben wird. Näherungsanzeiger: Wechseln von grün über orange zu rot und zeigen an, ob Sie der Tunnelwand gefährlich nahe sind oder ob keinerlei Gefahr für Kollisionsschäden besteht.
VARG-Fenster: Es zeigt die "Farben-Wertung" und funktioniert wie folgt: Anfänglich sind alle sechzehn Quadrate dunkelgrau, verändern sich aber, wenn Sie bestimmte Aktionen durchführen. Sie erhalten ein rotes Quadrat, wenn Sie ein einzelnes Schiff in einer Angriffswelle oder einen Meteoriten treffen. Orangefarbige Quadrate erhalten Sie, wenn Treibstoff-Depots zerstört werden, gelbe, wenn eine Angriffswelle komplett vernichtet wird. Ein purpurnes Quadrat bekommen Sie für die Zerstörung eines Generators und ein blaues, das höchstwertige Quadrat, erscheint für die Zerstörung einer VARG-Festung. Diese blauen Quadrate bleiben auf dem Bildschirm, da sie auch die Bruchstücke des VARG-Kodes repräsentieren, während alle anderen aufgrund mangelnden Platzes neu eingefärbt werden können. Jede Farbe stellt einen Punktewert dar und der Gesamtpunkstand kann abgerufen werden, indem man die entsprechende Taste drückt.
T-Balken: Das ist Ihr Geschwindigkeitsanzeiger und er wird von einer der Hände auf der Konsole betätigt. Je höher sich die Hand auf dem Schirm bewegt, desto höher wird auch Ihre Geschwindigkeit.
Knopfreihen: Diese zwei Knopfreihen ermöglichen es dem Spieler spezielle Funktionen zu aktivieren, wie z.B. die Koordinatennetzkarte anschalten, Waffen sichern usw. Die Steuerpult-Hände bedienen die Knöpfe entsprechend der Tastenbedienung durch den Spieler, wenn er/sie eine der verfügbaren Funktionen anwählt. Tunnelfeuster: Diese Anzeige ist zweigeteilt, damit sie jederzeit die exakte Position Ihres Fahrzeuges im Tunnel darstellen kann.

Joystick: Die direkt vor Ihnen liegende Anzeige stellt die Zielansicht in Relation zu Ihren Joystickbewegungen dar.
TSM-Fenster: Zeigt lediglich an, wieviele zielsuchende Raketen Sie noch an Bord haben.
Koordinatennetz-Fenster: zeigt eine Draufsicht des Deathscape-Koordinatenfeldes in Ihrer momentanen Umgebung und ist sehr nützlich zur Suche von Treibstoff-Depots etc. indem Sie die Übersichtskarte einblenden. Es zeigt auch die Umrisse jeder angreifenden Drohne und ist so eine große Hilfe beim Gefecht.
Treibstoff-Anzeige: Sie ist, wie die Schutzschildanzeige, in zwei Balken aufgeteilt und gibt an, wieviel Treibstoff noch in den beiden Tanks vorhanden ist. Jeder Tank wird unabhängig gesteuert, d.h. wenn Sie im Tunnel permanent nach links steuern, wird der linke Tank schneller geleert. Das Gleiche gilt für den rechten Tank, wenn Sie immer nach rechts steuern.
Das VARG-Mutterschiff ist im wesentlichen eine Stadt im All und stellt all die Robot-Drohnen her, die Ihnen im Laufe Ihrer Mission begegnen. Allein aufgrund seiner Größe muß es von mindestens vier Raketen, gezielt auf die Fusionsreaktor-Hülle, getroffen werden. Ist erst einmal der Disruptorstral-Generator aktiviert, verbleibt Ihnen nur noch eine kurze Zeit bis zur Zerstörung Ihres Fahrzeugs. Verfügen Sie allerdings über mehr als vier Raketen, besteht auch die Möglichkeit diese Funktion auszuschalten. Darüberhinaus kann die Gefahr durch weitere angreifende Drohnen abgewendet werden. Mit einem kompletten Satz Raketen ist sogar die vollständige Vernichtung des VARG-Mutterschiffs möglich. Die Plasmakanonen können jedoch nur effektiv gegen Drohnen eingesetzt werden, da die Schutzschilde des Mutterschiffs von den Plasmastrahlen nicht durchdrungen werden. Es gibt zehn Ebenen im Koordinatensystem, die durch Benutzung der Kreuzungen erreicht werden können. Die meisten Kreuzungen haben nur Ausgänge nach links oder rechts, was bedeutet, daß Sie, sobald der Kreuzungsanzeiger zu blinken beginnt, sehr schnell nach links oder rechts ziehen müssen und diese Position auch halten, da Sie sonst die Abzweigung verpassen.
Es gibt allerdings Kreuzungen, die nach oben oder unten führen. Diese kann man mittels der Netzkarte finden, wie auch die Positionen von Treibstoff-Depots, Festungen und Generatoren.
Die Richtung, in die Sie fliegen und Ihre derzeitige Position werden von dem blinkenden Symbol auf der Karte angezeigt.
Es gibt auf dem Instrumentenbrett acht Knöpfe, die Sie mit den Tasten 1-8 aktivieren können.

1. Musik/Geräuscheffekte
2. Abflug vom VARG-Mutterschiff
3. Koordinatennetzkarte
4. Raketen
5. Punktestandanzeige
6. Feuerautomatik-Modus
7. Teleport zum Kontrollschiff
8. Teleport zum VARG-Mutterschiff

Die Geschwindigkeit wird beim Commodore mit den Funktionstasten und bei Amstrad und Spectrum mit den Tasten V-M eingestellt.
Anmerkung: Sie können nicht aus dem Tunnel ausbrechen, um dem VARG-Mutterschiff entgegenzutreten, bevor Sie nicht alle zehn Kodefragmente der zerstörten Festungen besitzen.

präziseres Anvisieren. Alle zarkonischen Fahrzeuge sind mit zwei Hochleistungs-Schutzschildgeneratoren sowie zwei Tanks für hochverdichteten Treibstoff versehen. Bedingt durch die geringen Abmessungen des Jägers, müssen jedoch viele der Überwachungsaufgaben vom Kontrollschiff übernommen werden, da größere Computersysteme auf Grund der großen Rolls Royce Ionen-Antriebsmaschinen nicht installiert werden konnten.
Das Kontrollschiff ist darüberhinaus für die folgenden Funktionen zuständig:
Koordination des Auftankens, des Schutzschildaufbaus und Waffentransfers, wenn Sie sich in der Nähe explodierender Treibstoff-Depots, Generatorenstationen und Festungen befinden. Erreicht wird dies durch ein ausgeklügeltes Energie- und Materietransportgerät an der Unterseite Ihres Fahrzeugs. Das Schiff ist auch für die Entzifferung der VARG Kodes und die Erzeugung der "Farben-Wertung" zuständig. (Beim letzteren handelt es sich um die graphische Darstellung Ihres Missionser- folgs) Sollte das Kontrollschiff einmal angegriffen werden, können Sie sich aus der Kamptzone teleportieren und, falls erforderlich, das Kontrollschiff mit den an Bord installierten Plasmakanonen verteidigen. Unglücklicherweise erhalten Sie die für das Teleportgerät erforderlichen Energiezellen nur sporadisch, so daß eine Materialisation im Kontrollschif nicht immer möglich ist und Sie vorher erst Ihre Energiereserven auffüllen müssen. War die Teleportation erfolgreich, ändert sich der Bildschirm und die Sicht aus dem Cockpit des Kontrollschiffes erscheint. Der Energiestatus wird von sechs senkrechten Balken angezeigt – sollten drei oder mehr davon auf Null fallen, wird das Schiff zerstört und Ihre Mission abgebrochen. Bei erfolgreicher Verteidigung werden Sie in das Kampfgebiet zurückteleportiert, in dem Sie zuletzt gewesen sind, wobei die Raketenanzahl sich um zwei erhöht. Außerdem erhalten Sie jedesmal, wenn Sie eine Festung zerstört haben, eine Extra-Rakete.

**C.A.M. III STEUERKONSOLE

(Weitergehende Informationen finden Sie im Abschnitt "Spieldaten".) Ihre Steuerkonsole benutzt ein Multivisionsformat, um alle für die Mission und zur Steuerung des Schiffes erforderlichen Daten anzuzeigen. Jedes Fenster der Steuerkonsole zeigt Ihnen einen anderen Teil der Informationen, die Sie zum erfolgreichen Fliegen des C.A.M. III benötigen. Eine kleine Warnung: Wenn Sie die Konsole beobachten, vergessen Sie nicht den oberen Abschnitt im Auge zu behalten, da das Textfenster oft wichtige Unterstützung bietet, vor allem bei Kampfhandlungen. Eine weitere Information, die man nicht mißachten sollte, bieten die Näherungsanzeiger. Wird eines dieser Felder rot, bedeutet das, daß Sie zu dicht an der Tunnelwand fliegen, entweder senkrecht oder waagerecht. Sollte das der Fall sein, müssen unverzüglich Ausweichmanöver eingeleitet werden. Ein abschließender Hinweis: Nicht das gesamte Koordinatennetz ist Kamptzone; es gibt auch neutrale Gebiete (die nur Treibstoff-Depots und Generatoren enthalten) und Gebiete, die den Verbündeten von SOL gehören. Bedenken Sie das, wenn Sie durch das Netz fliegen, weil Sie ja nicht wollen, daß Ihre Vorgesetzten denken, Sie wären übergelaufen und deshalb Ihre Mission vorzeitig abbrechen.

SPIELDATEN

Das Hauptspiel besteht im wesentlichen aus zwei Teilen; dem Navigations– und dem Gefechtsteil. Beide sind für die Beendigung des Spieles gleichwichtig und erfordern die gleiche Geschicklichkeit und Ausdauer. Es gibt zehn Ebenen im Koordinatensystem und der Spieler kann auswählen, in welcher er oder sie beginnen möchte. Ebene 1 ist hauptsächlich für Anfänger gedacht, die zuerst einmal Gefühl für das Fliegen Ihres Jägers bekommen wollen, bevor sie irgendwelchen gefährlichen Begegnungen gegenüberstehen und Ebene 10 ist für diejenigen, die lebensmüde sind oder es geniessen von Horden gnadenloser feindlicher Drohnen zerrissen zu werden. Die anderen beiden Spielteile sind das Kontrollschiff "Intemission", in welches man gelangt, wenn es angegriffen wird und das VARG Mutterschiff-Bild, daß das Finale des Spiels darstellt und erst erreicht werden kann, wenn Sie zehn blaue Quadrate in Ihrem VARG-Fenster haben (Siehe auch Farben-Wertung).
Es gibt fünf verschiedene Drohnentypen und jeder Typ hat seine speziellen Eigenarten. Zusätzlich gibt es Treibstoff-Depots, Generatoren und Festungen. Dies sind die stationären Objekte im Koordinatennetz. Jedes dieser Objekte stellt ein Hindernis dar und muß unter bestimmten Umständen sogar zerstört werden, damit Sie das Spiel fortsetzen können. So ist es zum Beispiel keine gute Idee ein Treibstoff-Depot zu ignorieren, wenn sich Ihr Treibstoff zum Ende neigt.

VARG-DROHNEN UND DIE SORTIERTE DEATHSCAPE-HARDWARE

Jäger: Diese unangenehmen, keilförmigen. Fahrzeuge fliegen immer in Spiralformation vom Tunnelzentrum her. Klasse III Jäger werden offiziell als "Supertödlich" bezeichnet. Sucher: Kommen immer von hinten, tänzeln einige Zeit vor Ihnen her und feuern möglicherweise sogar einige Schüsse ab, bevor sie in der Tiefe des Tunnels verschwinden. Sie kündigen nahezu immer Jäger oder Abfang-Jäger-Angriffe an und sind unmöglich einzuholen, wenn Sie erst einmal begonnen haben zu beschleunigen (Also, sparen Sie sich den Treibstoff).
Bomber: Nur gefährlich, wenn Sie von oben kommen. Diese langsamen und schwerfälligen Schiffe fliegen im Zick-Zack zum Tunnelboden hinab bevor Sie dann aufsteigen, um Sie auszutricksen.
K-Schiff: Selbstmord-Schiffe – sie versuchen Sie mit irrwitzigen Vorwärts- und Rückwärtsbewegungen zu verwirren und Ihr Schiff dann am schwächsten Punkt rammen.
Abfangjäger: Werden zur Verteidigung von Festungen benutzt und überfallen Sie eventuell auch an Kreuzungen. Dies sind die gefährlichsten Fahrzeuge, denen Sie begegnen können und sollten, wo immer möglich, gemieden werden.
Ein nützlicher Hinweis zu den VARG-Drohnen ist, daß diese immer nur von vorne angreifen, da die Triebwerksabgase Ihre Zieleinrichtungen beeinflussen.
Treibstoff-Depots: Dadurch, daß sie leicht flüchtige Substanzen enthalten, sind sie einfache Ziele

spéciales, telles que l'appel de la carte des grilles et le désarmement des armes etc... Les mains de la console actionnent ces boutons au réponse aux touches appuyées par le joueur quand il ou elle choisit l'une des fonctions possibles.
Fenêtre de tunnel: Sa fonction est double. Elle affiche exactement l'endroit où se trouve votre astronef dans le tunnel.
Manche à balai: Affichage simple montrant le mouvement de la visée de la cible par rapport aux mouvements du manche à balai par le joueur.
Fenêtre de TSM: Celle-ci montre simplement combien de missiles chercheurs de cible (TSM) vous avez dans votre réserve d'armes.
Fenêtre de grills: Montre une vue de haut de la grille "Deathscape" dans votre voisinage immédiat, ce qui est utile pour trouver des dépôts de combustible etc... en utilisant la carte à grande échelle. Elle vous montre aussi une silhouette de l'astronef ennemi qui vous attaque, et c'est une aide utile pour le combat.
Affichage de combustible: C'est comme l'affichage d'écrans protecteurs, divisé en deux barres qui montrent combien de combustible vous avez dans vos deux réservoirs de combustible. Chaque réservoir est contrôlé indépendamment de sorte que si vous volez continuellement sur la gauche du tunnel, votre réservoir gauche se videra plus vite et vice versa pour la droite.

L'ASTRONEF-MÈRE VARG

C'est essentiellement une cité flottante dans l'espace qui fabrique tous les astronefs robots que vous rencontrerez au cours de votre mission. Etant donné sa grande taille, elle doit être touchée par au moins quatre missiles, en visant les logements des réacteurs de fusion. Une fois que les générateurs de faisceau disrupteur ont été actionnés, vous disposerez de peu de temps pour tirer sur l'Astronef-Mère avant d'être détruit. Cependant, avec plus de quatre missiles, il est possible d'invalider cette fonction. Il est aussi possible de détruire le danger de l'astronef, pour empêcher que d'autres astronefs ennemis ne vous attaquent. Avec le nombre complet de missiles, une victoire complète sur l'Astronef-Mère Varg est possible. Les canons plasmiques ne sont cependant efficaces que contre les astronefs ennemis qui attaquent car les écrans protecteurs de l'Astronef-Mère sont trop résistants pour permettre aux canons de les traverser.
Il y a dix niveaux de la grille auxquels on peut accéder en utilisant les bifurcations. La plupart des bifurcations n'ont que des sorties à droite ou à gauche, ce qui signifie que, quand les indicateurs de bifurcation clignotent, vous devez rapidement vous diriger vers la gauche ou vers la droite et rester dans cette position ou vous manquerez votre bifurcation.
Il y a des bifurcations qui vous permettent de monter ou de descendre et on peut les trouver en les repérant sur votre carte de grilles. Celle carte montre également l'emplacement des dépôts de combustible, des forteresses et des générateurs.

La direction dans laquelle vous volez et votre position sont indiquées par la silhouette clignotante sur la carte.
Il y a hit boutons sur votre console qui sont actionnés en utilisant les touches numériques 1-8.

1. Effets musicaux/sonores
2. Abandon de l'Astronef-Mère VARG
3. Carte de grilles
4. Missiles
5. Mise à jour automatique du score
6. Mode de tir automatique
7. Télé-transfert à l'astronef de commande
8. Télé-transfert à l'Astronef-Mère VARG

La vitesse est commandée par les touches de fonction sur le commodore et les touches V-M sur l'Amstrad et le Spectrum.
NB: Vous ne pouvez sortir du tunnel pour faire face à l'Astronef-Mère VARG que quand vous avez recueilli 10 morceaux du code à partir des forteresses détruites. Votre ordinateur de bord vous signalera que le code est complet en affichant un Z Bleu sur votre écran d'affichage de score en couleur.
CHARGEMENT: VOIR INSTRUCTION SUR L'ETIQUETTE

FIN DES DONNEES – BONNE CHANCE

DEUTSCH

DEATHSCAPE: DIE KAMPFGEBIETE VON TERRA

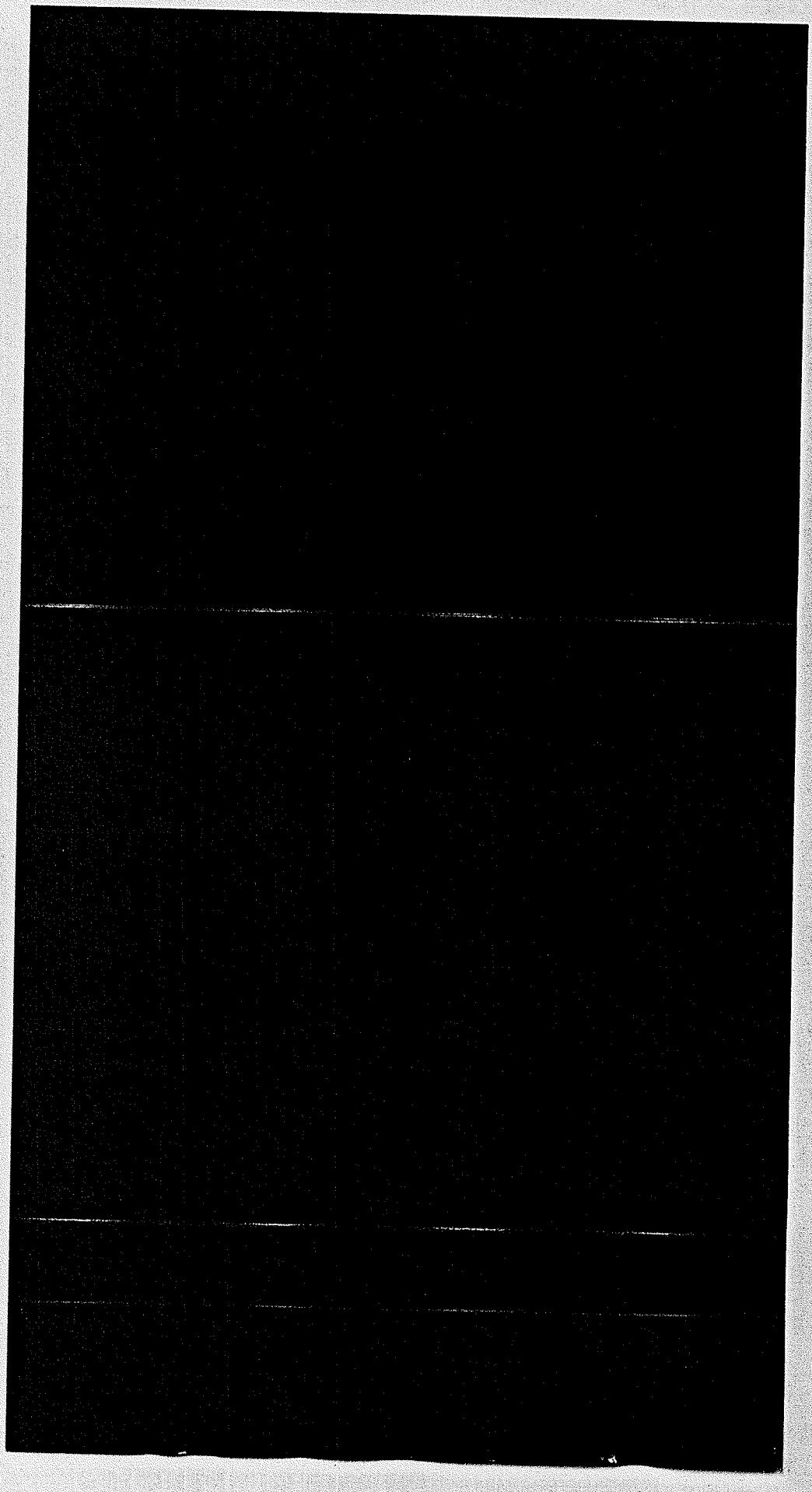
GEHEIMNACHRICHT

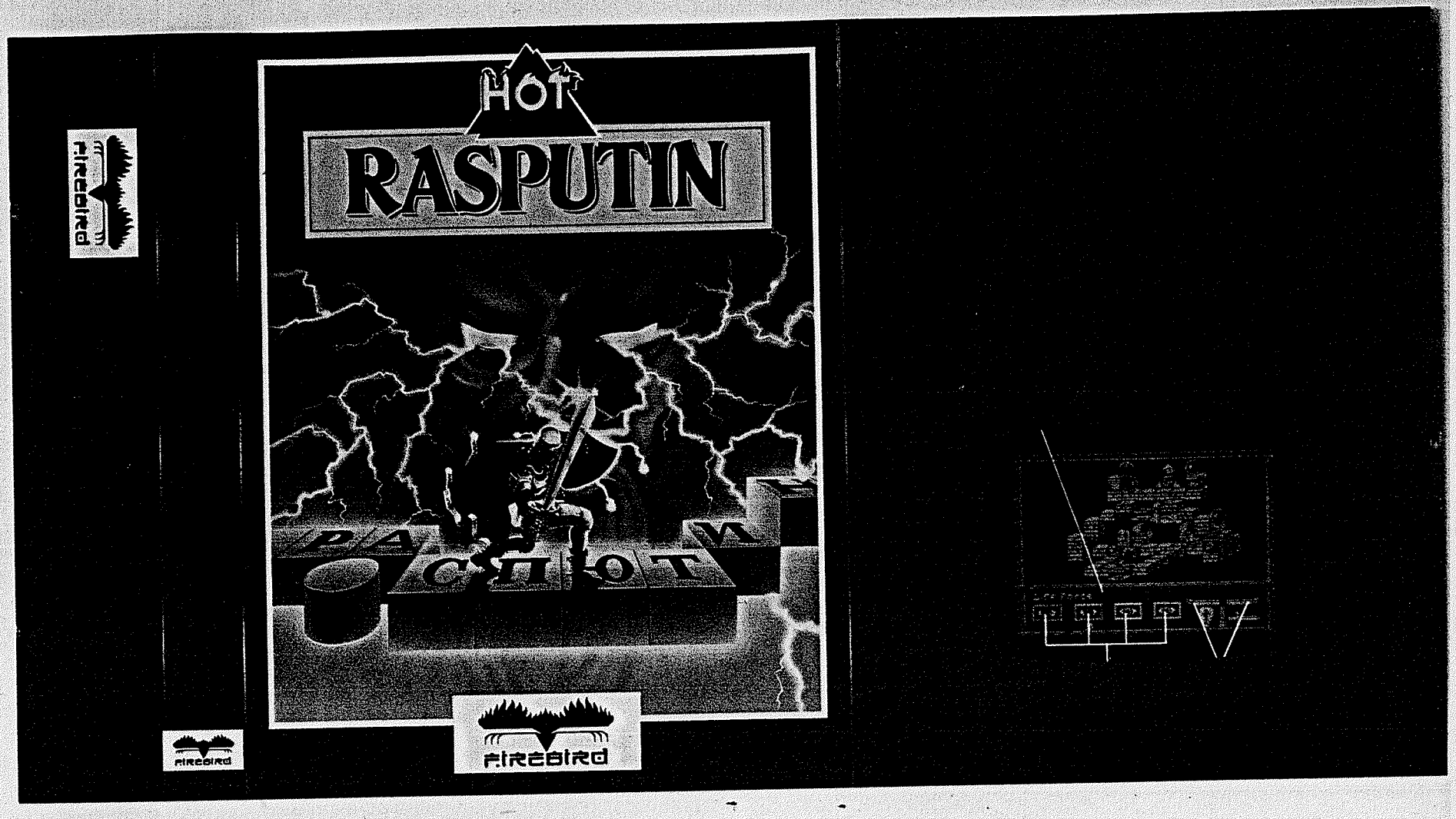
Wo sich nun herausstellt, daß die VARGS die marsianische Friedenskonferenz ignorieren werden, ist es meine Aufgabe als Überwachungsoffizier von DEATHSCAPE Ihnen zu eröffnen, daß Sie für diese lebenswichtige Mission ausgewählt wurden. Um Ihnen zu helfen, werden wir Sie mit dem neuestem zarkonischen C.A.M. III Mehrzweck-Jäger ausrüsten und ein Kontrollschiff starten, daß Ihren Vorstoß verfolgt und alle Ziel- und Wärmeinrichtungen aktiviert.
Viel Glück, die Zukunft aller freien Sonnensysteme liegt in Ihren Händen!

ALLGEMEINE INFORMATIONEN

ZARKONISCHER C.A.M. III MEHRZWECK-JÄGER

Hierbei handelt es sich um einen kleinen, aber extrem leistungsfähigen Raumjäger, ausgerüstet mit vier Plasma-Schnell Feuerkanonen und bis zu acht zielsuchenden Raketen. Er verfügt über ein fortschrittliches "Fly-by-wire" – System, wobei die Hauptkontrolle über den digitalen Sichtschirm erfolgt. Dieser stellt eine enorme Verbesserung gegenüber den früheren C.A.M. II dar, die mit einem unbeweglichen Sichtschirmbild ausgestattet waren, und ermöglicht nun

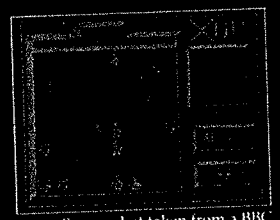



HOT
RASPUTIN
FIREBIRD
FIREBIRD
FIREBIRD

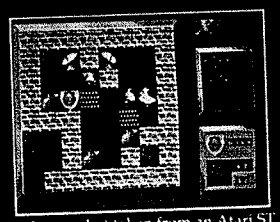
XOR

The Ultimate Maze Challenge

There are no random events in **XOR**'s labyrinthine palace, and there is no premium on hand-eye coordination. You have all the time in the world to work out the precise nature of the hazards you encounter. Logical thinking, strategy and tactical problem solving are all part of the **XOR** experience. And XOR is not simply about finding solutions. If you can solve the entire puzzle (15 levels plus an encrypted anagram), you qualify to be a member of the Order of **XOR**. With a certificate and a badge to prove it.



Screen shot taken from a BBC



Screen shot taken from an Atari ST

XOR's Features

- 15 graded mindbending mazes
- Each maze approximately 16 screens
- Super smooth high speed scrolling
- High resolution quality graphics
- High speed or step by step replay feature
- Intriguing logical problems
- Interactive dynamic puzzles

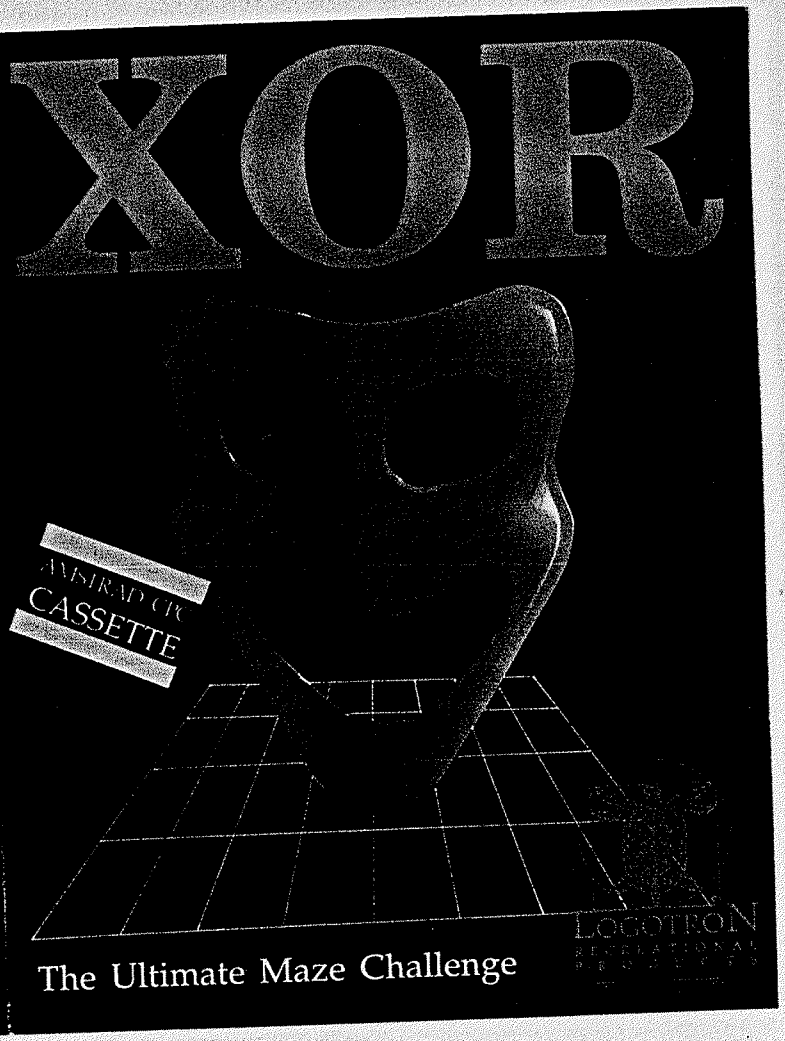




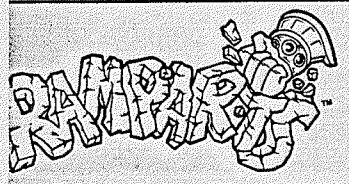
LOGOTRON LTD, DALES BREWERY, GWYDIR STREET, CAMBRIDGE CB1 2LJ

XOR

XOR



The Ultimate Maze Challenge



Larkin have been cursed by the Evil One who has
of ferocious marauding giants. Join their quest
through the green and pleasant lands of rustic
nd restore their honour as knights of the realm.

e easy. Hostile Barons of huge fortressed castles
o survive you must smash your way through the
d and avoiding fire bolts, catapults and ye olde
t not be satisfied until the castle is in ruins!

RUCTIONS

tte:
all **ENTER** keys. Press **PLAY** on the cassette

LS

rd.

able.

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opying or re-recording, hiring, leasing, renting and selling
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L'Esprit Malin a jeté un sort à Sir Griswold et Sir Larkin qui les a transformés en géants maraudeurs des plus féroces. Joignez vous à eux tandis qu'ils partent à sa recherche et traversent les régions vertes et plaisantes de la rustique Angleterre du Moyen-Age. Aidez les à recouvrer leur honneur perdu de Chevaliers du royaume.

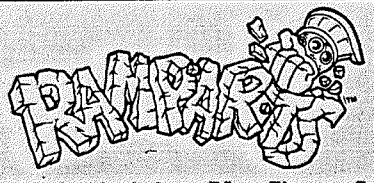
Votre tâche ne va pas être facile car des Barons hostiles qui vivent dans d'énormes forteresses vous barrent le chemin. Pour survivre, il vous faut pénétrer dans le château en enfonçant la porte et voler la nourriture tout en évitant les boules de fer, les catapultes et les vieux canons! Vous ne devez pas arrêter tant que le château n'est pas en ruines!

INSTRUCTIONS DE CHARGEMENT

Cassette Amstrad CPC:
Appuyez sur la touche **CTRL** et la petite touche **ENTER**. Enfoncez la touche **PLAY** de votre magnétophone.

COMMANDES

Amstrad CPC:
Levier de commande ou clavier
ESC – PAUSE
Les touches sont définissables par l'utilisateur.



Sir Griswold und Sir Larkin sind vom Bösen Einen verflucht worden, der sie in grausame plündernde Riesen verwandelt hat. Nehmen Sie Teil an der Jagd nach dem Einen in den grünen und lieblichen Wäldern des bäuerlichen Englands des Mittelalters und stellen Sie die Ehre der Ritter des Königreiches wieder her.

Ihre Aufgabe ist nicht leicht. Feindlich gesinnte Barone in riesigen Festungen sind Ihnen im Wege. Sie müssen sich Ihren Weg durch die Festungen schlagen, um zu überleben. Dort müssen Sie sich Ihre Nahrung zusammenstehlen und Feuerbällen, Katapulten und den alten Kanonen ausweichen! Und Sie haben Ihre Aufgabe erst erfüllt, wenn die gesamte Festung in Trümmern liegt!

LADEANWEISUNGEN

Amstrad CPC Kassette:
Drücken Sie zuerst die **CTRL**-Taste und die kleine **ENTER**-Taste. Dann drücken Sie die **PLAY**-Taste Ihres Kassettenrekorders.
Kassettenrekorders.

SPIELKONTROLLEN

Amstrad CPC:
Joystick oder Tastatur.
ESC-Taste – PAUSE
Tasten sind vom Benutzer bestimmbar.

LOAD PROBLEMS

We are constantly seeking to improve the quality of our products, and we maintain the highest possible standards of quality control in manufacturing our product range.

However, should you experience any difficulties in loading this product, having checked your hardware *thoroughly* we will gladly replace the cassette or disk for you.

Before you send your cassette back for replacement, please check the azimuth head alignment, and attempt to load the game from both sides of the cassette. You may wish to consult your local software retailer.

If, after these checks have failed, you do write to us, you should state the following –

- Your name and address
- The name of the product
- Whether it is cassette or disk
- Which computer
- Which joysticks and peripherals (if any)
- Where and when you purchased the product
- A full description of the problem you experience
- You should not enclose the box and packaging with cassettes

REMEMBER TO ALLOW CASSETTES TO RUN THEIR FULL LENGTH AS SPEED LOADS FREQUENTLY CAUSE THE SCREEN TO GO BLANK FOR A PERIOD OF TIME.

PROBLEMES DE CHARGEMENT

Nous essayons continuellement d'ameliorer la qualité de nos produits, et nous maintenons les standards de controle de qualité les plus eleves possibles dans la manufacture de notre gamme de produits.

Cependant, si vous deviez rencontrer qualques difficultés à charger ce produit, apres avoir verifié votre hardware *minutieusement*, nous nouse ferons un plaisir de remplacer la cassette ou le disque pour vous.

Avant de nois renvoyer votre cassette pour remplacement, nous vous remercions de bien vouloir verifier l'alignment de la téte d'azimuth, et d'essayer egalement consulter votre revendeur de software local.

Si, apres avoir effectué ces verifications sans résultat, vous décidez de nous écrire, veuillez nous communiquer les renseignements suivants:

- Votre nome et votre addresse
- Le nom due produit
- S'il s'agit d'une cassette ou d'un disque
- Le marque et le modèle de votre ordinateur
- Quelle manette et quels peripheriques (le cas échèant) vous utilisez
- L'endroit et la date à laquelle vous avez acheté le produit
- La description complète du problème rencontré
- Prière de no joindre ni bote ni emballage avec les cassettes

NOUS VOUS RAPPELONS QU'IL EST NECESSAIRE DE FAIRE TOURNER LES CASSETTES SUR TOUTE LEUR LONGUEUR, L'ECRAN RESTANT SOUVENT BLANC DURANT UN CERTAIN TEMPS LORSQUE CES DERREIRES SONT CHARGEES TROP RAPIDEMENT

PROBLEME BEIM LADEN DES PROGRAMMS

Wir sind bemüht, unsere Produkte fortlaufend zu verbessern und bedienen uns genauester Qualitätskontrollen in unserem Herstellungsverfahren.

Sollten Sie beim Laden der Software auf Probleme stoßen, bitten wir sie *erst* Ihre Hardware sorgfältig zu überprüfen. Falls sich das Problem auf keinen Hardware-Fehler zurückverfolgen läßt, sind wir gerne bereit, Ihre Kassette oder Diskette zu ersetzen.

Bevor Sie Ihre Kassette zurückschicken, überprüfen Sie bitte erst ob der Lesekopf am Gerät richtig ausgerichtet ist und versuchen Sie, das Spiel von beiden Seiten der Kassette zu laden. Vielleicht kann Ihnen ihr Software-Händler behilflich sein.

Falls diese Maßnahmen nicht erfolgreich sind, schreiben Sie uns bitte mit folgenden Angaben:

- Ihr Name und Anschrift
- der Name des Spiels
- ob auf Kassette oder Diskette
- welcher Computer
- welche Steuerknüppel oder andere Zusatzgeräte
- wann und wo die Ware gekauft wurde
- eine komplette Beschreibung Ihrer Probleme
- bitte schicken Sie den Karton und die Verpackung nicht mit zurück.

BITTE LASSEN SIE DIE KASSETTE VOLL AUSLAUFEN DA BEIM SCHNELLADEN DER BILDSCHIRM MANCHMAL FÜR KURZE ZEIT BLANK WIRD, DER LADEVORGANG ABER NOCH NICHT ABGESCHLOSSEN IST.

All software, sound and vision by THE LIGHT
Cover artwork by Steinar Lund
Packaging design by Pillory Barn Ltd
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REX

INSTRUCTIONS

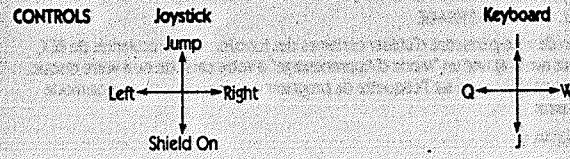
TUTOR MODE

To help you discover some of the features and gameplay in REX, we have included a "Tutor Mode" on your cassette or disc copy. Follow the instructions shown on the game program label to load this into your computer.

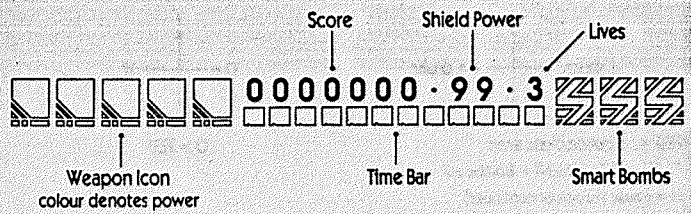
MULTI-LOAD

If playing from a cassette tape, it may be necessary to load an extra level of the game once you have successfully completed the first level. Stop the tape once the first level has been loaded. If you manage to complete the first level, you will be given a code which, when entered using the keyboard, will allow you to load Level 2.

CONTROLS



FIRE = Use Weapon
SPACE = Smart Bomb
H = Pause (FIRE to continue)
Spectrum keys may be defined (SPACE and H should not be used).



WEAPONS

REX begins with just one weapon (leftmost weapon icon). The other four weapons must be collected from the weapon pods located throughout the map.

WEAPON ENERGY

Each weapon may only be used if the energy level is high enough.

By collecting "Energy Bubbles", the energy level will advance through the colours as follows:

PINK → GREEN → CYAN → YELLOW → WHITE

IF still more energy bubbles are collected, and

IF you have collected the next weapon

THEN the next weapon can now be used by REX, starting from low energy again (PINK).

The weapon energy level decreases as the weapons are fired.

THE MISSION

Can REX fight his way to the heart of the Great Tower? Can he destroy the power that he finds there?

MODE D'EMPLOI

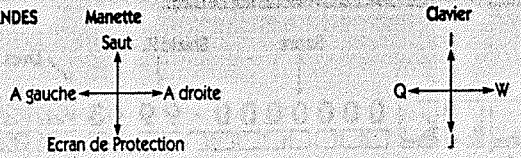
MODE D'APPRENTISSAGE

Afin de vous permettre d'utiliser certaines des fonctions et particularités de REX, nous avons ajouté un "Mode d'Apprentissage" à votre cassette ou à votre disque. Suivez le mode d'emploi imprimé sur l'étiquette de programme du jeu pour charger ce mode dans votre ordinateur.

CHARGEMENT MULTIPLE

Si vous utilisez une cassette pour ce jeu, vous aurez peut-être a charger un niveau supplémentaire après avoir réussi à terminer le premier niveau de jeu. Arrêtez la casette une fois le premier niveau chargé. Lorsque vous aurez réussi à terminer le premier niveau, un code vous sera donné qui, une fois entré, en utilisant le clavier, vous permettra d'accéder au niveau 2.

COMMANDES

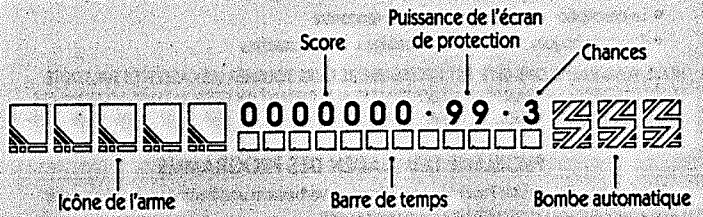


FEU = Utilisation d'une arme

BARRE D'ESPACEMENT = Bombe automatique

H = Pause (FEU pour continuer)

Les touches sur Spectrum seront précisées (ne pas utiliser la barre d'espacement et H).



ARMES

REX commence avec une arme seulement (icône de l'arme à gauche). Il lui faudra aller chercher les quatre autres armes qui se trouvent dans les réserves éparpillées à travers la carte.

ENERGIE DES ARMES

Chaque arme ne peut être utilisée que si le niveau d'énergie est suffisant.

En recueillant des "Bulles d'Energie", le niveau d'énergie augmente et est représenté par des couleurs de la façon suivante:

ROSE → VERT → CYAN → JAUNE → BLANC

SI vous arrivez à recueillir encore plus de bulles d'énergie, et

SI vous êtes en possession de l'arme suivante

ALORS Rex pourra utiliser l'arme suivante, en commençant de nouveau par le niveau d'energie minimum (ROSE).

Le niveau d'energie de l'arme baisse chaque fois que vous faites feu.

LA MISSION

REX pourra-t-il se frayer un passage jusqu'a la Grande Tour? Et pourra-t-il détruire le pouvoir qui s'y trouve?

BEDIENUNGSANLEITUNG

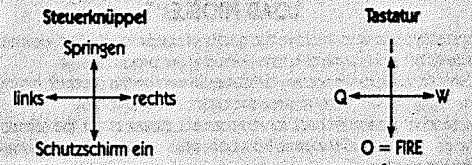
EINFÜHRUNGSSTUFE

Um Ihnen den Spielverlauf und die Möglichkeiten vorzuführen, haben wir auf Ihrer Kassette oder Diskette eine Vorführungsstufe zur Verfügung gestellt. Bitte folgen Sie den Anweisungen auf dem Spielprogramm-Schild, die das Laden dieser Stufe beschreibt.

MULTI-LOAD

Falls Ihr Spiel von einer Kassette abgespielt wird, könnte es notwendig sein, daß eine zusätzliche Stufe geladen werden muß, nachdem Sie die erste Stufe erfolgreich abgeschlossen haben. Halten Sie die Kassette einmal an, nachdem die erste Stufe geladen ist. Nachdem es Ihnen gelungen ist, die erste Stufe abzuschließen, erhalten Sie einen Code. Sie geben diesen Code über die Tastatur ein und können dann in die nächste Stufe einsteigen.

STEUERUNGEN

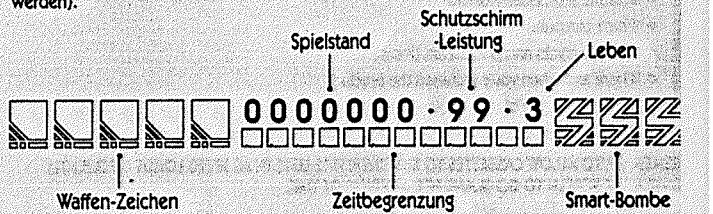


FIRE = Einsatz der Waffe

LEERTASTE = Smart-Bombe

H = Pause (FIRE weiterfahren)

Die Tastatur für SPECTRUM kann bestimmt werden (LEERTASTE und H dürfen nicht verwendet werden).



WAFFEN

REX beginnt mit zur zwei Waffen (das Waffen-Symbol ganz links). Die anderen vier Waffen müssen während des Spielverlaufs von den Waffenlagern, die über die Karte verstreut sind, gewonnen werden.

WAFFEN-LEISTUNG

Eine jede Waffe kann jederzeit, vorausgesetzt der Energievorrat ist ausreichend, eingesetzt werden.

Sie haven Gelegenheit "Energy-Bubbles" einzusammeln, diese erhöhen den Energievorrat, der wie folgt farblich kodiert ist:

ROSA → GRÜN → BLAU → GELB → WEISS

FALLS Sie noch mehr Energieeinheiten gesammelt haben und

FALLS Sie die nächste Waffe ebenfalls gewinnen konnten

DANN kann die nächste Waffe, geladen auf der niedrigsten Energiestufe (ROSA) eingesetzt werden.

Die Leistung der Waffe fällt nach dem Feuern der Waffe ab.

IHRE AUFGABE

Wird es REX gelingen, zum Herzen des Großen Turmes vorzudringen? Kann er die dort verborgene Macht zerstören?

APB

THE GAME

APB–All Points Bulletin. Put your foot on the gas and let rip as you roar through the streets of the city in a series of hilarious and wild car chases.

GETTING STARTED

You play the role of Officer Bob, a tough Cop in this challenging cartoon-style game, whose job is to patrol the streets of the city and apprehend various criminals in your trusty Police Car.

Each day you are given a quota of offenders who must be apprehended before the day is out in order to get a salary bonus and keep your job. These include litter louts, drunks and hitch-hikers. At times you'll receive an All Points Bulletin on a particularly dangerous villain who must be tracked down and arrested.

Should you catch Sid Sniper, Freddy Freak or any of the other master criminals, you must return them to the station for 'questioning'. If they confess, you can forget about your quota for the rest of the day. However, wringing a confession out of them is not that easy, and you must be through before the Chief comes in.

Waggle the joystick left and right as quickly as you can – a grid shows how fast you're going and how close the criminal is to confessing.

To arrest an offender, you must position the Steering Wheel Cursor over their car and switch on the siren. Continue to hold down the fire button for as long as you need the siren. Some cirminals may ignore you the first few times you signal them to stop, depending on the severity of their crime. As the game progresses you can obtain a gun and shoot their cars, but don't hit any innocent bystanders. APB offenders must be rammed off the road and will not give themselves up without a fight.

If you collide with a vehicle while the siren is off, crash too hard or injure an innocent party, you'll get a Demerit point. You'll also get a Demerit for every offender you do not catch on your quota. Collect too many Demerits and you'll be fired.

BONUSES

Visit the drive-in Donut shop for extra time, pick up money bags to enhance your pay

You can also visit the Speed Shop and buy extra equipment for your car including radar, However, paying for a souped-up car will be difficult if you've failed in your daily quotas and not collected enough money.

CONTROLS

Atari ST, Amiga, Commodore 64: Use Joystick
Amstrad CPC, Spectrum and IBM PC: Use Joystick or define keys.

Left:	Steer Left	Down:	Brake
Right:	Steer Right	Fire pressed quickly:	Shoot gun (if present)
Up:	Accelerate	Fire held down:	Switch on Siren

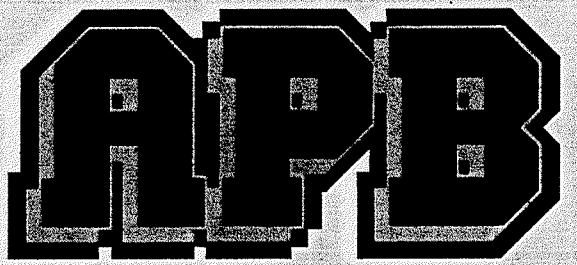
LOADING INSTRUCTIONS

Commodore 64 Cassette: Press SHIFT and RUN/STOP and start tape.

Amstrad CPC Cassette: Press CTRL and small ENTER key and start tape.

Spectrum 48K Cassette: Type LOAD"" and start tape.

Spectrum 128K/+2/+3 Cassette: Select Loader option.



IL GIOCO

APB – (COMUNICATO A TUTTI I PUNTI). Spingi a fondo l'acceleratore e lancia la tua automobile a tutto gas attraverso le strade cittadine in una serie di allegri e spericolati inseguimenti.

PER COMINCIARE

Sei ne i panni dell'ufficiale BOB, un duro poliziotto in questo gioco sfida stile cartoon, il cui compito è di pattugliare le strade cittadine ed arrestare i vari criminali utilizzando

Ogni giorno sei incaricato di arrestare un certo numero di malviventi al fine di acquisire una maggior retribuzione e continuare il lavoro. In tale modo avrai a che fare con zoticoni, ubriaconi ed assassini. A volte riceverai un comunicato (APB) riguardante un soggetto particolarmento pericoloso che deve essere bloccato ed arrestato.

Dovresti arrestare Sid Sniper, Freddy Freak o qualunque altro capo criminale, condurli alla stazione di polizia per "l'interrogatorio". Se confessano puoi dimenticarti per un giorno il restante numero di malviventi da arrestare. Tuttavia, strappar loro una confessione non è facile impresa, e devi riuscirci prima che il capo torni. Sposta il joystick a sinistra e a destra nel modo piu veloce possibile – una griglia mostra

criminale a confes
Per arrestare un m
cursore che indic
ruote sopra l'altra
sirena. Continua
fuoco per tutto il t
sirena. Alcuni crir
bero ignorare a
crimine commess
una pistola e far f
attento a non co
malviventi devono
non si arrenderan
Se urti un veicolo
scontri troppo vi
innocenti, ti ver
demerito. Ti spett
criminale della tua

PUNTI BONUS

Per acquisire del tempo supplementare visita il negozio drive-in Donut; per aumentare lo stipendio raccogli portafogli e per rifornirti di carburante fermati alla stazione di servizio. Puoi anche recarti al negozio Speed e compare accessori extra per la tua macchina come radar,

blindatura, freni mi
In ogni caso potr
macchina così attr
arrestare tutti i c
conseguenza, a gua

CONTROLLI

Atari ST, Amiga, Commodore 64: Utilizza il joystick
Amstrad CPC, Spectrum e IBM PC: Utilliza il joystick o i tasti

Joystick a sinistra	Sterza a sinistra
Joystick a destra	Sterza a destra
Joytick su	Accelera
Joystick giù	Frena
Tasto fuoco premuto rapidamente	Colpo di pistola (s
Tasto fuoco premuto a lungo	Accendi la sirena

ISTRUZIONI DI CARICAMENT

Commodore 64 nastro: Premi contemporaneamente il tasto SHIFT e RUNSTOP ed avvia il registratore

Amstrad CPC nastro: Premi CTRL ed il tasto ENTER ed avvia il registratore

Specturm 48K nastr registratore

Spectrum 128K/+2/ LOADER

BUTCHER HILL™

LOADING INSTRUCTIONS

CBM 64/128
Cassette:Insert cassette into cassette recorder. Press **SHIFT** and **RUN/STOP** keys simultaneously. Press **PLAY** on cassette player.

Disk: Insert disk into drive. Type **LOAD"*",8,1** and press **RETURN.**

Once the title screen has loaded and the drive light goes out, press **SPACE.** The music will fade out and the instructions and credits will appear. If the text moves too fast press the Commodore key to pause and restart it. Press **SPACE** to exit to title screen. The first section will now load. When each section has loaded, the message at the bottom of the screen changes. Press **FIRE** on the joystick to play.

SPECTRUM 48K
Type **LOAD""** and press **RETURN.** Press **PLAY** on the cassette recorder.

SPECTRUM 128K/+2
Use the Tape Loader as normal.

SPECTRUM +3
Disk: Use the Disk Loader as normal.

AMSTRAD
Cassette: Insert cassette into cassette recorder. Press **CTRL** and the small **ENTER** keys simultaneously. Press **PLAY** on the cassette unit.

Disk: Insert the disk into the drive. Type **RUN"DISK** and press **ENTER.**

ATARI ST
Insert disk, turn on computer, the game will then load automatically.

CBM AMIGA
Turn on the computer and insert the disk. Program will load automatically.

KEYBOARD CONTROLS

Keys are user definable except **PAUSE – P.**

Spectrum version **BREAK** key.

You begin with six lives.

SCENARIO

SECTION ONE – THE RIVER
Travel along the river in your inflatable dinghy to one of the three jetties. Your progress will be hampered by natural obstacles such as twists in the river, boulders and reeds. You must also avoid floating mines and a barrage of gunfire from the enemy aircraft.

Fortunately, allied planes are occasionally able to drop first-aid, ammunition and bonus packs. You must steer through the fast flowing river to collect these bonuses.

SECTION TWO – THE JUNGLE
Leaving your dinghy behind, you venture into the jungle, with only your compass* and the knowledge that the enemy village is to the North East. As you make your way through the dense vegetation, you will come across clearings where the enemy forces have set up supply depots. These depots are guarded by enemy forces, you must eliminate them. Under the threat of being overwhelmed you can retreat into the jungle (to do this pull back on the joystick).

With the enemy forces now aware of your presence in the area, beware of sudden reprisals. Should an enemy sniper jump out in front of you, aim your gunsight and shoot.

Watch out for land mines!

SECTION THREE – THE VILLAGE
You have battled your way along the river and through the dense jungle, to the enemy village which is in the shadow of Butcher Hill.

Use your machine gun and grenades to eliminate the enemy soldiers who will be running towards you. Beware of the soldiers who will be hiding out in buildings, shoot at the windows to eliminate them. Alternatively throw one of your grenades to destroy the building.

The game is complete once all of the buildings in the village have been destroyed .... only then are you the conqueror of BUTCHER HILL.

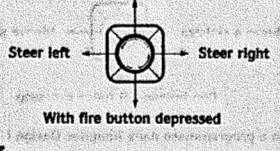
*Provided bonus compass collected in the River section.

GAME PLAY INSTRUCTIONS

THE RIVER
To move your inflatable dinghy push the joystick forward, left and right to steer. Use the **FIRE** button to shoot mines. While the **FIRE** button is held down your gun sight is visible: keep the **FIRE** button pressed and move the joystick to aim.

You can land at one of three jetties. If you land at the first jetty you will not have collected all of the equipment vital to your mission.

JOYSTICK CONTROLS

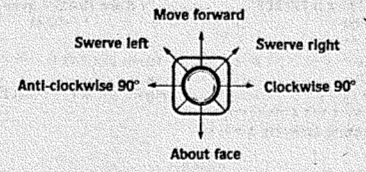


THE JUNGLE
To move forward push the joystick foward. Pull back to about face. Push left to turn anti-clockwise by 90° or right to turn clockwise by 90°. While moving forward, the diagonals on the joystick allow you to swerve. If you have collected the compass in the river section, your current direction will be displayed on the right of the control panel. To shoot hold the **FIRE** button down and use the joystick to aim. When you encounter the enemy soldiers you cannot move until they have been dealt with.

You will come across several clearings. Some clearings are occupied by the enemy. Shooting all of the enemy soldiers gives you extra bonuses of ammunition and stamina. Pressing the **SPACE BAR** will exit you out of any clearing (Spectrum users, pull back on the joystick and press **FIRE**).

(Atari ST and Amiga owners: As time passes, night will fall. Progress at night is very dangerous. If you have collected the image intensifier, by pressing the **ALT** key you will be able to see clearly).

JOYSTICK CONTROLS

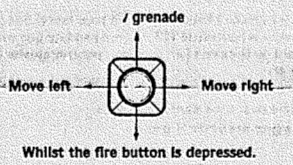


THE VILLAGE
You are allocated a time period in which to complete this section. Your mission is to destroy the enemy camp at the base of Butcher Hill by blowing up the buildings with the grenades. The number of grenades you have depends on how many you have collected earlier in the game. Enemy soldiers will try to escape to bring back reinforcements. Try to shoot them before they reach the front of the screen (should they reach the front, you will receive a time penalty).

Push the joystick forward to throw a grenade. If you hold the **FIRE** button down whilst pushing forward or pulling back on the joystick you can adjust the range of your gun.

Pull back on the joystick to start this section, also pull back to restart if you lose a life.

JOYSTICK CONTROLS



Designed and programmed by Imagitec Design Limited

GREMLIN GRAPHICS SOFTWARE LIMITED
Alpha House, 10 Carver Street, Sheffield S1 4FS.

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BUTCHER HILL™

LADEANWEISUNGEN

CBM 64/128
Kassette: Die **SHIFT**-Taste und die **RUN/STOP**-Taste gleichzeitig drücken. Dann die **PLAY**-Taste auf dem Kassettenrecorder drücken.

Diskette: Die Diskette ins Laufwerk einschieben. **LOAD"*",8,1** eintippen und die **RETURN**-Taste drücken.

Wenn Sie den Titelbildschirm geladen haben und das Licht des Diskettenlaufwerks erloschen ist, die **LEERTASTE** drücken. Die Musik verstummt und die Anweisungen zusammen mit den Anerkennungen erscheinen auf dem Bildschirm. Scrollt der Text zu schnell, drücken Sie die Commodore-Taste zum Anhalten und Wiederstarten des Texts. Die **LEERTASTE** drücken, um den Titelbildschirm zu verlassen. Der erste Spielabschnitt wird jetzt geladen. Nach Beendigung des Ladens eines jeden Abschnitts ändert sich die Mitteilung am unteren Bildschirmrand. Den **FEUERKNOPF** des Joysticks drücken, um mit dem Spiel anzufangen.

SPECTRUM 48K
LOAD"" eintippen und die **RETURN**-Taste drücken. Dann die **PLAY**-Taste auf dem Kassettenrecorder drücken.

SPECTRUM 128K / +2
Die LOADER-Option für Kassetten benutzen.

SPECTRUM +3
Die LOADER-Option für Diskette benutzen.

SCHNEIDER CPC
Kassette: Die Kassette in den Kassettenrecorder einschieben. Dann die **CTRL**-Taste und die kleine **ENTER**-Taste gleichzeitig drücken. Schließlich die **PLAY**-Taste auf dem Kassettenrecorder drücken.

Diskette: Die Diskette ins Laufwerk einschieben. **RUN"DISK** eintippen und die **ENTER**-Taste drücken.

ATARI ST
Die Diskette einschieben und den Computer einschalten. Das Spiel lädt und läuft automatisch.

CBM AMIGA – DISKETTE
Den Computer anschalten und die Diskette einschieben. Das Spiel lädt und läuft automatisch.

TASTATURSTEUERUNG

Die Tasten lassen sich vom Benutzer bestimmen, mit Ausnahme von **PAUSE – P.**

Bei der Spectrum-Version des Spiels die **BREAK**-Taste.

Zu Spielbeginn verfügen Sie über sechs Leben.

SZENARIO

ABSCHNITT 1 – DER FLUß
Fahren Sie in Ihrem Schlauchboot auf dem Fluß entlang und legen Sie an einem der drei Landungsstege an. Sie werden auf Ihrer Fahrt durch natürliche Hindernisse wie Flußbiegungen, Felsblöcke und Schilf behindert. Weichen Sie außerdem den Wasserminen und dem Sperrfeuer des feindlichen Flugzeugs aus.
Glücklicherweise werfen Ihnen alliierte Flugzeuge von Zeit zu Zeit Pakete mit Munition, Erster Hilfe und Bonussen ab. Steuern Sie durch den reißenden Fluß und sammeln Sie diese Bonusse ein.

ABSCHNITT 2 – DER DSCHUNGEL
Lassen Sie Ihr Schlauchboot hinter sich und bahnen Sie sich, nur mit einem Kompaß* ausgerüstet und dem Wissen, daß das Feindesdorf im Nordosten liegt, Ihren Weg durch die dichte Vegetation des Dschungels. Dabei werden Sie auf Lichtungen stoßen, auf denen die feindlichen Streitkräfter Nachschubdepots errichtet haben. Diese werden von Soldaten bewacht, die Sie eliminieren müssen. Droht die Gefahr, daß Sie überwältigt werden, können Sie sich wieder in den Dschungel zurückziehen (dafür den Joystick zurückziehen).

Da jedoch den feindlichen Streitkräften jetzt Ihre Anwesenheit bekannt ist, müssen Sie auf plötzliche Angriffe gefaßt sein. Erscheint ein feindlicher Soldat vor Ihnen, sollten Sie sorgfältig zielen und feuern.

Achten Sie auf Landminen!

ABSCHNITT 3 – DAS DORF
Sie haben sich Ihren Weg über den Fluß und durch den dichten Dschungel zum feindlichen Dorf am Fuße des Butcher Hills gebahnt.

Benutzen Sie Ihr Maschinengewehr und die Handgranaten, um die feindlichen Soldaten zu töten, die auf Sie zu rennen. Achten Sie auf Feindsoldaten, die sich in Gebäuden versteckt halten, und feuern Sie auf die Fenster, um diese zu töten. Oder werfen Sie als Alternative eine Handgranate ins Gebäude.

Das Spiel ist zuende, wenn Sie alle Gebäude des Dorfes zerstört haben ... nur dann sind Sie der Eroberer des BUTCHER HILL.

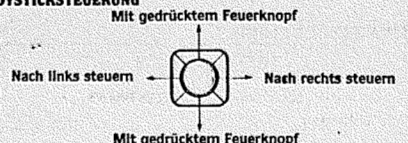
*Vorausgesetzt Sie haben den Kompaß im Flußabschnitt eingesammelt.

BEDIENUNGSANLEITUNG

DER FLUß
Steuern Sie Ihr Schlauchboot, indem Sie den Joystick nach vorne, links und rechts bewegen. Den **FEUERKNOPF** drücken, um auf die Minen zu feuern. Wenn Sie den **FEUERKNOPF** gedrückt halten, erscheint das Zielfernrohr Ihres Gewehres: Behalten Sie den **FEUERKNOPF** in der gedrückten Position und zielen Sie mit Hilfe des Joysticks.

Sie können an einem der drei Landungsstege anlegen. Wenn Sie am ersten Landungssteg anlegen, werden Sie nicht alle für Ihre Mission lebenswichtigen Ausrüstungsgegenstände eingesammlet haben.

JOYSTICKSTEUERUNG

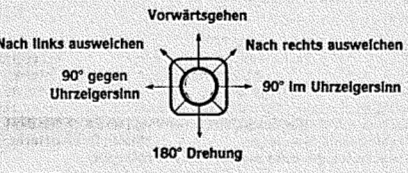


DER DSCHUNGEL
Bewegen Sie sich vorwärts, indem Sie den Joystick nach vorne drücken. Den Joystick zurückziehen, um sich um 180 Grad zu drehen. Für eine Drehung um 90 Grad gegen den Uhrzeigersinn müssen Sie den Joystick nach links und für eine Drehung um 90 Grad im Uhrzeigersinn nach rechts bewegen. Beim Vorwärtsgehen erlauben Ihnen die diagonalen Joystickbewegungen, nach links oder rechts auszuweichen. Haben Sie den Kompaß im Flußabschnitt eingesammelt, so erscheint dieser auf der rechten Seite des Steuerbretts. Zum Feuern den **FEUERKNOPF** gedrückt halten, und den Joystick zum Zielen benutzen. Treffen Sie auf einen feindlichen Soldaten, können Sie solange nich weitergehen, bis Sie ihn beseitigt haben.

Sie werden verschiedene Lichtungen, einige davon von feindlichen Streitkräften besetzt, vorfinden. Das Eliminieren aller Soldaten verschafft Ihnen Sonderbonusse, Munition und Ausdauer. Durch Drücken der **LEERTASTE** können Sie jegliche Lichtung wieder verlassen (Spectrum-Benutzer müssen dafür den Joystick zurückziehen und **FEUER** drücken).

(Für Atari St und Amiga: Im Verlaufe der Zeit bricht die Nacht herein, und die Fortsetzung Ihrer Mission wird viel gefährlicher. Wenn Sie den Nachtsichtverstärker eingesammelt haben, können Sie jetzt durch Drücken der **ALT**-Taste klar und deutlich sehen).

JOYSTICKSTEUERUNG



DAS DORF
Ihnen steht nur eine beschränkte Zeitspanne für die Beendigung dieses Abschnitts zur Verfügung. Ziel Ihrer Mission ist es, das Feindescamp am Fuße des Butcher Hills zu zerstören, indem Sie alle Gebäude mit den Handgranaten in die Luft sprengen. Die Anzahl Ihrer Handgranaten hängt davon ab, wieviele Sie im Spielverlauf eingesammelt haben. Die Feindsoldaten werden außerdem versuchen zu fliehen, um Nachschub herbeizuholen. Töten Sie sie, bevor diese den vorderen Bildschirmrand erreichen können (sollte dies dennoch geschehen, erhalten Sie eine Zeitstrafe).

Den Joystick nach vorne bewegen, um eine Handgranate zu werfen. Wenn Sie den **FEUERKNOPF** gedrückt halten, während Sie den Joystick vorwärts oder rückwärts bewegen, können Sie die Schußreichweite Ihres Gewehrs neu einstellen.

Ziehen Sie den Joystick zurück, um diesen Abschnitt zu starten, oder auch, wenn Sie ein Leben verloren haben und weitermachen wollen.

JOYSTICKSTEUERUNG



Design und Programm von Imagitec Design Limited.
GREMLIN GRAPHICS SOFTWARE LIMITED.
Alpha House, 10 Carver Street, Sheffield S1 4FS.

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CHIMERA

© SHAHID AHMAD 1985

THE GAME
The airlock shuts with a dull 'thud' behind you, and you are aboard the strange, silent craft; its weapon systems primed, and centred on Earth. Your task is to discover the inbuilt self destruct mechanism which is known to exist; initiate it, and if possible, escape prior to detonation. Other details regarding the mission cannot be assimilated at this time, but some further information regarding the self destruct system is given here:-

(i) The detonation sequence is initiated by a four stage integrated priming mechanism.
(ii) Each priming mechanism requires the completion of a multi-stage Disablement of Artifacts (DOA) sequence.
(iii) The first DOA sequence is known to require a spanner.
(iv) Attempts to initiate any of the priming sequences in the incorrect order will result in the termination of the operator, and cancellation of any previous missile priming orders.

Conditions aboard this craft are known to support life; finite supplies of food and water are present.

LOADING
1. Place the tape in the cassette unit and rewind to the beginning.
2. Hold down CTRL and press the small ENTER key.
3. Press PLAY on the cassette unit.

NOTE: Full loading instructions can be found in your Amstrad Manual.

PLAYING THE GAME
You can control CHIMERA's movements with the keyboard, after selecting the keys most suited to you. However, the SPACE BAR will always be set to PICK UP/ USE.

A couple of hints:-
Always keep a keen eye on the scrolling message indicator.
Make a map.
Not all objects are completely visible from the main display.

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If this program is faulty and fails to load please return it to the address below and it will be replaced free of charge. This offer does not affect your statutory consumer rights.

BUGSY INTRODUCES DA GAME

(The girls wanted to do this bit, but how can you refuse a cute little blue rabbit with a machine gun?)

Okay youse joiks! Lissen up an' lissen good.
My name's Bugsy. Bugsy Maroon. I'm a pale blue rabbit some three feet in height wit' a cute little powder-puff tail. But that don't mean I ain't as tough as pickled walnuts 'cuz I am.

I live in Chicago in 1922 and my aim in life is to take over the mobs an' become Public Enemy No. 1 in place of that fat wimp Capone.

I ain't averse ta takin' some advice frum keyboard-bashin' computer buffs providin' they watch their lip wit' me. But I'm gonna warn ya right off - it ain't gonna be easy.
Ya gotta help me woik my way up from a penniless street bunny ta the dizzy heights of a crimelord. Startin' wit' petty theft an' small-time protection rackets I gotta make the money ta buy guns, hire boys an' build up a serious mob.
An' if ya t'ink the other mobs is just gonna sit around an' let me do it you're a sucker. The cops might be a minor problem too.
Dere's also da problem of - uh - gettin' anyone ta take me seriously.

Da game feechers a great new menu-driven conversation system which means ya can get me inta smart-mouth conversations wit' any of the various characters in da game. You'll believe a rabbit can shoot his mouth off.
In order ta succeed in da game I gotta not only build da gang, pull off da jobs an' get my paws on da big money - I also gotta acquire da status symbols of da successful crimeboss. Big cars, a swell place ta live, ya know da sorta thing.
Da racket business is just like da software business. If ya wanna be successful, ya gotta get in da charts. It's gonna be a big day when I foist make it ta Public Enemy No. 10, but I ain't gonna be happy 'till I'm right up dere at No. 1, knockin' fatso off his perch.

Okay, I guess I flapped my mouth long enough. Now let's get in dere an' start doin' business.



INSTRUCTIONS

To load **Bugsy**:

CBM 64/128	Press SHIFT and RUN/STOP.
SPECTRUM	LOAD""(ENTER).
AMSTRAD	Press CONTROL and small ENTER key.

In this game the computer accepts simple English sentences such as "ATTACK THE HOODS", "ROB THE BANK", etc.
CHARACTER INTERACTION: To talk to a character type TALK TO (name of character). You will then be presented with a menu of options which will allow you to guide Bugsy through conversations with the other characters in the game. This is important as progress in the game depends on successful interaction with the other characters.
Other special commands include:
INVENTORY (or I) which will list the things you have with you.
LOOK (or L) redescribes your current location.
CASH tells you how much money you have made.
TIME tells how many game minutes you have taken.
SCORE gives your score. In the early part of the game this is measured simply by the money you have made, but as the game progresses it will show your position on the list of Public Enemies.

QUIT (or Q) ends the game.

SAVE and LOAD allow you to save and restore your position on tape or disc. There is also a special facility which allows you to save your position instantaneously in to the computer's memory. To do this just type SAVE or LOAD as normal and answer RAM to the prompt "Tape/Disc or RAM?".

TEXT and GRAPHICS: Every location in this game is illustrated. If you prefer a text-only adventure just type "TEXT". Type "GRAPHICS" to turn the graphics back on.

BUGSY was written with The Quill (although you wouldn't know it!) and no N*sc*fe at all!

GRAHAM GOOCH'S TEST CRICKET

Graham Gooch's Test Cricket is an accurate simulation of the game of cricket which allows you to stage test matches in your own living room - with the help of your Amstrad computer and joystick. If you prefer one day cricket, you can choose from three different limited over matches - 40 overs, 55 overs, and 60 overs.

LOADING THE PROGRAM
Place the tape in your cassette recorder and make sure that it is rewound to the beginning. Type **RUN""** and press **ENTER**.

PLAYING
One or two can play. Player One must use a joystick, but Player Two can use either a second joystick, or the keys 6 and 5 (up/down), R and T (left/right), and G (fire).

Graham Gooch's Test Cricket allows two modes of operation: *simulation mode* is like watching a real game of cricket. Once you've chosen the teams and the game is underway, you can just sit back and watch if you like. However, you needn't just be a spectator - whether your team is batting or bowling, you can make tactical changes whenever you wish.

In *arcade mode* you must be alert at all times whether you are batting or bowling. A careless stroke, or a loose over could cost England the match!

GAME AND TEAM SELECTION
First of all the computer will give the option to edit the two squads built into the program. Then you must decide whether to play a one day match (one innings each side, limited overs) or a test match (two innings each, unlimited overs). One day matches can be of 40, 55 or 60 overs each side. Move the joystick forward or back until the arrow points at your choice of game, then press the fire button. Next select a one or two player game, then either simulation mode or arcade mode. There are nine different skill levels in arcade mode when you play against the computer - level 1 is easiest, level 9 the hardest.

Teams are chosen from a squad of 20 players using the joystick. Move it forward or back, then press the button to select a player. You can cancel a selection by pressing the fire button a second time. England always call at the toss.

WHEN YOU ARE BATTING
Simulation Mode
Use the joystick to determine the batsman's tactics - push it forward to make the batsman play aggressively, pull it back for defensive batting. Press the fire button with the joystick in the centre to make the batsman play normally, that is neither more aggressive or more defensive than usual.

A bleep will sound to confirm that the computer has accepted your instructions. Remember that the batsman won't be able to hit every shot to the boundary (and he might well get himself out) if you ask him to play aggressively. Playing defensively, the batsman is less likely to get out, but he won't score so many runs either.

Arcade Mode
In this mode, the batsman always plays aggressively. The joystick fire button is used to determine the timing of each stroke. If you don't press the fire button at all, then the batsman will offer no stroke. Mistime your stroke, and you may give up a simple catch; miss the ball altogether, and you may hear the wicket tumbling behind you. Time it just right, though, and you'll make a glorious stroke, sending the ball crashing into the stand for six, or speeding across the boundary for a four.

WHEN YOU ARE BOWLING
Simulation Mode
Use the joystick to determine the bowler's tactics: just before he starts his run up move the joystick left for an offside attack, or right for a legside attack. A bleep will sound to confirm that the computer has accepted your instructions.

Arcade Mode
Move the joystick left for an offside attack, or right for a legside attack, then press the fire button to confirm your choice. You can improve the bowler's performance in arcade mode by moving the joystick from side to side as he runs up to bowl. The faster you move the joystick, the more effort he puts into his bowling - an indicator at the top right shows how much. If you don't move the joystick at all, the bowler will play well below his best - so it's all up to you.

OTHER IMPORTANT POINTS

- fast bowlers will tire if you bowl them continuously: after 10 overs their bowling will start to deteriorate; after 20 overs they will be well below their best. Allow fast bowlers at least 10 overs rest between spells
- in a test match the fielding side can take the new ball after 85 overs have been bowled
- to declare an innings before all ten wickets have fallen, press the ESC key during an over. At the end of the over you will be asked whether you wish to declare
- in limited over games the number of overs each player can bowl is limited to one fifth of the total (eg. 8 overs in a 40 over game)
- in a test match, the follow-on can be enforced if the side which batted first has a lead of 200 runs or more
- hold down the **RETURN** key (or large **ENTER** key) to speed through the scoreboard displays
- press **CONTROL**, **SHIFT** and **ESC** to go back to the beginning of the program

CHOOSING YOUR OWN TEAMS
If you decide to pick your own squad of players, the computer will display a menu of options:

Swap team order
Edit team
Save teams
Load teams
Exit

England are normally the home team and Australia the away team, but swapping the team order makes England the away team. Editing a team allows you to change the entire squad (and the team name, if you wish) or merely change one or two players.

For each player you must enter his name, batting average, bowling average and whether he is a fast or slow bowler. Press **RETURN** (or **ENTER**) to move on to the next item, but if you want to make a change, first delete the existing information, then type the new entry. Batting and bowling averages cannot exceed 99.

When you have finished selecting the two squads, you can save them to tape allowing you to reload them another time.

LOADING INSTRUCTIONS

Loading Instructions for the Amstrad with disc (I) tape. All Amstrads CNTL/enter.

AMSTRAD CONTROLS

All the keys are user definable from the menu screen.
Default keys:

O = LEFT SPACE = FIRE P = RIGHT

A = USE Q = JUMP

JOYSTICK CONTROLS

FORWARDS = JUMP BACKWARDS = USE FIRE BUTTON = FIRE

LEFT = LEFT RIGHT = RIGHT

In order to reset the game during play press ESCAPE and DELETE together.

THE GAME

You control a little character that moves by turning end over end. His name is Hickey.

Hickey is capable of using three objects to extend his range of movement during the game. These will consist of small diamond shapes "Sweets" that Hickey can eat. These come in three colours and effects.

1. Red :- Allows you to move faster
2. Blue :- Allows you to jump higher
3. Green :- Allows you to fall further

You cannot use a sweet until you have picked it up and pressed the USE key. The effect generated will last until you pick up another object or use another object, after that the effect will cease.

During the game there will be times when you need to jump higher or fall further than you can, even if using a blue or green 'sweet'. In order to help you there will be spring platforms to enable you to jump higher, and mattresses to fall onto.

The display panel will be split into three windows. In the first window is the Object that you are holding; in the middle window is your Status Display and the third displays your remaining Lives.

STATUS DISPLAY

On the bottom is a display of the "Twang" remaining on this level. This is the time left before the captured Kreezer on this level is eaten. If this timer runs out the game is lost.

Top left is your score, displayed in numeric and graphical format.

The middle of the display informs you of how many Kreezers are yet to be rescued.

Far right is your ammunition.

Many of the monsters are deadly and a life will be lost on contact with them. You have five lives to begin with and will be given chances during the game to gain extra lives.

To increase your ammunition you can use various objects which can be found scattered around the caverns.

BASE LEVEL - B to activate: Controls how many 'levels' of pattern are plotted.

COLOUR change - J to activate: Allows you to set the colour for each of the seven pattern steps. Set up the colour you want, press ENTER, and the command offers the next colour along, up to no. 7, then ends.

Now some other commands, not variables:

TRACKING on/off-T: Controls whether logic-seeking is used in the buffer or not. The upshot of this for you is a slightly different feel -continuous but fragmented when ON, or together-ish bursts when OFF. Try it.

AUTO DEMO on/off - A: PSYCHEDELIA plays itself if you want.

STORE on PRESET KEY: SHIFT plus any of the preset keys: Stores all the parameters for later, instantaneous, recall by pressing that preset key. Use to store your favourites for recall instantly without fiddling with all the parameters. 8 presets available.

RECORD/PLAYBACK: Shift-V to start recording, V alone to playback or stop: PSYCHEDELIA can record about half-an-hours' worth of joystick input in its memory. Start recording and play as normal - you get a coloured border whilst recording. When you've done enough press R to stop. Pressing R again starts playback. Try playing back under different parameters, different presets etc. Adjust parameters while you're playing back a display to see what happens. PSY drops out of Record automatically if it runs out of memory.

BURST GENERATORS: SHIFT plus keys Q,W,E,R to program, key alone to activate. These allow you to preprogram and recall at will instantaneous flashes on the screen. Set up symmetry and smoothing delay as required, then press SHIFT plus the key (Q,W,E or R) to which you want to assign your FX. Move the cursor to where you want a burst then press FIRE to enter that point. Do this up to 16 times. Press ENTER when done. Pressing the key thus assigned stuffs all the points you defined into the buffer instantaneously. Don't worry about it - try the ones I've defined!

SEQUENCER: CAPS SHIFT-F to program, F to toggle on/off: Preset patterns are played back in a sequence you determine.
Programming is as for the Burst Generators, but you have the freedom of 255 steps allowed played back at varying speeds via the Sequencer Speed control. You can leave the program mode in two ways: press SPACE, and next time you go back in with SHIFT-F the stuff you already defined is not cleared and you add to the end of it, or press ENTER, and the next time you go in the sequencer is cleared. Use the SPACE option to change pattern in mid-sequence, for example, or to 'see how it looks so far'.

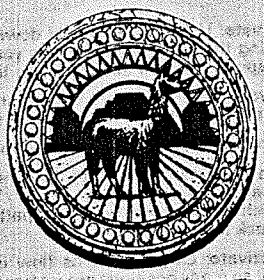
SAVING AND LOADING: You can SAVE and LOAD your favourite sequencer contents, pattern shapes and preset settings, or the joystick dynamics data created by the RECORD option. Press SHIFT-S to start the SAVE. Likewise SHIFT-L prepares the computer to read a tape you've previously stored parameters on.

EDITING THE PATTERN ELEMENTS: There are 16 elements you can define for yourself. To get into pattern edit mode press shift-M to edit the current shape. The screen clears and the cursor centres. Each pattern is composed of seven **levels**. Level One is preset, always just a single white dot. You can determine the positions of the pixels in Level 2-7. Move the cursor to where you want a pixel, then press FIRE to enter it, as in Sequencer and Burst. You can define up to seven pixels per level. Press ENTER when you've done enought pixels on a particular level and the option proceeds to the next level, until level 7 is completed. Remember, the more pixels you have the slower the finished pattern will run. You can place pixels anywhere on the screen, they don't have to be around the centre Level One pixel at all. Don't worry if this sounds complex, just get in there and have a bash, you can't do any damage!

Whew! Quite a lot to digest - but the best way is to just learn by experimentation. Play with the values and see what happens - just like you'd tinker with a synthesiser. Above all, use it as it was intended -along with your favourite music. (At last I've discovered a cure for air-guitarring!). Freak out with it. Have fun. Take it to parties and have LOTS of fun. Come along to the next computer show and give a public performance! Blow minds with it, freak out your granny. Be creative with it. Let me know if you like it! Keep it next to your hi-fi!

PSYCHEDELIA. I hope you enjoy playing with it as much as I do.

The following all in some way inspired this creation: Roger Waters, Dave Gilmour, Nick Mason et al., our Phil with the bald patch, KMEL 106FM, Ronnie James Dio, the Purple, Isso Tomita, Rush, Steve Hillage, Yes, Led Zep, and many more... The Hairy One is pleased with himself this time... perhaps because The Hairy One has played with nothing else on his 64 for 3 weeks... If this blows your mind then you're on the same brainlength as me. See you out by Alpha Centauri.....



LLAMASOFT

ORIGINAL SOFTWARE DESIGN

LLAMASOFT SOFTWARE, 49 MOUNT PLEASANT, TADLEY, HANTS

LLA 71001



AMSTRAD CPC 464

AN ENTERTAINMENT by Jeff Minter.....

An Explanation of the Concept...PSYCHEDELIA is really the culmination of several months' idle thinking. I love games, but occasionally I'd think 'there must be some OTHER way of enjoying yourself using the computer...' I also love music, and I'd daydream about creating... something... you could do to music, something you could put on the screen at a party and anyone could come up and have a go, something you'd do just because you enjoyed it, something others could enjoy even if they weren't actually doing it themselves. Gradually the idea solidified into the concept of a light-show generator, something interactive, creative but simple enough so that anyone could do it, yet complex enough to produce breathtaking results once learned well. A program to do for light, in fact, what a synthesiser does for sound.

PSYCHEDELIA is the realisation of that dream. Some idle tinkering on a Sunday afternoon produced such startling results that all other work was dropped in order to pursue the development of my Light Synthesiser at last. Many evenings were spent in darkened rooms just freaking out to music and DOING it. Demos were given, minds were blown and a good time had by all. PSYCHEDELIA is a completely new way of enjoying your micro. If you love music, if you love graphics, if you are creative then you'll enjoy PSYCHEDELIA. You'll boot it in when you turn on your hi-fi. You'll find an appeal totally different to that of even the best games. You won't get bored, because the pleasure is as fundamental as that of listening to music, and you'll create different, dynamic light shows each time you use the program.

PSYCHEDELIA is the high point of my designing career so far. The concept is simple, the programming not too complex but the parts combine synergistically to create a whole which has given me the most pleasure to use and the biggest pride in design, of anything I've ever programmed.

Enjoy PSYCHEDELIA. This one comes straight from the heart.

Loading PSYCHEDELIA: Load the program using the auto-load: hold down CTRL and press the ENTER key on the numeric pad. You'll see the title appear as the load progresses, and once loading's over you'll see the basic PSYCHEDELIA screen, black with a single pixel on it. You're now ready to go.

Using PSYCHEDELIA: I'll give various levels of information, you can enjoy even the simplest level but as you continue you'll probably want to learn how to operate the Light Synthesiser's more complex options. The program uses a Joystick plugged into the Joystick port.

First encounter: (a) Turn off the lights. (b) Put on whatever music you like to freak out to. (c) Pick up the joystick and do it with feeling!

Variations: Try pressing any of the keys 1-8. This calls in one of the 8 **presets**, stored Lightsynth parameters which give different effects. Try them all out to see some of the multitude of effects which you can achieve using the system. Some are fast, some slow, some pulse, others swirl. Play with them all, try them to different music.

Basic Commands: Choose a pattern you like and get ready to experiment. Press **S** to change the Symmetry (The pattern gets reflected in various planes, or not at all according to the setting). Press **SPACE** to alter the pattern element. Press **I** to change the shape of the little pixels on the screen. Press **L** to turn on and off the Line Mode - a bit like drawing with the Aurora Borealis.

More Advanced Commands: I'll divide these into **Variables** and **Others**. Variables, when activated, bring up a little graduated bar at the bottom of the screen representing the current value of that variable. Use the and keys to alter the value to what is required, and press ENTER when you're happy. You can play with the current settings while the bar is still on the screen, and you can alter the parameters whilst pattern generation is actually occurring. (Clever little things - those interrupts!).

Variable Commands

Cursor Spped - H to activate: Just that. Gives you a slow or fast little cursor, according to setting.

Pulse Speed - P to activate: Usually if you hold down the button you get a continuous stream. Setting the Pulse Speed allows you to generate a pulsed stream, as if you were rapidly pressing and releasing the FIRE button.

Pulse Width - O to activate: Sets the length of the pulses in a pulsed stream output. Don't worry about what that means - just get in there and mess with it.

Line Width - K to activate: Sets the width of the lines produced in Line Mode.

Smoothing Delay - D to activate: Because of the time taken to draw larger patterns speed increase/decrease is not linear. You can adjust the 'compensating delay' which often smooths out jerky patterns. Can be used just for special FX, though. Suck it and see.

Buffer Length - N to activate: Larger patterns flow more smoothly with a shorter Buffer Length - not so many positions are retained so less plotting to do. Small patterns with a long Buffer Length are good for 'streamer' effects.

Sequencer Speed - G to activate: Controls the rate at which the sequencer feeds in its data. See the SEQUENCER bit.



GLASS

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QUICKSILVA

The most powerful games in the Universe!

Loading the program
Cassette: Press CTRL and ENTER
Disc: Run "DISC"

Game Play

Combat-ready star-fighter pilots are needed urgently.
The enemy have built three cities. This simulator takes you through a series of screens. Destroy the outer radar defences, smash the pseudo-conscious Metalliks, but keep your shields up. If your shields collapse you can continue in the game.
Fly the plains of Glass and reach the cities. Your score will decide your crew status level. There are 14 levels of excellence to pass through. Your current standing will be displayed at the end of each mission.

Can you make Game Lord status?

Game Controls
Keyboard: Left-O, Right-P, Up-Q, Down-A, Fire-SPACE

To order any Quicksilva game send a cheque or postal order to:

Quicksilva Mail Order: Units 1 & 2, Conlon Developments, Watery Lane, Darwen, Lancs.

Bibliography

If you enjoy the atmosphere of Dun Darach, you may wish to read the following books:

The Green Magician by L. Sprague de Camp.
Swords of Lankhmar by Fritz Lieber.
Lyonesse by Jack Vance.
The Corum Books by Michael Moorcock.
The Chronicles of Prydain by Lloyd Alexander.

In addition, the following books have proved useful in gathering source material:

Celtic Mythology by Proinsias MacCana.
The Golden Bough by J.G. Fraser.

Acknowledgements

The cover picture was specially commissioned and was produced by S.B. Graphics of Birmingham.

The idea of door numbers came from Roger Kean; the 'feel' of Dun Darach owes much to Fritz Lieber; additional background material was provided by Stuart Hoggard; Martin Croft is responsible for the title.

Dun Darach is manufactured and marketed by **Gargoyle Games Ltd.,** 74, King Street, Dudley, West Midlands.

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– by selling at a profit; throughout the seven Universes, the Entrepeneur will always flourish.

– by stealing; highly profitable but very risky.

– by banking; a wise move, and a reasonable interest rate.

Iridi can also be disposed of by many routes:

– by buying an object from a shop – pick up the object and offer money to the shopkeeper who will deduct the appropriate amount. Of course, you could try not paying . . .

– by bribery, but, beware, the denizens of Dun Darach will never give you change . . .

– by being robbed – oh well.

Extract from 'Dinn Nemeton' – the History of the Sacred Grove, an Anonymous, Ancient and Secret Writing, which may not be published in full.

From the void sprang forth Lightning, that split asunder the long Night to reveal the World to the sight of Men; and the Voice of Darkness torn was Thunder, which rolled in majesty from mountain to valley and from river to sea; and the shape of Thunder in the World was the Oak, whose roots bound together the fabric of the earth, on whose branches rested the canopy of the sky; and the site of the Sacred Grove wherein rested the Oak was called Dun Darach, the Hill of the Oak, and this was the most secret of knowledge and was entrusted only to the chosen of the Druidhan.

But the Druidhan were also of the race of Men, and needed food and clothing and shelter, and there were ever those on hand to supply their needs. In time, the knowlege of the Oak seeped abroad, and the Druidhan surrounded the Grove with a Great Castle, to hide it from eager eyes, and the castle was also called Dun Darach, and for a while, the secret was contained.

But, alas, the Pendulum of History had been set into motion, and around the castle grew a great City, built and inhabited by many Men, who also called their city Dun Darach, and knowledge of the Sacred Oak filled the city with strange tales and the minds of Men with longing.

In desperation, the Druidhan called a great conclave of all the strongest of their Order and worked together a mighty Magic. And in that instant, a cold white mist settled on Dun Darach, and the city, and all it contained, was freed from the bounds of the World and set to drift on the Tides of Time.

Like a floating log in a dark sea, the shrouded city still comes to rest on Mortal shores, and the black towers of the castle rear starkly from the white mist. It is said that, at such times, there is much furtive activity around the city gates and its streets are forever in Twilight. Alas, Dun Darach has become a melting pot for diverse cultures and a grim shield for the dregs of the race of Men.

– select an object being carried for dropping, offering, etc. – the currently selected object is indicated by an asterisk.

Note that Cuchulainn can carry 3 separate objects plus a large amount of money.

In addition, there are some special function keys:
– enter/exit Autorun mode.
– freeze/unfreeze frame.
– return to Option screen.

How to play Dun Darach

The main objective of Dun Darach is to locate and release the charioteer, Loeg. But, as you walk the streets of the Secret City, you will encounter scores of secondary quests which will need to be completed before a final solution is reached. Each player will develop his or her own strategies as they progress through the game – there is no set route to solve the Quest – however, as a guide, we will describe the elements involved in Dun Darach and give a few hints on play.

The City

The layout of Dun Darach is as complex as any normal large city, and the streets and buildings are continuously mapped by the program. You will notice the following logical sub-divisions:

– the city itself is divided into a series of Quarters, each of which possesses a distinctive character – for instance, one Quarter is involved with entertainment, another houses all the financial institutions.

– to aid the explorer further, each Quarter consists of several named districts.

– every street in Dun Darach bears a street name; every door that opens onto the street carries a house number.

– behind every door there is a room or set of rooms, which may be occupied or empty.

The Population

While some of the other characters in Dun Darach stick single-mindedly to their assigned tasks – for instance, shop-keepers – the streets are full of independent, fully-animated characters, each with their own personality. Most of them have something which you will need, like specific objects or information or the knowledge of a secret way and all of them are open to bribery, either directly, with money – normally a large amount – or by some object which they themselves desire or need. Note that you cannot be killed in Dun Darach (another city ordinance?) but you will be fair game for pickpockets, confidence tricks and other normal city street activities.

Note that the other game characters are represented by one basic female figure and one basic male figure; when a new character appears on screen, an identifying symbol appears beneath the figure and the full name is shown in the text display.

The Currency

The units of currency in common use in Dun Darach are Iridi (literally – Rainbows); these are small gold sequins, variously coloured in the minting process. Iridi can be gained in a variety of ways:

– by working! Opportunity to gain a steady job exists in several parts of the city.

– by gambling; a visit to the Gaming Houses can be lucrative – or disastrous . . .

The Scene is Set . . .

It happened that, following a fateful, bloody and largely pointless battle against the Conachta, Cuchulainn the Great was returning home to Muirmethne in company of his faithful charioteer, Loeg; pointless because the enemy was a scouting party and not intent on taking the peak of Beann Ghulban, below which the battle took place; fateful because, amongst their number was Amhair, a Prince of the Conachta and the darling of his father, who vowed an instant revenge. . .

Towards the end of the second day, Cuchulainn and Loeg came across a wayside inn and went inside to claim lodging and sustenance, leaving their war chariot by a strange horse-drawn carriage, surmounted by a huge Oak Log. While they waited for food, they were approached by Skar, a strikingly beautiful girl, who told them that she was the owner of the strange carriage, but was desperately troubled for her conveyance had developed a shattered axle. With somewhat unseemly haste, Loeg leapt to assist her and left the inn with Skar.

Cuchulainn smiled to himself and settled down to enjoy the freshly arrived trencher. After a while, he went outside to see what progress Loeg might have made, but was astonished to find no sign of Skar or Loeg. Instead, one of the proud horses that pulled the chariot lay slain on the ground; of the Oak-carriage, there was only a cloud of dust disappearing along the Eastern road, and on the wind, a hint of ghostly girlish laughter. In a growing rage, Cuchulainn went back inside the inn and shook the terrified landlord until the full story was revealed.

Skar was, it seemed, a Sorceress and ally of the Connachtmen, and she had seized Loeg as retribution for the Princeling's death, and taken him, body and soul, to the Secret City of Dun Darach.

Vowing a mighty vow, Cuchulainn mounted the remaining horse and took off to find the mist-shrouded city. Long was his search and the trials he endured form part of a different story, but, in time, he found Dun Darach, for in truth, that was where the Secret city was located . . .

How Dun Darach Works

The Option Screen is presented at the start of the game or upon request via the keyboard; the screen offers the following choices:

1. Enter the Game
2. Save the current Game
3. Restore a Game

Note that returning to the option screen from a current game will leave the game-world intact – upon re-entry, nothing will have changed unless a previously saved game has been restored. This allows a game to be saved at a critical point without destroying it.

When saving or restoring a game a version number will be asked for – this is to ensure that the right game is restored, so keep a note of version numbers.

The Keyboard controls the actions of the main character – which keys perform which actions on your particular make of computer are given on a separate card.

The following actions may be performed:

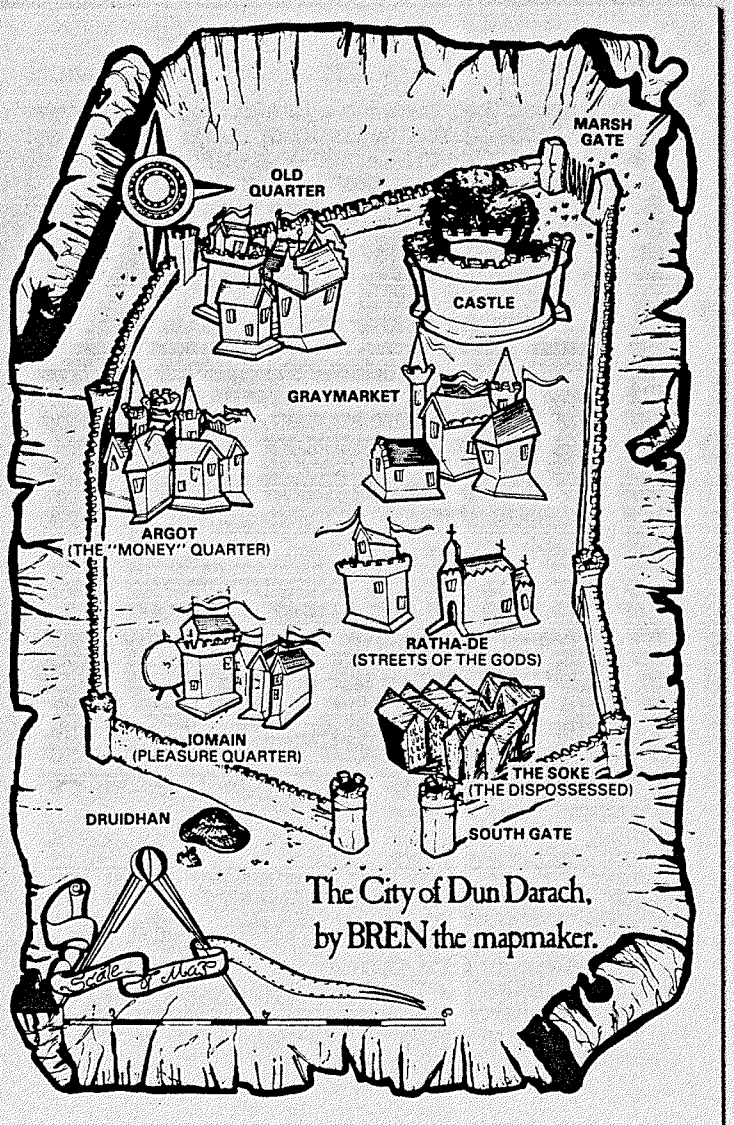
– walk left or right.

– change camera angle 90 degrees left or right.

– enter a doorway; to achieve this on any computer, position Cuchulainn in front of the door and press the enter button.

– pick up or drop a specific object; note that objects may only be dropped in certain places – i.e. shelves, counters, etc. Whether this is in compliance with some whimsical city ordinance or merely an inborn sense of tidiness is unclear...

– offer an object to another character – this will produce a display in front of Cuchulainn of the proffered object – what happens next will depend how well you have judged the other character's personality!


MARSH GATE
OLD QUARTER
CASTLE
GRAYMARKET
ARGOT
(THE "MONEY" QUARTER)
RATHA-DE
(STREETS OF THE GODS)
IOMAIN
(PLEASURE QUARTER)
THE SOKE
(THE DISPOSSESSED)
DRUIDHAN
SOUTH GATE
Scale of Miles
The City of Dun Darach,
by BREN the mapmaker.

Extracts from "Co'tha Co", also known as Liham's "Lives".

LOEG Charioteer and Companion to Cuchulainn, imprisoned in Dun Darach by Skar.

SKAR A Sorceress, well versed in all aspects of the Arcane, but her principal attribute is the power of Invisibility.

TETH The jailer of the Castle of Dun Darach, who is himself held captive by the Rats for undiplomatically removing the tail of the late Rat King.

BREN Master Mapmaker from Aquitaine, he was exiled for Trickery and Fraud.

DAIN A strange and mystic man, lately drawn to the Bardic orders.

MHOR A gentlewoman, skilled in the lore of books, who followed a disinterested Dain to Dun Darach.

RYDE The Galician Pilot, who yearns for his homeland but alas his charts were lost in the shipwreck that brought him to Dun Darach.

PITA A courtesan, whose desire for jewellery and fine ornamentation is matched by her desire to gossip!

KARA A pickpocket, who, with her sister KELI, found it prudent to leave the southern city of Cantabria.

KELI A pickpocket, twin sister of KARA.

KAHN Burglar and pickpocket of the Fir Bolg race, he is renowned for his unremitting greed.

LOADING DUN DARACH
on the Amstrad CPC464

1. Press CTRL and the small ENTER button together.
2. Press the PLAY button on the cassette recorder, and then press any key on the computer.
3. DUN DARACH will now load automatically.

SAVE Game and RESTORE Game are described in the booklet — note that SAVE/RESTORE time is about thirty seconds.

Keyboard Assignments.

Walk Left/Right — Alternate keys on the bottom row, Z to/

Enter a Door — The ENTER Key.

Camera Left/Right — Alternate keys on the second row, A to]

Pick Up/Drop — Alternate keys on the third row, Q to [

Select Object — Top Row, 1 to CLR

Offer Object — The SPACE bar.

Autorun on/off — The 4 key, on the separate Numeric/Function Block

Freeze/Unfreeze — The 5 key, on the separate — Numeric/Function Block

Return to Options — The 6 key, on the separate Numeric/Function Block.

THE FINAL MATRIX

By S. Marsden & D. Cooke

When the Universe appeared, two forms of life were to evolve – the organic types like humans, and the mechanical forms such as Bioptons. The Bioptons are a very friendly race and they live on a planet called Pludos. Unfortunately a group of Bioptons were on a space outing when their spaceship was intercepted by the hostile Cratons. They were all taken hostage and guarded closely on the Cratons Matrix network. This sinister network of 'space prisons' are very well protected from attack and it is impossible to get a rescue craft down to retrieve the hostages. There is only one way to rescue the Bioptons – a brave and courageous Biopton must approach each Matrix in his spaceship and then actually land on the Matrix himself to rescue the hostages individually.

Poor Nimrod! He has been chosen by the Biopton Government as the one to rescue all the hostages. The task is a difficult and challenging one – for a start nobody really knows how many hostages there are to rescue and their location is anybody's guess! The only consolation for Nimrod is that you can help him find the helpless Bioptons with the aid of a spaceship fitted with the ultimate in Biopton navigation aids – the Pentavision.

The Pentavision display shows a map of the stars in the Craton galaxy and also the Matrix positions. As you steer the ship through the stars, you should manoeuvre a Matrix into the red section in the middle of the Pentavision screen in order to enable Nimrod to land upon that Matrix. When a Matrix has been centred in this way, press fire to enable Nimrod to go through with the automatic landing sequence.

Each Matrix is named and has a defensive power according to the number of times Nimrod visits that particular Matrix. Obviously Nimrod should try to visit a Matrix only once – or risk being dematerialised very quickly! The ship's console also tells Nimrod how many hostages have been rescued and how much time is left. The Cratons told the Biopton Government that they would give them 99 Aeons before executing the hostages! (An Aeon is an infinitely long period of time but you the player don't have to wait that long – your Aeons are approximately one Earth minute long).

Once Nimrod has landed on a Matrix, he will be equipped with a simple weapon device. This will give a small amount of resistance to attack but there are other weapon units to be found scattered around the Matrix – like the powerful Megabolts which can even blast away heavy block-like obstructions. Nimrod is normally confined to the ground but if he finds a Thrustpak, his weapon fire button becomes a thrust control. This upward thrust is limited to twice Nimrod's own height, but should prove useful in getting around. To obtain any weapon or thrust device, Nimrod has only to touch the unit. Note that the weapons do use up the ammunition, and that the thrustas only have a limited fuel supply!

Where Nimrod lands on the Matrix is also the place where he must launch himself – hopefully with the rescued hostage – back to the spaceship. To help him locate the landing position, the display shows which direction relative to Nimrod the take off position is. To return to the spaceship, position Nimrod on this site and press fire. Assuming Nimrod was stationary, then he will launch himself off the surface of the Matrix and go back to the spaceship. If the hostage was near to Nimrod at the take off site, then the hostage will copy Nimrod and also launch himself off the surface.

Fortunately, the Cratons installed a TV monitoring system which was never actually used by the matrix inhabitants. Nimrod can, however, stand upon a TV monitor and gain valuable information about the Matrix he is on. The will also provide Nimrod with a map layout of the Matrix.

The Matrix has a very sophisticated security system and has various means of coping with Nimrod or any other foreign visitor for that matter. There are:

1. Guards.
2. Disruptors.
3. Mines.
4. Floor pad operated doors.
5. Heavy obstructions.
6. Wire framed antagonists.
7. Rebound thrust squares.
8. Energy loss squares.
9. Deadly black ice.

The guards patrol certain parts of the Matrix and their movement is in straight lines which can track Nimrod's movement. They will take pot-shots at Nimrod and are very dangerous.

The disruptors are just that! They are spherical and fast moving and they will knock Nimrod off course – or anything else for that matter – be warned.

A mine means instant death for Nimrod or the hostage.
Doors can be opened by standing on a floor pad switch.
The wire framed antagonists are a sinister form of defence devised by the Cratons. They don't really do anything except push Nimrod where he doesn't want to go.

The rebound thrust squares make manoeuvring very tricky – watch out for them!

Energy loss squares are also to be avoided unless Nimrod is feeling strong.

Should Nimrod be positioned on Black Ice, his energy will be sapped very quickly – manoeuvre him to the nearest floor to stop the energy drain. Try to find a refuelling square to build up his energy.

One remarkable thing about the Cratons is that the company which was responsible for constructing the Matrix network – Associated Craton Enterprises (A.C.E.) – were just like any Earth bound construction company in that they left all their building materials lying around. A few miscellaneous crates here and there – some filled with concrete and obstructing movement through the Matrix, and a few lightweight crates can in fact help Nimrod to rescue the hostages.

Having located a hostage, the hostage will follow Nimrod and the task now is to return to the take off site. The job will be harder now that you have a hostage to protect!

BE ON YOUR GUARD AND GOOD LUCK!

KEYS

Left	**T, U, O, Joystick Left**
Right	**Y, I, P, Joystick Right**
Up	**Q, W, E, R, Joystick Up**
Down	**A, S, D, F, Joystick Down**
Fire	**SPACE, SHIFT, Z, X, C, V, B, N, M, Joystick Fire**
Pause	**'H'**
Effects On/Off	Press **ENTER** to toggle
Reset Game	Press **BREAK**
Reset Computer	Press **'1'** then the **BREAK** key

The joystick can be either the Sinclair Interface 2 version (as standard on the Spectrum + 2), or a Kempston compatible type.

HOW TO LOAD

AMSTRAD

CASSETTE

Insert cassette into cassette unit. Press **CONTROL (CTRL)** and small **ENTER** keys simultaneously. Press **PLAY** on the cassette unit and then press any key. The program will load and run automatically.

DISK

Insert the disk into disk drive, label side up. Type **¦CPM** and press **ENTER**. The program will load and run automatically.

SPECTRUM

Type **LOAD""** and press **ENTER**. Press **PLAY** on the cassette recorder, the program will load and run automatically.

Gremlin Graphics Software Limited.
Alpha House, 10 Carver Street, Sheffield S1 4FS.
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COUNTDOWN is a version of the successful TV words and numbers game adapted for popular home computers. The game includes an in-built dictionary containing thousands of words and may be played as a one or two player game.

LOADING

Spectrum: Type LOAD "" and press ENTER. (LOAD is obtained by pressing the "J" key). Start the tape. When the program loads remember to stop the tape immediately.
CBM 64: Hold down the SHIFT key and press RUN/STOP. Start the tape.
Amstrad: Hold down the CTRL key and press the small ENTER key. Press PLAY on tape deck and press any key on the computer.
BBC: Type CHAIN "" (or CH."") and press RETURN. Start the tape.

On loading the title screen is displayed. Press any key to continue.

Both players are prompted for their names, which are entered on the keyboard, followed by ENTER/RETURN (for a one-player game, press ENTER/RETURN when asked for Player 2's name. You must score as many points as you can, and try to beat the computer's best words and calculations).

THE GAME

The game consists of 9 separate rounds of Number and Word (Anagram) games. The aim of the game is to score as many points as you can.

Any mistakes made can be altered with the DELETE key.

Before starting, someone must be the Dictionary Master (so arm yourself with a Dictionary) because in the Anagram section if the computer cannot find a particular word, the players will be asked if they are sure that the word is valid. The Dictionary Master will have to decide. You will need some paper and pens.

Remember that you have a time limit when entering your answers, so be quick!

The 1st Round is an *Anagram* Game – Player 1 selects 9 Vowels or Consonants (by pressing the 'V' or 'C' keys at the bottom of the keyboard). Once all 9 letters have been chosen, the Players have a 30 second Countdown, during which they attempt to make up the longest word that they can from their selection of nine letters.

When the Countdown has ended, both players are prompted to enter their words on the keyboard, followed by ENTER/RETURN. The words are checked against the computer's own dictionary. If the computer cannot find a particular word, they will be asked to consult the Dictionary Master who will be asked to press 'Y' for a valid word and 'N' if it is incorrect. The player with the longer valid word gets 1 point for each letter in his word.

At the end of the round, the computer will display the best word that it could obtain.

Rounds 2 and 3 are the same as Round 1, except that Players take it in alternate turns to choose the letters.

The 4th Round is a *Numbers* game. Here, Player 2 chooses six numbers from four rows. The 1st row contains 4 large numbers (all between 25 and 100), and the other rows have small numbers, all less than 10. When choosing how many numbers to take, the player uses the number keys at the top of the keyboard, followed by ENTER/RETURN (the computer shows how many numbers are allowed, in brackets after the 'How many do you want from row ...' prompt, at the bottom of the screen.

Once the six numbers have been chosen, they are displayed in six boxes at the top of the screen. You will then be asked to 'Press any key to spin CECIL'. Cecil will choose a random number, and you will then have 30 seconds to get this number by adding, subtracting, multiplying or dividing. You *do not* have to use all the numbers.

At time up, both players will be prompted to enter the figures that they managed to get, by using the number keys followed by ENTER/RETURN.

The players will then have to enter their calculations, one operation at a time as follows:

"number operator number = result" eg, "10+2=12" ENTER/RETURN

until they reach their target number (displayed in the bottom right hand corner of the screen).

The computer will only accept calculations in this format and will not allow invalid calculations – ie, operations where the result will be negative, greater than 999 or a fraction. If you do not reach your target number, your attempt will be disqualified.

The player whose result is closer to CECIL's target number gets 7 points. If neither player can get close, Cecil displays how the calculation should be done, line by line.

After the Numbers Round, there are three more Anagram Rounds, with players again taking turns to choose vowel or consonant. The next round is another Numbers Round, followed by the Countdown Conundrum.

In this FINAL round, both players have 30-seconds to unravel a nine letter anagram. The first player to spot the word gets 10 points. Player 1 presses the 'A' key to stop the clock, and Player 2 presses the 'L' key. If you stop the clock, you must immediately type in what you think the anagram is. If you are wrong, then the other player has the rest of the countdown to try and work it out – so be careful!

At the end of the game, the final scores are displayed along with the winner's name. Press 'Y' to play again, or 'N' to stop the program.

The game is sold subject to the following conditions: all unauthorised copying, hiring, lending, exchanging, public performance and broadcasting is strictly prohibited.
Published by Domark Ltd, 22 Hartfield Road, London SW19 3TA. Tel: 01-947 5624.

Previously released by
Macsen Software

AMSTRAD CPC TAPE

MAKE SURE YOUR COMPUTER IS CONNECTED PROPERLY.
SWITCH ON YOUR COMPUTER.
ON SIDE ONE OF THE TAPE YOU WILL FIND 'GET DEXTER 2', WHILE ON SIDE TWO YOU WILL FIND 'GET DEXTER 1'.
CHOOSE WHICH SIDE YOU WANT TO PLAY.
INSERT THE TAPE THE RIGHT WAY ROUND INTO THE TAPE RECORDER.
ON AMSTRAD CPC 664 & 6128, TYPE: TAPE AND PRESS RETURN.
THEN, ALSO FOR AMSTRAD CPC 464, PRESS CTRL & ENTER SIMULTANEOUSLY AND PRESS PLAY ON THE TAPE RECORDER.

AMSTRAD CPC DISK

MAKE SURE YOUR COMPUTER IS CONNECTED PROPERLY.
SWITCH ON YOUR COMPUTER.
ON SIDE ONE OF THE DISK YOU WILL FIND 'GET DEXTER 2', WHILE ON SIDE TWO YOU WILL FIND 'GET DEXTER 1'.
CHOOSE WHICH SIDE YOU WANT TO PLAY.
INSERT YOUR DISK IN THE DRIVE.
TYPE RUN"DEXTER AND PRESS RETURN.
THE PROGRAM WILL LOAD AUTOMATICALLY.

GET DEXTER 1

UNFORTUNATELY, WE COULD ONLY INCLUDE GET DEXTER 1 ON THE AMSTRAD VERSIONS OF THE PROGRAM. SORRY, ATARI OWNERS.

AIM OF THE GAME
You have to find the Chamber of Zarxas, the galactic central computer and discover the means of access: an eight figure code.

Each figure is known by a scientist and you should question each one using one of the objects in the research centre. The same objects, used carefully, will destroy or force the retreat of many of the research centre guards.

Well trained Xunk will help you on your mission.

COMMANDS
To gain energy, connect yourself to a holophonic cabin.
To pick up an object, press the space bar.
To drop an object, press D.
To pull something, press P.
To recall podolephale, press R.

MOVEMENTS
Movements can be controlled by the joystick or cursor keys.
To jump, press fire button or copy key.
To start the game, press the fire button or space bar.

Dexter has been sent to Kef to shed light on the Antines mystery. He'll need the Swappis' help to slip into the mountain complex, so he'll have to start by gaining their trust. This is done by granting their wishes. The wishes are posted clearly in the Swappis' houses.

A sign on the wall of each of the Swappis three houses indicates the occupants wish. In other places, the signs provide clues.

These three wishes are tests which Dexter must pass if he hopes completely to win the Swappis trust. They can be completed in any order. Be careful not to lose what trust you may have won by doing something thoughtless.

When maximum trust has been won, the Swappis will open up a secret passage in the cave-system, leading to the first room of Antines. Dexter will then have to discover the truth about the construction.

Scooter: when calling the podocephalus you can ask him to fetch an object : when the bubble appears, use the joystick or the arrow keys to list all the available objects. Press the fire button or Return to confirm your choice. Any other key will cancel.

Available objects are those placed at a certain distance from Dexter: they can even be off-screen.

* Swapping: Swappis spend most of their time swapping things. If Dexter has an object on him and touches a Swappi, the Swappi will offer something in exchange by means of a bubble. Press the Fire button or Return to accept the deal, or any other key to refuse.

* Energy: Dexter can re-energize at an electricity source. Inside Antines, there is also a way to recharge.

* Game Keys:

Move	: Joystick or Arrow Keys
Jump	: Fire or Copy
Take	: Space Bar
Drop	: D
Throw	: T
Pull	: P
Call Scooter	: R
Laser	: Return (if laser pistol in pocket)
Pause	: DEL
Quit	: ESC

A before-play option lets you choose move mode:
- directional
- non-directional

AMSTRAD VERSION:
The complete 128K version of GET DEXTER 2 runs on 464 (with disk-drive), 664 and 6128 configurations. Best use of available memory is made (Vortex extensions also recognized). A smaller cassette version is also available.

ATARI VERSION: The game keys are indicated on the options panel.

LOADING INSTRUCTIONS

ATARI ST

MAKE SURE YOUR COMPUTER IS CONNECTED PROPERLY.
INSERT THE GAME DISK IN YOUR DISK DRIVE.
SWITCH ON YOUR COMPUTER AND THE PROGRAM WILL LOAD AUTOMATICALLY.

find some interesting things! Swappis hate Stiffien weapons, so remember that if you decide to use one."

"What exactly am I supposed to do once I'm inside Antines?"

"Er .. We're not too sure. One thing is certain, however: the key to the mystery is inside the Construction. I imagine you'll be able to find various pieces of equipment in there, left behind by previous expeditions. There should be enough to stock a Do-It-Yourself shop!"

Turning to look at the polocephalus, the professor added:

"How's Scooter, by the way?"

"I've been teaching him to fetch things. He's not doing too badly."

Both of them watched Scooter. He was flicking through an animated magazine showing female polocephali in immodest poses. He was gesticulating wildly and banging on the wall.

"He worries me sometimes," sighed Dexter.

Czara looked at the time and said:

"The Council should give us your departure time any minute now. Let's go and see."

They left the office and walked as far as a massive and important-looking door which Czara opened after much complicated twiddling. They entered an almost empty room. A lone console stood in the middle of the floor.

After several minutes, the message came up in large letters on the screen:

"Departure Time Dexter tomorrow 11 hours."

This message will self-destruct in 30 seconds."

Dexter pointed a finger at the screen.

"What does the last bit mean? Is the console going to blow up or something?"

Czara smiled. "No, it's just an old joke. There's always someone who can't resist adding it on to any supposedly secret message! Let's go and do those final tests on your ship."

They started walking to the door.

"About those nozzles: as long as they're cold, you ...'

A shattering explosion prevented Czara from finishing his sentence. They turned round to see a gaping hole in the floor at the spot where the console had been. Twisted bits of debris covered the floor.

Dexter turned towards the professor who was contemplating the scene, his trunk thrown untidily about his neck.

"Old joke, eh?"

Rémi HERBULOT

GET DEXTER - INSTRUCTIONS

Planet Xul-3 has won its independence from Earth, thanks to the success of Dexter's first mission. Ultra-Android Dexter and his trusty podocephalus, Scooter, have been designated for a new and highly important mission on the planet Kef.

Kef is inhabited by two races:
- Stiffiens. These organized and disciplined beings hold power on Kef.
- Swappis. Little given to order, the not very rich Swappis like to spend their time swapping things.

Following a series of natural disasters, a new religious sect has sprung up on Kef. All its adepts are Stiffiens. "Antines is the dwelling-place of the Gods", they claim.

Antines is the mysterious construction built in the side of a mountain. Who built it? How old is it? Nobody knows its secret. No one has managed to penetrate it. From a simple myth, Antines has become the centre of a Stiffien religious revival, strongly tainted with xenophobia and a hatred of new technologies. The Swappis are the first victims of this new fanaticism.

he already knew about the Stiffien spying.

"Nitti, you're just as fast as ever. Come over for a meal at my place; my robot-chef has invented a new recipe. It's based on ... no, it'll be a surprise!"

After hanging up, Czara didn't wait for the Council's decision. He preferred to go and get things ready for Dexter's second important mission. When he got back to the centre, Maïta, his secretary robot, came up to him and announced in clear and suave tones:

"Professor, I have recovered the module you were looking for yesterday. It had slipped behind ..."

"So," broke in Czara, "it took you all night to find it? That's not what I call quick service."

The robot stopped. Complete silence. To the accompaniment of a buzzing electric motor, it produced from its entrails an old-fashioned keyboard, and a screen. A message on the screen said: "Enter your instruction = ."

"Oh, no! Look, I really didn't mean to hurt your feelings."

Czara knew this was the robot's way of sulking. He'd have to type his instructions on the terribly impractical keyboard, and the robot would insist on minimum vocabulary, as laid down by Union guidelines: perhaps forty words at the most. He would have to type in "Open door" or "Take key" to make himself understood.

In a last effort at reconciliation, he painfully typed: "I am sorry."

"I don't understand SORRY," was printed onto the screen after a number of seconds. "Enter your instruction = ."

"Okay, be miserable! That won't stop me from working. Now the first thing to do is to call up Dexter."

And this is how the keyboard/screen dialogue went on:

Call Dexter
I don't understand CALL
Holophone Dexter
I don't understand HOLOPHONE

"Very well, I'll call him myself," sighed Czara, picking up the holophone."

Two hours later, the professor's door seemed to collapse as Dexter burst in, followed closely by a lively and debonair Scooter.

"Hi everybody!" exclaimed Dexter heartily. Noticing the secretary robot, he gave it a mighty slap on the back.

"How's it going, Maïta?"

The robot shot forward at least a metre under the force of Dexter's friendly tap, but said not a word. Sad to see the robot wasn't in its usual giggling mood, he said:

"Trouble with the boss again, eh? Let me see if I can't fix things up."

Dexter quickly typed the word "North" on the robot's keyboard. The robot suddenly turned around and trundled at top speed, bang into the wall! Dexter doubled up with laughter.

Maïta's voice came back instantly:

"Think you're funny, eh, dummy?"

The secretary robot put away its keyboard and screen, and set about revarnishing its front with a spray-can produced from somewhere inside itself.

The professor explained the situation on Kef to Dexter, and told him of the decision which had just been made to send him there.

"You'll have to land on this plateau on the side of the mountain. There are a number of houses. The entry to Antines is guarded night and day by Stiffiens who, of course, don't know about your mission. The only solution is to gain the Swappis' trust. They'll be able to get you in discreetly."

"How can I get them to trust me?"

"Well, you see, Swappis always have their wishes printed on signs in their houses, so that everyone who comes in can see. Be careful though: there are some actions they completely disapprove of. So you could find their trust in you disappearing! One thing you can do is swap things with them; they love bartering."

"And what about the Stiffiens?"

"The best thing would be to avoid them altogether, but that's probably impossible. And, who knows, if you visit them, you might

"That's well and good," said one member getting to his feet, "but it's not a sufficient reason for our intervening."

"Let me ... " The Chairman's sentence fizzled out as he saw the other go to sit down and suddenly disappear instead! After a few seconds, the Chairman noticed the triangular head reappear from beneath a table and he understood what had happened: the triangular-headed speaker's neighbour, an Eniac, had quietly pulled his colleague's chair away while he was on his feet speaking. Eniacs love practical jokes. The Chairman waited until the prank's victim had finished pouring a jug of water over the Eniac's bald head before restarting:

"Let me tell you the third and, in my opinion, most important reason: our services have recently detected the presence of two small computer groups on Xul 3, working for the Stiffiens. by parasiting a number of our machines, they've been calculating our probable response in the event of an attack, and more precisely, how we would use Dexter."

A murmur of astonishment washed through the great hall.

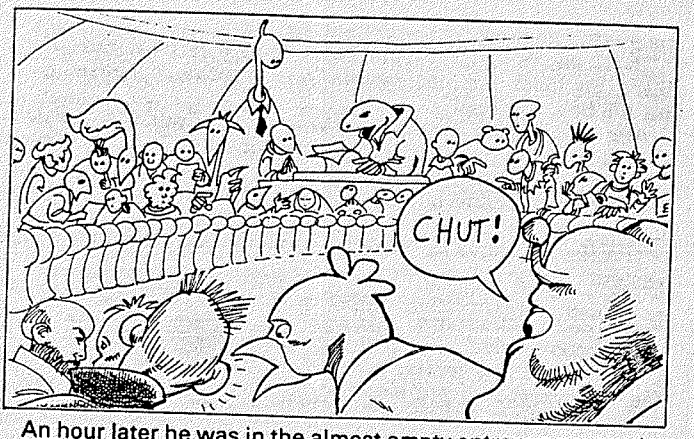
"We don't know whether their intention has been to steal Dexter or simply to study him. We do know, however, that Professor Czara has been the object of Stiffien espionnage for some time. We have proof of this."

"That explains what Nitti discovered yesterday," thought Czara.

The Chairman went on:

"I therefore propose we send Dexter to Kef to uncover the secret of the "Construction of Antibes." That will put a stop to the wave of fanaticism on that planet. Professor Czara, Dexter's "creator", will now explain Dexter's principal abilities, abilities which should allow him to succeed where all others have failed."

Czara stood up, took a deep breath, and began.



An hour later he was in the almost empty entrance next to the debating hall where the members were still discussing the issue. Czara stepped into a holophone booth and called his friend.

Nitti appeared, as excited as ever.

"Hi, Doc. You'll never guess what I found!"

"As a matter of fact, I ..."

"Just wait till I tell you! This morning, when I was hunting down whoever it is who's spying on you, I got tangled up with Counter-Espionnage."

"... Urgh."

"I got out fast, I can tell you., Those savages would've fried my machines! I thought they were the ones who've been tailing you for two weeks."

"Ouch!"

"But I went back, by another route. I realized they were screening a hire machine. They'd found the intruder long before I had! So, I dropped the case since they were dealing with it."

Czara didn't want to spoil his friend's excitement by telling him

throat; the sound was rather like thunder and frightened the wits out of those nearest him. It also brought immediate calm to the assembly. He breathed deeply and began:

"Kef is the second planet in the Betelgeuse system. Two races inhabit it: the Stiffiens and the Swappis. The Stiffiens have always held power. They are organized, methodical and disciplined. The Swappis are just the opposite : they are discreet, little given to order and spend most of their time at their favourite activity, bartering. They have never risen to positions of power and probably wouldn't want to."

The giant orator paused to mark the end of this preamble.

"About a year ago, Kef suffered a number of natural cataclysms which were, oddly enough, simultaneous. Shortly thereafter, our observers reported the growing influence of a certain Stiffien sect. The constant and considerable increase in the number of adepts forces us to speak of a genuine religious revival among the Stiffiens. What, you may well ask, is their doctrine? It can be summed up in two or three words: *the cult of Antines.*"

A member of the Council, with a very small head and three globular eyes, leaned towards his neighbour.

"What is Antines when it's at home?"

And, since one half of the assembly was getting restless, the other half did the same.

Professor Czara had already heard of the enigma of the "Antines Construction."

The speaker continued, having to raise his voice above the tumult:

"Antines is a mysterious construction built inside a high mountain on Kef. No one has yet managed to penetrate the construction far enough to uncover the secret."

The extraordinariness of what had just been said made one poor Trats jump in his sleep. He slid from his chair and hit the floor with a rather loud bump. Sixty three heads turned to stare at the Trats, who sleepily hauled himself back onto his chair, and having muttered darkly in his mother tongue, got back to the serious

business of snoozing. Trats have a leading edge in snooze technology.

Wystraniak, ignoring the interruption went on:

"Nobody has succeeded because the interior is full of booby-traps of all kinds and robots whose job it is to keep intruders out. What is more, the radiation after the second chamber is quite deadly to living beings. Sending in a machine is also out of the question, since they appear to go out of control very quickly."

Professor Czara knew all this. Some years before, he'd made a study of "paranormal" phenomena, and of all the cases he'd encountered, Antines was one of the strangest. A voice spoke up from the back of the hall:

"But the robots protecting Antines must have been put there by someone!"

The Chairman took this opportunity to intervene:

"Let us not forget that all the expeditions have so far been under strict Stiffien control. The radiation exists, there is no doubt of that. For the rest we can only rely on the official version of the facts. Many scientists have spoken openly of trickery."

A Sramian stood up and piped in a shrill voice:

"Trickery or not, I don't see what business it is of ours. Kef is not a member of our Confederation. We have no reason to interefere in their internal affairs."

The interrupter sat down in the way of all Sramians: kneeling back on his heels, resembling a bird on a perch or perhaps a mad programmer in front of his keyboard. The Chairman half smiled:

"You are quite right, and yet I suggest we intervene for at least three reasons."

Satisfied that he had his audience hooked, he continued:

"The first is that a number of indications point to a religious revival deliberately provoked in order to fanaticize the population, thus triggering a war with the neighbouring planets; and those planets are members of the Confederation. The second reason is that the Swappis are incapable of action; they have asked us to help."

endlessly from blue to green to blue.

The next screen, however, was full : it was listing the ID numbers of the computers that had picked up on his booby-trap information. A new line had just come up.

"And one more," he murmured to himself. One more that would go about its routine tasks of arranging, selecting, comparing and making statistics. The usual. And yet Nitti couldn't shake off a nagging suspicion that something fishy was going on. What on Xul could it be?

The answer came to him in a flash : the very same number was already printed, higher up on the screen. Why did that particular machine need to collect the same information twice?

He launched his group of consoles into the informational outflow, and hundreds of little bits of program dispersed themselves inside the receiving computer's memory. That's a favourite Nitti technique; most of them survive for only a time fraction of a second, wiped out in the flux. Some survive.

The technique was working normally : he was inside the intruder. The real identifier flashed onscreen. This one wasn't an ordinary number. Nitti waited for the owner's name to show up; his program was busy tracking it down through the host computer's enormous memory banks.

Suddenly, he almost choked on the tomatine in his trunk: console 6 was bleeping frantically. He'd been detected! "They" were trying to identify *him*!

Chaff was automatically released to keep him hidden. Without effect. On the contrary, the alarm tone had risen. "Zkjchtwok (2) This protection is incredible!"

Nitti's eyes swept across his screens. Number 6 was still screeching, 5 had cut out automatically and 4 was printing up unintelligible signs at unbelievable speed. A complete dog's dinner. Number 3 ... yes, number 3, which was supposed to be giving him the name and coordinates of whoever was spying on professor Czara, was horribly empty.

(2) Milanian swearword. Impossible to translate.

Nitti wanted that name. Quitting this close to the answer was out of the question! He had to throw all he had left into protecting number 3. He framed it with a warning program from the second console. This would tell him when it was time to get out of there if he didn't want "them" to find out who he was.

But "they" were too fast. His warner had already been broken through. Nitti worked frantically to escape from the intruder, covering his tracks as fast as he could. Finally, he tore the oval connector from the socket linking it to the outside world. There wasn't much point, he knew. But it was somehow reassuring. He was sweating. Just before beating his hasty retreat he'd noticed a name flash for one second on number 3's screen: "Maraz Enterprises." An innocent-looking name, but Nitti knew better.

He knew it was one of the many fronts used by the D.G.I.R., Xul 3's powerful counter-espionnage service.

Professor Czara was ushered into the vast chamber used by the Council of the Wise. Practically all civilizations present on Xul 3 were represented here. In this room decisions of the greatest importance were taken.

Once an Earth colony, Xul 3 had become a mix of many very different civilizations. This melting pot had given the planet its strength and its considerable advance in a number of sectors.

"I have asked Professor Czara to be with us today because I'm convinced that Dexter will have a role to play in the solution of our current problem."

Czara turned his gaze toward the speaker. The Chairman, of humanoid type, was on his feet. He went on:

"I am of course referring to the situation on the planet Kef. I take it that we are all aware of the problem ...?"

Throats were guiltily cleared and chairs scraped, interrupting the speaker, who glared at the unruly assembly.

"Harumph ... Quite so. Mr Wystraniak, would you care to summarize briefly?"

The person known as Wystraniak got up. He was a giant, more than two metres in height, and with a lizardish face. He cleared his

expert and you can't imagine who'd want to spy on you! I can think of dozens!"

"It's because of Dexter, you think!"

The professor became pensive.

"A module has disappeared from the centre: it contains a speech giving Dexter's abilities and technical specifications. There may be a link."

Nitti burst out laughing.

"Have you seen what your office is like? You'll soon need pot-holing gear to get in there!"

"I'm quite at home there," protested Czara.

"Joking aside," said Nitti seriously, "I don't think there's a link. Someone would've had to go in to steal it. That's too dangerous, especially when he can just pump info from your robots from a distance."

Nitti broke off to look at something outside the hologram field.

"OK, I'll see what's going on. Call me if anything seems unusual. My holophone's rigged with a scrambler I invented. I'll call you as soon as something turns up. OK?"

"All right."

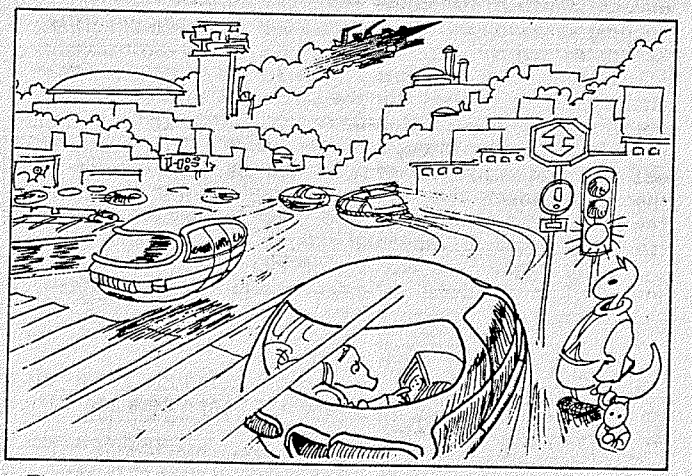
The hologram blinked out, leaving Czara alone inside his autobubble. Already he could see the hills where he had his home. He lowered the back of his seat to catch a few seconds rest.

"So. Someone wants to copy Dexter. That's ridiculous : robots can be copied, not androids."

Czara retraced the various stages of his research. Fourteen years. Fourteen years of study and experiments to create the first universal android. Of course, robots had been around for centuries, and specialized androids for a while. But Dexter was something else entirely : in fact he could deal with almost any situation just as well as an intelligent being.

And now Dexter had become a national hero. Three years before, he'd been sent to Earth with a weird little animal, Scooter the podocephalus, who had since become his mascot. His job had been to find and take the central memories of the computers

which controlled Xul's energy supplies from afar. The operation had been necessary because the risk of nuclear war on Earth had never been so great. The mission also meant independence for Xul 3. The anniversary of Dexter's return had since been declared a planetary holiday. For the moment, Dexter and Scooter were living in Czara's second home.



The next morning, Nitti still hadn't called back, for the simple reason that he had nothing new to tell Czara. The evening before, he'd artificially placed a piece of information in one of the traffic-control computers. All night, six of his machines had followed that information in its considerable travels.

The anomalies should have shown up on the first screen, but it stayed desperately empty. Nothing unusual. Just the usual exchanges. Nitti sat playing absently with his chocolate-flavoured Tomatine sandwich, and watching the cursor change

Nitti's hologram came on.

"Hi Doc'"

Nitti had called Czara "Doc" from the day he'd told him about a foolproof method for treating trunks.

"Hi Nitti! Say, what's the little box you installed for exactly?"

"Uh, it's a kind of intruder detector I cooked up," smiled Nitti proudly.

"And what happens when the red light comes on?"

"What?"

Nitti's smile gave way to incredulity. He paused.

"It means someone's put a parasite program in the autobubble traffic-control system. And he can follow your movements."

"You sure?"

"Listen! Don't do anything. I'll check and call you back."

Nitti, quite excited, cut off. Czara watched the passing scenery blindly. This was a new situation for him.

"Bah," he exclaimed, "maybe Nitti's wrong."

But that wasn't like Nitti, and he knew it.

Czara and Nitti descended from the same planet. Descended only, because it was their great great grandparents who had together left Mila for Xul 3. No contact had since been possible with Mila: the planet had been declared "R Class", a rare procedure. When an exploring mission discovers a new planet with intelligent life forms, the local leaders are offered a choice between a technological leap forward with commercial ties to other civilizations, or to be left alone to get on with their own evolution.

If the planet chooses the latter solution, any inhabitants who so wish can leave. Then a magnetic force-field is set up, protecting that portion of space from any intruders. Mila had chosen isolation, but Nitti and Czara's ancestors had left for Xul 3. Since discovering their mutual origin, Czara and Nitti had become friends. Physically, they resembled each other. The principal difference between them and man was the 20 cm long trunk just below their eyes.

The autobubble sped into the plains zone just as the holophone buzzed. Nitti came on, beside himself.

"Doc, it's unbelievable! Someone's been following your movements for the last eleven days. Tell me, your detector hasn't been working recently?"

"Uh, no. Frankly, I'd forgotten all about it. I must have switched it on accidentally this evening."

Then the professor asked, "Can you find out where the information lands up?"

"That's always the 64,000 kronos problem, Doc. The destination computer's ID number is a fake. The guy has figured everything."

Czara, in a last attempt to deny reality, mumbled, "Isn't the traffic-control system impossible to parasite?"

Nitti smiled.

"Officially, sure. In fact, no. The system works through information exchange from the autobubble to a computer network. At any one moment, the network contains all the information on all the autobubbles travelling in its sector. You just have to insert a 'leech' program to get the information. Now, ..."

"Very well," interrupted Czara, "but those network programs are regularly checked."

"Sure, but it's an automatic check. You just have to use a 'cell' parasite. A very small program whose presence is constantly checked by other 'cells' hidden around the computer's memory. Destroy the 'body' and there's always a cell to reconstitute it. Just about invulnerable. As well as that, the parasite can move around."

"It seems so simple!"

"Seems. In fact it's very complicated even if the principle is easy to understand. One thing's clear: someone's spying on you. I'll bet the robots you use at the centre are also parasited. Know anyone who might do that to you?"

"Um, no. I really can't ..."

"Come on!" exploded Nitti, "You're Xul 3's number one android

exploded, scattering its insides on the carpet below.

A clean-up robot immediately shot into the room. Not more than 20 centimetres tall, it was quite covered in revolving flashing lights. It also had something of a fire-engine look about it, or a Christmas tree. Only smaller. It screeched to a halt and identified immediately the scene of the accident. Professor Czara's approving gaze followed the newcomer whose efficiency contrasted so satisfyingly with the muddle of his office. He went and stood at a point somewhere along the clean-up robot's path. When the little machine arrived before his feet, he stuck out his right leg and kicked it several metres away from its ideal trajectory. After rolling over a few times, the robot got back on its wheels and, screeching like a cracked saucepan, shot back to its little entrance, bumping wildly into furniture on the way.

Professor Czara grinned.

"I've been itching to do that for ages," he explained to Maïta. Perhaps he was trying to gain the secretary robot's forgiveness.

"It's always profitable to give expressions to one's repressed desires," the robot replied smugly.

"Mml 12,000 kronos (1) just to hear second-hand psychology," grumbled the professor.

He went over to the bay window and stood contemplating the near perfect row of chlorotaceans in the park. It was no use, he would have to improvise his speech the next day.

"Maïta, what time's my appointment with the council tomorrow?"

"10 o'clock."

He promised himself he would think about it in the evening. He couldn't have known that events wouldn't leave him the time to.

(1) Kronos: XUL 3 monetary unit.

After an uneventful afternoon, Czara settled into his autobubble. As usual, he was going back to his home about a hundred kms away. He drove manually to the nearest zone door.



The dashboard's message screen lit up in red letters: "You are entering an automatic traffic zone. Please enter destination coordinates."

Czara punched the "Home" button and slipped his seat into "Relax". The traffic must have been light, because the autobubble started moving after only a few seconds. It very quickly reached its normal speed, almost 300 Kph.

Just as he was about to opaque the windows, his attention was caught by a small red light at the very end of the dashboard.

"What the devil's that?," he asked aloud.

The light was on a small unmarked box. He remembered that his friend Nitti has installed it a few months previously. Now what did it do exactly? Czara couldn't remember. While the autobubble whizzed through the suburbs of Xul 3's biggest city, Czara picked up the holophone and keyed in his friend's number.

Nitti was undoubtedly Xul 3's top inter-computer communications expert. No one could touch him when it came to penertrating the most highly guarded systems. He could slip in anywhere.



GET DEXTER II

"Where did I put that accursed module?" Professor Czara shouted at no one in particular, waving a sheaf of papers. In a sudden access of zeal, he dropped his documents (all important) in random order, then stepped back the better to judge the result.

His office was awash with papers, electronic note pads and computer modules. The final touch he had just added seemed to satisfy him. He looked up defiantly at Maïita. The secretary robot rolled forward to give its verdict.

"My tidy-away functions have been disconnected." Duty done, the robot rolled contentedly back to the corner that had been its home since its first hour of functioning.

"Disconnected ... Hmmp ... Let's say the circuits have blown," corrected the professor.

"Shoddy things, these robots," he added, rather unfairly since he knew he'd gone a little too far with the principles of tidying away when he'd acquired the robot.

Bombarded by contradictory instruction, Maïta had spent half a day trying to put two or three documents in the right places. A cloud of white smoke and the acrid smell of burning circuits had put a stop to the kamikaze mission.

Professor Czara may not be a specialist in putting things away but he's an expert in finding his way through the incredible mess cluttering all his shelves and drawers. Normally, that is. For the moment he had a problem. The high authorities of his planet, Xul 3, the Council of the Wise, had summoned him to summarize the abilities of his brainchild, the android Dexter. He simply had to lay his hands on the missing module, a pre-recording of his summary.

Clean out of ideas, he grabbed the nearest electronic note-pad and flung it at a pile of precariously balanced books. The projectile's somewhat deviant trajectory led straight into the wall. With a muffled scrunch, the universally appreciated tool

LOADING INSTRUCTIONS

AMSTRAD 464
Press CNTRL and small ENTER keys.

AMSTRAD 664/6128
Type ITAPE and press RETURN.
Press CNTRL and small ENTER.

PLAYING INSTRUCTIONS

Pick up barrels to gain extra fuel, indicated on the right of the screen.
Pick up delta wings to gain extra lives, indicated on the bottom of the screen.
Pick up bombs and use them to destroy enemy fighters and rockets, the number of bombs you have available is indicated on the bottom of the screen.
Pick up the double winged craft to gain an extra rear-facing laser indicated by the doors bottom left.
Avoid rocks, explosions, other craft and mines.
Shooting barrels, ships and bombs to destroy them.
Use the scanner, top right, to identify the position of the Spacestations.
Shoot the centre fo the Spacestations to destroy them.
Shooting the outside pods does not disable the stations. Be careful of their missiles.
Destroy all the Spacestations to complete the wave.
Condition indicator tells you of any hostile fighters, these are also indicated on the scan.
Formation indicator tells you the exact formation used by the hostile fighters.
Use these instruments to plan your tactics.
When the docking indicator is on, as at the start of the game, you may dock with motherships for protection.
Picking up the miniature motherships turns the indicator off.
Docking with indicator off will send you to a different part of the screen.
Dock carefully, there is no room for error.

CONTROLS

Use the joystick or the cursor keys to control the movement of your craft, or Q–up, A–down, O–left, P–right.
Use the copy key, space bar or the fire button to shoot laser, and to start the game or to restart after losing a life.
Use Enter or Return keys to drop bombs.

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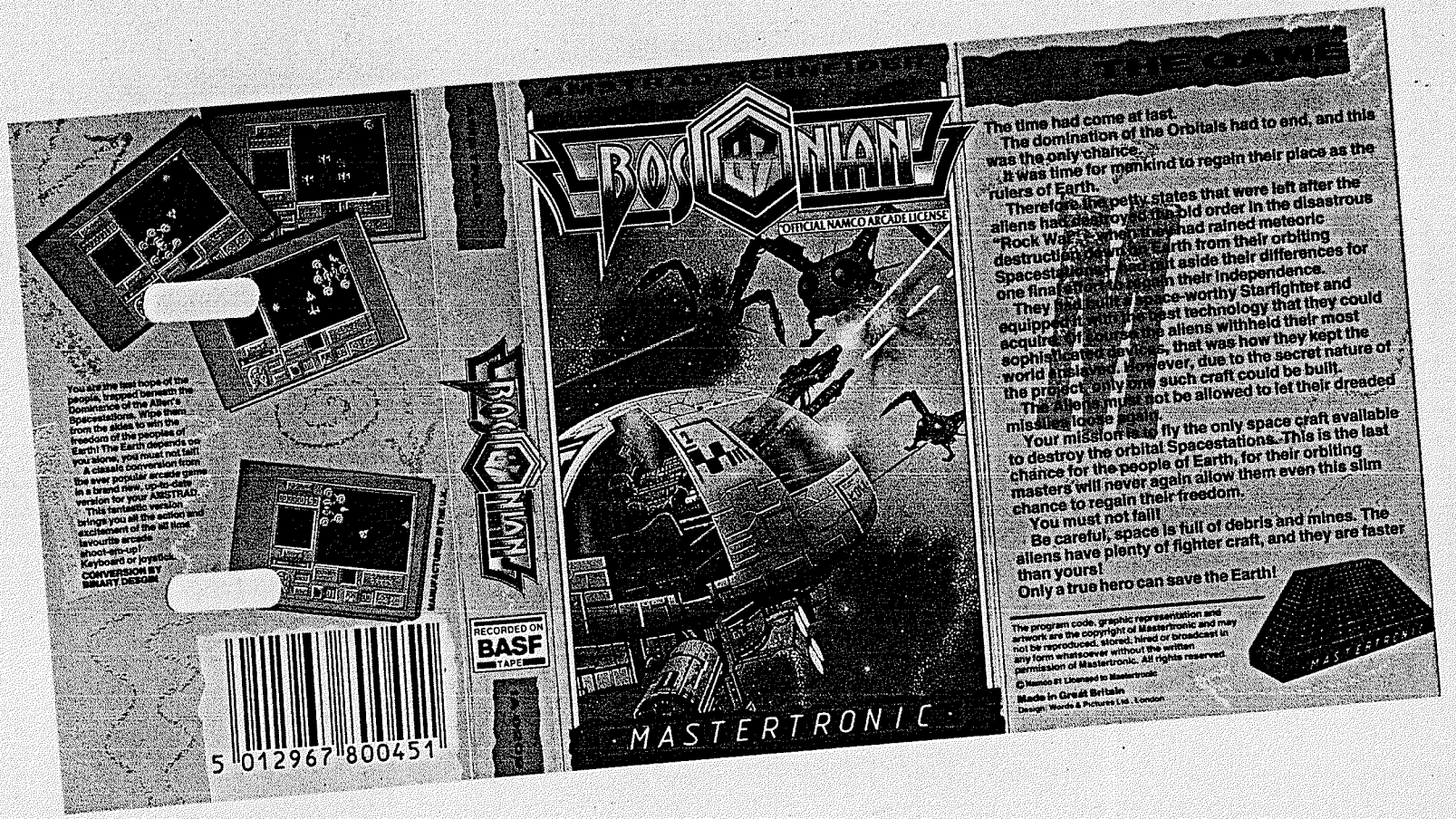
You are the last hope of the people, trapped beneath the Dominance of the Alien's Spacestations. Wipe them from the skies to win the freedom of the peoples of Earth! The Earth depends on you alone, you must not fail!
A classic conversion from the ever popular arcade game in a brand new, up-to-date version for your AMSTRAD. This fantastic version brings you all the action and excitement of the all time favourite arcade shoot-em-up!
Keyboard or Joystick.
CONVERSION BY SMART DESIGN
ROSCONIANS
OFFICIAL NAMCO ARCADE LICENSE
MASTERTRONIC
5 012967 800451
RECORDED ON BASF TAPE
The time had come at last.
The domination of the Orbitals had to end, and this was the only chance.
It was time for mankind to regain their place as the rulers of Earth.
Therefore the petty states that were left after the aliens had destroyed the old order in the disastrous "Rock War" of [illegible] had rained meteoric destruction down on Earth from their orbiting Spacestations, put aside their differences for one final effort to regain their independence.
They had built a space-worthy Starfighter and equipped it with the latest technology that they could acquire. Of course the aliens withheld their most sophisticated devices, that was how they kept the world enslaved. However, due to the secret nature of the project only one such craft could be built.
The Aliens must not be allowed to let their dreaded missiles loose again.
Your mission is to fly the only space craft available to destroy the orbital Spacestations. This is the last chance for the people of Earth, for their orbiting masters will never again allow them even this slim chance to regain their freedom.
You must not fail!
Be careful, space is full of debris and mines. The aliens have plenty of fighter craft, and they are faster than yours!
Only a true hero can save the Earth!
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Made in Great Britain
Design: Words & Pictures Ltd., London
MASTERTRONIC


MYSTERY OF THE INDUS VALLEY
Screen pictures shown may be a different machine version of game.
5 015103 882847
ALTERNATIVE SOFTWARE LIMITED
UNITS 3-6 BAILEYGATE
INDUSTRIAL ESTATE
PONTEFRACT
WEST YORKSHIRE WF8 2LN
TELEX 557994 RR DIST G
MYSTERY OF THE INDUS VALLEY
AMSTRAD
AS284
MYSTERY OF THE INDUS VALLEY
AMSTRAD
199 RANGE
MYSTERY OF THE INDUS VALLEY
LOADING INSTRUCTIONS:
Press CTRL and small ENTER, then press PLAY.
Scenario
You are Sir James Wentworth, esteemed historian and a member of the London Archaeological Society.
Due to your great knowledge regarding South American Tribes, Customs and Antiquities, you have been selected by the society to go on a special venture to the Indus Valleys. Your task is to explore the valleys, find and return with the fabled Scythian Tablet and the Alexandrite's Starstone.
You are, however, warned.
No explorer has returned from the Indus Valleys since expeditions started in the early 1900's.
You begin your quest at a small South American village, armed only with a Torch and small, very old, parchment. Many Puzzles and Tasks await you in your Adventure.
DO YOU HAVE SKILLS ENOUGH TO SOLVE THE MYSTERY OF THE INDUS VALLEYS.
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VERB LIST

Climb	Load	Score	NW
Cross	Look	South	SE
Cut	North	South East	SW
Down	North East	South West	U
Dig			
Drink	North West	Take	D
Drop	Off	Text	L
East	On	Tie	
Eat	Out	Up	
Examine	Pictures	Wear	
Get	Place	West	
Graphics	Pull	Words	
Help	Push	N	
In	Quit	S	
Inv	Read	E	
Inventory	Restore	W	
List	Save	NE	

OBJECT LIST

Alexandrite	Map
Starstone	Needle
Balcony	Pickaxe
Bottle	Plank
Bridge	Rifle
Campbed	Rubble
Campsite	Rum
Candle	Scythian
Pot	Table
Cutlass	Statue
Flash	Thread
Flint	Torch
Food	
Haversack	
Knife	
Ladder	
Parchment	



HEY HOUSE GUYS!

CHECK OUT THESE OTHER TITLES!

ADRIAN MOLE
AFTERMATH
BMX NINJA
CLASSIC ARCADIA (TD) 1
COMBAT ZONE
CONFUZION
CRAZY ER*BERT
CRICKET CRAZY
CRICKET INTERNATIONAL
DANGER MOUSE IN DOUBLE TROUBLE
DANGER MOUSE IN MAKING WHOOPEE
DEAD OR ALIVE
DEKATRON
ENDZONE
EVERYONE'S A WALLY
FLIGHT SIMULATOR
FOOTBALL FRENZY
GOLD OR GLORY
GRAHAM GOOCH MATCH CRICKET
GRAND PRIX
GUNBOAT
INDOOR SOCCER
JUDO UCHI MATA
LIFE TERM
MAD FLUNKY
METALYX
MICROBALL
MOONCRESTA
NEIL THE ANDROID
NOSFERATU THE VAMPYRE
OINK
POPEYE
RALLY DRIVER
RED ARROWS
ROGUE TROOPER
RUN FOR GOLD
SHE VAMPIRES
SLUG
S*M*A*S*H*E*D
SOCCER BOSS
SNODGITS (TD)
SPLAT
STAR WRECK
STRIKE FORCE COBRA
THE BIG SLEAZE
THE COLOUR OF MAGIC
THE ROCKY HORROR SHOW
THROUGH THE TRAPDOOR
TRAPDOOR
WHO DARES WINS II
WIZ BIZ
YOGI BEAR

AS284

THE GAME

SHUTTLE – Enters from the top of the screen changing altitude and direction rapidly. Launches satellites and refuses to give up the fight even when it's been shot down.

SATELLITE – Very dangerous and likely to change altitude and direction in mid flight.

HYPERJET – A slow starter, but there's more to this one than meets the eye.

SPACECRAFT – Harmless.

SAUCER – Beware the hovering flying saucer!

SCORING

Scores are calculated separately per screen, and the winner of each "points challenge" is awarded an extra life.

GREEN PLANE	10	SAUCER	50
GREEN JET	10	SHUTTLE	50
GREEN TWO SEATER	10	HYPERJET	50
BLUE TWO SEATER	20	BOMBS	10
BLUE JET	20	SPACECRAFT	10
YELLOW BOMBER	50	PARANOIA	10

CONTROLS

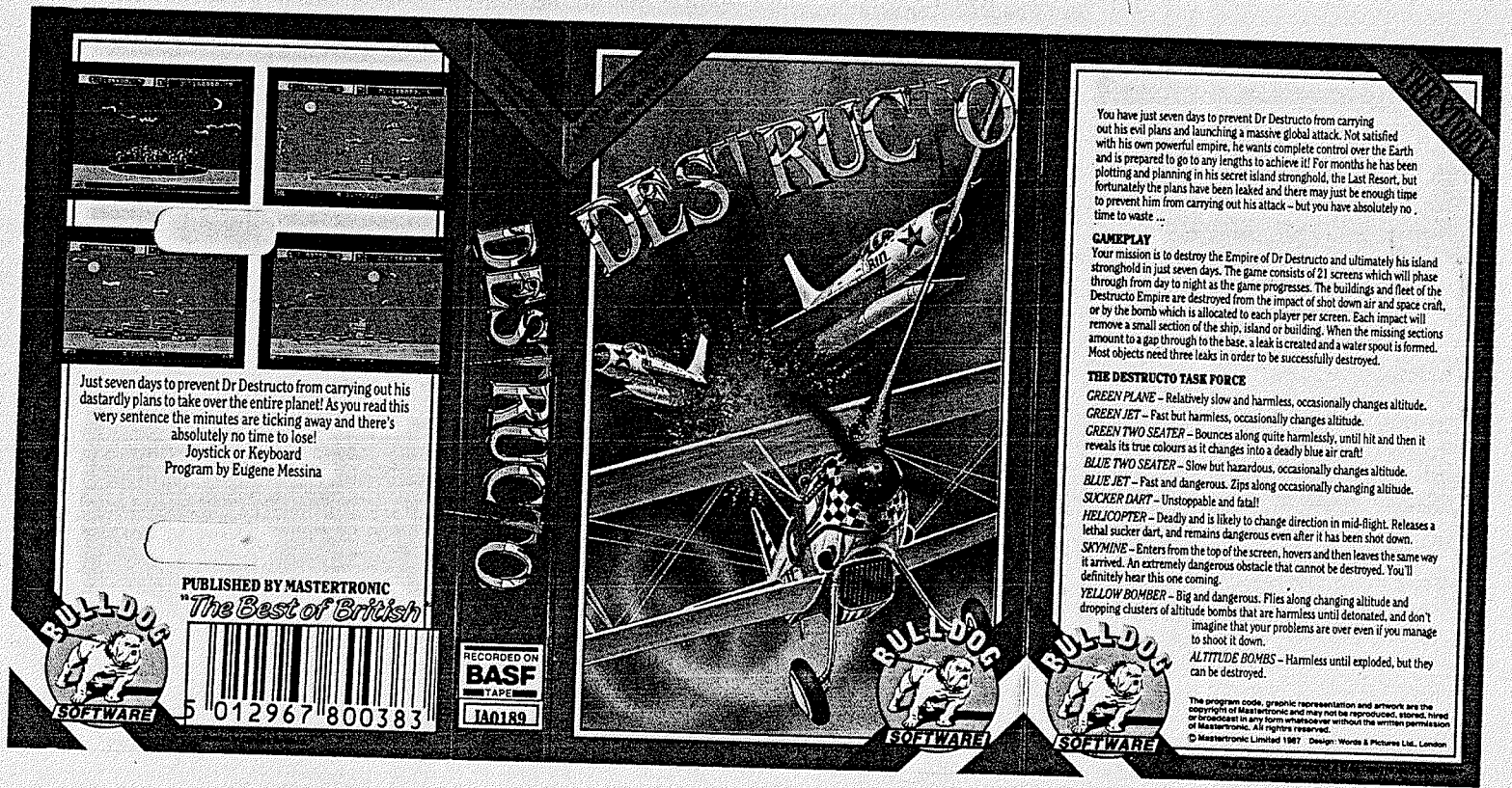
Joystick or keyboard
Single play – joystick in port one or keyboard
For two players:
Player one – joystick in port one
Player two – joystick in port two or keyboard

	Joystick	Keyboard
Anti clockwise	Left	Z
Clockwise	Right	X
Accelerate	Up	Shift
Launch Bomb	Down	Space Bar
Shoot	Fire	Return/Enter
Pause/P	Resume/Return	
Quit/Q	(while in pause mode)	
Sound swap/S	(while in pause mode)	

LOADING INSTRUCTIONS

Amstrad 464: Press CNTRL and small ENTER.
Amstrad 664/6128: Type| TAPE and press RETURN.
Press CNTRL and small ENTER.

SOFTWARE


DESTRUCTO
Just seven days to prevent Dr Destructo from carrying out his dastardly plans to take over the entire planet! As you read this very sentence the minutes are ticking away and there's absolutely no time to lose!
Joystick or Keyboard
Program by Eugene Messina
PUBLISHED BY MASTERTRONIC
"The Best of British"
5 012967 800383
BULLDOG SOFTWARE
DESTRUCTO
RECORDED ON BASF TAPE
IA0189
DESTRUCTO
BULLDOG SOFTWARE
You have just seven days to prevent Dr Destructo from carrying out his evil plans and launching a massive global attack. Not satisfied with his own powerful empire, he wants complete control over the Earth and is prepared to go to any lengths to achieve it! For months he has been plotting and planning in his secret island stronghold, the Last Resort, but fortunately the plans have been leaked and there may just be enough time to prevent him from carrying out his attack – but you have absolutely no time to waste ...
GAMEPLAY
Your mission is to destroy the Empire of Dr Destructo and ultimately his island stronghold in just seven days. The game consists of 21 screens which will phase through from day to night as the game progresses. The buildings and fleet of the Destructo Empire are destroyed from the impact of shot down air and space craft, or by the bomb which is allocated to each player per screen. Each impact will remove a small section of the ship, island or building. When the missing sections amount to a gap through to the base, a leak is created and a water spout is formed. Most objects need three leaks in order to be successfully destroyed.
THE DESTRUCTO TASK FORCE
GREEN PLANE – Relatively slow and harmless, occasionally changes altitude.
GREEN JET – Fast but harmless, occasionally changes altitude.
GREEN TWO SEATER – Bounces along quite harmlessly, until hit and then it reveals its true colours as it changes into a deadly blue air craft!
BLUE TWO SEATER – Slow but hazardous, occasionally changes altitude.
BLUE JET – Fast and dangerous. Zips along occasionally changing altitude.
SUCKER DART – Unstoppable and fatal!
HELICOPTER – Deadly and is likely to change direction in mid-flight. Releases a lethal sucker dart, and remains dangerous even after it has been shot down.
SKYMINE – Enters from the top of the screen, hovers and then leaves the same way it arrived. An extremely dangerous obstacle that cannot be destroyed. You'll definitely hear this one coming.
YELLOW BOMBER – Big and dangerous. Flies along changing altitude and dropping clusters of altitude bombs that are harmless until detonated, and don't imagine that your problems are over even if you manage to shoot it down.
ALTITUDE BOMBS – Harmless until exploded, but they can be destroyed.
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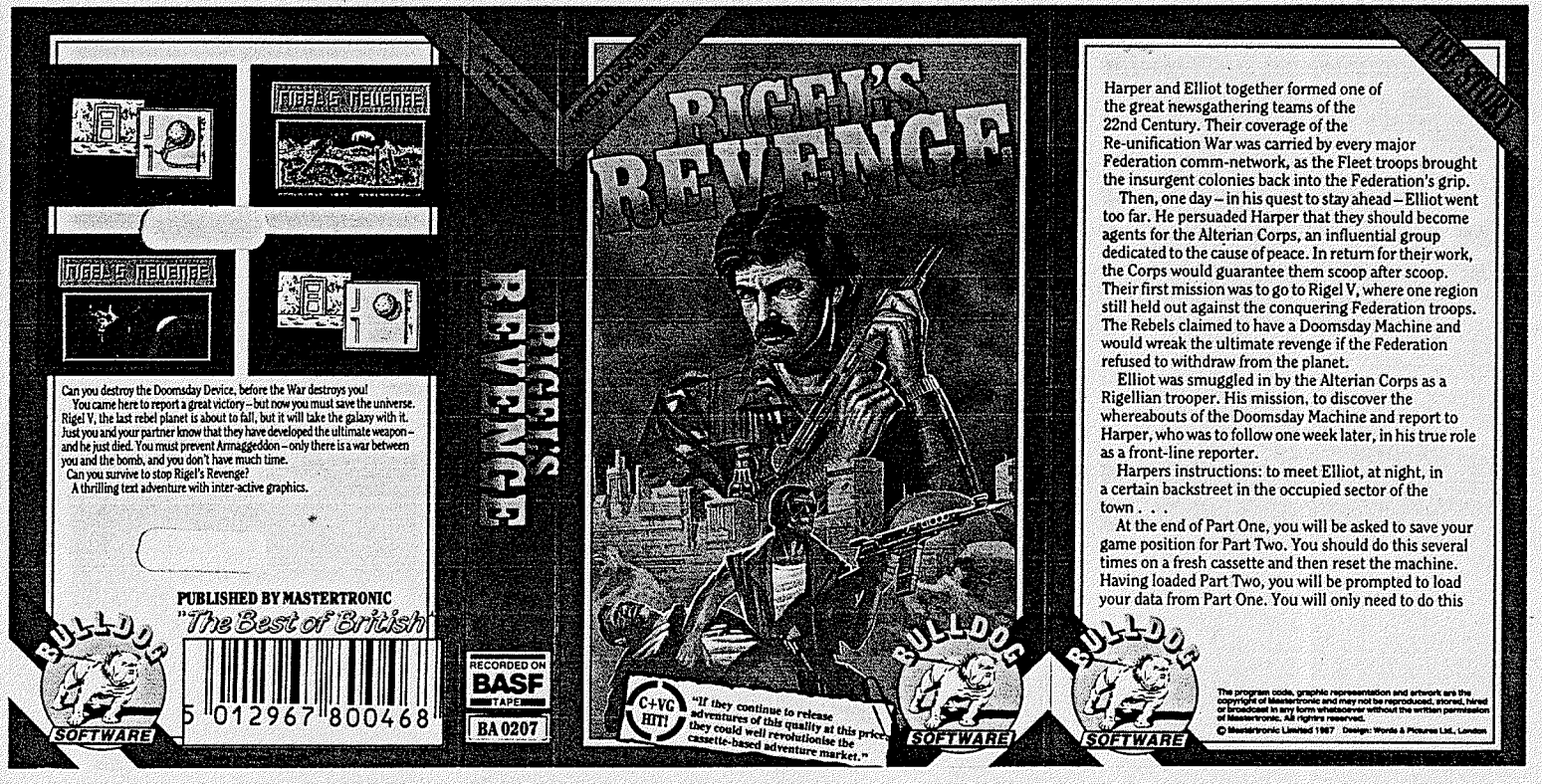
BULLDOG SOFTWARE


RIGEL'S REVENGE
Can you destroy the Doomsday Device, before the War destroys you!
You came here to report a great victory – but now you must save the universe. Rigel V, the last rebel planet is about to fall, but it will take the galaxy with it. Just you and your partner know that they have developed the ultimate weapon – and he just died. You must prevent Armaggeddon – only there is a war between you and the bomb, and you don't have much time.
Can you survive to stop Rigel's Revenge?
A thrilling text adventure with inter-active graphics.
PUBLISHED BY MASTERTRONIC
"The Best of British"
BULLDOG SOFTWARE
5 012967 800468
RECORDED ON BASF TAPE
BA 0207
RIGEL'S REVENGE
C+VG HIT!
"If they continue to release adventures of this quality at this price, they could well revolutionise the cassette-based adventure market."
Harper and Elliot together formed one of the great newsgathering teams of the 22nd Century. Their coverage of the Re-unification War was carried by every major Federation comm-network, as the Fleet troops brought the insurgent colonies back into the Federation's grip.
Then, one day – in his quest to stay ahead – Elliot went too far. He persuaded Harper that they should become agents for the Alterian Corps, an influential group dedicated to the cause of peace. In return for their work, the Corps would guarantee them scoop after scoop. Their first mission was to go to Rigel V, where one region still held out against the conquering Federation troops. The Rebels claimed to have a Doomsday Machine and would wreak the ultimate revenge if the Federation refused to withdraw from the planet.
Elliot was smuggled in by the Alterian Corps as a Rigellian trooper. His mission, to discover the whereabouts of the Doomsday Machine and report to Harper, who was to follow one week later, in his true role as a front-line reporter.
Harpers instructions: to meet Elliot, at night, in a certain backstreet in the occupied sector of the town . . .
At the end of Part One, you will be asked to save your game position for Part Two. You should do this several times on a fresh cassette and then reset the machine. Having loaded Part Two, you will be prompted to load your data from Part One. You will only need to do this
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THE GAME

once. When Harper dies or you quit Part Two the game restarts in the same way as in the first half.

The program understands simple English sentences such as:-

THROW THE RUBBLE AT THE TANK or LOOK INSIDE THE SATCHEL. The way in which you phrase your command should not be important, for instance FIRMLY PULL THE CHAIN will have the same effect as PULL CHAIN HARD, firmly and hard being synonyms. Please note that certain objects can be used as 'containers' and that LOOK IN, AT or UNDER SOMETHING are different commands.

EXAMINE will give you a more detailed description of any significant object or location. This may be in either words or pictures. Use this facility carefully. You must tell the computer what you want to examine, you cannot just use the command to get general information.

If the program doesn't seem to understand first time, try rephrasing your command. You are not penalised for 'incorrect' input, the game simply waits until you type something it recognises. If you spell a word wrong, the EDIT and DELETE keys can both be used to make corrections.

Useful commands include RAMSAVE and RAMLOAD which allow you to instantly save your position to memory (abbreviations RS and RL), REDESCRIBE (R), which is short for LOOK AROUND, GET ALL, DROP ALL, SCORE, INVENTORY (I) and QUIT (Q).

Some other useful words

NORTH (N)	SE	DROP	PUSH	DIG	OPEN	SAY
SOUTH (S)	CLIMB	WEAR	BEND	UNSCREW	CLOSE	HELLO
EAST (E)	UP	REMOVE	TWIST	PRESS	FOLLOW	FOOTNOTE
WEST (W)	DOWN	PUT	UNTIE	EXAMINE	WAIT (Z)	
NW	JUMP	IN	TURN	CAREFULLY	EAT	
NE	CRAWL	THROW	PLUG	FORCIBLY	DRINK	
SW	GET	PULL	INSERT	FOLLOW	GIVE	

Hints and Tips

Pay careful attention to the loading screens and all the graphics in the game, they may include important clues . . .

Examine everything carefully. (Not all is as it might first seem!)

Regularly save your game position with RAMSAVE and SAVE, especially before doing anything risky.

Time passes whenever you type a recognised command or type wait and press return. Timing can sometimes be critical, so use the wait command with care.

You can progress from Part One to Part Two with less than 50 points, but be warned, things might get very tricky later on!

Good luck, and remember, just as in real life, quick thinking and improvisation can often save the day!

LOADING INSTRUCTIONS

AMSTRAD 464
Press CNTRL and small ENTER

AMSTRAD 664/6128
Type ITAPE and press RETURN
Press CNTRL and small ENTER

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This game has every obstacle you can imagine in as tough and gruelling an assault course as you'll get anywhere. The course has treacherous water-filled tunnels below with the toughest of rope swings, monkey bars and death slides above. Raised logs, barbed wire crawls, and thin wall walks complete the kind of course which earns red berets in the paras.
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Program Brian Gross
Cover Design Robert Aynsley
Made in UK
5 016414 030552
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PARA ASSAULT
Elite Games
AMSTRAD/ SCHNEIDER
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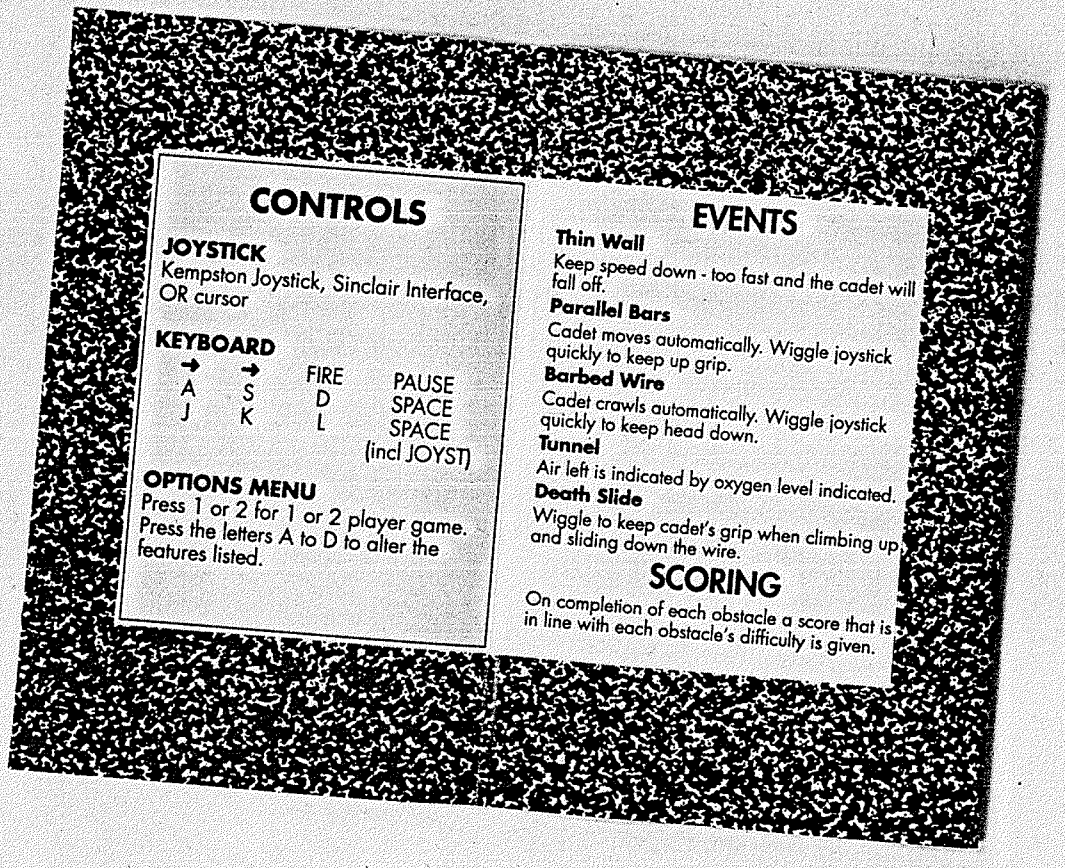
AMSTRAD LOADING INSTRUCTIONS
RUN"
EVENTS
Wall Approach with a good speed to clear. FIRE to jump
Water Jump FIRE to jump
Logs Press FIRE to jump to next log
Ramp Run up ramp but slow down towards the top
Rope Swing Run to water and press FIRE to jump to rope. FIRE to release grip on rope



CONTROLS

JOYSTICK
Kempston Joystick, Sinclair Interface, OR cursor

KEYBOARD

→	→	FIRE	PAUSE
A	S	D	SPACE
J	K	L	SPACE (incl JOYST)

OPTIONS MENU
Press 1 or 2 for 1 or 2 player game. Press the letters A to D to alter the features listed.

EVENTS

Thin Wall
Keep speed down - too fast and the cadet will fall off.

Parallel Bars
Cadet moves automatically. Wiggle joystick quickly to keep up grip.

Barbed Wire
Cadet crawls automatically. Wiggle joystick quickly to keep head down.

Tunnel
Air left is indicated by oxygen level indicated.

Death Slide
Wiggle to keep cadet's grip when climbing up and sliding down the wire.

SCORING

On completion of each obstacle a score that is in line with each obstacle's difficulty is given.

GAMEPLAY

Leave the ship and make your way down the mine being careful of the plants and creatures that will try to attack you. On the way down you must find and collect your mining equipment. After you have done this try to find the ANATESE diamond then make your way back to the ship before your oxygen supply runs out!!!!

STRATEGY

There are several important items of equipment which you must find and return to your spaceship individually. There are also some tools, such as the ladder, which will help you in your task. These can be carried at the same time as items of equipment.

It will require great skill and practice to outsmart the strange mutated insects and creatures which obstruct your progress.

CONTROLS

PRESS 1 to start a one player game or 2 to start a two player game. S=up, Z=down, ‹=left, ›=right, T=take, D=drop, C=climb

PRESS D to define the keys or joystick then press the appropriate keys or move the joystick.



ZUM EINSPEICHERN

Du mußt deine ganze Bergwerkausrüstung finden und alle Teile einzeln zu deinem Raumschiff zurückbringen. Du wirst auch manche nützlichen Werkzeuge finden, wie die Leiter und den Pickel, die du sehr brauchen wirst.

Ladeanweisung: Taste 1 drücken um das Spiel fuer 1 Spieler zu starten, Taste 2 druecken um das-Spiel fuer 2 Spieler zu starten.

Tastatur:
S Hoch, Z Unten, ‹ Links, › Rechts, T Nehmen, D Oslassen, C Klettern.

Druecke Taste D um zu wählen zwischen Tastatur oder Joystick, dann benutze die geeigneten tasten oder bewege den Joystick.



INSTRUCTIONS DE CHARGEMENT

Il te faut trouver chaque pièce de ton équipement de mineur et let rapporter une par une sur ton vaisseau spatial. Tu trouveras aussi de nombreux outils, tels l'échèlle et le piolet, qui te seront très utiles.

Instructions:
Tapper la touche 1 pour le jeu à un joueur
Tapper la touche 2 pour le jeu à deux joueurs

Clavier:
S Vers le haut, Z Vers le bas, ‹ Gauche, › Droite, T Prendre, D Lächer, C Grimper.

Tapper la touche D pour choisir entre clavier ou joystick, et utiliser les touches appropriées ou le joystick.



INSTRUCCIONES DE CARGA

Debes recoger todo tu equipo de mineria y llevarlo a la nave espacial pieza por pieza. Hay tamrien algunas cosas, como la escalera, para subin v cocer las cosas necesarias.

Controles
Pause 1 para comenzar con un jugador 0 2 para dos jugadores.
S Arriba, Z Abajo, ‹ Izquierda, › Derecha, T Coger, D Dejar, C Subir
Pulse D para redefinir las teclas o joystick y pulse iao teclas elegidas o el disparador del joystick.

Made in England

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Design & Artwork - NIGEL FLETCHER


BRAINACHE
BRILLIANT GRAPHICS
WHY PAY MORE?
The entire crew of ROTAR 1, an interplanetary mining vessel, laughed loudly at private Harry Jones – 'BRAINACHE' as they sent him back to the Stella mines to collect his forgotten equipment. Would they ever see their fat friend again?
INSTRUCTIONS
ACTUAL AMSTRAD SCREEN SHOTS
5 015026 030387
AMSTRAD SCHNEIDER 464/664/6128
3038
BRAINACHE
BY OWEN BRUNETTE
Code Masters
2 PLAYER OPTION
After BRAINACHE had left in the robo-shuttle, heading for the STELLA mines on planet NESBIT the crew on ROTAR 1 began to worry – Although they teased BRAINACHE they loved their chubby friend and knew how dangerous the task ahead of him really was . . .
On the lonely cruise back to Nesbit 'BRAINACHE' planned his actions. He was fed up with his friends' cynical comments and decided to show them once and for all how clever he really was.
He would retrieve all his mining equipment and then forage further into the depths of the ancient mine shafts to find the fabled ANATESE diamond. 'Then they will never call me BRAINACHE again', he muttered determinedly under his breath!!
JOYSTICK OR KEYBOARD
LOADING:
464:- RUN" (ENTER)
664/6128: TAPE (ENTER) RUN" (ENTER)

THE NECRIS-DOME

In a future time the Earth's resources are severely depleted and to conserve vital energy a decision was made to consign the Earth's dead to a floating cemetery in its orbit. The satellite was aptly named the Necris Dome and was run by the mandroids led by the Arch-mandroid. Over the years the arch-mandroid has become renegade and now thinks for himself. He has become a threat to human life.

For many years there has been a total ban of all weapons on Earth but there have been rumours that the arch-mandroid has armed the Necris Dome with powerful weapons and that he intends to use them against Earth to further some evil plot of his own.

As a member of the Secret Forces you have been assigned to investigate the situation aboard the Dome and to destroy the arch-mandroid at all costs, even if it means the destruction of the satellite to do it.

You will be shipped aboard with the next batch of dead in a robot craft. You must keep your wits about you and should remember that it is possible that the programming of the mandroids has been tampered with by the arch-mandroid and it is not certain whether these are also a danger to man. From here on you are on your own. Good Luck.

You are smuggled aboard in a coffin — push lid to get out. You must return to the coffin as there is something inside which you need later.

Treat all mandroids as hostile.

The dome is set out on different levels, to get from one to another you need trans-rods which can be found in the mandroids possession once they have been disabled.

The means to their destruction is usually nearby.

Destroy the Arch-mandroid by severing his life-line using the weapon you have been supplied with and get the key to the power centre which has to be destroyed.

When the destruction sequence has been initiated you must return to the casket in which you arrived and must be carrying the oxy-exchanger and the homing bleeper (do not drop this at any time).

Wear the thermo-plas suit when entering the refridgeration plant. (This is an aerosol.)

The mandroid re-energiser pads deplete your vitality. They can be deactivated at the control panel on Reception level Chamber 9.

Because the transrods only work in certain locations and several different ones are needed you can end up anywhere on the dome.

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Design & Artwork - NIGEL FLETCHER

THE GAME

As the eons of time went past, all the knowledge that man had striven to gain was lost, as the generations went past, only some lonely memories remained, as Earth slowly returned back to its chaotic, almost twentieth century values.

Some remembered the Nu-Earth colonies, others the great communication networks, and some could even remember the great space liners. But all this and more was gone. Leaving decaying societies, smashed computers, and silent liners.

Very few remembered the once great pride of Mankind, a series of thirty planets that protected their creators, named Sentinel Planets they kept a secure balance in the galaxy.

Over the years though, as their automated systems ran, their programs and knowledge grew, until they gained a kind of consciousness. Internal damage occurred and the very computers that once protected and served Mankind, acquired a taste for POWER.

So the tide turned, and Mankind floundered, failing to see the slow changes around it, depending too much on the Sentinels for everything.

This is as it is now, a dormant society, tailor made to serve the very machines they had created, in a dismal, almost religious, ritual of life.

The Sentinels are protected by various defence systems, very few details are known, but terrible names, that strike fear, even into the bravest, are heard in whispers, as people tell hearsay about the torments they deliver.

It is said that those that come first are the evil Tru-syncs who will relish in devious suicide attacks, and weave strange shapes, others are never seen by the living, like the terrible bit-fighters, the Mirabs, and worst of all, the Iratas.

You, are not of this way, realising the enormity of the Sentinels power you steal an alien space ship out of the Oceania Museum of Technology, having only a few brief hours to convert the vessel's computers over to English, you set out to track down and destroy all thirty Sentinel Planets.

Joystick or keyboard may be wed to control the game.

The main screen of the game displays the current planet revolving below you, and around, on the ship's control panel, various "Icons" which depict the functions of the alien craft. These are called by pressing the appropriate keys around the keyboard. The position of the "Icons" roughly translates to the position of the key you have to press.

The keys are:
[Q] – Computer 1
[A] – Computer 2
[Caps shift] – Status
[Z] – Map
[O] – Remote probe launch
[Enter] – Hyperspace
[Space] – Communication
[Symbol shift] – TV

To hold the game, press either Computer 1, or the "H" key.

When using the map, help, or Computer 2, the joystick changes your options, fire to exist.

If an option is flashing, then the computer is indicating that it wants you to call that option. For instance, if the communication square is flashing then you have a communication which you have not yet read.

Computer 1 is your game control computer, it can provide help on any of the options, save a current game to cassette or load a previous one.

Computer 2 is the alien library computer, it holds information about the various planets you have been to.

The status option lets you know your current hit/miss ratio percentage and your shield power. Score is based on a combination of your hit/miss percentage and how many Sentinel Bases you have destroyed.

The map option allows you to roam around any one of the three hundred playing areas in the game. Use the joystick to select the system number and the planet in it, fire will exit.

Remote probe launch releases one of your five shuttles for an attack run on the planet surface. You can shoot all the objects, except for the "trees", your objective is just to get through. If there is a Sentinel. Base on the planet you will see it explode at the end of the playing area. If your shuttle touches anything, it will be destroyed.

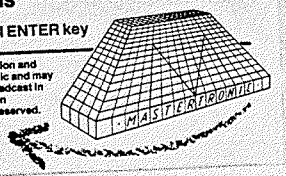
Hyperspace takes you from one planet to another.

The communication option will display any current communications you have.

The display option brings you back to the revolving world and information screen, which although in alien, actually tells you about the planet below you ...'work out time'.

LOADING INSTRUCTIONS

Press control and the small ENTER key



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Made in Great Britain
Design: Words & Pictures Ltd., London

CHICKIN CHASE

© JAWX 1985

THE GAME

As translated from the French by C. A. HAVELOCK

The life of a cockerell, it is not always so very nice. He has to defend the chicken house against his insatiable enemies. And he must eat to keep up his strength so that he is able to honour the requests of Madame.

Never forget that a gallant visit can leave you powerless to fight the hedgehogs, rats, stoats, snakes and other terrible beasts that are so fond of the oeufs. You can replenish your energy from the grain store in the chicken house.

LOADING

AMSTRAD 464 OWNERS

1. Place the rewound cassette into the cassette unit and press PLAY.
2. Hold down CTRL and press the SMALL ENTER key.

AMSTRAD 664, 6128 and 464+DISK OWNERS.

1. Hold down SHIFT and press the @ key. Type TAPE and press RETURN.
2. Connect a suitable cassette player to your computer, according to the User Manual, and insert the rewound cassette.
3. Hold down CONTROL and press the ENTER key.
4. Press PLAY on the cassette player.

NOTE: Full loading instructions can be found in your Amstrad Manual.

PLAYING THE GAME

Chickin Chase can be played either with a joystick connected to your Amstrad or with the following keys:-

]=UP

Z=LEFT \=DOWN X=RIGHT

Space=PECK

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The killapede and a whole gang of creepy crawlies are out to get you. Dodge the fleas and the spiders from Mars to shoot at the multi-segmented beast. You must be quick though, as a fate of almost certain death awaits you.

WRITTEN BY:
PHILIP & ANDREW OLIVER
PRODUCED BY:
RICHARD PAUL JONES

5 013728 000202

PLAYERS

© PLAYERS 1986

PLAYERS

Killapede

amstrad/schneider

Killapede



amstrad/schneider

PLAYERS

FEATURES
SPEECH
NO HARDWARE REQUIRED

LOADING INSTRUCTIONS

464: RUN "
664 & 6128: ‖ (SHIFT @) TAPE RUN "

CONTROLS

After Loading press ESCAPE to redefine your playing keys/Joystick.

To redefine press the appropriate key when indicated on the screen i.e. When the knife moves press the key for fire.

When the left arrow moves press the key for left, or push the joystick left.

From the main title screen it will enter demo mode after the scrolling message has run out.

Press the fire button once you have chosen to begin the game.

OBJECT OF THE GAME

Destroy the killapede with your poisoned knives. Hitting a body section spilts the killapede into 2. Thus there will be 2 heads. Hitting a head scores double.

The killapede will make his way down the screen by moving left and right, dropping down a line each time it meets a mushroom or edge of the screen.

Mushrooms may be shot away by hitting it with 4 knives.

Should a Killapede reach the base of the screen a Ghost will appear at the top of the screen and come towards you, the only way to survive is to destroy the Killapede.

OTHER NASTIES

Fleas will drop down the screen leaving trails of mushrooms.

Snails will run across the screen changing the colour of any mushrooms it comes in contact with. If the Killapede hits one of these mushrooms it will descend immediately to the bottom of the screen.

A spider will bounce across the screen and you must be careful to avoid it.

An ant will dash across the screen in pursuit of you, be careful to avoid it.

All the above may be shot and score different amounts.

A bonus life is awarded every 10,000 points scored.

SPECIAL BONUS

Very occasionally a large butterfly (4 different ones) will fly across, hitting it will score a special bonus.

Move your Dynamic Debugging Thing (D.D.T.) around the lower half of the screen with the controls that you have defined.

Press Fire to throw knives.

On achieving a High Score you will be invited to enter your name for the Killapede Hall of Fame. Use your controls to position the marker over each letter and press FIRE. When you have entered your name select END.

Select DEL to delete any mistakes.

So there you have it, your quest awaits. And remember, even if it seems you have found your beloved, all is not what it seems!!!

KEYS:

O	LEFT
P	RIGHT
SPACE	FIRE
Q	JUMP
S	PAUSE/RESTART

Joystick compatible.

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LIMACE

Instructions de chargement:
Appuyez sur CTRL/la petite clé ENTER puis sur PLAY et une clé quelconque.

Imaginez la scène. C'est vendredi soir, il est onze heures. Limace et sa petite amie s'installent devant la télé pour regarder le film d'épouvante du vendredi soir, 'L'empereur Hadès rencontre les Melboides aux têtes de yak de l'Est de Londres, épisode 37 (Retour à . . .) quand, soudain, une main mécanique gigantesque descend et kidnappe votre bien-aimée sous vos yeux.

Vous passez du choc à l'action, et vous jurez, coûte que coûte, de la sauver.

Vous découvrez qu'on l'a conduite dans un pays étrange habité par des créatures monstrueuses (non pas Glasgow, idiot!). Parmi ces créatures il y a des escargots, des tortues, des serpents, des boules sur pattes et des moutons sur ressorts (salut Jeff!).

Vous devez collectionner les coeurs qui garantisseront la libération de votre petite amie. Le nombre dont vous avez besoin pour remplir chaque écran varie selon le niveau de difficulté.

Attention aux bombes, elles n'explosent qu'après un compte à rembours (de 9 à 0), mais vous pouvez les désamorcer simplement en vous précipitant dessus.

Vous pensez peut-être que c'est trop demander à une faible limace, mais vous êtes armé de BTNT (bave au tri-nitro-toluène) qui explose au moindre contact avec les créatures. Voilà, l'aventure vous attend. Et n'oubliez pas, même si vous croyez avoir trouvé votre bien-aimée, méfiez-vous des apparences!!!

Clés:

O	gauche
P	droite
Barre d'espacement	feu
Q	sauter
S	pause/repartir

Compatible avec joystick.

BABOSA

Instrucciones de carga:
Pulsa CTRL/ENTER pequena, luego PLAY y cualquier tecla.

Imaginate la escene: Viernes, 11 de la noche. Babosa y su novia se sientan a ver la película de horror 'EL Emperador Hades se encuentra con los Melboids 'Cara de yak' del este de Londres; entrega 37 (repetida), cuando aparece una enorme mano mecánica y se lleva a tu amada delante de tus propios ojos. Del asombro pasas rápidamente a la resolutión y juras salvarla, cueste lo que cueste.

Te enteras de que la han llevado a un extrano mundo donde vegan seres monstruosos, tales como caracoles, tortugas, serpientes, pelotillas con patas y ovejas que andan sobre muelles.

Tu tarea es recoger los corazones que garantizarán la salvación de tu novia. El número necesario para completar cada pantalla varía según el nivel en que te encuentres.

Tienes que estar atento también a las bombas, que explotan tras la cuenta de 9 a 0, pero puedes neutralizarlas con sólo dar contra ellas.

Tal vez pienses que todo esto es demasiado para una miserable babosa, pero vas armado con dinamita mortífera que destruye los bichos por contacto. Adelante, pues, tu misión te espera.

Y recuerda, Aun cuando parece que has hallado a tu amada, no todo es lo que parece!

TECLAS:

O	IZDA.
P	DECHA.
ESPACIADOR	FUEGO
Q	SALTO
S	PAUSA/SIGUE

Compatible con joystick.

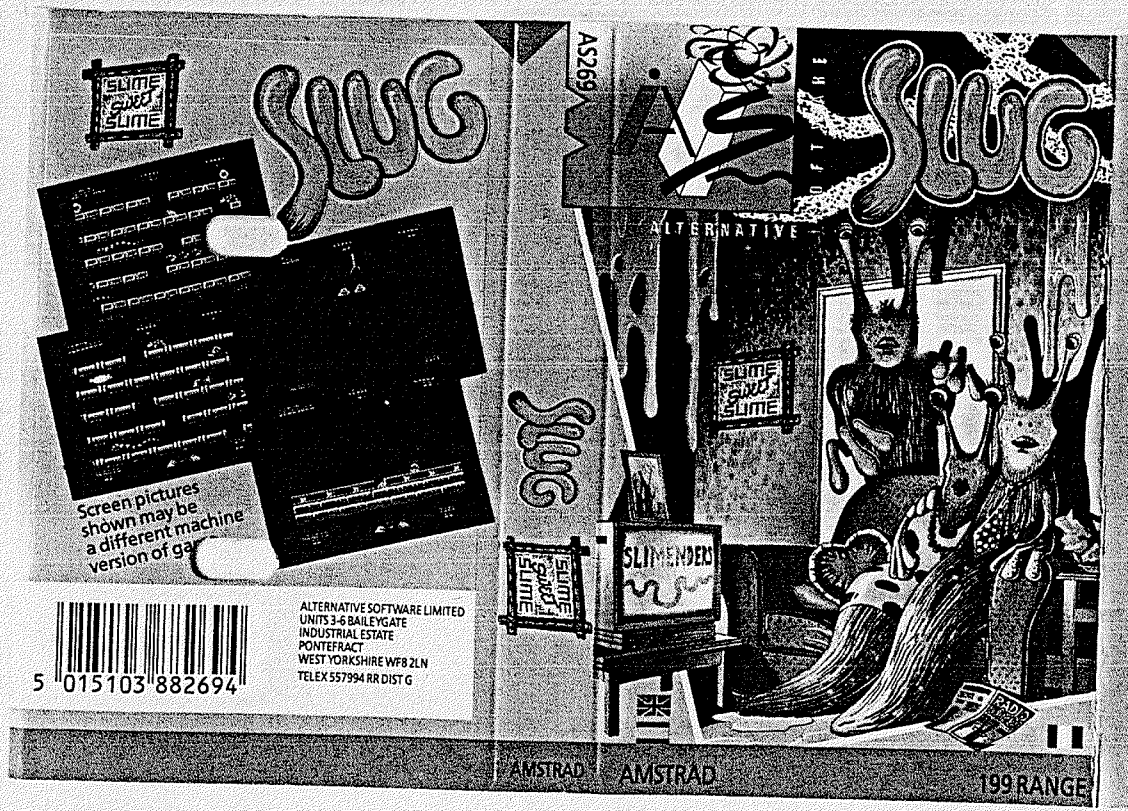


HEY HOUSE GUYS!

CHECK OUT THESE OTHER TITLES!

ADRIAN MOLE
AFTERMATH
BMX NINJA
CLASSIC ARCADIA (TD) 1
COMBAT ZONE
CONFUZION
CRAZY ER*BERT
CRICKET CRAZY
CRICKET INTERNATIONAL
DANGER MOUSE IN DOUBLE TROUBLE
DANGER MOUSE IN MAKING WHOOPEE
DEAD OR ALIVE
DEKATRON
ENDZONE
EVERYONE'S A WALLY
FLIGHT SIMULATOR
FOOTBALL FRENZY
GOLD OR GLORY
GRAHAM GOOCH MATCH CRICKET
GRAND PRIX
GUNBOAT
INDOOR SOCCER
JUDO UCHI MATA
LIFE TERM
MAD FLUNKY
METALYX
MICROBALL
MOONCRESTA
NEIL THE ANDROID
NOSFERATU THE VAMPYRE
OINK
POPEYE
RALLY DRIVER
RED ARROWS
ROGUE TROOPER
RUN FOR GOLD
SHE VAMPIRES
SLUG
S*M*A*S*H*E*D
SOCCER BOSS
SNODGITS (TD)
SPLAT
STAR WRECK
STRIKE FORCE COBRA
THE BIG SLEAZE
THE COLOUR OF MAGIC
THE ROCKY HORROR SHOW
THROUGH THE TRAPDOOR
TRAPDOOR
WHO DARES WINS II
WIZ BIZ
YOGI BEAR

AS269



Slug

LOADING INSTRUCTIONS:

Hit CTRL/Small ENTER then PLAY and any key.

Picture the scene. It's Friday night, 11pm. Slug and his sweetheart are settling down in front of the gogglebox to watch the Friday Nite Horror Movie, 'Emperor Hades Meets The Yak Faced Melboids From East London Part 37 (Revisited) when from out of nowhere, a huge mechanical hand reaches down and plucks your beloved from before your very eyes.

Bewilderment quickly turns to determination as you vow, whatever the cost, to save her.

You discover that she has been taken to a strange land where monstrous creatures roam. (No not Glasgow silly!) These creatures include Snails, Turtles, Snakes, Blobs on legs, and Sheep On Springs (Hiya Jeff!).

Your task then is to collect the hearts that will guarantee your girlfriend's release. The number needed to complete each screen varies with the level you are on.

You must also be on the lookout for bombs. These count down from 9 to 0 before exploding, but you can defuse them simply by running into them.

You may think that all of this is too much for a lowly slug to handle, but you are armed with T.N.T.S. (Tri-Nitro-Toluene Slime!!) which will destroy the creatures on contact.

liquidation and the loan is settled. If your assets can not cover the repayment, you are declared bankrupt and out of the game.

To prevent players hogging the terminal when it is their turn, it must be pointed out that after you have made 10 transactions, the Inland Revenue start to take interest in your dealings!

When one or more players have assets which total £1,000,000, the game is finished.

KEYS
B = to buy
S = to sell
E = to end your turn
L = lead
Z = zinc
G = gold

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LOADING INSTRUCTIONS

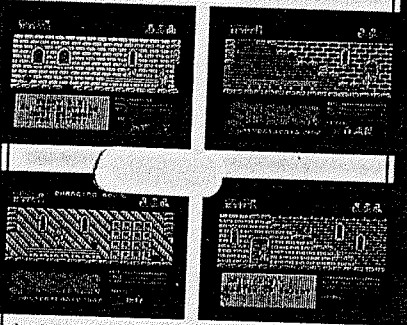
Reset computer by holding down CTRL, SHIFT and ESC keys together in that order. Place cassette into the Datacorder. Rewind tape to beginning then press STOP/EJECT once. Press CTRL and small ENTER keys simultaneously then press PLAY followed by any key. This program will take about 7½ minutes to load.

The aim of Stockmarket is to make money by buying and selling shares in four mining companies. At the start of the game each player has £1000 in the bank and each share is set to approximately half its maximum value.

Players conduct their transactions via a terminal and acoustic modem which connects them to their broker. Share prices, your portfolio and your brokers messages are displayed on the terminal's screen, while a teletype printer beneath it supplies newsflashes from an agency. At the end of each turn, when all the players have bought or sold as many shares as they want, share prices are adjusted so that high prices are likely to go down, and low prices are likely to go up. The market may be 'bullied' or 'beared' by heavy buying or selling.

The bank will allow the players to take our short term loans (repayable after 10 turns) in order to buy shares when cash is short, but loans must not exeed 60% of your total assets. Below this limit the amount of this loan may be increased, but not the repayment period, which is shown, each turn after the loan. If you do not have enough cash to repay the bank after ten turns, you are forced into

Screen shots taken from Spectrum version



Just picture the scene – there you are stark naked running round a busy shopping centre trying to find your clothes! If you manage to find your shirt, will you be able to enter one of the shops where other items of clothing must be hidden, or will the clothes thieves steal even that before you manage to complete the game?

JOYSTICK ONLY

CONVERSION BY BEACH NUT CREATIVE SOFTWARE

BULLDOG SOFTWARE

"The Best of British"

5 012967 800420

RECORDED ON BASF TAPE

BA 0193

STREAKERS



BULLDOG SOFTWARE

As a NATO (Neutralise Alien Territories Organisation) representative, Carlin spent a lot of time zipping off to far flung corners of the universe on official business. This particular trip was to the planet Zuggi to discuss the possible purchase of a particularly advanced defence system with a view to installing the system on Earth – a relatively routine day's work – or at least that's what Carlin thought!

Using the new Inter-Stellar shuttle service, Carlin could reach Zuggi in 1 hour, 37 mins and 23 secs, a vast improvement on the old service which used to take 2 hours 14 mins, and had been known to be up to 3 minutes late! Business would take in the region of 4-5 hours, including the compulsory Fitness lunch which was the norm on Zuggi. (Discussing business on an exercise bike could actually be quite productive at times. The theory being of course, that the mind was stimulated at the same time the body was being exercised. Really quite an excellent idea!). Anyway if everything went according to plan he could be home to his pipe and slippers by 5.30pm.

After the first round of meetings with the Mayor, Carlin decided to take a short cut as he made his way to the 'Lunch and Fitness Club', which turned out to be a big mistake! As he rounded the corner he was set upon by muggers and robbed of not only all his money and official top secret documents, but all his clothes as well! What on Zuggi is he going to do now?

GAMEPLAY

Your role is as the rather unfortunate stark naked Carlin. So just picture the scene. You're standing there with no clothes on feeling battered and bruised and very hungry. You can't possibly travel back to Earth without your clothes, so you've got to get them back – somehow. And just to make matters worse during your meeting with the Mayor he mentioned that there was a food shortage on Zuggi, and if you don't get something to eat soon you're going to starve to death!

HINTS

1. Your clothes are scattered around the central shopping area, for example your vest might be in the supermarket, but you'll have to check when the supermarket is open before you can claim it back.
2. Touch a closed door to find out the opening times.
3. Certain items may only appear after hours.
4. You will need to eat to keep your energy up as you go in search of your clothes, so if you spot any food – eat it.
5. You'll find the search pretty exhausting so you'll need to grab some sleep. Remember to take a stopwatch to bed with you.
6. A happy clothes thief is better than an unhappy one.

CONTROLS

Joystick only

LOADING INSTRUCTIONS

464: press CNTRL and small ENTER

664/6128: Type ITAPE and press RETURN
press CNTRL and small ENTER

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DEUTSCH

STEUERUNG

Sie kömmen die Tastatur oder einen Steuerknüppel zum Steuerm des BLADE WARRIOR gebrauchen.

AKTION	TASTE	STEUERKNÜPPEL
HOCHSPRINGEN	**P**	**AUFWÄRTS**
HINUNTERSPRINGEN	**L**	**NACH UNTEN**
NACH LINKS GEHEN	**Q**	**NACH LINKS**
NACH RECHTS GEHEN	**W**	**NACH RECHTS**

Wenn Sie einen Steuerknüppel gebrauchen oder selbst einen Tastensatz zusammenstellen wollen, drücken Sie **O** (für Wahl) auf dem Titelschirm und folgen der dort gegebenen Anweisung.
Tasten Sie **S** um das Spiel zu starten.

TIPS

Si müssen die folgenden Objekte der Reihe nach sammeln:

- die Totenliste, mit deren Hilfe finden Sie
- den Schädel des Dämonen, der damit zur Ruhe gelegt wird, aber erst
- nachdem er mit der Weihwasserphiole gereingt wird
- Dann brauchen Sie auch das Horn des Dämonen, um den Raben (den Boten des Dämonen) herbeizurufen und zuletzt
- das Pentagramm (Drudenfuss), das die Tür zum verzauberten Grab des Dämonen öffnet damit Sie tief in sein Inneres vordringen können.

. . . Hals-und Beinbruch, BLADE WARRIOR

These are other great CodeMasters games available for your Amstrad . . .

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4 Soccer Simulators

LOADING INSTRUCTIONS 128K users type LOAD "" (ENTER). 48K owners type the small ENTER RUN'.

SPECTRUM: 48K owners type the menu. Select the LOADER option from the CTRL and tap the type RUN' CPC: 464, hold down (TAPE (ENTER) the small ENTER. **AMSTRAD** 6128: Type | (shifted @) and tap key. (ENTER). **AMSTRAD** 664/6128: Hold down SHIFT and tap **COMMODORE** 64/128: 128K owners ensure that it is in C64 mode. RUN/STOP key.

MOVING TARGET

THE STORY

THE EVIL DRUGS DUKE OF COLUMBIA MUST DIE.
Acting on a top secret CIA intelligence report a commando unit, acting under orders from the special United Nations narcotics taskforce, smuggled four bombs into his underground cocain refinery hidden deep in the South American jungle. Unfortunately the aliens were never put in place.
As the sole surviving team member you must complete the mission.

THE GAME

Firstly choose your preferred control method. The Spectrum and Amstrad versions support both keyboard and joystick controls. C64 owners must use a joystick connected to port 2.

Your main objective is to find each of the four generators.
The Dukes' private militia of armed bandits, trained dogs and evil the bases' four separate strategic electrical generators. To prevent you from completing your mission you're armed with an Israeli built Uzi machine pistol. This gun is also the preferred weapon of your enemy (You should be able to find extra ammunition for your firearm scattered around the complex).
The Dukes' private militia will all try their best to prevent you from completing cocaine dealers will all try ther best to prevent you from completing your mission. You're armed weapon of your firearm scattered around the complex).
Contact with the enemy, bullets, mines or razor wire will have a severely adverse affect on your health. If your health rating gets too low, you can replenish it by eating massive basel. Contact with the enemy, bullets, mines or razor wire will have a severely adverse affect on your health. If your health rating gets too low, you can replenish it by eating massive food which can also be found carelessly scattered about the Dukes' complex. The UN will award you with an As a special bonus those nice people at the UN will award you with an Uzi clip (which holds a hundred rounds) for every 100 enemy guards you kill.
All information is clearly displayed at the base of the screen.

CREDITS

DESIGN — GARETH BAKER
SPECTRUM CODE & GRAPHICS — GARETH BAKER
COMMODORE CODE & GRAPHICS — B.C.P.
LOADING PICTURE — JABBA SEVERN
Z80 MUSIC — PAUL HILEY
C64 MUSIC — SONIC GRAFFITI
PLAYTEST — DAFFYD BAKER
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LOGO — PETER AUSTIN
STORY & SHOTS — JON CLARK & SIMON OXLEY
INLAY PRODUCTION — SIMON 'THE TRUTH' DANIELS & SI
TAPE MASTERING — PETE,JON,STEVE,SI,MIKE & SI
KEVIN PARKER

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PLAYERS - Mercury House, Calleva Park, Aldermaston, Berks. RG7 4QW.

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MASTERTRONIC



Naturally, we cannot allow this test to be run on a real power station as, should you fail, the devastation would be enormous, hence the simulator.

Your skill in compensating for the power fluctuations is at test here. If you should fail you will not be disgraced. It is a challenging job with absolutely NO margin for error.

Now read the standard operating instructions below and good luck.

Your task is to keep the kinetic forces acting on the dynamic rods in equilibrium.

The computer controls one rod, and you the other.

The rods are balanced by means of kinetic activators dropped onto the rods. Five different weights of activators are available to both you and the computer, the larger, heavier weights move the rods further than the smaller lighter ones.

To proceed to the next level of difficulty simply keep the rods level for a short period of time. The centre panel will flash white when they are level. As the levels increase, the amount of time in which to complete the task, decreases and the computer reacts faster.

Should either of the dynamic rods reach the top then you will have failed in your task.

Please indicate your readiness to start the test by pressing the appropriate key.

CONTROLS

Use a joystick or
Z Left
X Right
ENTER Fire

LOADING INSTRUCTIONS

SPECTRUM

Type LOAD "" and press ENTER

AMSTRAD

Press CNTRL and small ENTER.

FRENCH

DYNAMIX
Jeu très original dans lequel vous commandez un ensemble d'activateurs cinétiques. L'ordinateur en commande un ensemble identique, aussi pour atteindre votre but, il vous faut adapter à un certain pourcentage près vos séquencesimouvements à ceux réalisés par l'ordinateur.

Commandes
Z A gauche
X A droite
ENTER Feu

Instructions de chargement
SPECTRUM
Tapez LOAD "" et appuyez sur ENTER

AMSTRAD
Appuyez sur CNTRL et petit ENTER

GERMAN

DYNAMIX
In diesem außergewöhnlichen, originellen Arkadenspiel ist eine Gruppe kinetischer Aktivatoren zu steuern. Der Spieler steuert eine Gruppe, und daneben steuert der Computer eine identische Gruppe. Zur Erzielung der erforderlichen Punktezahl muß man innerhalb einer gewissen Prozenttoleranz die gleichen Bewegungen/die gleiche Folge wie der Computer erzielen.

Steuerung
Z Links
X Rechts
ENTER Feuer

Ladeanweisungen:
SPECTRUM
LOAD "" eintippen und ENTER drücken

AMSTRAD
CNTRL und kleine ENTER-Taste drücken

ITALIAN

DYNAMIX
In questo gioco arcade, originale ed insolito, tu ti trovi al controllo di una serie di attivatori cinetici. Il computer ne controlla un altra serie identica alla tua. Per fare il risultato, devi riuscire a fare le stesse mosse/sequenze del computer entro un certo limite percentuale.

Controlli
Z Sinistra
X Destra
ENTER Fuoco

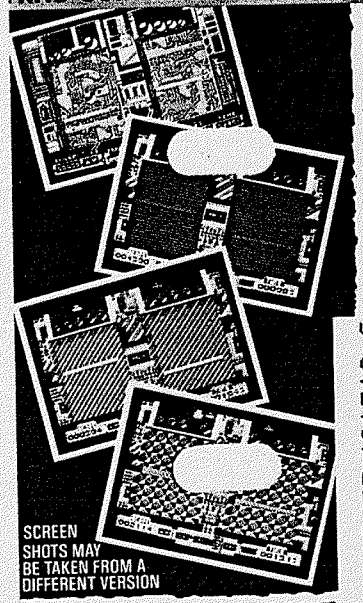
Istruzioni di caricamento
SPECTRUM
Battere LOAD "" e premere ENTER

AMSTRAD
Premere CNTRL ed ENTER piccolo

PROGRAM © P.A.L. DEVELOPMENTS 1989

PECTRUM·48·128·PLUS 2·SPECTRUM·48·128·

RAD·SCHNEIDER·464·664·6128·AMSTRAD·S



SCREEN SHOTS MAY BE TAKEN FROM A DIFFERENT VERSION

In this highly unusual and original arcade game you control a set of kinetic activators. The computer controls an identical set alongside yours. You must match the computers movements/ sequence within a given percentage to achieve your score.

BASF

MACHINE TYPE

DYNAMIX

SPECTRUM · AMSTRAD

PAL SA3

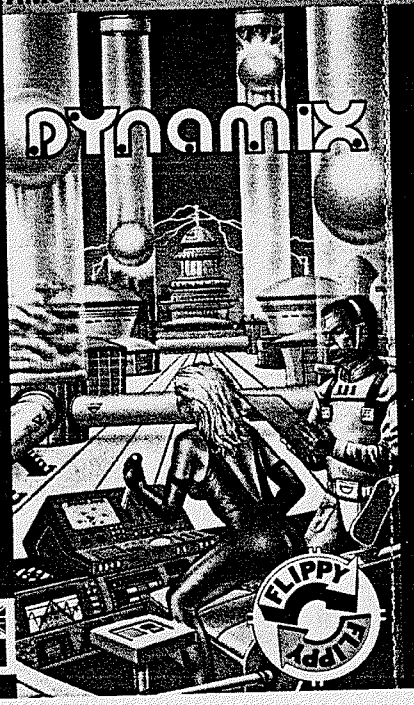
5 012967 122021

MASTERTRONiC

MASTERTRONiC

SPECTRUM·48·128·PLUS 2·SPECTRUM·48·128·PLUS 2·SPECTRUM

AMSTRAD·SCHNEIDER·464·664·6128·AMSTRAD·SCHNEIDER·464·



DYNAMICS (dai'nae miks) n. 1. The branch of mechanics concerned with the forces that change or produce the motions of bodies. 2. The branch of mechanics that includes statics and kinetics.

KINETICS (Kin'etics, Kai) n. The branch of mechanics concerned with the study of bodies in motion.

In this highly unusual and original arcade game you control a set of kinetic activators. The computer controls an identical set alongside yours. You must match the computers movements/sequence within a given percentage to achieve your score.

Outside of this percentage you lose points and ultimately lives. Sounds simple doesn't it.

Mastertronic Health Warning:

This computer game is highly addictive and can make you seriously late for bed.

THE CHALLENGE

Primary Dynamic Rod Controller step forward.

Your yearly assessment is now due, please step into the Dynamic Power Station Simulator.

As you know, this annual test is to assess your ability as a Dynamic Rod controller.

A MEMBER OF THE VIRGIN MASTERTRONIC GROUP OF COMPANIES
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Made in Great Britain

THE GAME

kindly to strangers nosing around. They will do their level best to prevent you from reaching the antidote – so keep a look out. If you do happen to come into contact with any of them your energy level will decrease. A word of warning, try not to let it get too low!

Should you decide you want to leave a particular labyrinth, you will find yourself back in the park and you will not be able to re-enter that particular labyrinth.

HINTS

1. Beware the rising flood water, the intelligent spike, the green bottle and the room full of time increase gas.
2. You can decrease your rate of energy decrease, if you know how!
3. You can also regain energy. (Fire a certain object at the intelligent spike).

CONTROLS

Keyboard or Joystick Option

Use the joystick to move in any of the 8 directions and FIRE to enter the labyrinth or;

Q – Up
A – Down
O – Left
P – Right

Use SPACE to enter the underground and to FIRE.

To collect the various objects you come across, press 'T' to take an object, 'D' to drop the object, and 'L' to list the objects you are already carrying.

In the Labyrinth

Use the joystick to move left, right, jump straight up or to jump left and right. Press FIRE to throw a certain object and pull back the joystick to go UP or DOWN a level, but you must be standing over a staircase in order to do this.

The keyboard keys have the same function below ground as above, but use Q to jump up and A to go through a doorway.

In order to successfully shoot at all the nasty creatures lurking in the underground labyrinth, you will need to collect the three stones you find in the park.

You can save a game by pressing COPY.

LOADING INSTRUCTIONS

Amstrad 464: Press CNTRL and small ENTER

Amstrad 664/6128: Type I TAPE and press RETURN. Press CNTRL and small ENTER.

BULLDOG SOFTWARE

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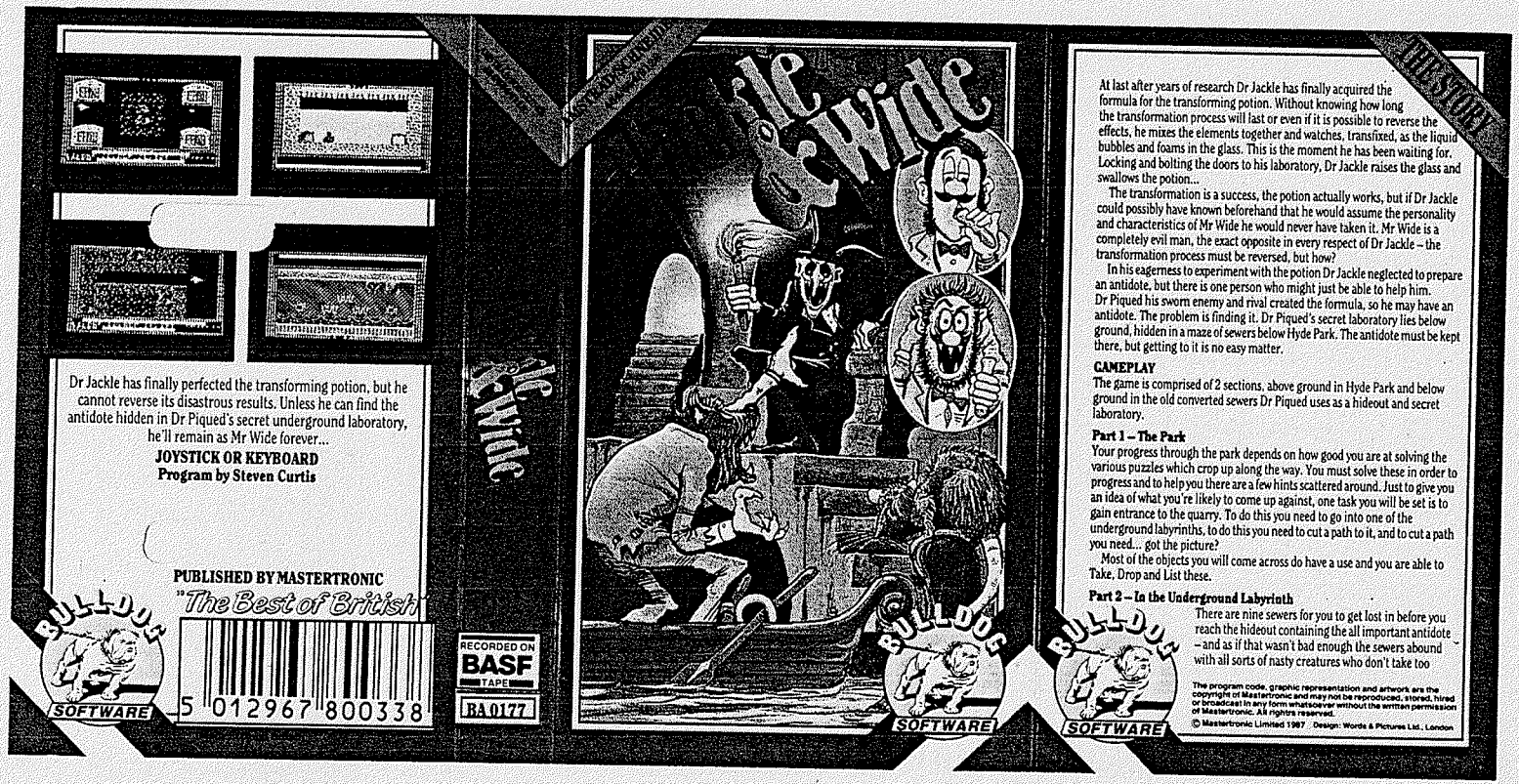
Dr Jackle has finally perfected the transforming potion, but he cannot reverse its disastrous results. Unless he can find the antidote hidden in Dr Piqued's secret underground laboratory, he'll remain as Mr Wide forever...
JOYSTICK OR KEYBOARD
Program by Steven Curtis
PUBLISHED BY MASTERTRONIC
"The Best of British"
5 012967 800338
RECORDED ON BASF TAPE
BA 0177
Mr Wide
BULLDOG SOFTWARE
THE STORY
At last after years of research Dr Jackle has finally acquired the formula for the transforming potion. Without knowing how long the transformation process will last or even if it is possible to reverse the effects, he mixes the elements together and watches, transfixed, as the liquid bubbles and foams in the glass. This is the moment he has been waiting for. Locking and bolting the doors to his laboratory, Dr Jackle raises the glass and swallows the potion...
The transformation is a success, the potion actually works, but if Dr Jackle could possibly have known beforehand that he would assume the personality and characteristics of Mr Wide he would never have taken it. Mr Wide is a completely evil man, the exact opposite in every respect of Dr Jackle – the transformation process must be reversed, but how?
In his eagerness to experiment with the potion Dr Jackle neglected to prepare an antidote, but there is one person who might just be able to help him. Dr Piqued his sworn enemy and rival created the formula, so he may have an antidote. The problem is finding it. Dr Piqued's secret laboratory lies below ground, hidden in a maze of sewers below Hyde Park. The antidote must be kept there, but getting to it is no easy matter.
GAMEPLAY
The game is comprised of 2 sections, above ground in Hyde Park and below ground in the old converted sewers Dr Piqued uses as a hideout and secret laboratory.
Part 1 – The Park
Your progress through the park depends on how good you are at solving the various puzzles which crop up along the way. You must solve these in order to progress and to help you there are a few hints scattered around. Just to give you an idea of what you're likely to come up against, one task you will be set is to gain entrance to the quarry. To do this you need to go into one of the underground labyrinths, to do this you need to cut a path to it, and to cut a path you need... got the picture?
Most of the objects you will come across do have a use and you are able to Take, Drop and List these.
Part 2 – In the Underground Labyrinth
There are nine sewers for you to get lost in before you reach the hideout containing the all important antidote – and as if that wasn't bad enough the sewers abound with all sorts of nasty creatures who don't take too
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with a Shape File Name. Modify this file name as necessary, then press ENTER.

The computer will now ask you to:–

Press PLAY then any key:

Ensure that the correct tape is in the datacorder, press PLAY, then press any key except ESC, CAPS LOCK, SHIFT or CTRL.

The selected shape definition file will load in just over 2 minutes. When loaded, the display will change to give you the character set slice, at the top of the screen, the shape file will be displayed in the scenery display area.

You can now copy characters from the scenery display area, into the character set, in the following way:–

Firstly, move the cursor to the desired character, in the scenery display area. Then, scroll the character set slice, until the desired un-wanted character is in the active character position. Pressing the C key, will copy the character beneath the cursor, to the active character position in the character slice. (N.B. This is the exact opposite, of the way things would happen, during scenery amendment/creation.)

When you have finished copying new characters, press the ESC key to return to the Scenery Designer.

Restrictions on Changing the Character Set

Basically there is only one restriction. You are not permitted to copy a character to the 000 position, as to do so, would make the Doors of Doom unplayable!

The only other 'restriction' is that the palette of colours used during the main game, is fixed. Whilst using Shape and Sound, to design new characters, you should work with this palette. This is the same as the default palette, as used by Shape and Sound, whose values are as follows:–

Ink No.	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
Value	0	1	2	3	6	4	8	9	18	10	20	11	24	13	26	15

The border is set to a value of 6. None of the inks flash.

Quick Key Reference

Required Action	Key (s)
Scroll character slice 1 char.	A with cursor left or right.
Scroll character slice 17 chars.	A with TAB and left or right.
Scroll scenery display 1 char.	D with cursor left or right.
Scroll scenery by a screenful.	D with TAB and left or right.
Cursor movement.	The four cursor keys.
Blank out a char. in the scene.	B.
Copy active char. to scene.	C.
Write scenery to tape.	CTRL with W.
Read character shape file.	CTRL with R.
Copy char. to active char.	C.
Return to scenery designer.	ESC.

This concludes the instructions for the Doors of Doom and it's accompanying Scenery Designer. We wish you luck with the game and lots of fun designing your own scenery.

"Doors of Doom" © 1985 Gem Software and Amsoft.

relationship between the active character and the cursor, is that the active character, can be copied to the cursor position, by simply pressing the C key. In this way, you can select characters and copy them to the scenery, to modify the scenery, or create new scenery, to your heart's content.

You can press the cursor keys in conjunction with the C key, to leave a trail of the active character behind the cursor.

This is however, more useful with the B key. Pressing the B key will 'blank' out the character, in the scenery display, beneath the cursor. Used in conjunction with the cursor keys, it is a much quicker way of 'deleting' unwanted scenery, than selecting character 000 as the active character, then pressing the C key.

Restrictions on Scenery Amendment/Creation

You will not be able to copy character 130 to the scenery. This is the character used to make up the Doors of Doom themselves, and as such is only allowed to be present in the centre of the castle, where the doors are assembled during the game.

You will not be able to 'blank' out, or overwrite, the doors themselves. Should you try to do so, the program will replace them.

Characters 131 and upwards, are used as 'animated' characters. Each 'animated' character is in fact, a group of four characters. You will only be allowed to copy the first character of each group of four, to the scenery.

The rules used by the Doors of Doom program, when it scatters it's cups of tea, super weapon modules and pieces of door, at the start of each game, are very precise. Each object is placed in a blank character position, immediately above a non-blank, non-animated character. Your scenery must allow the program to find enough such locations (please see below).

Saving the Scenery

When you have finished your scenery, you may save it to a scenery tape of your own. This is done by pressing and holding the CTRL key, then pressing W.

The screen will clear and the scenery will be checked to ensure that sufficient locations exist, for object placement. If the scenery is all right, the following message will be displayed:–

Scenery O.K.

If there are not sufficient such locations, you will receive the following warning:–

Doors of Doom will not work with this scenery!!

Whether your scenery is valid, or not, you will now be presented with a Scene File Name. Amend this to the name that you want, then press ENTER. The program will respond with:–

Press PLAY then any key:

Ensure that your scenery tape (NOT the Doors of Doom tape) is in the Datacorder, press PLAY then any key except ESC, CAPS LOCK, SHIFT or CTRL.

Your scenery file will now be saved to tape. This will take about 4 minutes. After saving, the screen will change back to the normal display.

Changing the Character Set

This can only done, if you have created a new set of characters, using the utility program 'Shape and Sound', written by Gem Software, published by Amsoft.

Press and hold the CTRL key, then press the R key. The screen will clear and you will be presented

will need to do this, in order to change the active character.

To move the slice by one character at a time, press the A key in conjunction with either the cursor left or cursor right key. Try it out. Press and hold down the A key, then press the cursor left key four times. (You must be positive with your key depressions, otherwise the program may miss them!!) The character slice should have moved, with the first of the four "skull" characters now showing as the active character. The active character number should also have changed, to show a value of 171.

To move the slice by seventeen characters, you should press the A key, the TAB key and cursor left or right key, in conjunction. Try this as well. Press and hold the A key, then press and hold the TAB key, now press the cursor right key once. You should now see a grey and magenta piece of stonework, in the active character position. The active character number should be 013.

There are a total of 175 characters in the character set, numbered from 000 to 174. The character set slice 'wraps round', so to select character 003, as the active character, when the current active character is number 167 say, you do not need to go all the way down, but can move up past 174 to 000 and on to 003.

Scenery Display Manipulation

The same sort of key sequence is used to move the scenery display. To move the scenery display by one character at a time, press the D key and the cursor left or right keys together. Have a go! Press and hold down the D key, now press the cursor right key twice. The scenery will have moved, the leftmost two characters worth will have gone and on the right, two characters worth of scenery will have appeared. The scene display offset will also have changed, it should now show 0014. You may also have noticed that the cursor reference number has change from 000 to 117. This is because a new character is now beneath the cursor (a yellowy piece of sandstone). Verify that this is character 117 by 'scrolling' the character set slice until character 117 is at the active character location. It's the same as the character beneath the cursor, isn't it!!

You can also move the scenery display by a full 'screenful' at a time. This is done by pressing and holding the D key, then the TAB key and then the cursor left or right key. Go on, try this as well. Press and hold down the D key, now press and hold the TAB key, lastly press the cursor right key four times. The scenery should now show two sections of water crossed by bridges. The scene display offset should read 0334 and the cursor reference number will now be 000.

Just as the character set display wrapped round, so does the scenery display. There are some 25 and a bit screenfuls, representing about a mile's worth of the planet of Doom.

Cursor Movement

Before getting on to scenery creation, there's one last thing to cover; moving the cursor around the screen. The cursor is an flashing orange square, that can move around in the scenery display area. The cursor keys are used to move it about the screen. You can use two cursor keys together to move the cursor diagonally, if you want.

Scenery Amendment and Creation

At last we get down to the nitty-gritty. The

scenery file provided with this tape, merely press ENTER now. If however, you have already created a scenery file of your own, using this program, press STOP/EJECT twice, replace the Doors of Doom cassette with the cassette containing your scenery, amend the file name on the screen and press ENTER.

The computer will respond with the prompt:– Press PLAY then any key:

As above, press PLAY on your Datacorder, followed by any key except ESC, SHIFT, CAPS LOCK or CTRL.

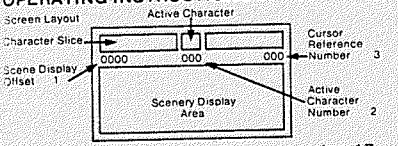
When the scenery file has been loaded (after about 4 minutes), the scenery will be displayed on screen. You may now proceed to create your scene.

NOTE. The first time you play Doors of Doom, we advise that you take tape counter readings as follows:– (having fully rewound the tape, and reset the tape counter)

1. When Doors of Doom asks for the name of a scenery file. (This gives you the location of SCENE1, the supplied scenery file.)
2. After SCENE1 has loaded and the game starts. (This is just before the SCENERY DESIGNER program.)

It should now be easy to fast forward/rewind as required, to the correct place, when trying to run the Scenery Designer program, or, when trying to load the supplied scenery file.

DOORS OF DOOM SCENERY DESIGNER OPERATING INSTRUCTIONS



Running across the top of the screen is a 17 "character" slice, of your "character set". The central "character" is isolated and will be referred to as the "active character" from now on.

Immediately above the active character, is a horizontal bar. The purpose of this bar, is to highlight the position of the active character.

Below the character display are three numbers. Going from left to right, these are as follows:–

1. The scene display offset. This number is shown in hexadecimal and is only there to act as a guide, to your position within the scenery.
2. The active character number. This gives you the reference number, of the active character, displayed above.
3. The cursor reference number. This telis you the reference number, of the character underneath the cursor.

The rest of the screen is taken up by the scenery display area. Within the display are, you will see a flashing square cursor.

Character Set Manipulation

The character set slice, displayed at the top of the screen, may be moved to the left or right, by one character or seventeen characters, at a time. You

Fire Laser	Space bar	Fire button
Scroll the scenery	Left/Right cursor keys	
Select Weapon System	Up/Down cursor keys	
Hold Game	H	
Restart Game (when held)	Any key	Any
Abort Game	ESC and COPY together	

N.B. When using the 'Levitate' Weapon System:–

Up	A or]	Up
Down	Z or \	Down

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DOORS OF DOOM SCENERY DESIGNER

INTRODUCTION

The Doors of Doom, is an arcade adventure with the most detailed graphics scenery yet seen on the Amstrad. The program is designed in such a way, that it allows you to choose the scenery file that it will use, in the game.

The Doors of Doom Scenery Designer program, allows you to design your own scenery for use in the main game. you can do this in one of two ways, firstly, you can use the "character set" provided in the game's scenery file, or, if you have purchased Amsoft's Shape and Sound utility program (Soft 06037/07037), you can even use your own "character set"!!

LOADING INSTRUCTIONS

Reset the computer by holding down the CTRL, SHIFT and ESC keys together in that order. Place the Doors of Doom cassette, in the Datacorder. If necessary, rewind the tape, (please see note below), and press the STOP/EJECT key once.

If you have a disc drive, key in:– ITAPE and press ENTER. (The] character is the shifted @.)

Now key in:– RUN "SCENERY DESIGNER" and press the ENTER key. The computer will respond with the prompt:– Press PLAY then any key:

Press PLAY on your Datacorder, followed by any key except ESC, CAPS LOCK, SHIFT or CTRL.

The computer will now load the Scenery Designer program. This will take less than one minute (please see note below).

When the program has loaded, the screen will clear and you will be asked to amend/enter the name of a scenery file. If you want to use the

"Unfortunately, at such short notice, there is one minor imperfection. The weapon systems, are contained in separate modules scattered around the planet. The teleporter system is malfunctioning and every time you use a weapon system, it will be teleported away from you. We have, however, been able to prevent this from happening to your laser."

"Fond as you creatures are of infusions of crushed and dried vegetable matter, we have disguised a number of energy pods as cups of tea! These have been placed around the planet and may be used to top up your energy pack," it continued. "Most of the robots, have been programmed to guard the Pieces of The Door, the rest to home in on your energy pack," it said. "They will attempt to drain you of energy. It they do so, you will have failed and Homo Sapiens will be left to destroy itself in nuclear conflict."

"Should you manage to retrieve all the pieces of The Door and destroy all the robots, then you must go to the base of the Doors of Doom where the rebirth of your race, into the Golden Age, awaits you . . ."

Now I'm not a particularly brave person, elaborate suicide plans I could do without. I'm going home!

On the other hand, I'd better start doing something about these robots that have materialised all around me. Now what did it say . . . ?

LOADING INSTRUCTIONS
(SEE CASSETTE LABEL)

The computer will then proceed to load the main program. When the main program has loaded, the screen will clear and you will be asked to amend/enter the name of a scenery file. If you want to use the file provided merely press ENTER now. If however, you have designed your own scenery, using the Doors of Doom Scenery Designer, replace the Doors of Doom cassette with the cassette containing your scenery, amend the file name on screen and press ENTER. The computer will respond with the prompt:– Press PLAY then any key:

Press PLAY on your Datacorder, followed by any key except ESC, SHIFT, CAPS LOCK or CTRL.

The scenery file will take about 4 minutes to load.

PLAYING INSTRUCTIONS
You are now nearly ready to play Doors of Doom. The game can be played at one of three difficulty levels. The level of play determines, how many times a robot needs to be fired upon, before being destroyed, also how much energy is received from a cup of tea. Level 1 is relatively easy and should be used at first. However, for more of a challenge, and more of a score, level 2 is recommended. Level 3 must not, under any circumstances, be played by anyone under the age of 43, unless accompanied by four other persons trained as paramedics. If you are 43 or over, however, you really should know better!!

Zapping robots may be fun, but to beat this game, you will need to think hard about your strategy.

You control the gameplay by means of a joystick and/or the keyboard, the controls are as follows:–

Required Action	Keyboard	Joystick
Walk left	Q, E, O or @	Left
Walk right	W, R, P or [	Right
Jump up	A or]	Up (away from you)
Use Weapon System	Z or \	Down (towards you)

SCENARIO

"Welcome to the planet of Doom" resounded in my ears, as I came to my senses. "What's going on!! Where am I??" I yelled, trying not to curl up and cry for Mummy. "You have a mighty task before you." came the disembodied voice, "You, of all the teeming millions on your planet, have been chosen by us to represent your race. The Doors of Doom await you!"

"Wait a minute . . . what are you talking about . . . what doors of doom??" This couldn't be happening, there I'd been quietly sitting at home, playing on my Amstrad, when all of a sudden I felt faint. Next thing I know I'm somewhere north of Watford, having a rather one sided conversation with some raving lunatic!!

"The time has come for your race to progress or destroy itself." came the voice again, "We can help you to grow in the Galactic Mind. this planet of Doom has been used for millennia, to test the courage and resourcefulness of beings much like yourself. Your body remains, but your spirit is here, you must defeat our robots and retrieve the Pieces of The Door."

Humour it, that's the best thing so I've heard. "I suppose your going to give me a multi-function weapon system, that lets me zap away to my heart's content, gives me the power of flight, paralyses robots (if there's a Q in the month), floats things up into the air, shields me from nasties and when it really gets rough, will teleport me out of trouble, whilst playing the national anthem and making cups of tea with both arms tied behind its back, eh??" Well if you're talking to a loonie, why not go a bit O.T.T. yourself?

"The weapon you have specified is now at your disposal." replied the bodiless being.


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LOADING INSTRUCTIONS

AMSTRAD CPC CASSETTE: Press **CTRL** and small **ENTER** keys. Press **PLAY** on the cassette recorder.

You can also choose or adjust in the selection menu the functions start (**FIRE**), "speed" or "gravitation" (both with **UP** and **DOWN**) with the joystick.

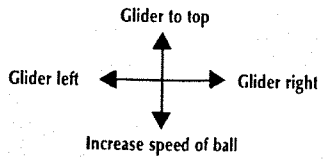
Upon starting the game, your objective is to pilot the small round probe with your spaceglider over the planet Atavi. You can gather points by touching special objects. Additional gliders or probes can be collected by touching special objects. Beware of moving objects which will endanger your probe by causing a reduction in its size or lead to its total loss. You can finish a level by manoeuvring your probe into the field with rotating balls. A bonus level is awarded if you achieve this from which you have the option to choose any level you like. As the game progresses, the levels increase in difficulty with the addition of further fiendishly clever traps.

Press **FIRE** to switch from Menu to High Scores.

To abort title tune press any key.

KEYBOARD: Arrow keys simulate joystick. Directions below. Copy = **FIRE**.

JOYSTICK CONTROL



Press **FIRE** to turn glider.

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Auflade - Instruktionen

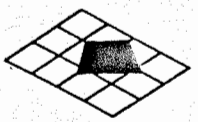
1. Legen Sie die Kassette in das Chassis und stellen sie sicher, dass sie vollkommen zurückgespult ist.
2. Drücken Sie gleichzeitig die CTRL-Taste und die ENTER-Taste.
3. Drücken Sie Taste PLAY auf dem Chassis.
4. Das Spiel lädt sich jetzt auf und läuft automatisch ab.
5. In dem unwahrscheinlichen Fall eines Fehlers beim Aufladen spulen Sie das Band bitte etwas zurück und drücken auf PLAY. Wenn häufig Fehler vorkommen ist es vielleicht notwendig, dass Sie Ihr Band neu ausrichten.

Spielen Des Spiels

Der Spieler sollte das Gyroskop vom oberen Teil jedes Spielfeldes an das untere Ende manövrieren. Um das Speil erfolgreich zu Ende zu bringen, müssen 28 Bildschirme überwunden werden. Es stehen fünf Arten von Hindernissen ihrem Weiterkommen im Wege.

— steil Hügel
— glattes Glas
— Richtungsmagneten
— Fremdlinge
und
— schmale Felsenriffe

Nachdem Sie das Ende Spielfeldes erreicht haben, müssen Sie in das Persösonlichkeits-Quadrat hineingehen, das so aussieht:



Wenn Sie das Spiel erfolgreich zu Ende gebracht haben, wartet eine grosse Überraschung auf Sie.

Kontrollen

Mit der Tastatur können die Bewegungen wie folgt durchgeführt werden.

O - LINKS
P - RECHTS
Q - NACH OBEN
A - NACH UNTEN

Drüken Sie SPACE, um mit dem Spiel zu beginnen.

Lebens-System

Der Spieler hat sieben Leben oder Gyroskope, mit denen er das Spiel zu ende bringen kann - sowie ein zusätzliches Leben für jeweils 1000 Punkte. Wenn er von der Kante herunterfällt oder auf einen Fremdling stösst, so fällt das Gyroskop um und der Spieler verliert ein 'Leben'. Am oberen Ende des Bildschirms befindet sich eine Uhr, welche rückwärts tickt. Wenn sie Null erreicht hat, so hört das Gyroskop auf zu schwingen und sie haben ein 'Leben' verloren. Das Spiel wird mit einem neuen Gyroskop weitergespielt, welches sofort auf der Stelle erscheint, an der das vorherige umgefallen ist.

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SAURON: The Dark Lord. The embodiment of evil in Middle Earth. Once thought to have been destroyed during the wars against him in the second age of the world. Sauron has re-arisen to once again attempt to spread his power over all of Middle Earth. Sauron seeks to recover his Ring of power in order to gain the strength that he needs to complete his conquests and enslave all right thinking people everywhere.

Possible Actions:

Below is a list of all the verbs that the player will need to play the game. The verb list has been divided into two sections. The first section is composed of directions which the computer will understand for character movement, the rolling of rocks etc. The second section contains the verbs which the characters may use in performing actions. Any verb in this section which is underlined does not take any game time to perform.

NORTH, SOUTH, EAST, WEST, NORTH EAST, NORTH WEST, SOUTH EAST, SOUTH WEST, UP, DOWN.

BECOME, BREAK, BREAK WITH, CLIMB UP, CLIMB DOWN, CLIMB INTO, CLIMB OUT OF, CLIMB ONTO, CLIMB OFF, CLOSE, COOK, DRAG, DROP, DROP IN, EAT, EMPTY, EMPTY ONTO, EXAMINE, FILL, FILL WITH, GALADRIEL, GET, GET IN, GET OUT, GIVE TO, GO FISHING, GO THROUGH, HELLO, HELP, HOLD UP, INVENTORY, JUMP OVER, JUMP OFF, JUMP ONTO, JUMP OUT, JUMP THROUGH, KILL, KILL WITH, LEVER (direction), LEVER OVER, LIGHT, LIGHT WITH, LOAD, LOOK, LOWER, MAKE, NO, OPEN, PAUSE, POLE, POUR ON, PROMISE, PULL ON, PUT ON, PUT ONTO, PUT OUT, QUIT, RAISE, REST, ROLL (direction), ROLL OVER, SAVE, SAY TO, SCORE, SPRINKLE ON, SPRINKLE WITH, STOP, SWIM, TAKE, TAKE OFF, TALK TO, THANK YOU, THROW AT, TIE WITH, TIE TO, UNTIE, WEAR, YES.

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Credits
The Faceless Programmers Cooperative
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No matter how well you arm them, be wary of throwing Hobbits into the midst of gory battle. Being furry footed little runts, they have a tendency to die with spectacular suddenness.

Persistence in combat is rewarded, but be careful. Most opponents hit back, and an already wounded character is much more susceptible to being killed than a healthy one.

Carrying Items

During the course of play, it will become necessary to pick up and carry inanimate objects. Once you have found an item, you need simply take the item in order to pick it up and carry it, e.g.:

TAKE ROPE

To check on the equipment that you are already carrying, simply make an inventory of your character, e.g.:

INVENTORY

To rid yourself of an item, you need merely drop it, i.e.:

DROP ROPE

As an alternative, you may give the item to another member of the party, e.g.:

GIVE ROPE TO SAM

In addition to adding weight to your burden, some objects increase your effective size. This can be troublesome if you intend to go through a small door or tunnel, so beware of adopting the pack-rat syndrome.

FATIGUE, WOUNDS AND EATING

All characters are rated for their strength and stamina. During the game these characteristics may suffer from combat, or simple weariness.

As a character takes wounds, its strength becomes lower, and its hold on life more tenuous. As time passes, characters become more and more tired as their energy is used up. Highly strenuous activities, such as combat, may exhaust you even more.

Legends and Common Knowledge

For players who are unfamiliar with Tolkien's Middle Earth mythos, we provide the following information on the places and creatures of which Frodo and Sam could be expected to know through legend and rumour.

DAGORLAD: The desolate, lifeless plains which lie before the gates of Mordor. "Dagorlad" is the Sindarin word for "Battle plain", for it was here that the might of Sauron was defeated in the final battle of the first war of the Ring. With his armies destroyed in battle, Sauron retreated to his fortress of Barad-Dur, where he was finally defeated in mortal combat after a seven year siege by the forces of the Elves and the men of the west.

THE DEAD MARSHES: A gloomy waste of trackless swamps which lie to the west of the plains of Dagorlad. The marshes first began to spread when Sauron once again began to extend his influence into the lands of Mordor during the middle years of the third age, and they soon swallowed the graves of the Men and Elves who were slain in the battle of Dagorlad so many years before.

EMYN MUIL: A knotted range of hills which lie between the Anduin river the Dagorlad plains.

HARAD: A patchwork of minor kingdoms and city-states which devote the bulk of their time to warring with the peoples of Gondor. They thus formed a ready made ally for Sauron upon his return to power.

MINAS MORGUL: Originally titled **Minas Ithil**, the "tower of the rising moon", this twin city to Minas Tirith (the current capital of GONDOR) fell to the NAZGUL and their armies many years before Sauron's re-appearance. Now named **Minas Morgul**, "the tower of death", the fortified city of Minas Morgul is the home base of the NAZGUL and their evil armies.

MORDOR: The realm of Sauron. Already bleak and infertile before the advent of the Dark Lord, Mordor is now chiefly composed of poisoned wastelands and plains of ash. At the centre of the realm lies mount ORODRUIN, the volcano in which the ring of power was forged. Close by lies the fortress of BARAD-DUR, where Sauron holds his court. Mordor is ringed with impassable mountains which provide it with unsurpassable protection against attack. The only two passes through the mountains of shadow are fortified and guarded, although the mountains also harbour older secrets of their own.

MORGUL VALLEY: The once fair valley in which lies the tower of Minas Morgul. The valley is now choked with rottenness and decay, poisoned waterways and noxious flowers.

NAZGUL: The nine ring-wraiths, perhaps more familiar to the player as the "Black riders" of Game One. After the disaster at the ford of Rivendell, where the Nazgul lost their black horses, Sauron gave his servants fearsome flying creatures which had been bred from eyries discovered in some dark recess of the mountains of shadow. Thus mounted, the Nazgul took to the air to further their search for the ruling ring.

The second time that you enter a location, the computer will only give you a brief description of where you are. If you wish to obtain a more complete description, you can simply enter the command LOOK, and the computer will repeat the lengthy text.

Below the adventure script, an arrow indicates your "instruction window"; the space in which you will type in the actions that you wish your characters to perform. This will appear on the screen in capital letters.

Once you have typed in your commands and hit the RETURN/ENTER key, the computer will either acknowledge your action, or inform you that it does not understand you for some reason. Once the computer has acknowledged an entry, it will print any new text which results from your actions, and then indicate that it is ready to receive a new instruction.



ENERAL RULES IN MIDDLE EARTH

General

- A map of Middle Earth can be found in each book of **Lord of the Rings**, in the inside rear cover (map one).
- During the adventure, you will encounter many objects. Some are usable as weapons, others are intended as food or drink, still others are used as containers in which to carry other things. Liquids behave as such: They cannot be carried about without a container. You cannot lift too heavy an object, or carry too great a load.
- Most containers must be opened in order to reach their contents. Once a container is open you may look it or take the objects that are held within. Once the objects inside a container have been exposed, they may be used. Some containers may be transparent, allowing you to see their contents without opening the container itself.
- Some doors are locked, this means that either the proper key is required to unlock them, or that someone on the other side of the door must open the door for you.

Finding Your Way

SPECIFYING DIRECTION

There are assumed to be ten possible directions of travel:

NORTH, SOUTH, EAST, WEST, NORTH EAST, SOUTH EAST, NORTH WEST, SOUTH WEST, UP and DOWN.

It is possible to abbreviate the words used to describe directions down to a single letter for each word, e.g.

NORTH EAST
N E

Are both valid entries for movement instruction.

PASSING THROUGH PORTALS:

If you want to go through an entrance, such as a door or window, it is quite possible to say so, e.g.:

GO THROUGH OPEN DOOR

LIGHT AND DARK

In some areas, there will be no natural light. Unless you have the means to create light – such as matches and a candle – you will receive no description of the area that is in darkness. Once a light has been struck, you will be able to see the area in question.

Additionally, hobbits don't move well when they can't see where they're going – a problem other creatures may not share!

MAPPING

It is suggested that you keep a map of your travels to assist you in finding your way. Be warned! Maps cannot be entirely relied upon.

COMBAT

Hobbits are poor fighters, but brave. It is not possible to attack any inanimate objects. These must instead be BROKEN. A weapon is required in order to attack any enemy. A weapon may also be used to break objects.

To attack your opponent, you must tell the computer that you wish to kill the creature with a specific weapon, e.g.

KILL WOLF WITH SWORD

Be warned that sometimes a certain character will be required in order to succeed with a certain action. Thus it will be necessary to become familiar with the varied talents of your party members.

The Shadows of Mordor allows you another method of instructing the hobbits in your party on what to do. This is done by taking over their character for the time being, using the BECOME command. (It is recommended that you should be familiar with the adventure from a single player point of view before tackling the multi-character game.) e.g.

BECOME SAM.

(Note that you can only become one of the two hobbit characters you have selected at the beginning of the game.) This technique can be used whenever the player wishes to detail out complex actions to a character, or wishes to react to ongoing situations that will confront the character. This is a useful means of conducting operations without endangering the ring, or for controlling the party if you wish the hobbits to split up and go separate ways.

Special Adventure Commands

As well as the extensive INGLISH vocabulary, there are a few commands which are specific to **The Shadows of Mordor** adventure, and which are used to help you control the game.

The following is a list of these special commands:

LOOK (can be abvbreviated to L): Describes where you are, what you can see, and all possible exits. This command should also be used after you take over the role of another character (using the "become" command) who is at another location.

INVENTORY (can be abbreviated to I): Describes all your inventory that you are currently holding or carrying.

EXAMINE: Although this is a standard INGLISH word, special mention of it is made here because this command is very useful in trying to obtain more information about your surroundings in Middle Earth. Examining objects often reveals information about those objects that is not readily apparent from a cursory look.

SAVE: This command allows you to save the game for play at a later time. After entering the command, the program will prompt you for your tape or disk for saving the game. The saved game has all the details of what is happening throughout Middle Earth, including all the other characters and locations. After you have saved the game, play will continue normally. This command is especially useful before embarking on a dangerous course of action.

LOAD: Loads a previously saved game. Once again the program will prompt you for your tape or disk. After loading, play continues from the point where the game was saved.

SCORE: Tells you what your percentage is so far.

PAUSE: Suspends the game until another key is pressed.

QUIT: Stops the game and returns to the beginning. Because of memory limitations the information about Middle Earth at the beginning of the game is not stored in memory, but needs to be loaded in. Following this command, the computer will prompt you for the tape or disk; if the tape is requested, rewind the game tape and place in the cassette recorder in the normal way.

Abbreviation of Commands

The abbreviation of your commands is quite permissible. For instance, if you wish to attack a green knight, you might say:

KILL GREEN WITH SWORD

The computer will see that "Green" corresponds with the green knight. Note also that the definite article "THE" can be omitted at will. In most circumstances, the computer will understand exactly what you mean.

Unfortunately, if the Knight stood before a green door, then "green" no longer serves to identify the Knight only, in which case you could write:

KILL KNIGHT WITH SWORD

Multiple entries are easily effected simply by placing a comma between your instructions e.g.:

OPEN BOX, TAKE AXE, GIVE AXE TO SAM

Each of the commands in the sentence will be dealt with by the computer in order.



HE SCREEN DISPLAY

On your screen will appear (in normal script) the adventure description – the text which describes your surroundings, and the happenings around you. Upon entering a new location, the computer will give you a full description of the area, and the objects that are in plain sight. You will be given a list of the exits that you can currently see.

WEAR THE RING
DROP THE ROPE ONTO THE TABLE

Adjectives that describe nouns must come before the noun. If it sounds right in English, it is probably valid in INGLISH, e.g.

THROW THE HEAVY AXE AT THE HORRIBLE ORC
LIGHT THE WOODEN PIPE WITH THE MATCH

Terms used when making an instruction to the computer must be free from ambiguity. If there were two doors in a room, one red and one green, and you were to say:

GO THROUGH THE DOOR

then the computer is placed in a quandry as to which door to put you through. In such situations, the program will put you through the first door it finds, which may not be the direction you intended.

In this case, it would be better to specify exactly what you mean:

GO THROUGH THE GREEN DOOR

Prepositions

The meaning of many verbs can be altered by the use of prepositions, such as ON, OFF, ONTO, and so on. Examples of INGLISH sentences using prepositions are:

ATTACK WITH THE SWORD
PICK UP THE RING

Prepositions in INGLISH usually go before the noun, but in some cases it sounds more natural to have them after the noun, such as:

TURN THE LIGHT ON
LEVER ROCK WITH BRANCH SOUTH

Prepositions can also be used to specify the position of an object, or where you wish an action to be performed, such as:

PUT THE GOLD INTO THE BAG
TAKE THE GOLD AND RUN

Use of "AND"

You can use the word AND in all its normal meaning in INGLISH. This means, among other things, that you can enter more than one sentence or perform more than one action at a time.

TAKE THE LAMP AND THE MATCH FROM THE CUPBOARD
DROP THE SHORT AND THE LONG SWORDS
TAKE THE GOLD AND RUN

Use of "ALL"

It is possible to use the word "all" instead of a direct object when making a command to the computer, e.g.

"TAKE ALL"
"KILL ALL BUT FRODO"

Be careful when using this technique, as the player characcter is included in the term "all"...

Punctuation

Sentences can be separated by the use of punctuation. You can use commas and full stops as you normally would.

The only limitation the program places on your commands is that your command should not be more than 128 characters long.

Conversing with Other Characters

The Shadows of Mordor adventure also allows you to talk and converse with the characters you meet on your journey.

On encountering a person on your journey, you may wish to speak to them. The general form is:

SAY TO (name) "(sentence)"

e.g.

SAY TO GANDALF "HELLO"

This is usually sufficient to draw most characters into conversation.

You can ask the characters within earshot to do specific commands that are of use to you, such as:

SAY TO SAM "KILL THE ORC WITH THE SWORD"
SAY TO SMEAGOL "TAKE THE GOLD FROM THE ORC"

Of course, because all the other characters have an independence of their own, there is no guarantee that they will do what you ask of them. Their decision will be based on a number of factors, including their allegiance to you, what they are currently doing, and so on.

Some characters that you encounter will have messages for you that they will deliver only when you identify yourself, or ask them certain questions.

In order to solve **The Shadows of Mordor** adventure, it will be necessary for you to become familiar with the SAY TO command. This is because some of the problems you face can only be solved by cooperating with the other members of the party. Each character also has his own limitations, such as strength and so on.

In a previous age of the Earth, in a time when the Elves were powerful and men less prolific, the great Rings of Power were made. Great magical powers were granted to the wearer, but only if the ringbearer knew how to draw and shape the power of the rings. Sauron, who was fair to look upon in those days, helped to make the 19 lesser rings, which were given to the great and powerful lords of the Earth. In secret, Sauron made the One Ring, a ring which would enslave the bearers of the lesser rings to his will. After tying most of his power and magic into the Ring, his task was finally complete, and the ring's power flooded forth.

• • • • •

Milennia later, through a long and tortuous path, the ring has somehow ended up in the hands of Frodo Baggins, a Hobbit of the Shire. Sauron has risen again, and seeks for his ring to gain the power he needs to snuff out his beleagured enemies. Fleeing the Shire, Frodo and his companions reached Rivendell, an Elven stronghold, where a party was formed to help Frodo destroy the ring by casting it into the volcano ORODRUIN where it was made, deep in the heart of Mordor itself.

After a long and dangerous journey, the party reached the hidden Elf kingdom of Loth Lorien, where our last game left the party setting off down the great river Anduin in elven boats. The first leg of the journey was over, but at the cost of Gandalf the grey, the party's wizard and leader.

The second game begins at the edge of Lake Nen-hithoel, at the end of an uneventful journey down the river. Frodo and Sam have left their companions on an island in the middle of the lake, and have secretly gone on alone to continue their quest. Somehow our intrepid adventurers must negotiate the desolate wastelands and cross the evil mountains which surround their enemies' homeland. The way is dangerous and unknown, but will Hobbit cunning and home grown courage be enough to overcome the enemy? Who knows. I'm certainly not going to tell you. Play the game and find out for yourself!



OMMUNICATING WITH THE COMPUTER

The Shadows of Mordor game includes a very sophisticated program, INGLISH, which can understand your instructions in everyday language.

More details are given later in this booklet about the power of INGLISH, but the important thing is that you can enter your commands freely and the computer will then react according to yoru requests.

The computer program **The Shadows of Mordor** has a very large vocabulary, so you should not have any difficulty in expressing your ideas and commands. Your commands will usually take the form of actions, and at the back of this booklet you will find an abbreviated list of the actions you can carry out. The power of INGLISH together with the very large vocabulary of over 800 words makes this one of the easiest and friendliest adventure games ever published on micro-computers.

Moreover, if the computer is not sure of something that you mean, or if you are ambiguous in any way, it will ask you for clarification.

The computer is also your source of information on what is happening to you, where you are and the characters around you. Some things may not be readily apparent to you, and thus can prove dangerous to the unwary player.

Performing Actions

INGLISH is one of the most sophisticated language-recognition programs ever developed for micro-computers. It allows you to communicate with the program in a language and structure that is familiar to you.

The rules of INGLISH are simple. The main thing to keep in mind is that each instruction must be in the form of "verb-then-noun", where the noun (or pronoun) can also be implied.

Each sentence must have a verb.

the following examples in this instruction booklet are a guide to the way INGLISH sentences can be constructed. Note however that the specific examples shown may not be valid in this adventure.

When an action does not directly concern any object, only a verb is necessary, e.g.

WAIT
LOOK

This is also the case if you simply wish to travel in some direction, e.g.

SOUTH
EAST

If the action concerns an object or a person, this must be identified by a noun, English grammar applies, and the order of the different parts of the sentence is not critical, e.g.

INTRODUCTION

Welcome to **The Shadows of Mordor**, in which Frodo Baggins and Sam Gamgee continue their quest to destroy the power of the evil Dark Lord, Sauron.

In playing this adventure game, you will be assuming the role of characters in J.R.R. Tolkien's fantasy world. You must detail out the actions which your characters are to perform, and the computer will moderate the results accordingly. It should be noted that there are few if any problems in this game which have a single solution. The game has been designed to allow a variety of responses to the adventure problems, some of which are more efficient than others.

The Shadows of Mordor is a brilliant piece of fantasy software thanks to the re-working of many of the game's systems by a highly trained team of idiots. The game system will be familiar to players of **Lord of the Rings Game One**, with the exception of the improvements in the flexibility of play. For instance, it is now possible to talk to characters and give them a string of instructions which they will follow in sequence, rather than painstakingly telling them what to do at each and every turn.

In order to provide players with the host of problems expected from a high quality computer adventure, it has been necessary to take minor liberties with **Lord of the Rings** storyline (it wouldn't be much of a game if there was no challenge to interrupt the storyline of Tolkien's master work), and thus we hope that you will see them in the light in which they were intended, and not as blasphemous attempts to butcher one of the great works of fantasy literature. The essential atmosphere of Middle Earth remains unchanged, and we trust that it always shall.

Good luck, and don't let the Balrogs bite.

GETTING STARTED

The Shadows of Mordor is loaded into your computer using the normal procedure for your machine. While loading the cassette, your computer will not load parts of the tape. This is intentional. It is not a loading error. The parts not loaded are used when you fail, or when you end the game so that you can start again. Do not adjust your sets – reality is at fault.

Once the game is loaded, you will find yourself being asked the question:

WHICH HOBBIT CHARACTERS WOULD YOU LIKE TO PLAY:
Frodo or Sam?

By typing in the name of one or both hobbits, you enable yourself to assume the identity of the specified character during the game. If you simply hit RETURN without making a choice of character, the computer will assume that you will play the role of Frodo, and you will not have the option of playing the role of Sam.

When you choose to play just one character, the computer will take control of the other character and ensure that his actions are in keeping with his personality. It also means that whenever you wish this character to perform specific actions for you, you will need to instruct him by talking to him, using the SAY TO command.

When you play more than one character, the computer will perform some basic actions for the hobbit not "in play" – for instance, while you play Frodo, Sam will follow you around (unless told otherwise). If you choose not to play both characters at the beginning of the game, the computer will more fully "animate" your companion.

The command to change from one Hobbit character to another is:

BECOME (name).

such as "BECOME FRODO." Note you must add the full stop, and you can only BECOME one of the Hobbit characters you have specified at the beginning of the game.

An alternative to the BECOME command is the I AM command, which works in the same way and has the same effect:

I AM FRODO.

Alternatively, both commands can be omitted, and just the name of the character you wish to become entered:

FRODO.

You are now ready to commence play. A description of the area around you will now appear, allowing you to perform your first actions as the chosen character.

BACKGROUND

Three Rings for the Elven-kings under the sky,
Seven for the Dwarf-Lords in their halls of stone,
Nine for the Mortal Men doomed to die,
One for the Dark Lord on his dark throne
in the Land of Mordor where the Shadows lie.
One Ring to rule them all, One Ring to find them,
One Ring to bring them all and in the darkness bind them
in the Land of Mordor where the Shadows lie.

MASTERMRONIC

If you manage to make it through the whole of the day you will move on to the next. As you go through the week the store gets busier, so the jobs get harder. If you thought that Monday was bad, just wait till you reach Saturday and the hordes of weekend shoppers.

The days are a fixed length, so if you play fast to amass the big bonuses you will have to complete more tasks, and so there are more chances that you will really mess it up. If you take things slowly, you will score less, so one mistake may well prove disastrous, but then you have less to do. The choice is all yours.

You will need to learn the best ways around the store, if you know which way to go you will complete the tasks so much quicker. Be careful that you do not get caught up in the bottlenecks that build up as the store gets busy.

If your score drops to zero then the manager will sack you, but should you do really well and have scored enough points by the end of the week you will be promoted. If you keep on improving you will eventually be able to replace him.

CONTROLS

SPECTRUM
Choice of joystick options or redefinable keys.

AMSTRAD
Joystick or keyboard.

SPECTRUM AND AMSTRAD
Press fire to drop, grab or price objects.

LOADING INSTRUCTIONS

SPECTRUM
Type LOAD "" and press ENTER.

AMSTRAD
Ams 464: Press CNTRL and small ENTER.
Ams 664/6128: type ITAPE and press RETURN. press CNTRL and small ENTER.

FRENCH

INSTRUCTION DE CHARGEMENT
Amstrad 464: Appuyez sur CNTRL et la petite touch ENTER

Amstrad 664/6128: Tapez ITAPE, et appuyez sur RETURN, puis appuyez sur la petite touche ENTER

GERMAN

LADENWEISUNGEN
Amstrad 464: Drücken Sie Auf CNTRL und die kleinen ENTER Taste

Amstrad 664/6128: Tippen Sie ITAPE, drücken sie RETURN und dann die kleine ENTER Taste.

ITALIAN

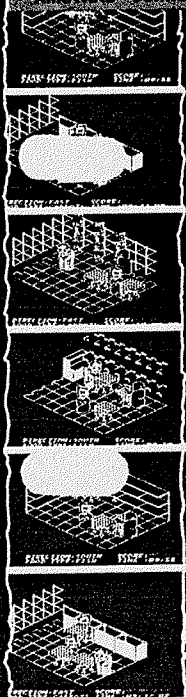
INSTRUZIONI DI CARICAMENTO
Amstrad 464: Premere CNTRL ed ENTER minusculo

Amstrad 664/6128: Battero ITAPE e premere RETURN qunidi premere ENTER minusculo.

SPECTRUM · 48 · 128 · PLUS 2 · SPECTRUM · 48 ·

AMSTRAD · SCHNEIDER · 464 · 664 · 6128 · AMS

MASTERTRONIC



SCREENSHOTS FROM SPECTRUM VERSION

AS SEEN ON BBC TV'S 'JIM'LL FIX IT'

Your job experience at the local Comet Hypermarket is not going well. It's a frantic round of feverish activities as you stack shelves, run errands and seem to do all the dirtiest jobs going, but make one mistake and you are out on your ears. You do like cauliflowers don't you.

There are dirty dogs, irate shoppers, toppling tins, gangs of chaotic kids not to mention the other porters, all trying to stop you succeeding.

If you make the grade you will end up as manager of the store, and you will have the immense pleasure of giving your former tormentors the well earned order of the boot. Tell and he will give it to you

Joystick Only
One player only

DESIGNED BY
ANDREW COLLET
PROGRAMMED BY
ICON DESIGN

RECORDED ON BASF TAPE

TITLE
SUPER TROLLEY

MACHINE TYPE
SPECTRUM · AMSTRAD

ISA 0248

5 042967 800550

SPECTRUM · 48 · 128 · PLUS 2 · SPECTRUM · 48 · 128 · PLUS 2 · SPECTRUM · 48 · 128 · PLUS 2 · SPECT

AMSTRAD · SCHNEIDER · 464 · 664 · 6128 · AMSTRAD · SCHNEIDER · 464 · 664 · 6128 · AMSTRAD · SCHNEI

MASTERTRONIC



Play starts on a Monday, the easy day of the week for a supermarket. You are relaxing in the back room, when the store manager comes in with another job for you to do. You must complete the task within the time limit if you are to gain any points. If you really mess up and fail to finish, then your score will go down and keep on counting down till you do. When you have finished you return to the back room and another assignment.

To complete the task of stacking shelves you need to collect your trolley, take it through the warehouse to collect the items you need, then take it out into the store and start putting them on the correct shelf.

Sounds easy, doesn't it, but of course there are people to avoid, and the shoppers will moan if you were to run into them, and should the manager get to hear too many complaints he is going to get rid of you.

Dogs occasionally get into the store, and you know what dogs are famous for. You will need to round them up and clear up the mess, which of course takes away the time that you should be spending stacking the shelves.

Of course there are other friendly porters that have such a wondrous sense of fun, so they just might decide to unstack the shelves for a giggle. And of course the shoppers may well take the bottom can from the stack causing it to topple.

Not forgetting those wonderful kids, and if the gang decides to come in and cause some havoc, maybe throw some cans around, guess who will be asked to sort it out?

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Mastertronic Limited 1988

Made in Great Britain
Design: Woods & Pictures Ltd London

CONTROLS

Select option 2 from the menu to change controls.

	KEYS	JOYSTICK
MOVE LEFT	O	LEFT
MOVE RIGHT	P	RIGHT
UP/JUMP/ENTER	Q	UP
DOWN/ACTION	A	DOWN
HACK/FIRE	SPACE	FIRE

Press **DOWN** and **FIRE** at the same time to throw the axe. Press **UP** when standing in front of a door to go thru it.

Hold down **CONTROL** and press **T** to toggle music on and off. Hold down **CONTROL** and press **P** to pause the game.

Press **DOWN** (when you aren't on a ladder) to bring up the COMMANDS/OBJECTS menu. Use **MOVE LEFT** and **MOVE RIGHT** to move to commands or objects, and use **FIRE** to choose a command/object. For some commands you will have to choose an object as well before they will work (ie DROP).

You are only strong enough to carry five objects maximum.

Free prisoners to find a special gift!

FRANCAIS
CONTROLES

Choisissez l'option 2 dans le menu pour changer les contrôles.

	TOUCHES	MANCHE À BALAI
BOUGEZ GAUCHE	O	GAUCHE
BOUGEZ DROITE	P	DROITE
HAUT/SAUTEZ/ ENTREZ	Q	HAUT
BAS/ACTION	A	BAS
COUP DE HACHE/ FIRE	ESPACE	FEU

Appuyez sur **BAS** et **FEU** en même temps pour jeter la hache. Appuyez sur **HAUT** quand vous êtes devant une porte pour passer.

Pressez **CONTROL** et appuyez sur **T** pour déclencher et éteindre la musique.

Pressez **CONTROL** et appuyez sur **P** pour arrêter le jeu.

Appuyez sur **BAS** (quand vous n'êtres pas sur une échelle) pour faire apparaitre le menu COMMANDES/OBJECTS. Utilisez **GAUCHE** et **DROITE** pour bouger les commandesa ou objects, et utilisez **FEU** pour choisir une commande ou un object. Pour certaines commandes il vous faudra choisir un objet aussi pour qu'elles marchent (c'est à dire **DROP).**

Votre force ne vous permet de porter que cinq objets au maximum.

Les prisonniers libres trouveront un cadeau spécial!

DEUTSCH
KONTROLLEN

Wählen Sie Option 2 vom Menu aus, um die Kontrollen zu ändern.

	TASTEN	SCHALTHEBEL
NACH LINKS	O	LINKS
NACH RECHTS	P	RECHTS
RAUF/SPRING/TRITT EIN	Q	RAUF
RUNTER/AKTION	A	RUNTER
HACKEN/FEUERN	LEERTASTE	FEUERN

Drücken Sie **RUNTER** und **FEUERN** Sie zur gleichen Zeit, und gleichzeitig werfen Sie die Ext. Drücken Sie **RAUF,** wenn Sie vor einer Tür stehen, um dadurch zu gehen.

Halten Sie **CONTROL** herunter und drücken Sie **T** herunter, um Musik anund abzuschalten.

Halten Sie **CONTROL** herunter und drücken Sie **P** um eine Pause im Spiel einzulgen.

Drücken Sie **RUNTER (wenn Sie nicht auf einer Leiter sind), um das COMMANDS/OBJECTS (Anweisungen und Objekte) Menu hervorzubringen. Gebrauchen Sie NACH LINKS** und **NACH RECHTS,** um sich zu Anweisungen oder Objekten zu bewegen und gebrauchen Sie **FEUERN,** um ein Kommando/Objekt zu wählen. Für einige Anweisungen werden Sie auch ein Objekt wählen müssen, bevor sie funktionieren.

Sie sind nur stark genug, um höchstens 5 Objekte zu tragen.

Befreien Sie Gefangene, um ein besonderes Geschenk zu finden.

ESPANÔL
CONTROLES

Seleccionar la opción 2 del menú para el cambio de controles.

	TECLAS	PALANCAS
MOVER A LA IZQUIERDA	P	DERECHA
ARRIBA/SALTAR/ ENTRAR	Q	ARRIBA
ABAJO/ACCIÓN	A	ABAJO
TAJAR/DISPARAR	ESPACIO	DISPARAR

Pulsar **ABAJO** y **DISPARAR** al mismo tiempo que eches el hacha.

Pulsar **ARRIBA** cuando estés delante de una puerta para cruzaria.

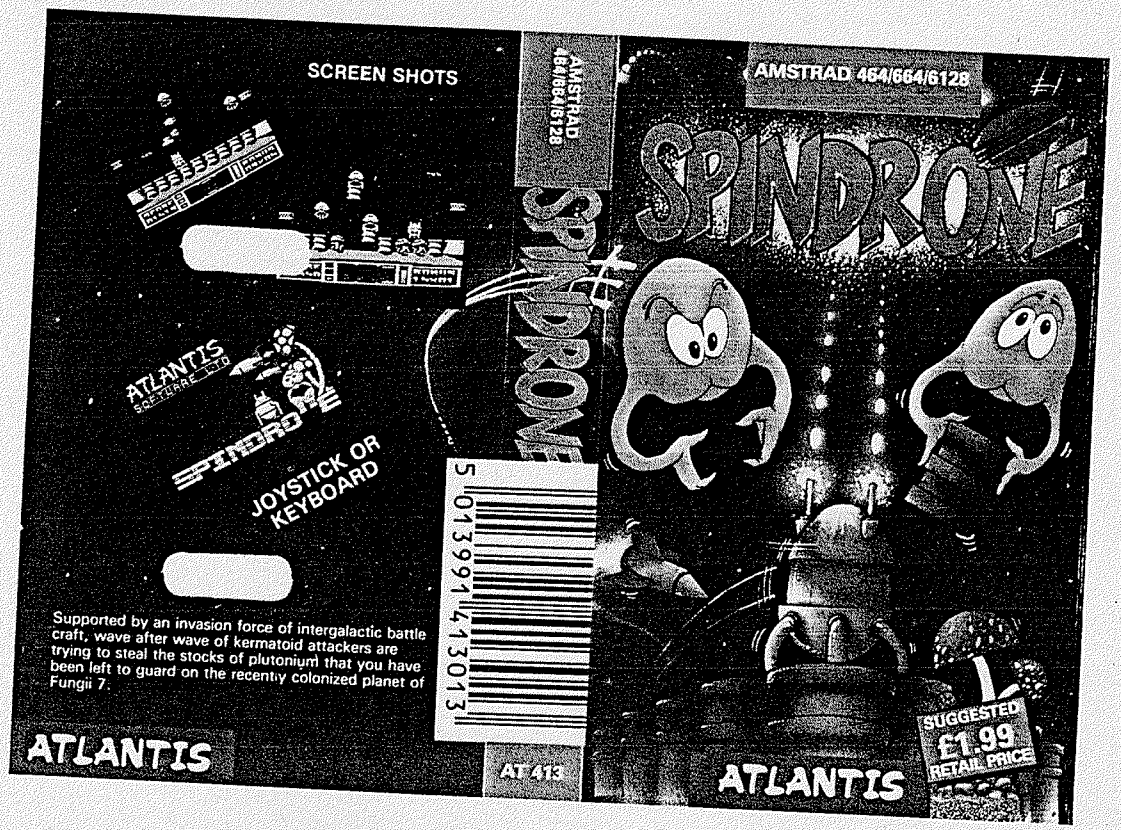
Sujetar **CONTROL** y pulsar **T** para empezar e interrumpir la música.

Sujetar **CONTROL** y pulsar **P** para parar el juego.

Pulsar **ABAJO** (cuando no estés en una escalera) para que aparezcan en la pantalla, ORDENES/OBJETOS. Usar el menú de MOVER A LA **IZQUIERDA** Y MOVER A LA **DERECHA** para mover las órdenes y los objetos, y usar **DISPARAR** para escoger la orden/objeto. Para algunas órdenes tendrás que escoger también un objeto antes de que ellos puedan funcionar (por ejemplo DROP).

Tienes sólo fuerza para llevar cinco objetos como máximo.

Liberar a los prisioneros para encontrar un regalo especial.



LOADING:
To load, press **CTRL** and small **ENTER** keys together. Press **PLAY** on datacorder, then any key. The program will now load automatically. *(The program is recorded on both sides of the tape, in case of difficulty, turn the tape over, rewind to the beginning and load again.)*

CONTROLS:
< = Left, **>** = Right, **A** = Up, **Space** = Fire, **P** = Pause (**U** to re-start from pause) or use **Joystick.**

GAME:
You have been left to guard the plutonium stock piles that are vital to the life support systems of your recently colonized planet, Fungii 7. On your radar you spot waves of alien beings descending on your position. Armed with a highly manoeuverable battle droid – 'Spindrone', you must fight off the Kermatoids who are intent on stealing your nuclear fuel. Failure will mean the end of life as you know it and your planet will revert to its pre-colonized state, capable only of supporting the fungus-like growth after which it was named.

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If you have written a good program and would like to discuss marketing, please write to:

Atlantis Software Limited
28 Station Road, London SE25 5AG

ECHELON™

COMMANDES DU MANCHE À BALAI ET DU CLAVIER POUR LE SPECTRUM ET L'AMSTRAD

INSTRUCTIONS DE CHARGEMENT

SPECTRUM 48/128K, +2 Cassette
Tapez **LOAD""** et appuyez sur **ENTER**. Appuyez sur **PLAY** sur le magnétophone. Suivez les incitations sur l'écran.

SPECTRUM +3 Disquette
Branchez l'ordinateur, introduisez la disquette et appuyez sur **ENTER**. Le jeu se chargera et se déroulera automatiquement. Suivez les incitations sur l'écran.

AMSTRAD CPC Cassette
Appuyez sur les touches **CTRL** et **ENTER** minuscule. Appuyez sur **PLAY** sur le magnétophone. Suivez les incitations sur l'écran.

AMSTRAD CPC Disquette
Tapez **RUN"DISK** et appuyez sur **ENTER**. Le jeu se chargera et se déroulera automatiquement. Suivez les incitations sur l'écran.

Manche à balai pour le Spectrum uniquement – Commandes standard Haut, Bas, Gauche, Droite, Feu. Cependant il est recommandé d'utiliser le clavier (le bouton de feu sur le manche à balai ne répond qu'aux commandes de poussée du clavier).

CLAVIER

	Spectrum	Amstrad
Haut	A	A
Bas	Z	Z
Gauche	N	,
Droits	M	.
Tir d'arme	CAPS SHIFT	M
Arrêt d'urgence	ENTER	BARRE D'ESPACEMENT
Poussée en avant	BARRE D'ESPACEMENT + UP	SHIFT + UP

VUES DU NAVIRE

	Spectrum	Amstrad
Avant	Q	1
Arrière	W	2
Gauche	E	3
Droite	R	4
Haut	T	5
Bas	Y	6
Liaison de transmission de données	B	ESC

ARMES

	Spectrum	Amstrad
HDAPP	1	F7 ou 7 (clavier numérique)
Canon-Photon	2	F4 ou 4 (clavier numérique)
Missile	3	F1 ou 1 (clavier numérique)
Désarmer	4	F∅ ou ∅ (clavier numérique)
S'élever	K	\
Descendre	L	/
Planer	K + L	\ e / simultanément
Plan de la zone	SYMBOL SHIFT	DEL
Grille	G	G
Déployer RPV	S	CAPS LOCK
Contrôler RPV /Navire	D	TAB
Vue du RPV	F	R
Téléporter/ Récupérer RPV	H	T

FONCTIONS DE ZOOM

	Spectrum	Amstrad
Vue principale allumée	U	7 sur le clavier
Vue principale éteinte	I	8 sur le clavier
Vue aérienne allumée	O	9 sur le clavier
Vue aérienne éteinte	P	∅ sur le clavier

Pour utiliser l'hypertransmission quand vous êtes dans le Plan de la Zone – Bougez le curseur et appuyez sur le bouton de **FEU** ou la barre d'**ESPACEMENT** (pour le Spectrum) – sur le bouton de **FEU** ou **M** (pour l'Amstrad).

	Spectrum	Amstrad
Centre du tangage automatique allumé/éteint	X	:
Centre du virage Incliné automatique allumé/éteint	C	;
Vue aérienne allumé/éteinte	V	£
Trajectoire allumé/éteint	J	CLR

ECHELON™

SPECTRUM UND AMSTRAD JOYSTICK- UND TASTATUR-STEUERUNG

LADEANWEISUNGEN

SPECTRUM 48/128K, +2 Cassette
LOAD"" eintippen und **ENTER** drücken. **PLAY** auf Cassettenrecorder drücken. Bildschirmanweisungen befolgen.

SPECTRUM +3 Disk
Computer einschalten, Diskette einstecken und ENTER drücken. Das Spiel lädt und läuft automatisch. Bildschirmanweisungen befolgen.

AMSTRAD CPC Cassette
CTRL und kleine **ENTER** Taste drücken. **PLAY** auf Cassettenrecorder drücken. Bildschirmanweisungen befolgen.

AMSTRAD CPC Disk
RUN"DISK eintippen und **ENTER** drücken. Das Spiel lädt und läuft automatisch. Bildschirmanweisungen befolgen.

Joystick nur für Spectrum – Standard-Steuerung Auf, Ab, Links, Rechts, Feuer – Tastatur-Steuerung wird jedoch empfohlen (Feuertaste des Joysticks spricht nur auf Tastatur-Steuerung für Schub an).

TASTATUR

	Spectrum	Amstrad
Auf	A	A
Ab	Z	Z
Links	N	,
Rechts	M	.
Waffen abfeuern	CAPS SHIFT	M
Not aus	ENTER	LEERTASTE
Schub vorwärts	LEERTASTE + AUFWÄRTS	SHIFT + AUFWÄRTS

SICHT-SCHIFF

	Spectrum	Amstrad
Vorn	Q	1
Hinten	W	2
Links	E	3
Rechts	R	4
Auf	T	5
Ab	Y	6
Datenübertragung	B	ESC

WAFFEN

	Spectrum	Amstrad
HDAPP	1	F7 oder 7 (Kleintastatur)
Photonen-Kanone	2	F4 oder 4 (Kleintastatur)
Rakete	3	F1 oder 1 (Kleintastatur)
Entwaffen	4	F∅ oder ∅ (Kleintastatur)
Schwebeflug aufwärts	K	\
Schwebeflug abwärts	L	/
Schwebeflug stop	K + L	\ e / zusammen
Zonenkarts	SYMBOL SHIFT	DEL
Raster	G	G
RPV einsetzen	S	CAPS LOCK
RPV /Schiff steuern	D	TAB
RPV Ansicht	F	R
RPV senden/ bergen	H	T

ZOOM-FUNKTIONEN

	Spectrum	Amstrad
Hauptansicht ein	U	7 auf Tastatur
Hauptansicht aus	I	8 auf Tastatur
Sicht von oben ein	O	9 auf Tastatur
Sicht von oben aus	P	∅ auf Tastatur

Den Hyper-Antrieb kann man, während man in der Zonen-Karte ist, durch Betätigen des Cursors und Drücken von **FEUER** oder **LEERTASTE** (Spectrum) – **FEUER** oder **M** (Amstrad) – einsetzen.

	Spectrum	Amstrad
Auto-Längenelgungsachse ein/aus	X	:
Auto-Quernelgungsachse ein/aus	C	;
Sicht von oben ein/aus	V	£
Zielverfolgung ein/aus	J	CLR

ECHELON™

COMANDI TASTIERA E JOYSTICK PER SPECTRUM E AMSTRAD

ISTRUZIONI DI CARICAMENTO

SPECTRUM 48/128K, +2 Cassetta
Battere **LOAD""** e premere **ENTER**. Premere **PLAY** sul registratore. Seguire le indicazioni sullo schermo.

SPECTRUM +3 Dischetto
Accendere il computer, inserire il dischetto e premere **ENTER**. Il gioco si carica e gira automaticamente. Seguire le indicazioni sullo schermo.

AMSTRAD CPC Cassetta
Premere **CTRL** ed **ENTER** piccolo. Premere **PLAY** sul registratore. Seguire le indicazioni sullo schermo.

AMSTRAD CPC Dischetto
Battere **RUN"DISK** e premere **ENTER**. Il gioco si carica e gira automicamente. Seguire le indicazioni sullo schermo.

Joystick solo su Spectrum – I controlli sono i normali Su, Giù, Sinistra, Destra e Fuoco/ si raccomanda tuttavia l'uso della tastiera (il bottone di fuoco o il joystick rispondono solo alla spinta dei controlli tastiera).

TASTIERA

	Spectrum	Amstrad
Su	A	A
Giù	Z	Z
Sinistra	N	,
Destra	M	.
Spara arma Arresto	CAPS SHIFT	M
Emergenza	ENTER	BARRA
Spinta Avanti	BARRA + SU	BARRA + SU

VEDUTA NAVE

	Spectrum	Amstrad
Frontale	Q	1
Posteriore	W	2
Sinistra	E	3
Destra	R	4
Su	T	5
Giù	Y	6
Collegamento Dati	B	ESC

ARMI

	Spectrum	Amstrad
HDAPP	1	F7 o 7 (numer.)
Cannone Fotoni	2	F4 o 4 (numer.)
Missile	3	F1 o 1 (numer.)
Disarmo	4	F∅ o ∅ (numer.)
Hover Su	K	\
Hover Giù	L	/
Hover fermo	K + L	\ e / insieme
Mappa zona	SYMBOL SHIFT	DEL
Griglia	G	G
Implego RPV	S	CAPS LOCK
Controllo RPV/Nave	D	TAB
Veduta RPV	F	R
Teleporta/ Riprende RPV	H	T

FUNZIONI ZOOM

	Spectrum	Amstrad
Veduta principale aperta	U	7 di tastiera
Veduta principale chiusa	I	8 di tastiera
Veduta Alto aperta	O	9 di tastiera
Veduta Alto chiusa	P	∅ di tastiera

Per usare l'ipervelocità in Mappa Zona = Muovere il cursore e premere **FUOCO** o **BARRA** (Spectrum) e **FUOCO** o **M** (Amstrad).

	Spectrum	Amstrad
Livello autocentrante acceso/spento	X	:
Inclinazione autocentrante accesa/spenta	C	;
Veduta Alto accesa/spenta	V	£
Puntamento acceso/spento	J	CLR

Das Spiel wird über den Joystick in Port 2 oder die folgenden Tasten kontrolliert:

A - HOCH
Z - RUNTER
O - LINKS
P - RECHTS
K - FEUER

Die 'Force' wird durch Drücken der LEERTASTE herangeholt oder abgelöst.

SHIFT LOCK - PAUSE
F7 - MUSIK AN/AUS

SCHWIERIGKEITEN BEIM LADEN ...

Wir versuchen ständig, die Qualität unserer Produkte zu verbessern und haben deshalb hohe Standards für die Qualitätskontrolle entwickelt, um Ihnen dieses Produkt anbieten zu können. Deshalb ist es unwahrscheinlich, daß das Produkt selber fehlerhaft ist, sollten Sie irgendwelche Schwierigkeiten beim Laden haben. Wir empfehlen Ihnen, zuerst Ihren Computer AUSZUSCHALTEN und die Ladeanweisungen sorgfältig zu wiederholen, wobei Sie den Computer und die Software überprüfen sollten. Haben Sie weiterhin Probleme, sollten Sie im Computer-Handbuch nachschlagen oder Ihren Software-Händler um Rat fragen. Konnten die Schwierigkeiten jedoch nicht behoben werden und haben Sie die Hardware nach allen möglichen Fehlern überprüft, empfehlen wir Ihnen, sich mit unserer Kundenberatung in Verbindung zu setzen, um dort um Hilfe nachzufragen:

Activision Consumer Relations Department
Blake House
Manor Farm Estate
Manor Farm Road
Reading
Berkshire
RG2 0JN

ODER

Rufen Sie unser Consumer-Relations-Department an unter
(0734) 310003

Ihr Brief sollte die folgenden Informationen beinhalten:

- Ihren Namen und Ihre Adresse.
- Eine Telefonnummer, unter der wir Sie tagsüber erreichen können (wenn vorhanden).
- Den Namen des Produktes, mit dem Sie Schwierigkeiten haben.
- Ob es die Kassetten- oder Diskettenversion ist.
- Das von Ihnen benutzte Computersystem und welche zusätzlichen Anschlüsse und Joysticks Sie im Zusammenhang mit der betreffenden Software benutzen.
- Wo und wann Sie das Produkt käuflich erworben haben.
- Eine detaillierte Beschreibung der Schwierigkeiten, die Sie mit dem Spiel haben.

b) Wenn ein Joystick benutzt wird, sollte der notwendige Anschluß JETZT angeschlossen werden.
c) Den Computer, den Monitor/Fernseher und den Kassettenrecorder EINSCHALTEN. Bei Erscheinen eines Menübildschirms 48K oder 128K Basic für Ihren Spectrum wählen.
d) Die Kassette für R-Type mit der Seite 1 nach oben in den Kassettenrecorder einschieben, wobei diese vorher vollständig zurückgespult sein muß.
e) LOAD"" eintippen und ENTER drücken gefolgt von der PLAY-Taste auf dem Kassettenrecorder. Das Spiel sollte jetzt laden.
f) Schlagen Sie nach unter den Mehrfach-Ladeanweisungen in dieser Bedienungsanleitung.

4. Für den Atari ST mit der Disketten-Version von R-Type ...
a) Das Diskettenlaufwerk an den Computer anschließen (sollte der Computer bereits über ein eingebautes Laufwerk verfügen, entfällt dies).
b) Die R-Type-Kassette mit der Beschriftung 'A' nach oben in das Diskettenlaufwerk A einschieben.
c) Den Computer, den Monitor/Fernseher und das Diskettenlaufwerk EINSCHALTEN.
d) Bei Erscheinen der Aufforderung für DISKETTE 'B' diese mit der entsprechenden Beschriftung nach oben ins Laufwerk A einschieben.

MEHRFACH-LADEANWEISUNGEN

R-Type ist ein Spiel, das mehrfach geladen wird. Jedes neue Level wird geladen, wenn das vorhergehende level erfolgreich beendet wurde. Wenn Sie ein ununterbrochenes Spiel genießen wollen, MÜSSEN Sie während des gesamten Spielverlaufes Ihre Kassette für R-Type im Kassettenrecorder odfer Ihre R-Type-Diskette im entsprechenden Laufwerk belassen. Wurde ein Level erfolgreich beendet, erscheinen weitere Anweisungen auf dem Bildschirm.

Beim Laden der Kassettenversion werden Sie im Spielverlauf dazu aufgefordert, die Kassette umzudrehen un vollständig zurückzuspulen, um das nächste Level zu laden.

ALLGEMEINE ANWEISUNGEN

Die Bewegungen des R-9 Fighters werden von den Standard-Tasten für Hoch, Runter, Links und Rechts beziehungsweise mit dem Joystick ausgeführt. Die Waffensysteme werden mit dem Feuerknopf kontrolliert; wenn Sie Feuer gedrückt halten, vergrößert sich die Feuerkraft, bis Sie die entsprechende Taste oder den Knopf wieder loslassen.

Die Waffensysteme werden immer größer oder modifiziert, wenn ein feindliches Raumschiff getroffen wird, das Juwelen enthüllt. Das Einsammeln eines Juwels wird mit der Austattung eines weiteren Waffensystems von der folgenden Liste belohnt:

REFLEKTIONSLASER
ANTI-FLUGZEUG-LASER
BODENLASER
ZIELGESTEUERTE RAKETEN
ZUSÄTZLICHE GESCHWINDIGKEIT
SCHILD-KUGELN

Der erste eingesammelte Juwel setzt außerdem eine besondere Waffe frei, die 'Force', die Sie am vorderen oder hinteren ende Ihres R9-Fighters befestigen können und die nach vorne Ihren Weg freiräumt oder Ihnen Rückendeckung gibt. Die Kraft ist mit einem eigenen Laser ausgestattet. Eine Taste feuert diese Waffe ab, sowohl bei Tastatur als auch Joystick.

Bei jedem neuen Start von R-Type erhält der Spieler fünf 'Credits' (Kreditpunkte). Solang die Credits noch vorhanden sind, können Sie Ihr Spiel in einem bereits erreichten Level fortsetzen, indem Sie den Feuerknopf oder die entsprechende Taste während eines Countdowns auf dem Bildschirm drücken.

TASTATURKONTROLLEN

FÜR SPECTRUM-BENUTZER

Das Programm bestimmt automatisch den benutzten Joystick-Typ (Sinclair oder Kempston), wenn Sie den Feuerknopf zum Starten des Spiels drücken. Durch Drücken der ENTER-Taste lassen sich die Tasten neu definieren. Diese Informationen werden ebenfalls in aller Vollständigkeit auf dem Bildschirm angezeigt.

Das Spiel wird durch gleichzeitiges Drücken von CAPSHIFT und 1 für eine Pause unterbrochen und läßt sich durch Drücken von CAPSHIFT und 2 wieder aufnehmen.

Bei Benutzung des Joysticks dient die LEERTASTE zum Ablösen der 'Force'.

FÜR ATARI ST-BENUTZER

Das Spiel wird über den Joystick in Port 1 gesteuert. Die 'Force' wird durch Drücken der LEERTASTE herangeholt oder abgelöst.

PAUSE - F10
MUSIK AN/AUS - F1

FÜR COMMODORE-BENUTZER

La Barre d'espacement sert à détacher et à récupérer la Force.
SHIFT LOCK - PAUSE
F7 - MUSIQUE ALLUMEE/ETEINTE

DIFFICULTIES DE CHARGEMENT ...

Nous cherchons toujours à améliorer la qualité de la gamme de nos produits et nous avons établi un excellent niveau de contrôle de qualité qui nous permet de vous présenter ce produit. Au cas où vous éprouveriez des difficultés pendant le chargement, il est donc peu probable que le produit lui-même soit défectueux. Nous vous suggérons de'éteindre l'ordinateur et de renouveler les instructions de chargement soigneusement, après avoir vérifié votre ordinateur et le logiciel. Si vous éprouvez toujours des difficultés, consultez le manual d'utilisation ou demandez conseil à votre distributeur de logiciel. Au cas où vos difficultés persisteraient après que vous ayiez bien vérifié votre équipement, nous vous conseillons de vous mettre en liaison avec notre Service Clientèle qui sera heureux de vous prêter assistance:

Activision Consumer Relations Department
Blake House
Manor Farm Estate
Manor Farm Road
Reading
Berkshire
RG2 0JN

OU

Appelez notre Service Clientèle à ce numéro:
(0734) 310003

Votre lettre devrait mentionner les points suivants:

- Votre nom et adresse
- Un numéro de téléphone où on peut vous joindre dans la journée
- Le nom du produit avec lequel vous éprouvez de la difficulté
- Si le programme est sur cassette ou sur disquette
- Lke système d'ordinateur et les périphériques, manche à balai, etc ... que vous utilisez avec le logiciel en question
- Où et quand vous avez acheté le produit
- Une description détaillée de la difficulté que vous éprouvez.

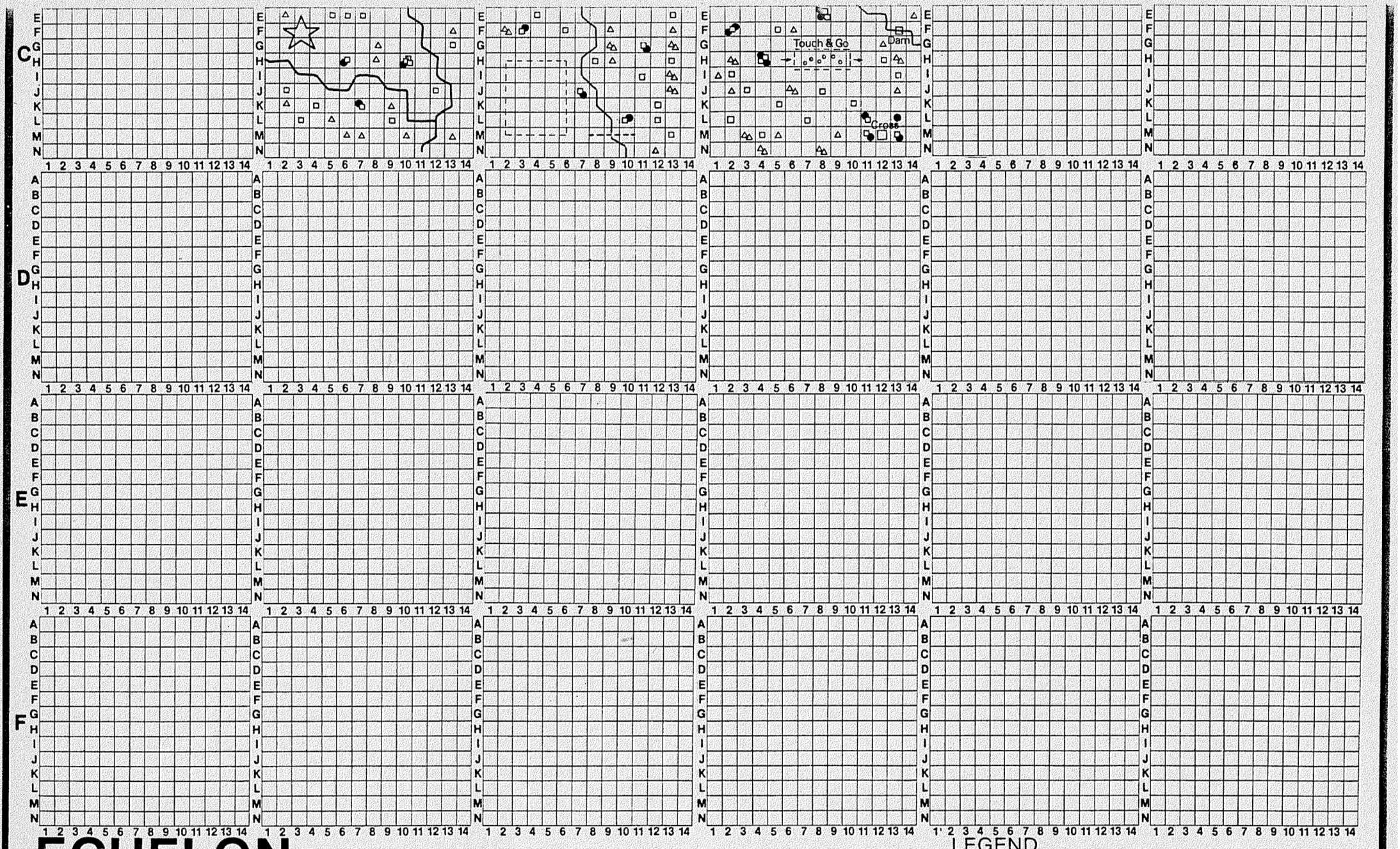
R-TYPE

Eine verzweifelte Schlacht wird in den unendlichen und unbekannten Dimensionen des Weltalls gefochten, die von einer bösen Macht verseucht und korrumpiert werden. Die böse Macht is das Bydo Empire, dessen Ziel die Unterwerfung der gesamten Welt ist. Deren Bewohner sind unheimliche Kreaturen, deren unmittelbarer Anblick bereits Furcht verursacht. Aber die Menschheit schlägt zurück und schickt Sie ins Gefecht in einem unvorstellbar hochmodernen Raumschiff, dem R-9 Fighter. Hinter dem Steuerpult dieser phantastischen Kampfmaschine sind Sie das letzte Bollwerk der Menschheit gegen diesen Feind.

LADEANWEISUNGEN

Stellen Sie Ihren Computer entsprechend den detaillierten Anweisungen des Handbuches auf. Vergewissern Sie sich, daß alle nicht erforderlichen Geräte auch nicht angeschlossen sind – wie Steckmodule, Drucker, usw. Sollten Sie dies vergessen, kann es zu Schwierigkeiten beim Laden kommen.

1. Für den Commodore 64/128 mit der Kassetten-Version von R-Type ...
   a) Den Data-Kassettenrecorder anschließen und den Computer anschalten. Benutzer eines C128 sollten jetzt den C64-Modus wählen und dafür G064 eintippen, RETURN und Y drücken, dann nochmals RETURN.
   b) Die R-Type-Kassette in den Data-Kassettenrecorder einschieben, wobei diese vorher vollständig zurückgespult sein muß.
   c) Die Tasten SHIFT und RUN/STOP des Computers gedrückt halten und dann die PLAY-Taste auf dem Data-Kassettenrecorder drücken. Das Spiel sollte jetzt laden.
   d) Schlagen Sie nach unter den Mehrfach-Ladeanweisungen in dieser Bedienungsanleitung.
2. Für den Commodore 64/128 mit der Disketten-Version von R-Type ...
   a) Das Diskettenlaufwerk an den Computer anschließen und anschalten, dann den Computer und Monitor/Fernseher anschalten. Benutzer eines C128 sollten jetzt den C64-Modus wählen und dafür G064 eintippen, RETURN und y drücken, dann nochmals RETURN.
   b) Die R-Type-Kassette mit der Beschriftung nach oben i das Diskettenlaufwerk einschieben, LOAD" ",8,1 eintippen und RETURN drücken. Das Spiel sollte jetzt laden.
   c) Schlagen Sie nach unter den Mehrfach-Ladeanweisungen in dieser Bedienungsanleitung.
3. Für den ZX Spectrum, Spectrum +, Spectrum 48K, Spectrum 128K, Spectrum +2 mit der Kassetten-Version von R-Type ...
   a) Den Kassettenrecorder entsprechend den Anweisungen im Handbuch an Ihren Spectrum anschließen.



ECHELON
PATROL ZONE MAP 106

LEGEND

MOUNTAINS	△
OBJECT	●
RIVER	———
ROAD	- - - - -
STRUCTURE	□

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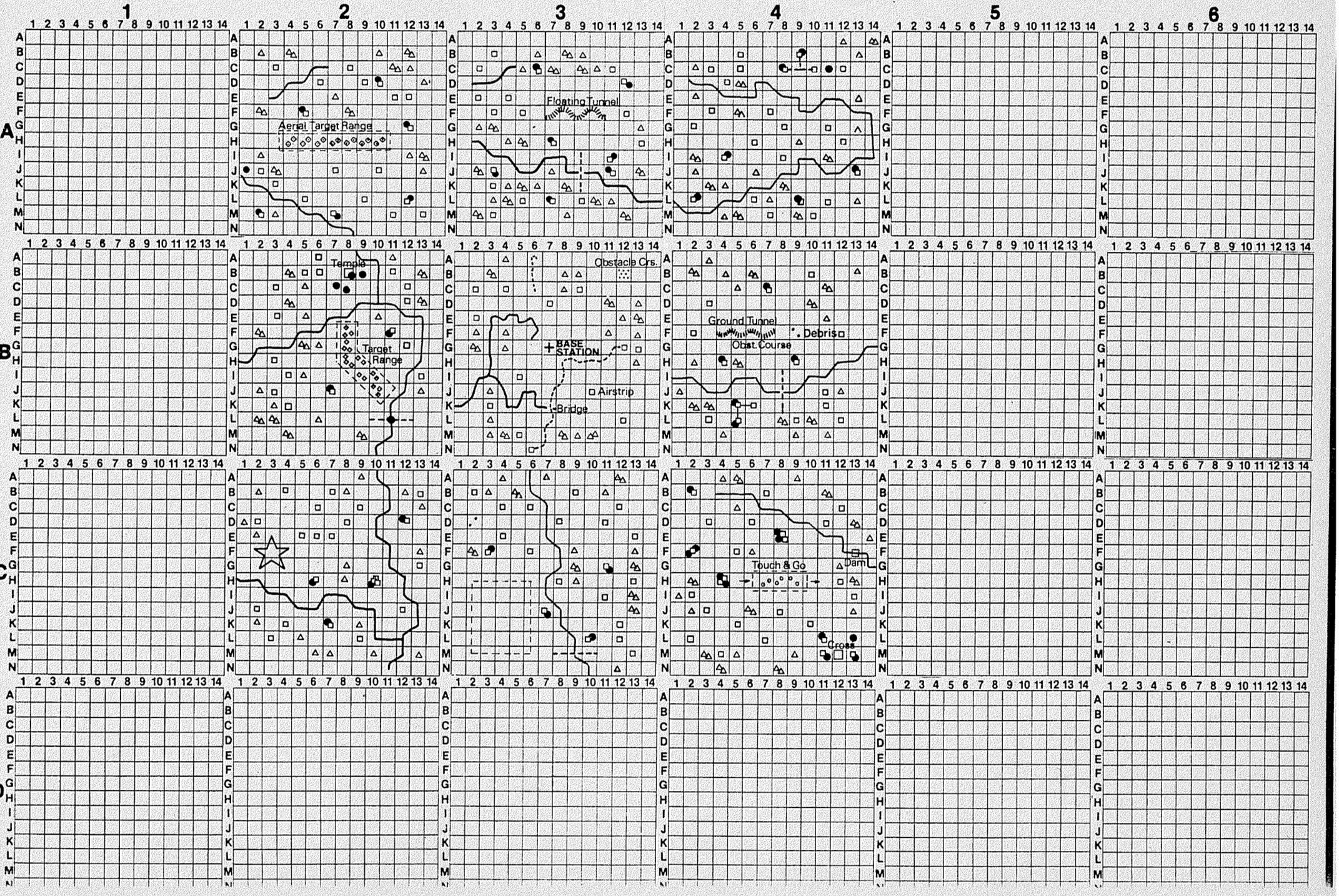
1
2
3
4
5
6
A
B
C
D
Aerial Target Range
Floating Tunnel
Temple
Target Range
Obstacle Crs.
BASE STATION
Airstrip
Bridge
Ground Tunnel
Debris
Obst. Course
Touch & Go
Dam
Cross

ECHELON™
OPERATIONS MANUAL

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Access Software, Inc.

CREDITS

Game Design: Brent Erickson, Roger Carver, Bruce Carver
Software Graphics: Doug Vandegrift
Writers: David Brown, Chris Jones
Data Base Layout: John Berven
Documentation: Bruce Carver, Chris Jones, Doug Vandegrift
Play Testing: *Dave Ashby, David Brown, Chris Jones, John Berven, Kevin Jones.*

INCREASING FLIGHT SPEED

Maximum flight speed is based essentially on ***screen up-date speed*** (the rate at which the viewing screen changes).

All real-time simulators work basically the same. The viewer (or player) has a specific position and orientation (point of view) at any instant in time, even if he or she is moving very fast. Based on the point of view, images are drawn onto a background screen. When the drawing is complete, the entire background screen is transferred very quickly to the viewing screen. The process involving the 2nd screen is called 'buffering' and is used to reduce 'flicker'. The player does not watch the actual drawing process, but sees only the results every time the viewing screen is updated.

All drawing takes time, and the more images to be drawn, the longer it takes, and the longer the time interval between viewing screen updates. Also, the computer has other things to do such as scanning the keyboard and joystick, checking for collisions, updating the direction indicators, etc. All these things take time and delay the update process.

Echelon was specifically designed to provide the player with maximum flexibility in choosing his or her type of game. Everyone would like to see as much detail as possible in the buildings and other structures which are shown on the screen.

However, a basic rule applies. "The more information you want to see, the less often you can receive an update."

Here are some suggestions for increasing screen updates speed. Try them all and find which combinations you prefer. We've found that everyone has different tastes when it comes to the SPEED VS INFORMATION tradeoff.

TURN OFF THE GRID DISPLAY

There are 3 levels of grid display, full, partial and off. Selecting 'partial' will provide some improvement while selecting 'off' will provide significant improvement in update speed. (See Keyboard Controls Section.)

TABLE OF CONTENTS

INTRODUCTION
Introduction 2

PRE-FLIGHT PREPARATIONS
Setting Up 3
Loading the Game 3

QUICK START
Crash Course 4

PLAYING THE GAME
Modes of Play 6
Your Patrol Zone 7
Your Base Station 8
Your C-104 Spacecraft 8
Viewing Screens 8

INSTRUMENTS
Instrument Panel 10
Instruments and What They Mean 12

KEYBOARD CONTROLS
Keyboard Controls 18
Controls and What They Do 18

JOYSTICK CONTROLS
Joystick Controls 22

WEAPONS
Weapons 23

TELEPORTER
How to Use the Teleporter 24

COMBAT
Combat 26

RPV CONTROLS
RPV Controls 27
Controls and What They Do 28

REMOTE CONTROL FLYING
Remote Control Flying 29

TRAINING COURSES
Training Courses 30

DATA LINK
The Data Link 31

DOCKING
Docking 33

HISTORY
Isis – The Tenth Planet 34
Statistics of Isis 35
Historical Time Line 35

MISSION
Your Mission: Classified 37
The Pirate Code 38
The Six Steps 38
The Six Maps 38
Completing Your Mission 39

PIRATE CODE WORKSHEET
Pirate Ciphers 41

CLUES
Green Map 42
Purple Map 43
Grey Map 44
Red Map 45
Blue Map 46
White Map 47

AREA INFORMATION
General Information 48

TROUBLE SHOOTING
Trouble Shooting Section 51

ACCESSORIES
Replacement Parts 54
Accessory Items 54

INTRODUCTION

Echelon **is the code name for a top secret military facility located on the planet ISIS, the newest and 10th planet in our solar system. ECHELON was established by the INTERNATIONAL SPACE FEDERATION (ISF) to stop attacks on shipping and mining operations by space pirates. Only top military personnel are assigned here. The best ISF pilots will be trained to operate the 21st Century's most advanced spacecraft, the C-104 Light Cruiser, code named: *Tomahawk*. The C-104 is a patrol vessel designed for planetary exploration and combat. This spacecraft has the latest in advanced weaponry and scientific equipment.**

As a top ISF pilot, you are given command of a C-104 Tomahawk and stationed in *Patrol Zone 106*. Yours is the only patrol craft in this zone and you must fly daily reconnaissance missions and search for artifacts and clues that may reveal the location of the *Space Pirate Stronghold*. Successfully completing your assignment will require top flight skills, patience and logic.

Begin by reading this manual carefully and then practice flying your new spacecraft. Try some of the training courses and become familiar with all the controls and capabilities of the ship. You can adjust the level of enemy challenge at anytime and we suggest that you start out easy and increase the level gradually as your flight skills improve.

So, strap yourself to your favourite chair, adjust your headset and get ready to fly into the 21st Century. *The simulation adventure of a lifetime is about to begin!*

The Lipstik Plus, voice activated control headset which gives a new dimension of realism to the game and increases player involvement to the highest possible level, is available for use with ECHELON by mail order only from U.S. Gold Ltd. (£9.99) [CBM64/128 computers only].

PRE-FLIGHT PREPARATIONS

SETTING UP:

KEYBOARD OVERLAY: **Carefully punchout the areas marked "remove" from the sheet labelled "ECHELON CONTROL PANEL" and place it over your keyboard.**

JOYSTICK: **Use port # 1.**

PATROL ZONE MAP: 106: **Although the entire zone is filled with objects, structures and things to explore, only nine areas are completely filled in on the map. We want you to explore and chart the rest of the zone.**

LOADING THE GAME:

As the game begins you will be asked to do the following:

1. *SELECT FAST OR NORMAL LOADING:* Fast loading requires that you have a 1541 or compatible disk drive.

2. *ENTER YOUR NAME:*

3. *DISK:* – Side 1 Program, Side 2 Data.

4. *VOICE VERIFICATION:* (only available if you have a Lipstik Plus headset).
You may bypass the voice check by adding the code "*ECH" to the end of your name.

CBM 64/128 CASSETTE: **Press SHIFT and RUN/STOP keys together. Press PLAY on the cassette recorder. After a short while you will be presented with two options:**

1. **Play ECHELON**
2. **Record the tape counter references**

If you are playing the game for the first time choose option 2 and follow the screen prompts. Using the enclosed form, record you tape counter references. Please note that the counter should be at ØØØ.

QUICK START

READ THIS FIRST!!!

Since you can't wait to get started, we'll give you enough training to get you safely out of the Docking Bay. After that, you're on your own. Once you've decided it's time to read the manual, please do so carefully and thoroughly. This game has many features and is designed to provide the player with maximum freedom and flexibility in game playing options. You may play to whatever level of action or adventure is most comfortable. Speed of play need not be a factor. Enemy spacecraft need not bother you. You decide. But because of the variety of playing modes, it is essential that you READ THIS MANUAL THOROUGHLY to gain the maximum enjoyment from the game.

Now for your Crash Course...

INSTRUMENTS:

Turn to page 10 and acquaint yourself with the location and meaning of all the gauges and readouts on your instrument panel.

KEYBOARD CONTROLS:

Turn to page 18 and review the function of the various keyboard controls. Be sure your keyboard overlay is in place.

THE C-104 SPACECRAFT

This ship is the 21st Century's most advanced exploration and combat vehicle. Virtually everything on the vessel is computer controlled or monitored. It has an anti-gravity hover system that can hold the ship in any position at any altitude. The main engines will accelerate the craft to full speed in either the forward or reverse direction in less than 6 seconds. It also has the latest in advanced weaponry.

LEAVING THE BASE STATION DOCKING BAY

While holding down the button, press forward on the stick for about 2 seconds, then release both the button and the stick. (Holding down the button for approximately ½ second without moving the stick will stop your spacecraft.)

After clearing the Base Station. Press forward on the stick and then release. Your ship should now be pointing slightly downward and you should be descending slowly towards the planet's surface. Your altitude readout (ALT) should be decreasing. If you get into trouble or don't understand something, PRESS THE SPACEBAR. This is the EMERGENCY STOP key.

JOYSTICK CONTROLS

1. **Push the stick FORWARD to PITCH DOWN. (Point the nose of the ship down.)**
2. **Pull the stick BACK to PITCH UP. (Point the nose of the ship up.)**
3. **Push the stick LEFT to TURN LEFT.**
4. **Push the stick RIGHT to TURN RIGHT.**

5. **HOLD THE BUTTON DOWN and PUSH FORWARD to apply FORWARD THRUST.**
6. **HOLD THE BUTTON DOWN and pull BACK to apply REVERSE THRUST.**
7. **Pushing ONLY THE BUTTON will STOP your forward or reverse motion after approximately ½ second. (This will not effect HOVERING).**

The following is a list of a few things you can experience with Echelon that are outside the scope of this QUICK START section. Please refer to specific sections of the manual for instructions and playing tips.

1. **Practice firing your weapons. Target ranges are located in AREAS A2 and B2. (See the ZONE MAP).**
2. **Practice touch and go landings in AREA C4. (See Zone Map.)**
3. **Fly under the bridge in AREA B3, SECTOR K7. (Due south of your BASE STATION).**
4. **Fly through the tunnel obstacle courses in AREAS B4 and A3. (See Zone Map.)**
5. **DEPLOY YOUR RPV with its remote camera and watch yourself fly. It's like flying a radio control plane.**
6. **Fly to one of the objects (solid dots on the zone map) and teleport it aboard. See *Teleporting* Section. (There are over 240 objects within the zone).**
7. **Request the computer DATA LINK and select the level of enemy combat you desire. When you've had enough, be sure to re-enter the DATA LINK and turn them off.**
8. **Try your hand at solving the PIRATE MAPS and completing the PIRATE SEQUENCE. (This is not something you can do in a few hours, but the save game feature (Disk only) allows you to continue play at your leisure.**
9. **Explore! Simply fly, look around and teleport objects. There are hundreds of unique and intriguing structures and objects to discover and explore. Some have clues as to the location of the Space Pirate stronghold. If you find what you think is a clue, it would be wise to write it down. Once you begin your mission of solving the Pirate Maps and Sequence, you'll find some of this information extremely useful.**

MODES OF PLAY

Echelon simulates the controls, instrumentation and weaponry of a futuristic spacecraft. It can be played strictly as a flight simulator, exploration adventure, arcade game or as a combination of all of these. With numerous playing options, Echelon lets you make the choice.

1. *Flight Simulation*– Echelon is a true flight simulator that puts you behind the controls of a combat and exploration vehicle. The controls and 3 dimensional view will give you the thrill of a real flight. Fly and land anywhere inside the Patrol Zone. You'll find challenge and satisfaction in mastering the instrumentation, weaponry and controls. There's also a great feature that allows you to fly by 'remote control'. Using your RPV, you can control and view your spacecraft from 'outside' by using the *Automatic Tracking System*. It's like flying a remote control aircraft.

2. *Arcade Action* – Once you are comfortable with the controls, you may want to try your skills against enemy spacecraft. There are SIX DIFFERENT LEVELS OF ENEMY STRENGTH varying from *none* to *very heavy*. This allows you to increase the level of difficulty as your skills improve. The computer keeps track of your success by awarding you combat points. In addition, there are five different training courses which are designed to improve your skills in manoeuvring the spacecraft, selecting weapons and object retrieval. On many of the courses, you can compete against the clock to add excitement and intensity.

Exploration Mystery and Adventure

Echelon offers the mental challenge and stimulation of an adventure game without the aggravation and frustration of sending a player to predetermined paths and locations. Because Echelon is a simulator, a player can choose to fly anywhere inside the Patrol Zone. If you take the assignment of locating the Pirate Base, it will take time, patience and logic. But reaching the solution will be more like 'real life' because the answers will not be determined by following programmed paths.

Operating Classifications

There are three general classifications for operation of your spacecraft.

1. *Scientific* – Exploration and training without engaging enemy aircraft. (This is the normal Echelon Playing level.)

2. *Patrol*– Encounter mild resistance from enemy spacecraft while exploring the unknown. To activate this level of play do the following:

1 – Press the DATA LINK KEY
2 – Press '2' (GAME OPTIONS)
3 – Press '1' (COMBAT)
4 – Press '1' (ENEMY STRENGTH)
5 – Press '2' or '3' (VERY LIGHT OR LIGHT)
6 – Press 'X' (TERMINATE)

3. *Military*– For non-stop enemy attacks follow the steps outlined above for *PATROL* except in step (5) choose:

'4' MEDIUM or '5' HEAVY or '6' VERY HEAVY

You may change classifications at any time, simply by re-entering the DATA LINK.

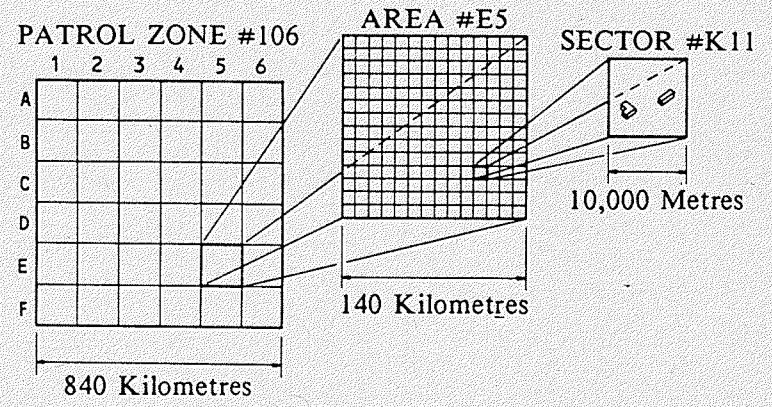
To return to *Scientific Class*, follow the same steps for the *Patrol Class* except in step '5' select '1' No Enemies.

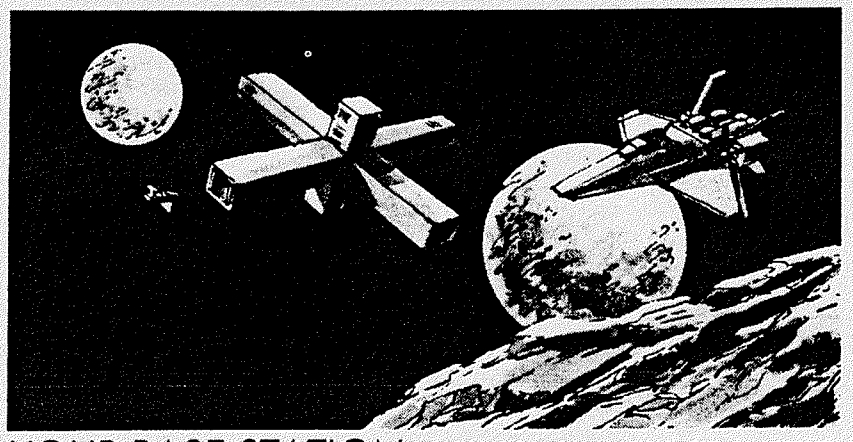
YOUR PATROL ZONE

The ZONE is a partially explored region of the planet ISIS that is 840 kilometres square. Within the zone are 36 smaller regions called AREAS (6 rows x 6 columns).

Each AREA is 140 kilometres square and is also sub-divided into smaller regions (14 rows x 14 columns). They are called SECTORS and each is 10,000 metres square. There are 196 sectors in each AREA.

The figure below graphically represents the ZONE with both AREA and SECTOR sub-divisions.



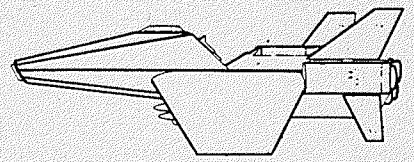


YOUR BASE STATION:

Your base of operations is a fully equipped orbitting BASE STATION. The STATION is located in AREA B3, SECTOR G7 at altitude 10,000 metres. The orbit is geosynchronous so that the BASE will always remain in a fixed location. You must return here to DOCK your spacecraft and receive more munitions or fuel or to repair any damage. (Also see DOCKING).

YOUR C-104 SPACECRAFT

This ship is state of the art technology in a space exploration and combat vehicle. Your craft is equipped with twin laser fusion drive engines and three 100 ton magnetic flux generators. Two of these generators power the anti-gravity hover system while the third unit powers the shield defence envelope. The fusion drive engines use deuterium pellets for fuel and are capable of delivering 2 million pounds each of forward or reverse thrust.



VIEWING SCREENS

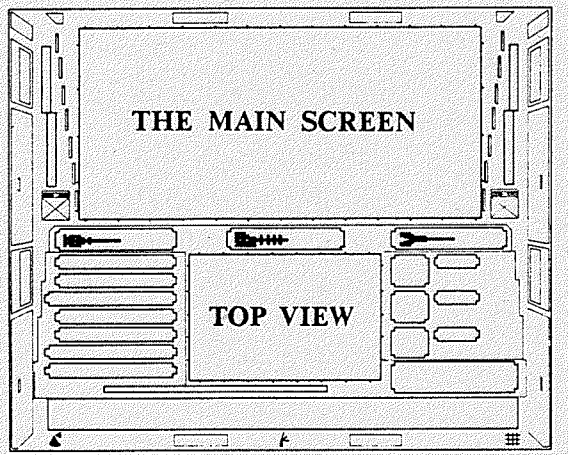
Information from the infrared and microwave scanners are fed to the computer for interpretation. The computer then displays this information on two viewing screens. THE MAIN SCREEN shows 'point of view' images of building, vehicles, terrain, etc. This screen will also display a grid which indicates the planet's surface. You can selectively shut off

all or part of the surface grid. This is normally done to increase the rate at which the display is updated.

The smaller screen is the TOP VIEW. This is the computer's interpretation of an outside view looking down on your spacecraft.

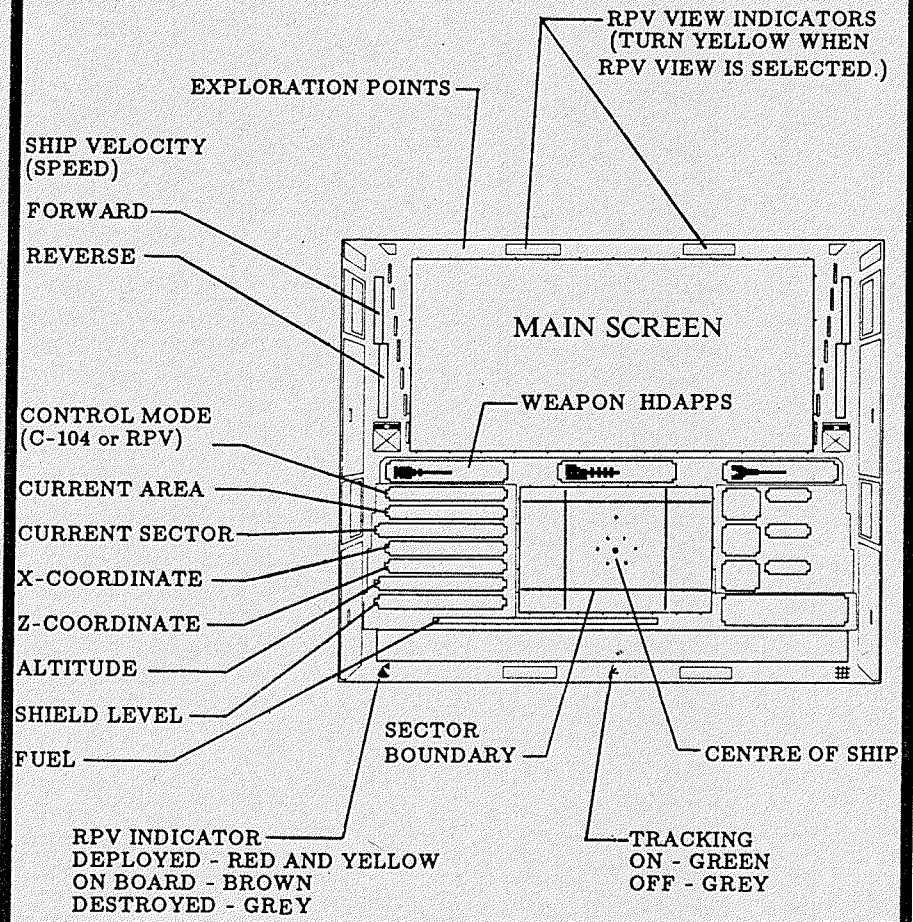
Your ship is represented in outline form as 7 flashing dots. The dot in the centre locates the centre of your spacecraft. The green vertical and horizontal lines represent sector boundaries, the TOP VIEW can be turned on or off as needed by pressing the TOP VIEW on/off key. Again, this is normally done to increase the rate at which the main screen is updated.

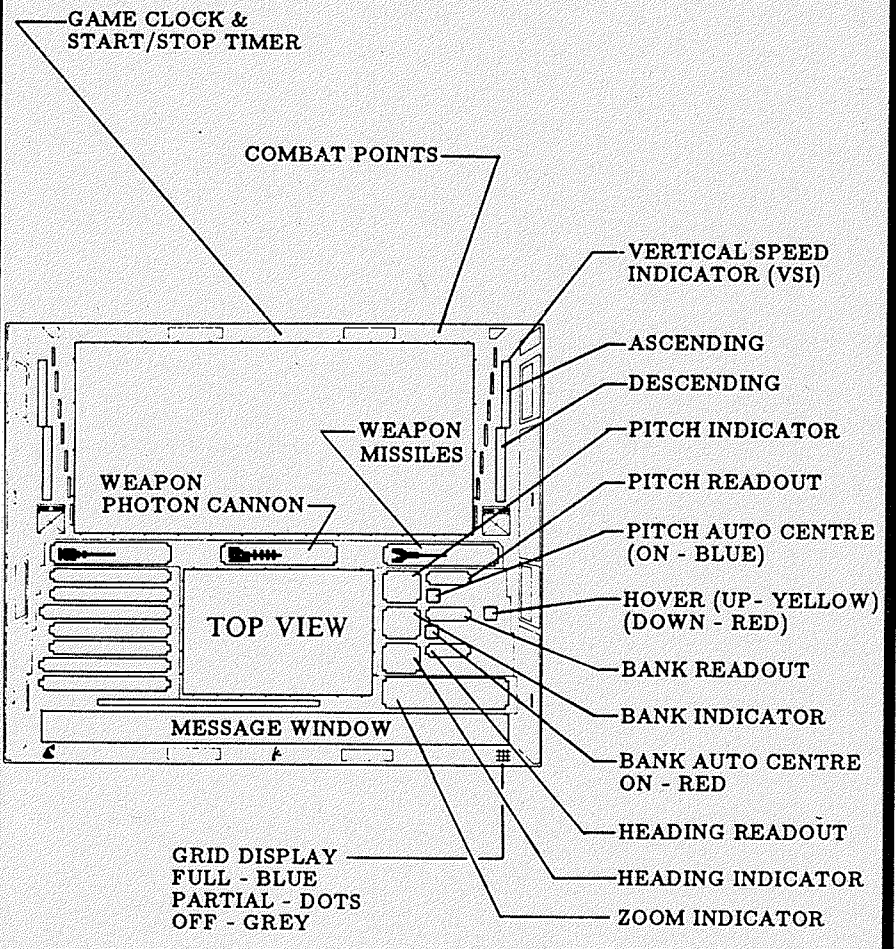
NOTE: When the RPV view is selected, both screens will display images from the RPV's point of view.



INSTRUMENT PANEL

Stop your ship and review your instruments on your monitor as you read this page carefully. Being able to fly with only your instruments may someday save your life.

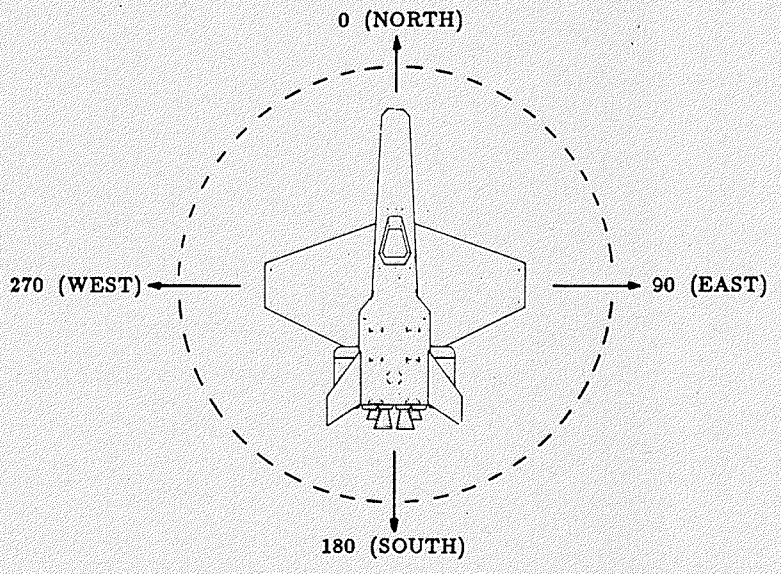


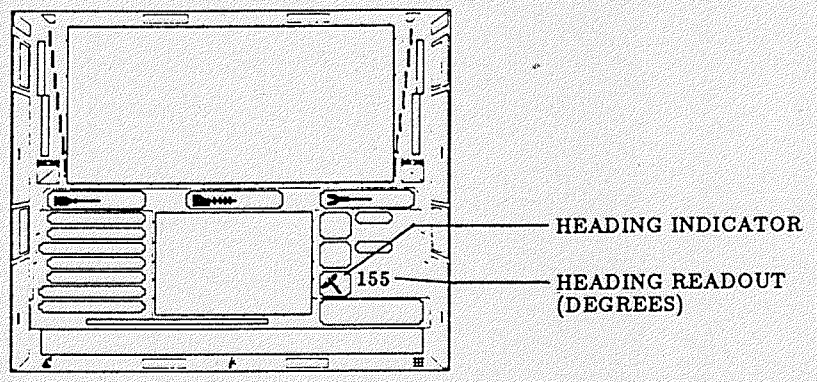


THE INSTRUMENTS AND WHAT THEY MEAN

HEADING:

Heading refers to the direction your ship is pointing relative to due north. The heading readout is located next to the heading indicator. The reading is given in degrees (0 thru 359) with North = 0.

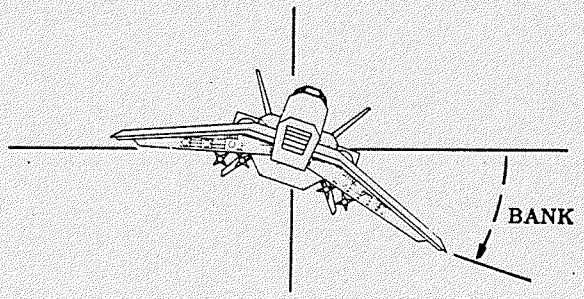




You may change your heading (the direction you are pointing) by turning the ship. This is done by pushing LEFT or RIGHT on the joystick.

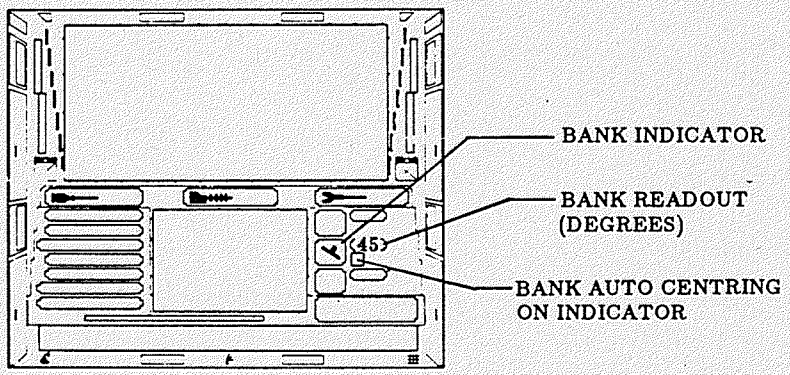
BANK:

Bank refers to the angle of TILT of the wings of your spacecraft. As you turn, your ship will automatically bank.



Maximum Bank is 45°. Pushing LEFT or RIGHT on the stick, will BANK (tilt) as well as TURN (change the heading) of your ship. When you release the stick, the BANK will automatically return to ZERO (level flight). This is referred to as BANK AUTO CENTRING (B.A.C.). You can toggle the BAC feature on or off by pressing the 'A' key. We recommend that inexperienced pilots leave BAC on however.

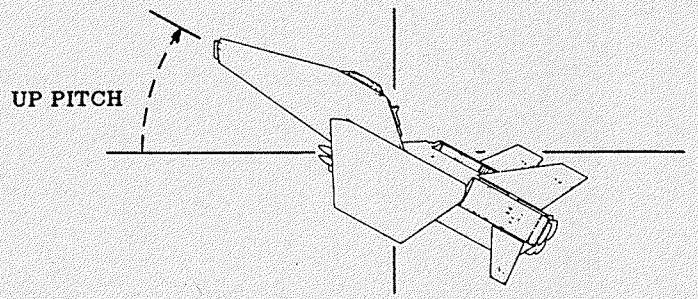
The BANK reading is displayed next to the BANK indicator and shows plus or minus degrees from level flight (Bank = 0).



INSTRUMENTS

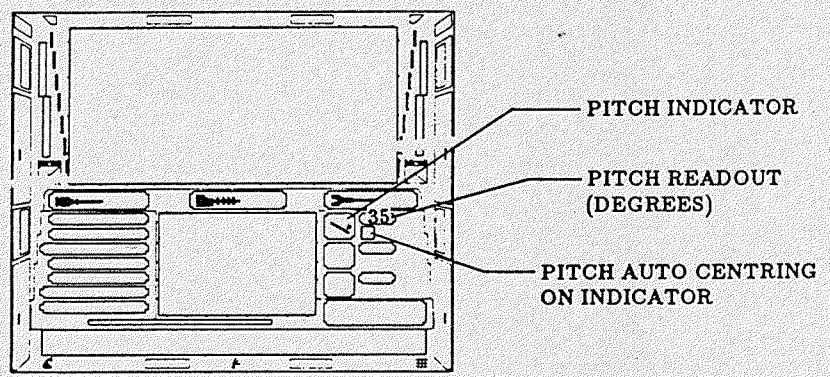
PITCH:

Pitch refers to the attitude of the nose of the spacecraft. When the ship is PITCHED UP the NOSE WILL BE UP. If the PITCH IS DOWN the NOSE WILL BE DOWN. PITCH is controlled by pressing FORWARD or BACK on the joystick. Pressing FORWARD will push the nose down. Pulling BACK will pull the nose up.



When you are stopped, it is perfectly safe to change your pitch to any angle between full up (+90) to full down −90). This is especially useful during close exploration manoeuvring. During flight however (moving forward or backward), it is important to control your pitch. Your main engines will always move the ship in the DIRECTION IT IS POINTING. Therefore, if your nose is pointing down and you are moving forward, you will eventually hit the ground.

The PITCH reading is displayed next to the PITCH indicator and shows plus or minus degrees from level flight (Pitch = 0).



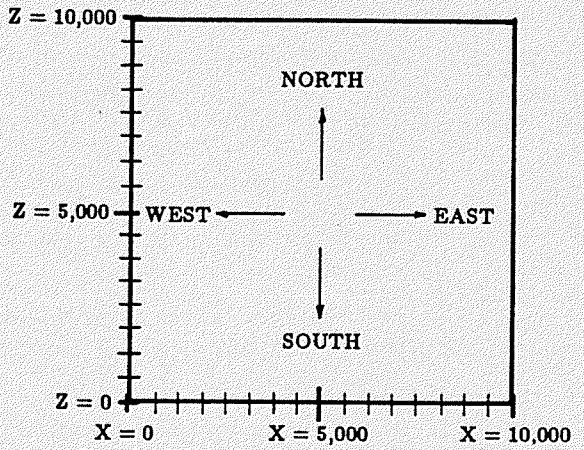
INSTRUMENTS

There is a PITCH AUTO CENTRING (PAC) system that will try to maintain Pitch = 0 (level flight). You can selectively turn PAC on or off by pressing the RETURN key.

COORDINATE SYSTEM:

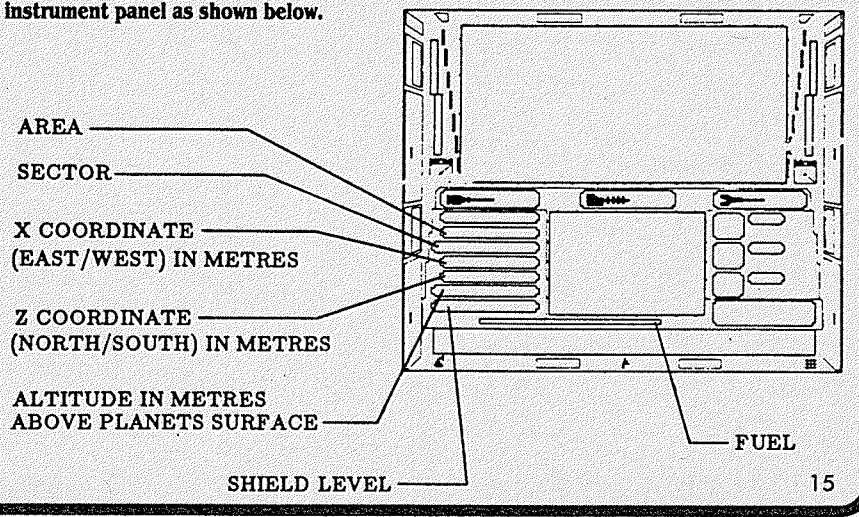
Your current location within the Zone is always defined in terms of AREA, SECTOR, and then coordinates and altitude within the sector. Since each sector is 10,000 metres across, coordinates are given as follows:–

X Coordinate = 0 thru 10,000 (west to east)
Z Coordinate = 0 thru 10,000 (south to north)



Your altitude will range from 0 at the planet's surface to a maximum of 13,500 metres. Your ship's computer will not allow you to leave the zone or to fly above 13,500 metres without special authorisation

AREA, SECTOR, COORDINATE AND ALTITUDE READOUTS are located on your main instrument panel as shown below.



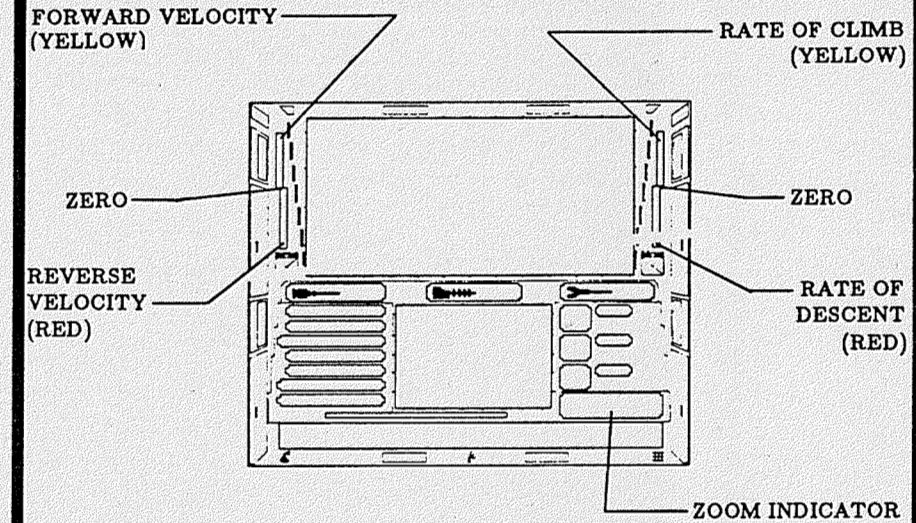
INSTRUMENTS

SHIELD INDICATOR:
The shield indicator displays the amount of energy available to the Shield Defence Envelope. Direct hits from enemy weapons and striking the ground at high velocities will gradually deplete your shield energy. Once the shields are depleted you are very vulnerable to severe damage. Return to BASE immediately and dock your ship to recharge your shields and repair any damage.

FUEL GAUGE:
This indicates the amount of deuterium fuel remaining to power the main engines. Running out of fuel will end the game.

VELOCITY (SPEED) INDICATORS:
There are two sets of velocity indicators on your instrument panel. The display on the left indicates forward or reverse velocity. Forward velocity is shown in yellow and reverse velocity is shown in red.

The display on the right is the vertical speed indicator (VSI) and shows the rate of climb or descent. When the indicator is yellow your ship is climbing and when red, your ship is descending. Rate of climb or descent while hovering is also shown on the VSI.



ZOOM INDICATOR:
Both the MAIN and TOP VIEW screens have zoom (magnification) capabilities. When one of the ZOOM IN OR OUT KEYS ARE PRESSED, these indicators will show the amount of magnification being used. Main screen zoom has a range of 1X normal to 16X maximum. TOP VIEW has a range of 1X normal to 22X maximum.

INSTRUMENTS

GAME CLOCK:
The Game Clock keeps track of total time of play. (It is saved along with a saved game so that total running time is preserved CBM Disk Only). Even when the STOP WATCH TIMER feature is selected, the GAME CLOCK continues to run.

RPV INDICATOR:
This indicator will indicate the current status of your RPV (Droid).

Yellow & Red = RPV is Deployed
Brown = RPV is Onboard
Grey = RPV was Destroyed

If your RPV was destroyed, you must return to base and dock to receive a replacement Droid.

TRACKING ON INDICATOR:
This indicator will turn green when RPV tracking is On.

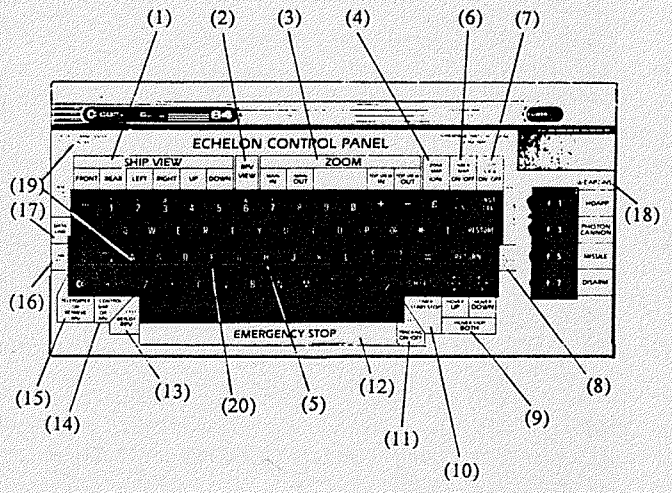
RPV VIEW INDICATORS:
If these console lights are yellow, they indicate that the main screen is now displaying the VIEW from the RPV camera. If lights are black, the MAIN SCREEN is displaying the view from the C-104.

GRID ON INDICATOR:
The computer generated surface grid may be set to FULL, PARTIAL or OFF. This indicator will show the current status of the grid display.

SCORING INDICATORS:
There are two separate scoring displays. The left display is the 'E' or EXPLORATION score. Points are awarded here based on credits received through artefact and clue retrieval. The right display is the 'C' or COMBAT score. Points are awarded here based on enemy ships destroyed. You are also awarded combat points for target practice and combat simulation. Virtually any structure or terrain or the planet can be a target. However, the ship's computer will not allow you to destroy structures that are not hostile. If you fire at a non-hostile target, the computer will simulate the sequence on screen. If the target was hit the image will be removed from the screen and points will be awarded.

MESSAGE WINDOW:
Messages and instructions will appear from time to time in this window. Follow the instructions when they are given.

KEYBOARD CONTROLS – CBM64/128



KEYBOARD CONTROLS AND WHAT THEY DO

1. *SHIP VIEW (←,1,2,3,4,5)*
Select front, rear, left, right, up, or down. All views except the front view will display a portion of the spacecraft to indicate which view is currently selected. ***CAUTION: Do not mistake the DOWN VIEW'S teleport sight for weapon cross hairs.***

2. *RPV VIEW ('6' Key)*
When your RPV is deployed, you can switch to RPV VIEW at any time. When this is down the 'RPV VIEW' lights on the instrument panel will turn yellow. One of the more interesting features of the game is flying the C-104 while watching from the droid (RPV). Be sure and use the tracking feature described on page 19.

To switch back to ship view, simply select one of the 6 ship view keys described above.

3. *ZOOM (7 & 8 Keys)(+ & – Keys)*
Both the MAIN SCREEN and the TOP VIEW have Zoom (magnification) capabilities. The Zoom feature allows you to examine buildings and structures more closely without flying nearer to them. The Zoom magnifies the viewing area to make objects appear closer. The main screen can be 'Zoomed In' to a power of 16X while the TOP VIEW can be zoomed into 22X. Be careful not to forget that you have zoom in effect. It can be very disorienting.

4. *ZONE MAP ('Z' Key)*
Pressing this key will bring up the ZONE MAP which is divided into 36 Areas. When you begin the game the entire map will be red (except at the Base Station). As you fly around the map will turn white in the sectors that have been scanned by your ship's sensors. Your present location is always indicated by a flashing dot. (If you SAVE your games periodically, you will always be able to see where you have been by calling up the ZONE MAP CBM Disk Only). Press the 'Space Bar' or say 'Continue' into the Lipstik to return to the main screen.

5. *HYPERDRIVE ('H' Key During Zone Map)*
There will be times when you will want to move quickly across the Zone. You could fly to your destination Area using your main engines, but it would waste time and fuel. Hyperdrive will transport you there in a matter of seconds. TO USE THE HYPERDRIVE FEATURE, FIRST SELECT ZONE MAP, then press the 'H' key. A flashing arrow will appear at your current position. MOVE THE JOYSTICK UP, DOWN, LEFT OR RIGHT and position the arrow in the destination area. Now PRESS THE BUTTON or the SPACE BAR. Within a few seconds you will arrive in the new area. Your Sector and coordinates will remain unchanged.

6. *AREA MAP (Clr/Home Key)*
The area map will display your current location within the area. Unlike the Zone Map (which freezes play), the AREA map is a 'HEADS UP' display and can be toggled on and off without stopping play. 'Toggle' means that pressing the key once will turn the map on, pressing the key again will turn it off.

7. *TOP VIEW (Inst/Del Key)*
This key is used to toggle the TOP VIEW on and off. Turning the top view off is normally done to speed up the rate at which the main screen updates.

8. *PITCH AUTO CENTRE (Return Key)*
Pressing this key toggles the Pitch Auto Centring feature on and off. When auto centring is on, the blue light just below the Pitch readout will come on. This feature will automatically return your pitch to Zero (level flight) when the joystick is released.

9. *HOVER (Cursor Keys)*
These keys control the anti-gravity hover system. Push the HOVER DOWN key to make your ship DESCEND. Push the HOVER UP key to make it ASCEND. The longer you hold the key down, the faster the ship will move. PRESS BOTH KEYS AT ONCE TO STOP. The EMERGENCY STOP key will also stop your hover velocity as well as any forward or reverse velocity.

10. *TIMER (Right Shift Key)*
This key is used to engage the Start/Stop Timer (stop watch). PRESS ONCE to START the timer, PRESS AGAIN TO STOP the timer, PRESS AGAIN to return to the GAME CLOCK. Use this timer to time yourself through the various training courses. Try competing against your friends.

11. *TRACKING ('/' Key)*
Push this key to toggle the RPV tracking system on or off. When your RPV is deployed, it will try to follow your ship at all times if the TRACKING IS ENABLED. The tracking indicator (see instrument panel) will turn green when tracking is ON.

KEYBOARD CONTROLS

12. *EMERGENCY STOP (Space Bar)*
This key will zero all ship velocities. The on board computer will recognise this key as an emergency condition and bring your ship to a stop as quickly as possible.

13. *DEPLOY RPV ('Z' Key)*
Press the key to deploy your RPV. This droid is used only for exploration and reconnaissance as it has no weapons. You can activate its camera and sensors by selecting RPV VIEW ('6' Key). When the droid is out of the ship (deployed) the RPV indicator will turn yellow and red. Shield energy for your droid is microwaved from the C-104. BE CAREFUL not to touch the ship and droid when the shields are energised or the RPV WILL BE DESTROYED. To bring it back on board you must use the teleporter. If you inadvertently destroy the RPV, you must dock to receive a replacement.

14. *CONTROL (Lt. Shift)*
This key will toggle between C-104 control and RPV control. By switching to RPV CONTROL and RPV VIEW you can control the droid very much like the C-104. The RPV does not have multiple viewing directions or weapons and it does not bank when turning. The unit that is being controlled is displayed on the instrument panel just above the AREA indicator. ALL INSTRUMENTS AND READOUTS PERTAIN TO THE UNIT BEING CONTROLLED. The droid must remain in the same area as the C-104.

15. *TELEPORTER (Commodore Key)*
Pressing this key will engage the OBJECT TELEPORTATION SYSTEM. Several conditions must be met before an object can be beamed aboard. All engines including hover must be stopped. ALTITUDE must be at 50 metres or below and down view must be selected. In addition, there must be an object (flashing hour glass) visible on the main screen.

The teleporter is also used to retrieve the RPV. Since droid coordinates are always known, the only requirement is that your velocities be ZERO. See the *Teleporter* Section.

16. *GRID (Run/Stop)*
This key is used to select full, partial or no surface grid. The grid is generated by the on board computer to represent the planet's surface. Turning off the grid will increase the rate at which the main screen updates. This can be especially useful when battling enemy spacecraft. Repeatedly pressing the key will switch from FULL to PARTIAL to OFF and back to FULL.

17. *DATA LINK (CTRL Key)*
Pressing this key will link your on board computer to the main computers at ECHELON HEADQUARTERS. Once the data link is established, you can select numerous playing options, review the pirate maps, load or save a game, or even adjust the sound filters for optimum effect. See the DATA LINK SECTION for more information.

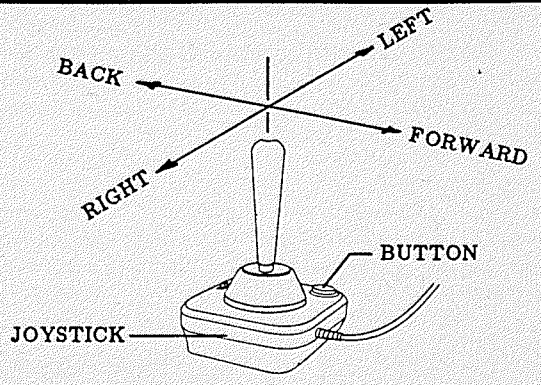
18. *WEAPONS (F1, F3, F5)(F7)*
These four keys are used to arm and disarm the weapon systems aboard the C-104 spacecraft. Select 'F1' to arm the HDAPPS, 'F3' to arm the PHOTON CANNONS, and 'F5' to arm the MISSILES. Select 'F7' to disarm all weapons. See the WEAPONS SECTION for more information.

KEYBOARD CONTROLS

19. *AUTO BANK CENTRE ('A' Key)*
Pressing the 'A' key will toggle the AUTO BANK CENTRING FUNCTION on and off. When activated, the small red light near the bank indicator will come on. (See Instrument Panel.) In the 'ON' mode (which is normal) the bank or tilt of the wings will automatically return to zero (level flight) when the joystick is released.

20 *FIRE KEY ('F' Key)*
Firing of weapons is normally done by using the LipStick. The 'F' key is provided as a backup system in the event that you do not own a LipStick. The disadvantage of using the key is that your hands must leave the stick in order to fire. This is a real handicap during high speed target runs or enemy dog fights.

JOYSTICK CONTROLS



FORWARD ONLY = PITCH DOWNWARD (NOSE DOWN).

BACK ONLY = PITCH UPWARD (NOSE UP).

LEFT = BANK AND TURN LEFT.

RIGHT = BANK AND TURN RIGHT.

FORWARD + BUTTON = ACCELERATE (FORWARD THRUST).

BACK + BUTTON = DECELERATE (REVERSE THRUST).

BUTTON ONLY FOR APPROXIMATELY ½ SECOND = STOP.

(NOTE: THIS WILL NOT STOP HOVER).

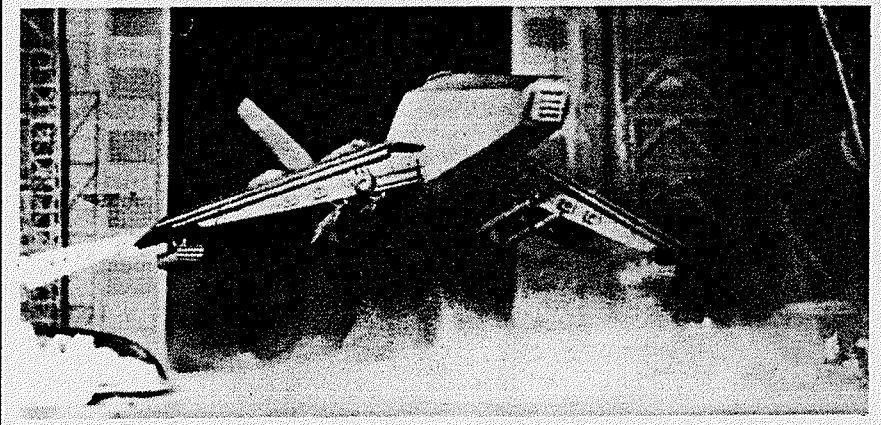
Your main engines will move your ship forward or reverse in the direction you are pointing. Remember to keep an eye on your Pitch Indicator or you may find yourself flying straight into the ground.

To apply FORWARD THRUST, hold down the FIRE BUTTON and push FORWARD on the JOYSTICK. Your ship will begin to accelerate. Once you have reached a comfortable speed, RELEASE BOTH THE BUTTON AND STICK AT THE SAME TIME. When you wish to stop any forward or reverse motion, simply HOLD DOWN THE BUTTON without pushing on the stick. The ship's computer will interpret a 'BUTTON ONLY' input from the joystick as a 'STOP MAIN ENGINES COMMAND'.

To REVERSE THRUST simultaneously press the FIRE BUTTON and PULL BACK on the stick.

REMEMBER that pushing or pulling on the stick without the button will change the PITCH of your spacecraft, and pushing the button without moving the stick will STOP your main engines. It is therefore important to always PUSH THE BUTTON AND STICK AT THE SAME TIME, IF YOU WISH TO CHANGE THE SPEED OF YOUR SHIP.

WEAPONS



HDAPP (High Density Anti-Proton Projectile): These anti-matter packets are suspended in a magnetic field until fired. Once released, they disintegrate rapidly but are very effective at short range (up to 1800 metres).

PHOTON CANNON: This unit is basically a very high intensity pulse laser. The pulse power is supplied by rapidly discharging a P.C. power cell and the cell casing is ejected after each round is fired. The cannons are good at short to medium range (up to 4600 metres).

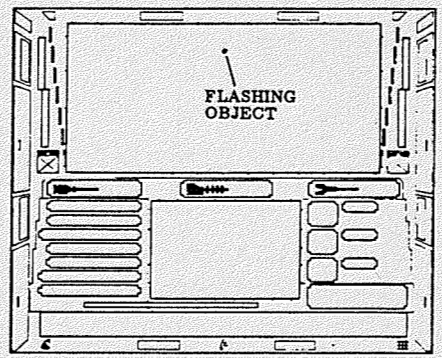
MISSILES: These are medium to long range, solid fuel rockets with micro-nuclear detonators. (Acronym: LRN) They have no external guidance system which virtually neutralises any electronic counter measure techniques (effective range 6300 metres).

HOW TO USE THE TELEPORTER

One of the most important functions of your spacecraft is teleporting objects aboard. There are hundreds of objects in the Patrol Zone that contain information needed to solve the maps and locate the Pirate Base. The RPV is also retrieved by the teleporter. To teleport objects, use the following procedure:

LOCATE AN OBJECT

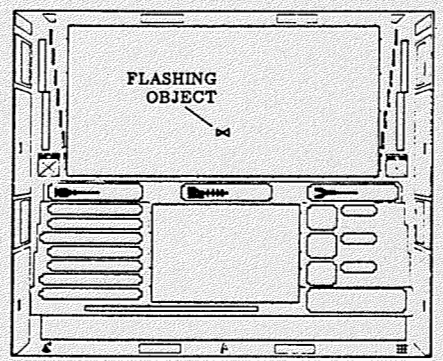
Objects that are teleportable are shown as flashing hourglasses on the viewing screen. From a distance the object appears as a small flashing dot.



NOTE: (To follow this procedure while attempting to teleport an actual object, fly to Area B-2, Sector J-7.)

APPROACH

When an object appears on screen, it may be in the adjacent sector. Fly towards the object and adjust your controls so that the object remains in the centre of the screen. When your spacecraft gets close, the object will begin moving more rapidly. Lower your speed and altitude and continue your approach. If the spacecraft continues forward when you are very near the object, it may disappear from the front view as the spacecraft begins to pass over it.



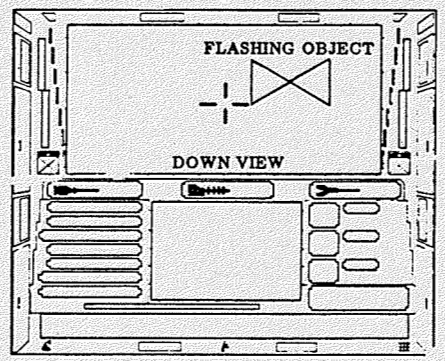
ACTIVATE 'DOWN' SCREEN

To teleport an object, your spacecraft must be directly over it. Press the *down view* key to activate the down screen. The down screen shows the view directly below your spacecraft. There is a blind spot between front and down view screens and when the object passes out of view from the front screen, it is not immediately seen in the down screen.

MANOEUVRE YOUR SPACECRAFT OVER THE OBJECT

If the object is in front of your craft, begin moving slowly forward so that the spacecraft passes over the object. The object should now be visible on the *down* screen. If the object passes outside the *down* view area, use the other views from the ship to locate the object again. Use the down view teleport sight (small cross hairs) to line up the object. Manoeuvre the spacecraft so that the object is still partially visible when you are at or below 50 metres.

NOTE: Objects cannot be teleported unless your altitude is 50 metres or below.

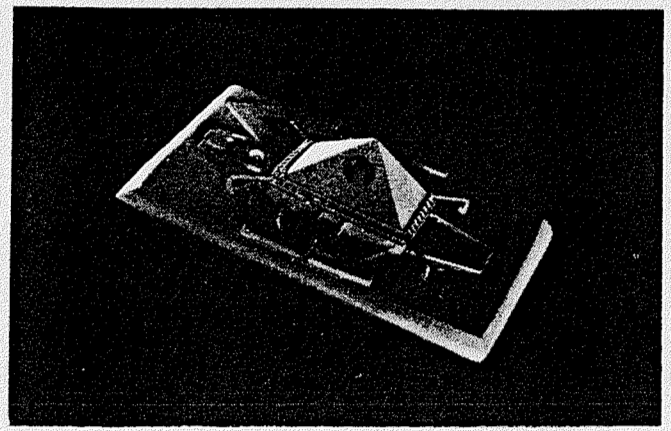


BEGIN TELEPORTATION SEQUENCE

Once the object is within teleport range (inside the screen area) with the spacecraft below 50 metres) press the *Teleport* Key. This will activate the teleport sequence and bring the object on board. If the object is not properly lined up, the message *"No object within range"* will appear. This means either your craft is too high (over alt. 50) or not enough of the object is inside the screen area. Make the proper adjustments and try again.

NOTE: To help you get started, the Patrol Zone map included with Echelon shows the location of all the objects within 9 of the 36 areas. Most objects located throughout the Patrol Zone can be found near buildings and structures. *Remember:* There are over 240 objects within the zone.

COMBAT



COMBAT

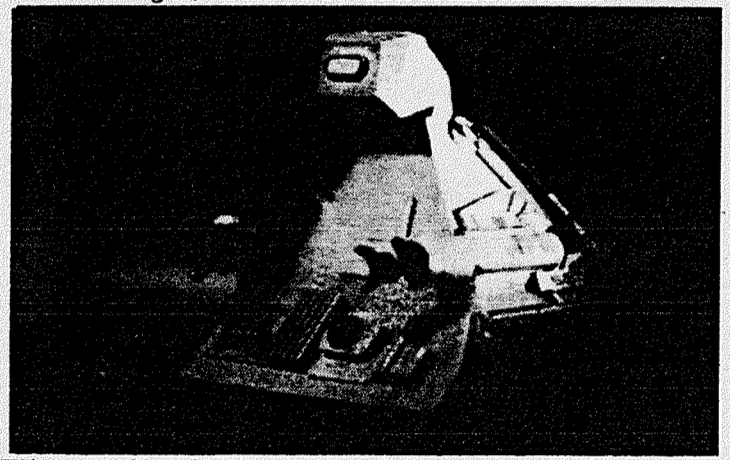
If you wish to battle enemy spacecraft, enter the DATA LINK COMBAT SECTION and set enemy strength to a value other than 1.

The planet is broken down into a number of Patrol Zones. Since there is only one C-104 per zone, it's up to you to defend it. When your ship comes under attack, a small audio signal will sound. Enemy spacecraft should be visible on the 'top view' screen. They will be identified as small dots moving toward your spacecraft. Activate one of your weapons by pressing F1, F3 or F5, adjust your headset and get ready for combat.

The only direction your weapons fire is directly ahead. Look at the *top view screen* and identify which of the enemy spacecraft is the closest and position your spacecraft to view the approach from the *front* screen. Try not to oversteer. When the craft is within range, speak into the Lipstik or use the 'F' key to fire your weapon. Each time an enemy spacecraft is shot down points will be awarded. These will appear on the upper right hand portion of the Instrument Panel. You are awarded significantly greater points for chasing down an escaping enemy ship than one that is coming towards you.

RPV CONTROLS

The RPV is a remote piloted vehicle, used for all types of exploration and observation work outside the spacecraft. The RPV has its own propulsion system and can fly in much the same manner as the C-104. It also has a camera that allows the pilot to monitor the RPV's viewing area. To deploy the RPV, the C-104 must be at alt. 00. Once on the ground, press the 'Z' key. A message and the small figure in the lower left corner of the panel will change colour. The RPV will always be deployed to the north of you. When your spacecraft is on the ground at heading 00, the RPV will be visible on the front screen.

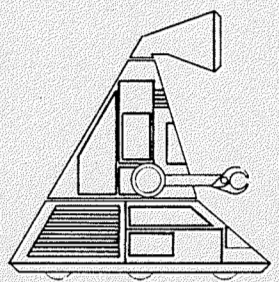


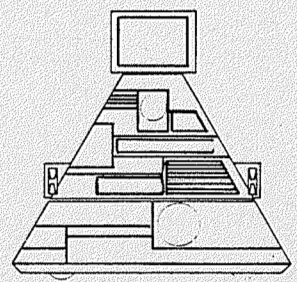
The RPV is operated by using the same controls that are used with the C-104. To switch the controls from the C-104 to the RPV, press the 'CONTROL SHIP OR RPV' key. The control indicator just above the 'AREA' indicator should now read RPV. (When control is switched back to the C-104, the indicator will read 'C-104'.)

To switch the RPV view, press the RPV view key. If you have not moved the RPV from where it was deployed, you will see the *outside* view of your spacecraft. To switch the view back to the C-104, press one of the *Ship View* keys.

You can use the RPV to explore buildings and structures or to fly around the sectors. The RPV responds to the controls in the same manner as the C-104. Be careful when operating the RPV near the spacecraft. If they collide, the RPV will be destroyed.

If your RPV is destroyed and you wish to obtain a new one, return to the *Base Station*. When you dock you will automatically receive a new one. To retrieve your RPV after deployment, the C-104 must be in control and you must be stopped. Press the *Teleport* key to teleport the RPV aboard.



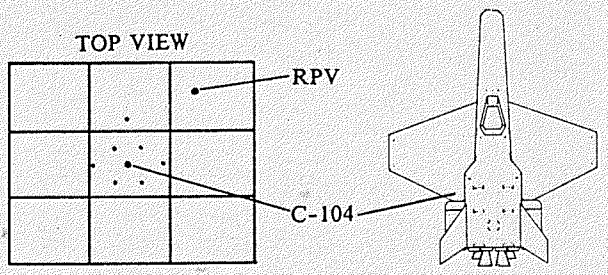


RPV CONTROLS

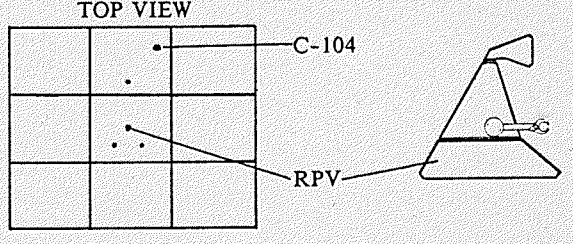
SWITCHING CONTROLS

Switching the controls between the C-104 and the RPV can sometimes be confusing. When the control indicator reads C-104, the instruments pertain to the C-104. If the control indicator reads RPV, then the instruments pertain to the RPV. Watch the instrument panel and switch the controls back and forth between C-104 and RPV. Each time you switch, the information displayed changes as well.

When one of the 6 ship view keys is selected the top view shows the spacecraft as 7 flashing dots with one flashing dot in the centre. If the RPV is deployed it is shown as a single yellow non-flashing dot. The C-104 is always in the centre of the screen when a C-104 view is selected.



When the view is switched to the RPV, it is shown by the 4 flashing dots in the form of an arrow. The C-104 is now shown as a single dot, and the RPV becomes the centre of the ***Top View Screen.***



REMOTE CONTROL FLYING

The ***tracking function*** allows you to fly the C-104 like a remote control aircraft. To try this, do the following:

1. Set your altitude at 00.
2. Deploy your RPV.
3. Switch to RPV view (key 6). You should now see the C-104 directly in front of you.
4. Switch the controls to the C-104 (left 'shift' key).
5. Press the ***TRACKING KEY*** (press the '/' key).

With the tracking on, the RPV will follow the C-104's flight pattern.

To start, try something simple – Use the ***HOVER UP*** key and take the C-104 to an altitude of 250 metres. You'll notice as you fly that the RPV will continually change its view angle to keep the C-104 on screen.

Now rotate the C-104 by changing the heading. Slowly fly a circle pattern around the sector. Notice on the top view that the RPV will follow your movement by pointing directly at the C-104.

When you're ready to fly further away from the RPV, periodically look at the top view to identify where the spacecraft is in relation to the RPV. We recommend using magnification 04x for most remote flying. As the spacecraft gets closer to the RPV, decrease the zoom. Also, if the C-104 gets off screen, decrease the zoom.

Because you're viewing from outside the spacecraft, the exact direction you're flying can be confusing. Check the heading to make sure you're going in the right direction.

By using the tracking you can watch the C-104 bank, turn and *fly by* your position. Try setting the RPV by a bridge and watch the C-104 fly under it.

If you get disoriented or lose track of your position, simply stop the C-104, switch to front view and press the *Teleport Key.* Your lost droid will be beamed aboard.

NOTE: The C-104 and the RPV must always remain in the same AREA. You will not be able to fly the droid outside of the AREA, and if you attempt to fly across an AREA boundary with the RPV deployed, the teleporter will automatically engage and beam it aboard.

TRAINING COURSES

There are six different flight training courses designed to improve your skills in flying and operating the spacecraft.

1. *Touch and Go:* The object is to set your spacecraft down on landing pads that are located in Area C-7, Sectors H-6 through H-10. Start on the arrow (→) located in Sector H-5 and at altitude 200. The landing pads are small coloured squares with an X inside. They are located in the sectors directly east. Begin moving forward and try to set your spacecraft directly on top of the landing pad. This requires using the down screen view. Positioning your spacecraft over the landing pads is very similar to positioning your ship over teleportable objects. This course will help improve your teleporting skills. Use the *Timer* to see how fast you can run the course.

2. *GROUND TUNNEL OBSTACLE COURSE:* One of the keys to manoeuvring your spacecraft is to avoid over 'steering'. The ground tunnel obstacle course is located in area B-4 and starts in Sectors F-4. You are required to fly your spacecraft through the tunnel and avoid flying through the *walls* and outside the tunnel. Remember to avoid *over control*. Make small adjustments and wait for the ship to respond. To compete *against the clock* press the timer key to start and press it again when you finish.

3. *FLOATING TUNNEL OBSTACLE COURSE:* This course is also designed to improve manoeuvring skills but you also need to watch your altitude and pitch carefully. The course is in Area A-3 and starts in Sector F-7 at X = 369, Z = 1029, alt = 534. The course is a series of rectangles that you must fly through. Use the timer and compete against yourself or friends.

4. *AERIAL TARGET RANGE:* The aerial target range is to increase your proficiency in the use of weapons. There is a target range located in Area A-2, Sectors H-4 through H-10. Start at Sector H-3 X = 7884, Z = 5281, alt = 5175. The object is to fly through the range hitting as many targets as you can in the least amount of time. There are 14 triangle type figures staggered from Sectors H-4 to H-10. To start the clock, press the timer key and press it again when you are finished.

5. *TARGET RANGE:* The target range located in Area B-2 starts in Sector J-10 and goes through several connecting sectors. The object is to increase your weapon proficiency by flying through the sectors hitting as many targets as quickly as possible.

DATA LINK

Press the Data Link key to request up-link to ECHELON Headquarters. When the link comes on line you have 4 selections from the main menu.

1. Docking 2. Game Options 3. Pirate Maps X. Terminate.

The following is a brief description of each selection.

DOCKING

1. *DOCKING PROCEDURES:* This gives instructions on how to re-dock once leaving the base station. Any time during flight you can return to the base station to re-energise your shields, get more fuel, ammunition or droids. Any damage that your craft has sustained will be automatically repaired when you dock. Upon entering the base, your maximum speed is automatically reduced to ¼ of normal. Each time you dock, you will receive a new RPV (if needed) and your shield energy level will be replenished. To continue, press the 'Space Bar'.

2. *WEAPONS AND FUEL:* This option allows you to select the amount of fuel and the amount of ammunition for each of your weapons. This can be done up to the maximum capacity (in weight) that can be held by your spacecraft. To activate a category use the Lipstik Plus, (if available) or press the *Space Bar*. Use the (+) or (−) keys to add or subtract the amount of ammunition or fuel. To exit, press '/'.

3. *DEFAULT WEAPONS/FUEL:* This option automatically selects the normal loading of ammunition and fuel. You may then make adjustments if you wish. To exit press '/'.

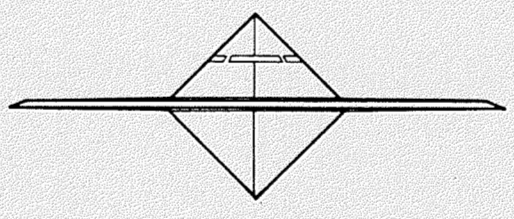
NOTE: YOU MUST BE DOCKED TO ENGAGE OPTIONS 2 AND 3 OF THE DOCKING SELECTION.

GAME OPTIONS

COMBAT: There are two choices you can make under this category.

– *Enemy Strength* – This allows you to vary the enemy strength between six different levels, including no enemies.

– *Structure Display* – This option allows you to either leave the structures or buildings on screen during combat or to not display them during combat. The advantage to turning the display off during combat is that the rate at which the screen updates will increase. This will speed up the action. However, some find turning the structure display off to be disorienting.



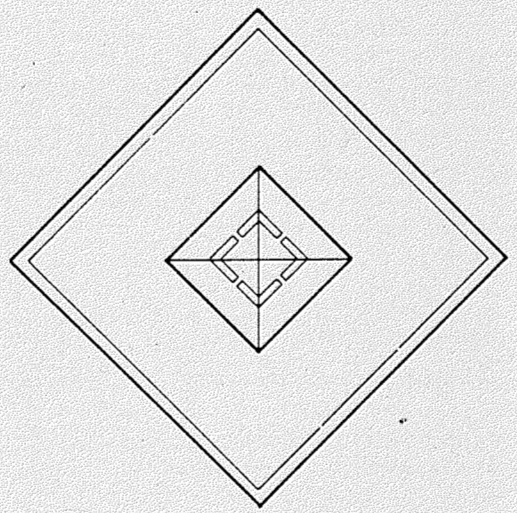
DATA LINK

LOAD/SAVE/RESTART: **(Disk Only) This option allows you to SAVE a game in progress, LOAD a previously saved game and resume play, FORMAT a disk, or RESTART a game without re-booting. Please follow the instructions outlined in the screen carefully. *In order to SAVE a game, you must have your own disk. You CANNOT save to the ECHELON game disk. If your disk has NOT been used before, you will have to FORMAT it.***

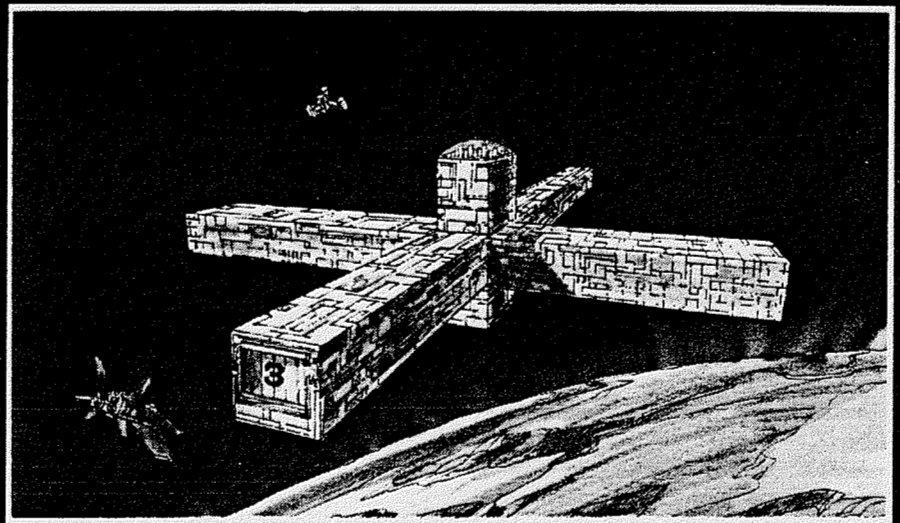
SOUND ADJUSTMENT: **You may adjust the sound filter settings of the game to provide the optimum sound for your computer. Please follow the instructions outlined on the screen.**

PIRATE MAPS

This allows you to view the pieces displayed on the Pirate Maps. The maps start with no information but gradually fill in each time objects are teleported. There are six different maps and each is used to help locate the Pirate Base. For more information on the maps, see the section on the six maps.



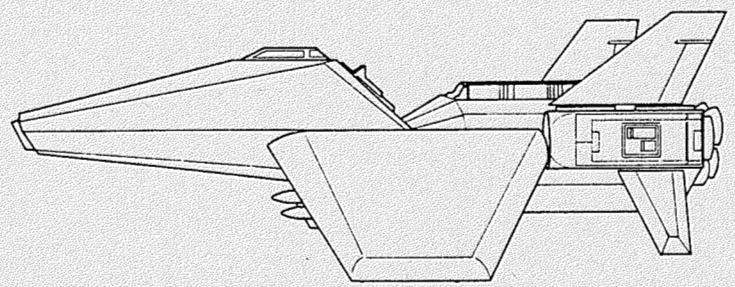
DOCKING



DOCKING

1. **The main base is located in Area B-3, Sector G-7. Fly to this location at an altitude of 10,000 metres.**
2. **To get to the docking area you must fly in through one of the four entry bays.**
3. **Line your spacecraft (at alt 10,000 m) directly in front of one of the bay entry doors and slowly begin to approach the opening.**
4. **As your spacecraft begins to enter the bay, your speed will automatically be reduced.**
5. **Keep your spacecraft in the centre of the entry bay. If you hit the sides of the entry bay, you'll hear a *thud*. You cannot fly through the walls of the space station.**
6. **Keep an eye on your X and Z coordinates. When your coordinates are approximately X = 5000, Z = 5000 at altitude 10,000 metres, you have reached the docking bay.**
7. **Rotate your spacecraft to a heading of 00 and the docking system will be automatically engage.**

   NOTE: PITCH MUST ALSO BE ZERO.



ISIS – THE 10TH PLANET

HISTORY OF ISIS

Scientists had long suspected the existence of a 10th Planet. In 1821, 40 years after the discovery of the seventh planet, Uranus, French Astronomer Alexis Bouvard noticed that Uranus' observed position did not agree with its calculated orbit. Uranus was being pulled slightly off course by the gravitational attraction of an outer planet. This led to search and discovery of Neptune, the eighth planet. But the mass of Neptune did not account for the distortion in Uranus' orbit so a search began for a ninth planet. When Pluto was discovered in 1930, its mass was much too small to fully account for Uranus' wobble, so an earnest search for a tenth planet had been continuing at the U.S. Naval Observatory (USNO) since the early 1980's

In 1996 a research team from UNSO announced the discovery of Isis, the 10th Planet in our solar system. The planet's mass, approximately five times that of Earth's, was of sufficient size to affect the gravitational field of Uranus. Isis has a thin atmosphere made up primarily of Oxygen, Carbon Dioxide, Nitrogen and Argon. Its orbit is elliptical and it takes over 340 earth years to orbit the sun.

The biggest surprise however, was yet to come. In 2011, the first unmanned landing probe reached Isis. The photographs and data sent back finally verified that Earth was not the only Planet where life has existed. Signs of an ancient civilisation were observed on the surface of the planet, but life was no longer present. Evidence indicated a great cataclysm had taken place and large areas of the planet showed evidence of incredible devastation.

Upon analysis of the information, general consensus among scientists was that since conditions were too harsh and too cold for life to have evolved on the planet at its current position in our solar system, Isis must have been part of another star system in the Universe. The star exploded or died and the planets were released from the star's gravitational pull and wandered to different parts of the Universe. Isis travelled through space until it was caught by the gravitational pull of our sun, thus becoming the 10th planet.



STATISTICS OF ISIS

Mean distance from Sun	**6.5 billion km**
Period of orbit	**341 Earth years**
Period of rotation	**47 Earth Hours**
Diameter	**28,940 Km**
Mass relative to the Earth	**5.3**
Surface gravity relative to Earth	**1.25**

HISTORICAL TIME LINE

1996 – Discovery of 10th Planet. Planet is named Isis.

2011 – First unmanned landing probe reaches Planet – Discovers Ancient Civilisation once flourished on Isis when it was part of another Solar System.

2012 – United Nations organises the International Space Federation (ISF).

2015 – First manned spacecraft sent to Isis.

2017 – Scientific team arrives on Planet. Discovery of Dyilidium, a new element.

2020 to 2030 – Five more scientific expeditions are made to Isis.

2031 – Development of Laser Fusion Drive, cuts travel time to planet to 1.2 years.

2035 – First Martian Colonies developed and settled.

2037 – Miners arrive to collect Dyilidium and other precious metals on Isis.

2041 – *Alphan War* Period Begins when an ISF spacecraft accidentally destroys an alien vessel – Skirmishes between Alphan spacecraft and ISF spacecraft continue.

2043 – The major battle of the Alphan War takes place over what is now Zone 106, Area A-2, Five ISF spacecraft destroyed; 3 Alphan spacecraft destroyed.

2045 – Contact finally made with Alphan officials and a non aggression pact is reached. However, isolated random attacks still occur.

2054 – McAdams Penitentiary established on Isis. Prisoners of this facility are used to mine Dyilidium.

2056 to 2081 – Exploration and mining continues – Many new colonies established between Earth and Isis.

2082 – Prison riots occur at McAdams Penitentiary, 350 prisoners escape. Over 200 prisoners and guards are killed. ISF closes the Penitentiary.

2083 – Pirates begin raiding ISF Facilities. Many pirates are believed to be escapees from the prison. Others are colonists who have grown disenchanted with ISF controls and regulations and want to set up their own system of commerce.

HISTORY

2093 – Raid on Isis outposts continue. Pirates begin to control and dominate the area. Pirates have developed sophisticated disruption equipment which allows them to block communication between ISF spacecraft and their bases. In addition, Pirate spacecraft are equipped with stealth capabilities and are undetectable on long range scanners. This allows them to strike quickly before being spotted on radar and disappear without being tracked. Pirate spacecraft are only visible on short range scanners. The Pirates are not strong enough for a full attack on the ISF, but their guerrilla tactics have become increasingly more effective.

2094 – Establishment of ECHELON headquarters on Isis. Patrol Zones are set up to cover selected areas of the planet. Eight of the more strategic Patrol Zones have stationary orbit Base Stations for refuelling, maintenance, supplies and sleeping quarters. These Base Stations are fully automated and have a level 3 perimeter defence system. Only top military personnel are assigned to ECHELON. Its presence on Isis will hopefully help the ISF regain control of this area of space from the Pirates.

2095 – Major Thomas Allen attempts to infiltrate the pirate organisation. He is not heard from again.

2096 – The completion of a new combat and exploration vehicle, C-104 Tomahawk. The C-104 spacecraft has the latest in advanced weaponry and scientific equipment. A limited number of new spacecraft being delivered to Echelon will be flown by only the best ISF Pilots.

MISSION



YOUR MISSION: CLASSIFIED

BRIEFING: **Space pirates have been a problem to the ISF since their appearance over a decade ago. Their past raids had mainly been restricted to isolated spacecraft and outposts. Then three years ago, major technological improvements in their equipment and weaponry occurred. Since then, their raids have become more daring. Equipped with electronic disruption equipment and stealth capabilities, they have caused an increasing amount of damage to ISF facilities.**

The ISF established Echelon two years ago to regain firm control inside the area. Progress however, has been marginal. *Major Thomas Allen* was given the task of infiltrating the pirate organisation over 16 months ago, but his status at this point is unknown. Pirates continue to use the element of surprise and have enjoyed an increasing amount of success against ISF facilities throughout the area.

OBJECTIVE: **Your assignment is to locate the Space Pirates' Main Base of operation. According to Intelligence reports, it is somewhere inside your Patrol Zone. Your investigation requires you to retrieve artefacts and information throughout the zone to find the answer. Any pirate spacecraft spotted inside your assigned area should be neutralised. *Good Luck, Commander!***

THE PIRATE CODE

The Pirate Base is somewhere inside your Patrol Zone. Finding the base will take a great deal of 'detective work'.

Through intelligence reports, we know that the Space Pirates have developed a secret code to encrypt all messages and transmissions. Your teleporter's material analyser is programmed to decipher as much of this code as possible. Many of the objects and artefacts that you teleport aboard will contain writings and inscriptions. Some of these are clues and many are written in Pirate Code. Breaking (deciphering) the code is essential to the solution of the game.

THE SIX STEPS

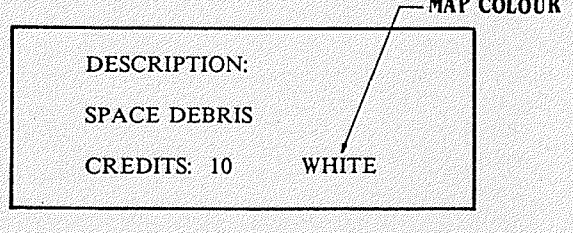
We also know that the Pirates have developed a sophisticated cloaking system which constantly keeps their base invisible and undetectable by our scanners. Latest reports indicate that there is a special sequence of 6 steps that can be performed to de-activate the cloaking devices. Apparently the designers set up this sequence to serve as an emergency override in the event of a major malfunction in the system. ***THESE STEPS MUST BE PERFORMED IN THE PROPER SEQUENCE.*** If any of the steps are executed out of order, the person must start again at STEP 1.

THE SIX MAPS

EACH OF THE SIX STEPS IS REPRESENTED BY A MAP. The maps are in your Data Link system. The maps have no information to begin with, but portions of a map will fill in each time an object is teleported aboard.

Each map has a graphic and a text section. Everytime an object is teleported, a new piece of graphic and a new piece of text will be revealed. (If you cash in the object for credit.)

THE MAPS ARE IDENTIFIED BY COLOUR. When an object is teleported, the computer will give its description, the number of credits available, and ***THE COLOUR OF ITS ASSOCIATED MAP.***



If you cash the object in for credit, the map will be shown and the graphic and text pieces will appear. ***(NOTE: BE SURE TO SAVE THE GAME PERIODICALLY. THIS MUST BE DONE TO PRESERVE MAP PIECES BETWEEN PLAYING SESSIONS.)*** (Disk Only)

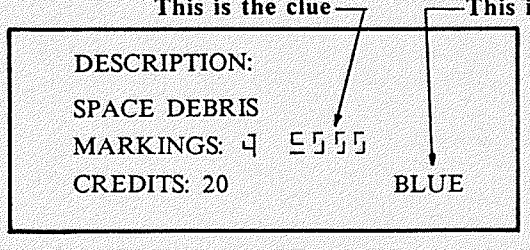
When all the objects in the Patrol Zone have been teleported, all 6 maps will be filled in. The text with each map gives instructions on how to complete one of the 6 steps. The text, however, is in Pirate Code and must be deciphered.

COMPLETING YOUR MISSION

To solve the mystery and complete your mission, do the following:

1. ***FILL IN THE MAPS*** by teleporting objects aboard your spacecraft.

2. ***WRITE DOWN CLUES*** in the IMPORTANT CLUES SECTIONS of this manual. Each map has its own IMPORTANT CLUES page for listing clues that were discovered with that particular map. Most important clues will be written in Pirate Code and will have to be decoded. For example, you may bring in an object that says...



You should write the clue on the IMPORTANT CLUES list for the BLUE map.

Keeping the clues separated in this way may provide an answer to the mystery before all map pieces are revealed.

3. ***BREAK THE PIRATE CODE*** and interpret the instructions for each of the 6 steps. Scattered throughout the Zone are clues to the meanings of the Pirate Code. These clues are on teleported objects as well as written on walls or buildings. Each time you decipher a letter or number, write it down on the PIRATE CIPHERS page at the back of this manual.

4. ***DETERMINE THE CORRECT ORDER OF THE STEPS.*** Once you finish all 6 maps and break the code, you will be able to read the instructions on how to complete each of the 6 steps. All steps involve flying to a specific point and performing specific manoeuvres with your spacecraft. If you successfully follow the instruction for that step, a sign will be given. Thus you will receive 6 signs for successfully completing 6 steps. There is a problem; however, YOU MUST COMPLETE THE 6 STEPS IN A SPECIFIC ORDER TO DEACTIVATE THE CLOAKING SYSTEM AND WIN THE GAME.

HINT: Look for clues of the form: "Something PRECEDES something". These are very important and should always be written down.

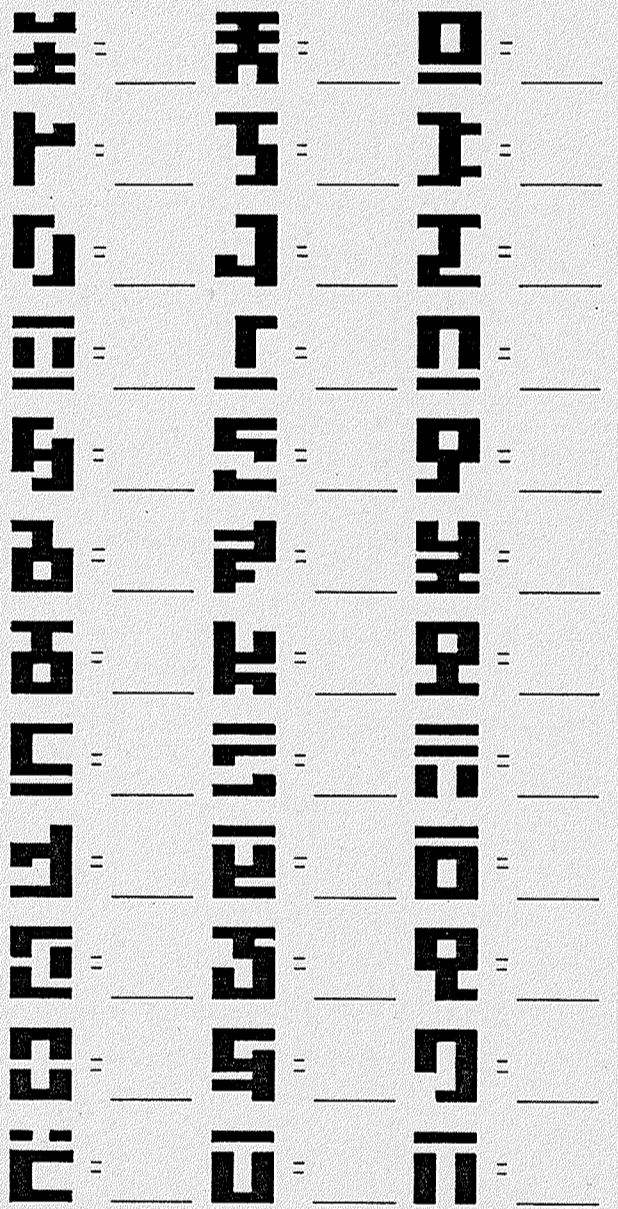
HINT: Each MAP graphic is important. It represents something within the zone and is related to a 'PRECEDES' clue.

MISSION

5. *COMPLETE THE 6 STEPS IN THEIR PROPER ORDER.* As each step is completed, the sign for that step will be given, but there will be no indication given as to whether or not you are still on the correct sequence. You will have to wait until all 6 steps are complete to find out. If you find the proper order, you'll know it. If not, try again. USE THE *PRECEDES* CLUES. Without them you may have a rough time. There are 720 different combinations.

PIRATE CODE WORKSHEET

PIRATE CIPHERS



CLUES

IMPORTANT CLUES

PIRATE CIPHERS

GREEN MAP

TRANSLATION

CLUES

IMPORTANT CLUES

PIRATE CIPHERS

PURPLE MAP

TRANSLATION

GENERAL INFORMATION ABOUT YOUR PATROL ZONE

Information presented here is not to be misinterpreted as covering all items within the area. These represent only a few highlights from each of the explored areas.

A-1: Ancient bridge spans a frozen river bed in Sector H-7. Elements of bridge date back 3,000 years.

A-2: Major battle of the Alphan War took place over this area. Several destroyed spacecraft of Alphan and ISF configuration can still be found on the surface throughout the area. The *Echelon target range* is located in Sectors H-4 through H-10. Only ISF personnel with Level 1 security clearance are authorised within these sectors.

A-3: The Echelon Training Simulator *Floating Tunnel* in Sector F-7 through F-10. Only ISF personnel with Level 1 security clearance are authorised within these sectors.

A-4: Remains of an *ancient Isis city* can be found in Section C-9.

A-5: The research station located in Sector I-7 was set up by Dr. Adrian Van Kempe, his daughter Sonja and his research assistant. Van Kempe was generally considered to be top of his field in the Science of Astro Physics. In April 2092 he sent a message to his old University informing them that his experiment with Lithicite Crystal was a failure and that he was closing down his research facility to accept a position with a private corporation.

Van Kempe, his daughter and research assistant have not been heard from since. It is assumed their spacecraft was lost on its return back to Earth.

A-6: Mining and drilling operations were set up in Sectors D-10, E-11 and H-12 after rich deposits of Dylidium were located in this area in 2082.

B-1: Probes sent to this area have been unable to verify a report that an ancient civilisation lies somewhere in the area. Ships on patrol are requested to report this find if any evidence is found.

B-2: Echelon Target Range located in Sectors F-8, G-8, H-8, I-10, J-11. Only authorised ISF personnel with Level 1 security clearance are allowed within these sectors.

B-3: The *Echelon Obstacle Course* is located in B-12. Only ISF personnel with Level 1 clearance are authorised within this sector. A landing strip is in Sector J-10. Try your luck landing here.

B-4: The *Echelon Ground Obstacle Course* is located in Sectors F-4 through F-7. Only ISF personnel with Level 1 clearance are authorised within these sectors.

B-5: No information available. Area has several structures photographed by satellite, but large tracts of the area are unexplored.

B-6: Gigantic Rock Figures in Sector L-11 display detailed work of great craftsmanship. Many scientists have suggested that these figures had religious significance to the early inhabitants of the planet.

C-1: Large Ancient Dam is located on a frozen river bed in Sector F-10.

C-2: During an exploration of this area, an extraordinary and startling image was found. *A huge star figure,* covering an area of several sectors, was discovered. A concentrated study has been made of this figure and comparisons have been made between the star figure and similar figures found on Earth in South America. So far, the purpose and origins of this star have not yet been established.

C-3: Ancient bridge spans a frozen river in Sector M-9.

C-4: In Sector M-12 is an early refuel and supply area known as *The Crossroads.* The Crossroads was an early outpost used extensively in the early to mid 21st Century for scientific expeditions. More modern facilities at other sites were later constructed and the Crossroads was abandoned. The *Echelon Training Course* (touch and go) is located in Sectors H-6 through H-10. Only ISF personnel with Level 1 security clearance are authorized within these sectors.

C-5: One of the most severe blows to the ISF occurred in Sector C-5. After 16 months travel from Earth, *Largo,* the largest of the ISF superfreighters, was nearing Echelon. The Pirate raids had been taking their toll on Echelon reserve supplies and many items aboard the Largo were in short supply at the base. The freighter was under military escort and at last report, indicated at current speed, they would reach Echelon within the next week. That was the last message received from the Largo.

At Echelon Headquarters, the position of the superfreighter was being routinely scanned. Suddenly the large ship stopped and vanished from the monitor screen. Six LC-24s were scrambled to the last known heading. When they arrived, all that was found were the remains of several escort fighters but the freighter itself was gone. A thorough search was undertaken, but the huge freighter was never found. The loss of supplies nearly spelled disaster for the base. Supplies of food and medical equipment nearly ran out before an emergency shipment could be received from surrounding colonies. It is assumed that pirates attacked the Largo. By employing communication disrupters and stealth equipment, the distress message was blocked. The mystery of what happened to the freighter after the attack, however, remains to be solved.

C-6: Area C-6 was opened up in 2039 to independent mining operations. Isolated settlements can be found throughout the area. Most are abandoned now because of Pirate attacks in the area.

D-1: Independent Mining Facilities are located throughout this area.

D-2: No information available. Area has several large structures photographed by satellite. Large tracts remain unexplored.

D-3: Remains of *Ancient Isis City* can be found in Sector H-3. City has several large buildings that are still intact.

D-4: No information available. Area has many large structures which have been photographed by satellite but large tracts remain unexplored.

D-5: The *Refinery* located in B-7 was built in 2042 to process Dyildium and Titanium into a high strength alloy. The facility was built to furnish replacement parts for spacecraft during the Alphan War.

D-6: The *McAdams Penitentiary* located in Sector I-10 was built in 2054 for prisoners who were considered too dangerous to be housed in other facilities. The inmates were required to work in the Dylidium mines. When Lithicite, a very unique crystal, was discovered at the

AREA INFORMATION

mine, many prisoners were killed in a strange accident. Apparently the laser used to mine Dylidium can excite the crystal and under the right conditions cause an explosion. This led to the riots of 2082 where 350 inmates escaped in a prison freighter. Most of the prison itself was destroyed in the revolt and remaining inmates were transferred to other facilities. The prison was officially closed in March 2082.

E-1: The *Abandoned Landing Strip* in Sector C-7 was established in 2021 as the original ISF base of operations. The landing strip was attacked during the early phase of the Alphan War and personnel were evacuated to a more defensible position.

E-2: The *Research Radio Telescope* in Sector C-9 was built in 2037. Information and data at this site are analysed by astronomers at Echelon.

E-5: No information available. Area has several large structures photographed by satellite but large tracts remain unexplored.

E-6: The *Mining Facility* located in Sector C-7 was set up in 2039 when large deposits of the element Dylidium were discovered. Dylidium, when combined with Titanium, makes an extremely strong alloy and is used primarily in the construction of the outer hulls of spacecraft.

The mining operation began using prisoners from the McAdams Penitentary in 2054. In 2079, Lithicite crystal was discovered at the site. This crystal is extremely dangerous and can explode if not handled correctly.

Efforts to mine the Lithicite crystal were unsuccessful and over 30 prisoners were killed in mining accidents. The mine was shut down in 2083 when more plentiful Dylidium deposits were discovered at other locations. This location, though deserted, is considered dangerous and only military and mining officials with Level 3 security clearance may visit the site.

F-1: Remains of an *ancient Isis city* can be found in Sector F-6.

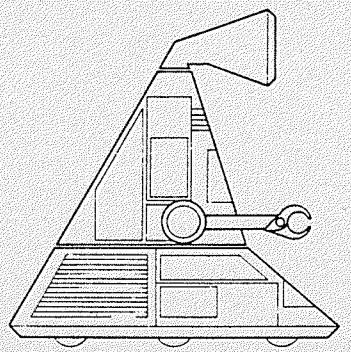
F-2: Sector L-6 features a large object that has been nicknamed the *Great Horn*. The 'Horn' was constructed by some alien civilisation over 20 million years ago. The material is a metal that is not found anywhere in our solar system as far as we know. It is so hard that it is virtually indestructible.

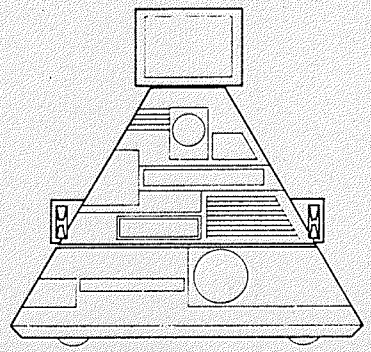
F-3: The *Space Platform* in K-11 is owned by a private mining corporation. Remains of an ancient Isis town in Sector I-6 has been dated over 4,000 years old.

F-4: No information available. Area is unexplored.

F-5: Ancient remains of a small town is located in Sector E-7.

F-6: No information available. Area is unexplored.





TROUBLE SHOOTING

TROUBLE SHOOTING SECTION

The following is a list of common problems that may arise and suggestions for solving them. If you are having problems playing the game or controlling your aircraft, PLEASE RE-READ THIS MANUAL THOROUGHLY.

PROBLEM: The program fails to load or 'locks up' during play.

SOLUTION:
- A. Try removing the program disk, turning off the computer and disk drive and trying again.
- B. Try using the Normal Load rather than the Fast Load option.
- C. Try disconnecting printer interfaces, modems, cartridges or other peripheral equipment.
- D. Run the CHECK programs as follows:

Step 1: Insert the Front side of the game disk.
Step 2: Type: LOAD"FRONT CHECK",8 and hit «RETURN»
Then type: RUN «RETURN»
Step 3: Follow the instructions on the screen and the CHECK program will check every file on the front side of the disk.
Step 4: The program should display "DISK OKAY" at the end of the checking process. If it does not, refer to step 7 below.
Step 5: Now Type: LOAD"BACK CHECK",8 «RETURN»
Then type: RUN «RETURN»
Step 6: Follow the instructions and TURN THE DISK OVER. The program will now check the back side of the disk.
Step 7: If "DISK OKAY" was displayed after both front and back checks, then your computer is correctly reading the data from the disk. If "DISK OKAY" was not displayed 2 times, then your disk MAY BE DEFECTIVE.

PROBLEM: Joystick doesn't work.
SOLUTION: Make sure the joystick is plugged into the front port (port #1) and the Lipstik is plugged into the rear port (port #2) (if used).

PROBLEM: Weapons won't fire.
CAUSES:
- A. Weapons aren't armed.
- B. C-104 control isn't selected.
- C. C-104 front view isn't selected.

PROBLEM: Weapons firing continuously.*
CAUSE:
- A. Blowing directly into the Lipstik may deform the diaphragm. Turn the mouthpiece sideways and blow across it, not into it.
- B. The Lipstik may be damaged. See the REPLACEMENT PARTS Section.

PROBLEM: Hyperdrive won't engage.
CAUSE: A. ZONE MAP IS NOT ON SCREEN. (Zone Map key must be pressed first.)

(*Applicable to Lipstik users only).

TROUBLE SHOOTING

PROBLEM: Objects won't teleport.

CAUSE:
A. Velocities are not Zero.
B. Altitude (alt) is not 50 metres or less.
C. C-104 controls are not selected.
D. C-104 down view is not selected.
E. Flashing object is not in view on main screen.

PROBLEM: Docking system won't engage.

CAUSE:
A. C-104 is not in Base Station.
B. C-104 controls not selected.
C. ALTITUDE (alt) not between 10,000 and 10,020 metres.
D. X and Z coordinates not close enough to 5000, 5000.
E. Heading or pitch not equal to Zero.
F. Velocity not equal to Zero.

PROBLEM: Keep hitting the ground.

CAUSE: Your pitch keeps getting off of Zero. This is normally caused by inadvertently pushing forward on the stick while turning. TRY USING THE AUTO-PITCH CENTRING FUNCTION. (Press «RETURN»).

PROBLEM: Can't keep nose of ship pitched up or down.

CAUSE: Auto Pitch Centring is on. Turn it off by pressing «RETURN».

PROBLEM: Bank won't return to centre.

CAUSE: Auto Bank Centring has been turned off. Turn it on by pressing 'A'.

PROBLEM: No enemies attack.

CAUSE:
A. Fly to a more remote location. (Very few structures).
B. Enter the DATA LINK and select an enemy strength other than NO ENEMIES.
C. Terminate the DATA LINK.
D. Wait for enemy ships to attack (no more than 1 min.)

PROBLEM: Enemies won't stop attacking.

SOLUTION:
A. Enter the DATA LINK and select Enemy Strength equal 1 (NO ENEMIES).
B. Terminate the DATA LINK.
C. The enemies currently attacking will be the last ones until you request more.

PROBLEM: Can't hit the enemy spacecraft.

CAUSE:
A. Targets are out of range. Maximum range is 6300 metres for the MISSILES. That's a little over half way across the sector. The PHOTON CANNONS and HDAPPS have a range of 4600 metres and 1800 metres, respectively.
B. Enemy is evading your fire. Ships flying away are much harder to hit but are worth more points.
C. You're a poor shot.

PROBLEM: Main engines keep stopping.

CAUSE: You are holding the button down without moving the stick for more than ½ second. Review the JOYSTICK CONTROLS SECTION.

TROUBLE SHOOTING

PROBLEM: Can't deploy RPV.

CAUSE:
A. Velocity is not Zero.
B. Altitude is not Zero.
C. RPV was destroyed (Return to Base and Dock.)

PROBLEM: Can't retrive RPV.

CAUSE:
A. C-104 controls are not selected.
B. C-104 view is not selected.
C. Velocity is not zero.
D. RPV is not deployed.
E. RPV has been destroyed.

PROBLEM: Engines change speed but main screen doesn't change or move.

CAUSE:
A. C-104 control is selected, but RPV view is selected.
B. RPV control is selected, but C-104 view is selected.

PROBLEM: RPV tracking can't keep C-104 on screen.

CAUSE: Main screen is zoomed in too far.

PROBLEM: RPV won't track C-104.

CAUSE:
A. Tracking is not engaged.
B. RPV control is selected. (Tracking requires that the C-104 have control.)

PROBLEM: Main screen movement is very jerky. Weapons seem to curve strangely.

CAUSE: Main screen is zoomed in.

PROBLEM: Zone map doesn't keep track of your progress and Pirate Maps do not reflect pieces you've found from one playing session to another (Disk Only).

CAUSE:
A. You are not saving your game before you turn off your computer or die (game over).
B. You are not reloading your saved game as you begin play. See the DATA LINK SECTION of this manual.

PROBLEM: Can't figure out how to continue when a Pirate Map is displayed.

SOLUTION: Press SPACE BAR or "/".

PROBLEM: Can't get out of the weapons and fuel loading sequence while docked.

SOLUTION: Press "/".

PROBLEM: Can't save or load a game. (Disk Only)

CAUSE:
A. Trying to save to the game disk. This disk is write protected. You must use your own PLAYER DISK.
B. Player disk is not FORMATTED. See DATA LINK SECTION under LOAD/SAVE/RESTART.

PROBLEM: Enemies won't appear even though they have been set up in the DATA LINK.

CAUSE: You are in an area with a lot of structures or objects. Pirates attack more often in more remote sectors.

CLUES

IMPORTANT CLUES

PIRATE CIPHERS

GREY MAP

TRANSLATION

CLUES

IMPORTANT CLUES

PIRATE CIPHERS

RED MAP

TRANSLATION

CLUES

IMPORTANT CLUES

PIRATE CIPHERS

BLUE MAP

TRANSLATION

CLUES

IMPORTANT CLUES

PIRATE CIPHERS

WHITE MAP

TRANSLATION

VULCAN AMSTRAD

Instruction changes.

UNIT COLOURS.

British units are red.
Italian units are blue.

TERRAIN COLOURS.

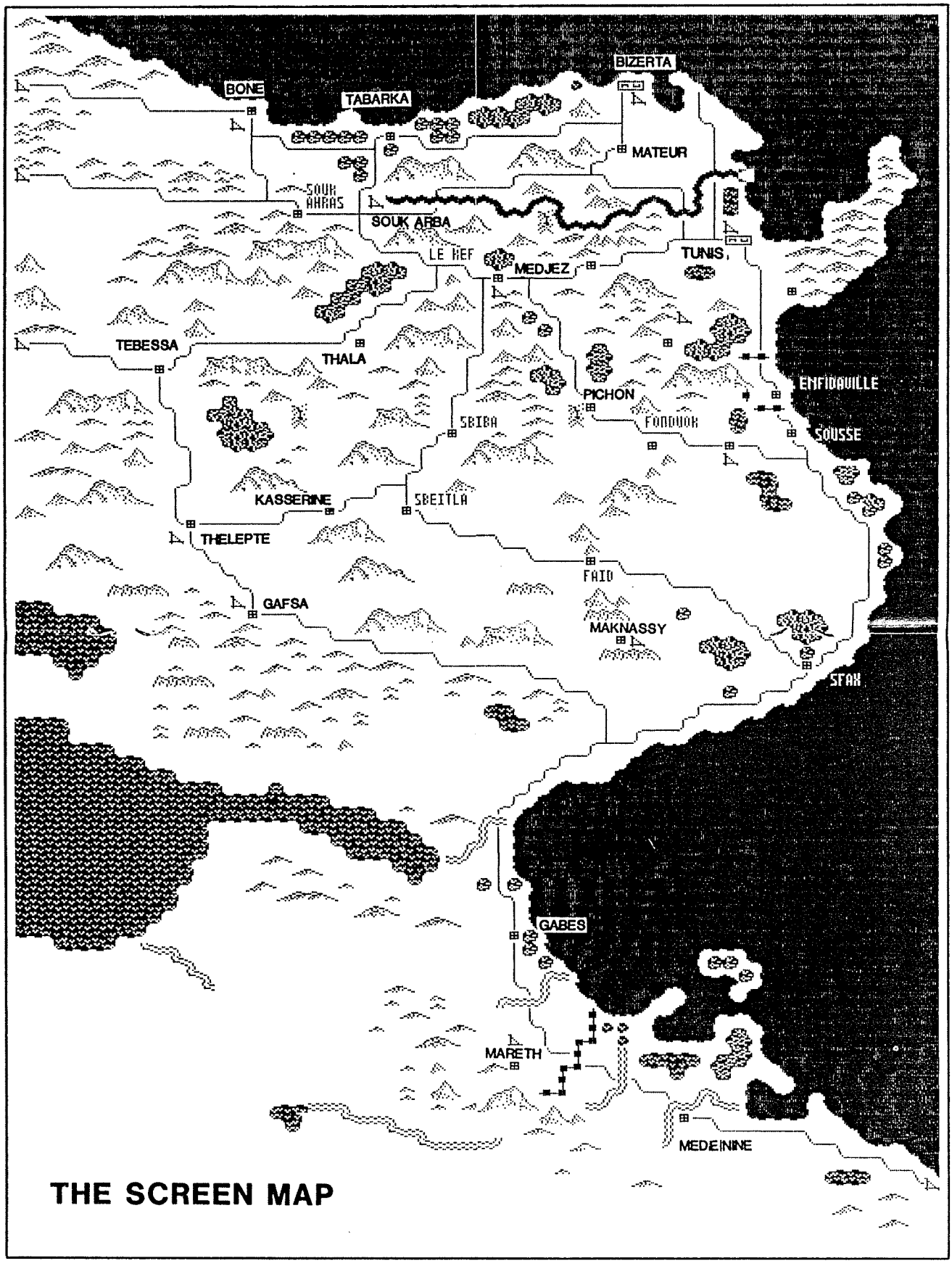
Woods are dark green.
Mountains are blue.
Rough is red.

JOYSTICK.

A joystick can be used instead of the arrow keys using the fire button as ENTER or RETURN.

SCREEN LAYOUT.

The screen windows have a different layout.



THE SCREEN MAP

CONTENTS

Section No.		Page No.
1	Loading Instructions.	1
2	Introduction.	1
3	Menus.	1
4	Scenarios.	3
5	The Display.	5
6	Units	5
7	Sequence of Play.	7
8	Ordering Units.	7
9	Reports.	9
10	Hidden Movement.	10
11	Air Attacks.	10
12	Combat.	11
13	Supply.	11
14	Reinforcements, Withdrawals and Replacements.	12
15	Terrain.	13
16	Unit Types.	14
17	Player's Notes.	14
	The Screen Map.	16 and 17
18	Historical Background.	18
19	Race for Tunis.	20
20	Winter Fight for Survival.	22
21	Kasserine (The Axis Counter-attack).	24
22	The Eighth Army.	25
23	Operation Vulcan.	28
	Bibliography.	32

Designer's Notes inside back cover.

1. LOADING INSTRUCTIONS

The procedure for loading a program into your computer is given in your manual. Please follow these instructions for loading the program.

Spectrum owners should type LOAD ""

2. INTRODUCTION

Although the rules for "Vulcan", are quite complex, it has been designed to be easy to play. It is the computer's task to resolve the intricacies of the rules, allowing the player to concentrate on the strategy.

"Vulcan", is a 1 or 2 player wargame, depicting the campaign in Tunisia in 1942/43.

Players may choose to fight the whole campaign, or one of the major battles. One player commands the British, American and French (Allied) forces and the other the German and Italian (Axis) forces. If playing alone the computer may control either side.

3. MENUS

Upon loading "Vulcan" you will be presented with the main menu. There are several options available here although not all are available at once. These are:

3:1 The Main Menu

Begin New Game.

Continue Play.

Load Old Game.
This loads a previously saved game from tape.

Save Game.
This saves the current state of play to tape so that the game may be continued later.

Abandon Game.
This abandons the current game and allows a new one to be started.

Set up.
This leads to the set up menu described below.

Reload Data.

This loads the setting up data for the scenarios into memory. Unless the game has just been loaded this must be done when you wish to start a new game.

The data is recorded near the beginning of the tape so rewind it before selecting this option.

It is not necessary to reload the data if you wish to continue with a previously saved game.

3:2 The Set Up Menu.

This allows the player(s) to set up some features of the game to their own liking. The options are:

Joystick.

Either the keyboard or the joystick may be used to control the game.

The types of joystick supported are Kempston, Sinclair interface 2 (either port) and Protek (or other cursor type sticks). When using a joystick use fire as the "enter" key. Select interface 2 with the Spectrum +2.

If using the keyboard then the cursor is moved with the arrow keys.

Sound.

Normally the cursor emits a beep when moved. This may be turned off if you find it irritating.

Movement.

Movement may be either open or hidden. If open then all units are displayed on the map. If hidden then only those that are adjacent to an enemy unit are shown.

Movement is always hidden when playing the computer but for convenience the player's units are all shown.

Players.

This selects whether one or two players are playing.

The number of players may be changed in the middle of a game so the computer can take over from a human, or vice versa.

3:3 Computer to Play

If one player is selected, then this option selects which side the computer is to play. Like the number of players, this may be altered in mid game.

4. SCENARIOS

When you begin a new game, you must choose a scenario to play. There are a total of five.

The winner is determined by adding up the victory points scored. These are awarded for controlling important strategic objectives which vary according to the scenario being played. In addition, one point is scored for every enemy unit destroyed.

Towns and airfields are controlled by the last player to move a unit over them unless that unit was travelling by road. At the start of each scenario players control those towns and airfields behind their lines.

(1) The Race for Tunis. (25-45 minutes).

This scenario covers the initial Allied attempt to capture Tunis in the autumn of 1942. It lasts 19 turns from 12th November 1942 to 30th November.

Victory points.

Tunis	8		
Bizerta	6		
Medjez	2	Points to win	
Tabarka	2	Allies	17
Bone airfield	2	Axis	18
Souk Arba airfield	2		
Algeria entry (where allied units appear)	8		

At the start all towns and airfields are controlled by the Axis player, except for Bone and the airfields on the left map edge.

(2) Kasserine. (25-45 minutes).

This covers Rommel's spring offensive against the Americans in central Tunisia. It lasts 12 turns from 14th February 1943 to 25th February.

Victory points.

Tebessa	4		
Thala	4		
Sbiba	4	Points to win	
Kasserine	2	Allies	15
Pichon	2	Axis	13
Maknassy airfield	2		
Gafsa airfield	2		
Thelepte airfield	2		

Gafsa and Thelepte airfields are initially controlled by the Allies.

(3) Eighth Army. (1-2 hours).

This covers the operations of the 8th Army in southern Tunisia. It begins with Rommel's attack against Medenine and continues with Montgomery's assault on the Mareth line and also includes the American offensive against Maknassy. It lasts 22 turns from 6th March 1943 to 27th March.

Victory points.

Gabes	6		
Medenine	2		
Mareth airfield	6	Points to win	
Gafsa airfield	2	Allies	20
Maknassy airfield	2	Axis	15
Lybia entry point (where allied units appear)	6		

(4) Operation Vulcan. (2-4 hours).

This covers the final Allied offensive culminating in the destruction of all Axis forces in Africa. It lasts 23 turns from 21st April 1943 to 13th May.

Victory points.		Points to win	
Tunis	32	Allies	60
Bizerta	16	Axis	32

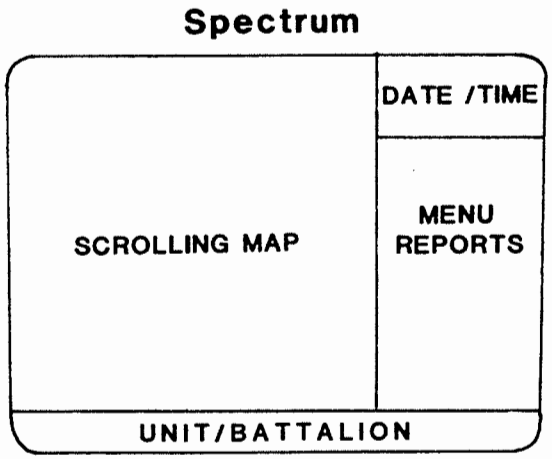
(5) The Tunisian Campaign. (8-16 hours).

This covers all the fighting in Tunisia from the first clashes in November 1942, until the destruction of the Axis armies in May 1943. It lasts 183 turns from 12th November 1942 until 13th May 1943. Victory points are not awarded. Instead the game ends when the Allied player captures both Bizerta and Tunis. He wins if he achieves this before the end of April. The Axis player wins if he still controls either city at the end of the game.

At the start all towns and airfields are controlled by the Axis player except for Bone and the airfields on the left map edge.

5. THE DISPLAY

When in play the screen display consists of four sections (see diagram). Section 1 is a window onto the map over which the game is played, Section 2 gives the date of the current turn or the current weather and Section 3 gives the identity of the unit being ordered. Section 4 is the "menu window", it is used to give options available when giving orders and for reports, etc.



6. UNITS

The various military formations that took part in the campaign are termed units. The colours of the various nationalities are as follows, British units are shown in yellow, American units white, French units blue, German units black and Italian units magenta.

The presence of a unit is indicated either by a symbol showing its type, or by an "unidentified unit" symbol, showing that it has not been identified by the other side. If the hidden movement option is used, then unidentified units are not shown.

For the convenience of those playing in "black and white", Axis units are shown in white on a dark background and facing left. Allied units have a light background and face right.

Units come in four sizes: divisions, brigades, battalions and HQs.
Brigades, battalions and HQs may belong to a division, if so, then the division name is given with the unit name when the unit is being given orders. Which division a unit belongs to is important for supply purposes and when giving orders.
Units that do not belong to any division are termed "independent units". Independent HQs are termed "corps HQs".
The unit symbols are as follows:

UNIT SYMBOLS


TANK


CHURCHILL TANK


MOTORISED INFANTRY


INFANTRY


PARACHUTE INFANTRY


HQ


MOTORISED HQ


UNIDENTIFIED UNIT


ENTRENCHED UNIT


FORTIFIED UNIT

7. SEQUENCE OF PLAY

The game is played in a series of turns. Each turn represents one day.
The order in which activities occur during each turn is as follows:
(a) Firstly, each player gives orders to his units and allocates his air attacks. The Allied player goes first.
(b) All units then move simultaneously to carry out their orders.
(c) After units have moved combat occurs between adjacent units Those units forced to retreat as a result of combat are then moved and units that they were blocking may continue to move towards their objective.
(d) The next turn then begins.
Whilst the computer is executing orders players may scroll the map using the arrow keys. Note also that each scenario begins with an offensive by one side or the other. To recreate the surprise achieved, only the attacking side is allowed to give orders during the first turn of each scenario.

8. ORDERING UNITS

Units must be given orders at the start of each turn. If playing with two players, then only the player actually giving orders should look at the screen.
The program promts each unit in turn to be given orders by high-lighting the unit and showing the options available to it. The unit's identification will be shown at the bottom of the screen together with a symbol showing its type.
If the division's name is followed by the number of units in it, the order will apply to all the units. It is however, still possible to order the units separately (see D Divide below).
When satisfied that a units orders are correct key 'ENTER' to move on to the next unit. (Note that the program moves on automatically if some orders are selected). If you key "ENTER" without changing the order or moving the cursor, then the unit will continue with its old orders. Thus it is possible to give an order that will take several turns to complete and doing so will save time when giving orders. If you move the cursor accidentally or change your mind, then moving the cursor back over the unit, will enable the unit to continue with its old orders.
The following orders may be given:

M MOVE. This order instructs a unit to move to another location. Use the arrow keys to move the flashing cursor to the desired destination and press "ENTER". If a unit already has "Move" orders then moving the cursor will redefine its destination. If a unit has "Hold" or "Fortify" orders then it will automatically be given "Move" orders if the cursor is not over the unit when "ENTER" is pressed.

It is possible to have more than one unit in a square. This is referred to as **stacking.** Divisions count as 7 stacking points, brigades and HQs as 3 and battalions as 1. It is possible to have up to 12 stacking points in one square.

As a rule of thumb, players should assume that they can stack all the units of one division together.

A ASSAULT. This is similar to "Move" and the order is given in the same way. However, "Assault" instructs a unit to be more aggressive in trying to get to its objective. Thus if it meets an enemy unit, it will inflict more damage in combat than a unit with "move" orders, although it will suffer more itself.

H HOLD. This order instructs a unit to stay where it is. The unit will "dig in" which will protect it in combat particularly against armour. Units with "Hold" orders also recover from fatigue (Efficiency).

T TRAVEL. This order instructs a unit to move along the road at two times normal speed. It may only be given if the unit is on the road and not next to an enemy unit. Units travelling are very vulnerable to attack, and may not themselves attack. To give the order, press "T", then move the cursor to a destination on the road. If a unit already has "Travel" orders, and you wish to change its destination, then you must select the "Travel" order again by pressing "T".

F FORTIFY. This order instucts a unit to strengthen its position by digging fox holes, laying mines, etc. The longer a unit is at this task the more effective will be the result. Units may only fortify if they are alreay "dug in", i.e. have selected "Hold" the previous turn. Tank units may not fortify. If a unit moves then it loses all benefits from its fortifications.

The following four actions may also be selected at this stage, but **do not** count as orders.

D DIVIDE. This causes a unit that is stacked with other units of its division to be split off (temporarily), so that it may be ordered separately.

R REPORT. This gives a report on the current unit. See below for details.

I INSPECT. This allows inspection of the terrain underneath units. Whilst the "I" key is held down, the terrain at the cursor position is shown. When it is released the usual display is reinstated.

P PASS. This temporarily passes over the current unit which will be returned to later and goes onto another nearby unit. This allows several units in a stack to be examined before deciding what to do with them.

The **Zones of Control** are the 8 squares surrounding a unit. When a unit moves into an enemy zone of control it must stop. Note also that supply may not be traced through an enemy zone of control.

9. REPORTS.

When a report is requested, the following information is given.

STR Strength. This gives an indication of the units strength either in men or in tanks.

MPS Moves per Turn. This gives an indication of how far a unit may move. The number given is the number of squares it may move in one turn, over clear terrain. It will go slower over rough terrain.

SUP Supplies. This gives an indication of the supply level of the unit. Units with very low supply may not attack, and units with none suffer double damage when attacked. When a ✓ is shown the unit is able to receive supplies.

MOR Morale. This gives the morale of a unit. The higher it is, the less likely it is to retreat after combat.

A/M Attack Modifier. This is the unit's attack modifier. The higher it is, the more effective the unit is at attacking.

EFF Efficiency. This is the unit's efficiency level. It is reduced due to fatigue, when a unit is in combat. Some units enter the game with low efficiency level, to reflect lack of training. A unit may recover from fatigue when it has "Hold" orders (i.e. it is resting or training).

Some units (mainly American) had had no combat experience prior to the Tunisian campaign. To reflect this, these units' efficiency may not rise above 70% until they have been in combat.

FRT Fortification. The number given, is the number of days that a unit has been "Fortifying" for, i.e. the effectiveness of its defences.

10. HIDDEN MOVEMENT

If the hidden movement option is used, then only those units adjacent to an enemy will be displayed. However, when giving orders all the units of that side will be shown.

All units are shown during the first turn of the game.

11. AIR ATTACKS.

Air attacks are allocated immediately after all of a player's units have been ordered.

The player is informed of the number of air units on standby (i.e. the number that may be used to make attacks) and the number that are unserviceable (U/S). Units become unserviceable after making an attack and take an average of 4 days to recover. In any turn a player may use all, some, or none, of his units on standby, to make attacks.

To make an attack simply move the cursor over the target and press ENTER. The result of the mission will then be shown.

Air attacks may be made anywhere but if made more than 35 squares from a friendly airfield, they will receive no fighter escort and will thus be more likely to be shot down.

A successful air strike has two effects on the units hit. Their movement is slowed and attacks upon them will be more effective. There is no advantage in hitting one unit with more than one airstrike. However, an airstrike affects all units in the target stack.

If using hidden movement then it is also possible to use aircraft for reconnaissance. Select this mission by pressing "R" and any nearby enemy units will become visible.

12. COMBAT

Combat occurs between units that end their movement adjacent to each other. For each attacking unit, the computer flashes the attacked units and makes a sound the length of which is related to the greatest damage done to any of the attacked units. However, if a unit is dug in it will not attack the enemy units which are also dug in.

The effectiveness of an attack is determined by a number of factors.

(a) The unit types of the defender and attacker.
(b) Their strengths.
(c) Their orders (e.g. assault, hold, etc.).
(d) The terrain being attacked.
(e) Whether the attack is from a river or wadi.
(f) The defender's level of fortification.
(g) Other units stacked with the defending units.
(h) The attacker's efficiency and attack modifier.
(i) Whether the defender has exhausted its supply.
(j) The weather.
(k) Any air attacks on the defender.

If sufficient damage is inflicted on a unit in combat, it will have to retreat.

13. SUPPLY.

Supply plays an important part in all military activity. Victory can often be assured if an enemy can be cut off from his supply base and the level of activity an army can sustain is determined by the amount of supplies available. The supply rules in "Vulcan", reflect both these aspects.

Each unit carries supplies with it and these are used up when a unit moves, fortifies or attacks. These need to be replenished in order for the unit to continue to function. Replenishment of supplies is handled automatically by the computer, subject to the rules below.

There are two separate sets of rules for replenishing supplies. One for battalion and brigade sized units and another for HQ units and division sized units (which contain their own divisional HQs).

Brigades and Battalions.

These units can only draw supply if they are next to or overlapping an HQ unit. Any unit may draw supply from a corps HQ unit. In addition, independent units may draw supply from any HQ. Otherwise units may only draw supply from their own divisional HQ.

Supplies are drawn from those possessed by the HQ unit.

Divisions and HQs.

The above rules do not apply to HQs and Divisions.

These units draw supply by being near a road that leads back to a friendly supply source. Axis units draw supply from either Tunis or Bizerta. Allied units draw supply from roads leading off the map. Supply may not be drawn from sources last occupied by the enemy. The road route leading back to the supply source must be along roads all the way and may not pass either through, or adjacent to, an enemy unit. A unit must be within seven squares of a road in order to receive supply from it.

Only a limited amount of supplies are available to each side each turn, so if too many units need supply some may remain unsupplied. The amount of supplies used by a unit are dependent on its size and its actions. A division uses more supply than a brigade, which in turn, uses more than a battalion or HQ. Units use supplies when they move, fortify or engage in combat. When in combat, units with "Assault" orders use twice as much supply as those with "Move" orders. Units with "Hold" orders use very little supply in combat. Units with insufficient supply may not attack.

Players may ascertain whether a unit is in a position to receive supply by looking at a report on that unit. If a tick appears after the supply rating, the unit is correctly positioned to receive supply. This only shows that a unit could receive supplies if any were available, not that they are receiving supplies (i.e. a unit could be stationed with its division HQ, but will not receive any supplies if that HQ has none).

14. REINFORCEMENTS, WITHDRAWALS and REPLACEMENTS.

From time to time, players will receive new units, and old ones will be withdrawn. This will happen automatically, although warning will be given of an impending withdrawal.

Replacements are used to replace losses suffered in combat. They are distributed automatically to understrength units, but only units with "Hold" orders may receive them.

15. TERRAIN

There are many different types of terrain in "Vulcan". Any symbols not shown on the terrain chart are purely decorative.

Sea, and salt marsh squares, are impassable, whilst rough, mountain, woods, river and wadi squares slow down movement and also give some protection in combat. Mountains give better protection than rough or woods but also slow down movement more.

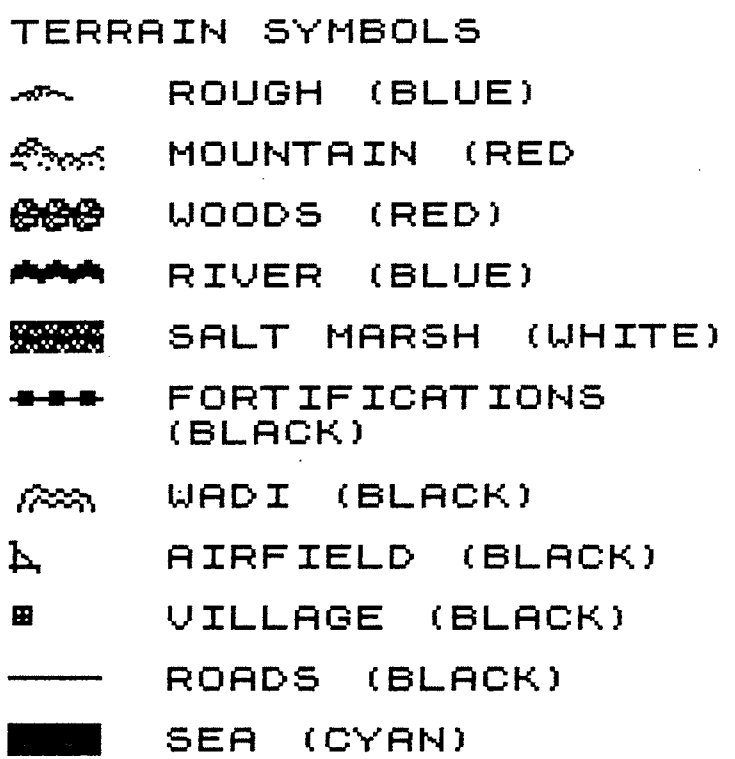
Units attacking from a river or wadi square are penalised in combat, so it is necessary for a unit to be behind, rather than on, these features in order to gain protection.

The best protection is provided by fortification squares. A unit must be actually on the square, rather than behind it, to get the benefit .

Fortifications provide different benefits to the "fortify" order.

Note that moving across narrow sea straits, such as the one near Bizerta is allowed. The airfield in the top right hand corner of the map represents the Axis airfields in Sicily and Sardinia.

The terrain symbols are displayed below:



16. UNIT TYPES.

The following is a brief synopsis of the types of unit in the game.

Tanks. These are very powerful both against other tanks and particularly against infantry. They are however much less effective against units that are dug in. Tanks are vulnerable to HQs and are fairly useless in mountains.

Churchill Tanks. The Churchill tank was found to be better than other tanks in rough terrain, but it is less good in open combat due to its slow speed.

Motorised Infantry. These are not particularly powerful when attacking and if not dug in, are very vulnerable to tanks. They can however, fortify their positions, making them difficult to capture. They are better than tanks at attacking fortified positions or in difficult terrain.

Foot Infantry. These are similar to motorised infantry, but move more slowly. They suffer less penalty though, when moving in difficult terrain.

Parachutists. Similar to foot infantry but are usually of better calibre.

HQs. These represent not only administration units but also a division's artillery and other attached troops. They are thus, particularly useful against tanks, although generally more vulnerable in combat than other units.

Motorised HQs. Similar to other HQs but belong to motorised divisions.

17. PLAYER'S NOTES.

This section gives some general tips on playing Vulcan.

Perhaps the most important aspect when playing Vulcan is to conserve your forces. After combat use reports to check damage. This will enable costly assaults to be broken off and timely withdrawals to be made. Weak units should be withdrawn and used as garrisons. Your opponent will not know that they are not full strength.

It is also important to have a good idea of the enemy strength, particularly when attacking. It is wise not to attack with lone units unless you are sure that the enemy that they are attacking, are very weak. Therefore, use as many units as possible when you decide to attack. If unsure of enemy strength, then again move up with as many units as you can. Rain and mud turns are useful for probing enemy positions since much less damage is taken in bad weather.

When under attack it is best not to move, unless to withdraw, since dug in and fortified units take less damage. This is particularly important when being attacked by tanks.

Positioning is important for defending units. Try where possible to occupy useful terrain, particularly mountains. Remember that your units have a zone of control which may be used for blocking roads. It is better to be sitting in the mountains by the side of a road rather than sitting across the road. Enemy units may eventually push past but having done so, will be out of supply and unable to make further progress until they have dislodged your units. If you are well fortified on a mountain, this may prove very difficult.

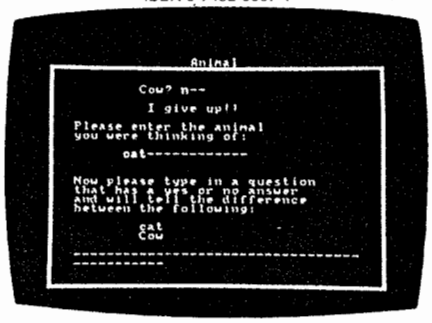
Supply is another vital consideration. The best way to stop an enemy attack is to get behind the attacking units and stop their supplies. For this reason it is useful to keep a reserve when attacking so that any enemy unit that sidesteps your thrust and gets behind your attacking units, are prevented from travelling into your rear areas and can be quickly removed. Units that are out of supply may be useful in static roles but will soon run out of steam if they try to attack.

Also note that the volume of supplies available is limited. This is particularly important in scenarios 3 and 4. The Allies have sufficient forces to assault all along the line, but doing so will quickly exhaust their supplies. It is better to concentrate the assault in one or two places so that the attack can be maintained. If supply levels become very low throughout the army, it is best to suspend all activities for a few turns while they build up their supplies.

Air power should be used carefully. When attacking it should be used to support your assaults but do not waste your resources supporting attacks that will succeed without it and do not overlook its usefulness for reconnaissance.

For the defender the most useful aspect of air power is that it slows down enemy movement. This can disrupt an enemy attack or allow your own units time to withdraw. Whether attacking or defending air availability is limited and should be saved for the vital moments.

ISBN 0-7452-0067-1



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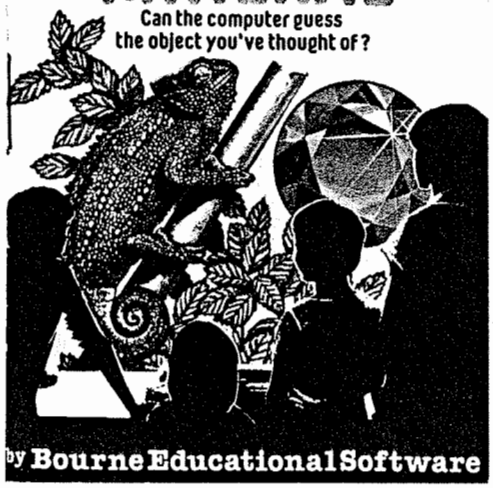
Amsoft

ANIMAL VEGETABLE MINERAL

Can the computer guess the object you've thought of?



by **Bourne Educational Software**

- Provides endless enjoyment as children 'teach' the computer'.
- Encourages children to find out differences between objects.
- Helps encourage the use of reference books.
- Introduces the use of computers to store information.

SPECIAL FEATURES

- Motivates children through visible count of objects 'taught'
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- Stimulates animated discussions as to the difference between an alligator and crocodile, iron and steel, etc.
- Features the usual BES Monitor allowing easy access to childrens' actual entries.
- Full editing facility allowing easy changes at any time.
- Complete with fully explanatory booklet.
- Widely used in schools.

Suitable for all ages of 7 years and upwards.

ANIMAL/VEGETABLE/MINERAL

The child is requested to think of an object that is either animal, vegetable or mineral. The program will now try to guess what the child has thought of. It asks questions about the object and then guesses what the object is.

If the program does not know the object then the child can 'teach the computer' about the object. The child also needs to give the program information to tell the object apart from the other things it knows.

At the start the program knows only a little, so it is easy to teach the computer things. The more it knows the more the need to look things up! The information stored can be saved and reloaded at any point in order to continue to build up what the computer knows at a later date.

PROGRAM NOTES CONTENTS

INTRODUCTION	4
LOADING	4
DATABASES	5
MENU OPTIONS:	5
1. The Main Program	5
2. Store memory to tape	7
3. Load memory from tape	9
4. The Monitor	10
5. Erasing memory	11
6. Review and edit	11
OTHER BES PROGRAMS	13
THIS BOOKLET	16

INTRODUCTION

The program has been designed to allow a child to 'educate' the computer by entering a series of questions and objects. During this sequence a child is encouraged to think about the origins of objects and to learn about the differences between them. The computer responds by thanking the child for teaching it to tell the difference between the objects entered.

It should be noted that the computer only knows six objects at the start of a new database, so leaving the stimulating task of building the database to the child. As the database grows the computer asks more and more questions about the object. It is best used with children of between the ages 7 and 13 years, where it generates interesting discussion and encourages the use of reference books.

LOADING

It is best to press CTRL and SHIFT and whilst holding them down, press and release the ESCape key. This resets the Computer before loading. The cassette should be placed in the Datacorder with the label upwards and the tape wound back to the beginning.

Simply press CTRL and the small ENTER key, followed by pressing the PLAY key on the Datacorder and then pressing any other key.

Loading the program takes about five minutes in all.

Having completed loading, the program displays the title and copyright screen for a few seconds. No entries are necessary and the program will automatically move on to the main menu screen.

DATABASES

A database is a store of information. It can be read – the information retrieved, or written to – the information stored. In this version of Animal/Vegetable/Mineral the database is stored on tape.

Since the program tape is 'write protected' you cannot write a database to it. Consequently, you will need a separate data tape. It is worth labelling it clearly as an AVM Database tape. Note that several different database files can be on the one tape at any one time.

MENU OPTIONS

1. The Main Program

The fundamental concept of the program is the branching tree. It operates by asking a series of questions and then trying to guess the object that the child has thought of. If the computer gets the object wrong, then it asks the child to enter the object and a question to differentiate between it and the wrong guess. The child therefore 'teaches' the computer some more information.

In doing so, the child having thought of an object needs to find out or know the difference between it and the computer's guess. This encourages the use of reference books to find out such information. The program thus provides an incentive to learn.

Having started, the child will then be asked to enter his/her name. This can be done in upper, lower or mixed case letters. If an error is made then it can be corrected before pressing ENTER, by using the

delete key to work back to eliminate the error. The child is then asked to think of an object. The object needs to be either animal, vegetable or mineral.

After a short pause to give time for thought, the program waits until the child is ready. The sign < SPACE > appears and the SPACE bar must be pressed to move on after an appropriate object has been decided upon.

The computer then asks whether the object is either animal, vegetable or mineral. This question can itself provoke thought and research, e.g. is oil animal, vegetable or mineral?

Having chosen the appropriate category, the computer then asks a series of questions in an attempt to guess the object.

The questions and computer guesses are made with appropriate comments to improve the dialogue between child and computer. The computer accepts Y, y, YES, yes, Yes, and N, n, NO, no, No as responses. Should the computer fail to guess the object the child has thought of, then the child is asked to enter it together with a question to differentiate it from the computer's guess and whether the answer for a particular object is yes or no.

It will become apparent early in the program that the questions need to be entered which can be answered by either yes or no; for instance, "is it black?" is admissable whilst "which is black?" is not. Neither of the objects should be mentioned in the question.

Upper or lower case letters may be used, the

DELETE key may also be used to correct mistakes. After the entries, the child is asked if he/she would like to change any entries. This gives an opportunity to go back and correct them should the ENTER key have been pressed inadvertently. If it is necessary to change an entry, replying "Yes" to the question leads to the original entry appearing on the line. If it is acceptable then just press ENTER, or use the delete key and re-enter.

NOTE: the dashes on the entry line are there to provide an idea of how long an entry may be. They do not have to be erased before ENTER is pressed.

At the end of the cycle, the child is shown how many objects the computer knows. As the children enter more the count visibly increases, thus providing additional motivation.

The child is then asked whether he/she would like another go. If the answer is yes the computer thanks the child and then begins the cycle over again. If no, and this should be the case if another child is about to take over, the program reverts to the main menu. Another child starting the program will then be asked to enter his/her name and a new monitor record is started (see section 4).

Pressing the ESCape twice at any point will usually return the user to the main menu.

2. Storing Memory to Tape

If at any time you wish to break off a session but would like to continue to build the database at some other point in time, then you will need to save the

database to tape. If you are building a large database then it may also be a wise precaution to occasionally save it, since if there was a power failure all would be lost. Saving the database occasionally acts as an 'insurance policy', and in fact develops in children good computer practice.

The database must be recorded on a separate data tape since the program tape is 'write protected' – you cannot record on it. When the storage option is chosen the computer operates to catalogue the tape in the Datacorder when PLAY is pressed followed by any key.

If a new cassette is being used, or if you are sure that the tape is correctly positioned press ESCape twice. This takes you back into the storage program.

If you are using a tape with existing files which you want to avoid overwriting, use the PLAY (followed by any key) together with, if necessary, the Fast Forward and REWind buttons on the Datacorder. This gives you the ability to position the tape exactly where you want to record the file. Normally this would be after the end of the last recorded file. Beware of overwriting files if there is another recorded after it on the tape since if the database is much larger, it will use up more tape and there is a risk of overwriting the beginning of the next file.

Having found the correct position press ESCape twice. A file name is requested. Spaces in file names should be avoided since it can be confusing, especially

if the space is at the beginning or end. For this reason, a file name with a space in it will be rejected. It is suggested that if two words are used then separate with a hyphen or slash. It is recommended that each time a file is recorded that its name is written on the cassette card together with the tape counter number for the start and finish – e.g. FILE 160 195.

Having entered the file name by pressing ENTER the message 'REC and PLAY then any key' will appear. Press the RECORD and PLAY keys on the Datacorder – then press any other key. The database will then be recorded onto the file.

NOTE: DO NOT PRESS ESCape whilst saving the file to tape – if you do, it will be neccesary to reload the Animal/Vegetable/Mineral program. If you suspect there is a problem during the storage operation, allow the program to continue until 'File saved' appears. After this message is seen the program can be used as normal and a further attempt made.

The program then returns to the menu. Should you want to check that the file has recorded properly then again use the procedure outlined at the beginning of this section to catalogue the tape. The file name should appear when PLAY is pressed followed by any key.

Having checked, press ESCape twice to return to the main menu.

3. Loading Memory from Tape

Place your data cassette in the Datacorder. This function operates similarly to the store option in that

it first gives an opportunity to position the tape correctly before attempting to load. Use the play, rewind and fast forward keys to position the tape in front of the file you wish to load.

Press ESCape twice when it is positioned.

Having done so, press PLAY then any key to load the file. The program will indicate when the file has been successfully loaded.

4. The Monitor

All BES programs which are interactive contain a performance recording system or monitor. Using this, parents, teachers or the child can see how well a task is being performed.

Progress can be quantified as a result. Only then can a child's ability and educational needs be identified.

Each time a new name is entered after starting the program from the main menu a new monitor record is created. The facility will hold the record of the last five children (after number five, number six will be recorded over number one, seven over two, etc.). The information recorded is the time taken, the number of questions answered and the number of entries made. As each record is displayed, there is the option of moving to the next record or to examine a child's entries. These record the category, the two objects and the question entered. The two objects are those that the child was asked to differentiate between when entering the question. Thus it is possible to review the entries in detail.

5. Erase Memory

Should you at any time wish to clear memory and start afresh, simply choose menu option 5. Note that in doing so, you will lose all information that has been entered into the database.

To prevent inadvertently erasing you are required to confirm erasure by replying YES to the question. Any other answer will retain the entries.

6. Review and Edit

Since the program uses the branching tree approach there is a danger that an invalid question could block branches of the tree. For example, if a child entered a question that did not have a yes or no answer, then it would make a nonsense of all that followed. Both the computer and child would get confused! In order to overcome this, there is a review and editing option. Care should be exercised in use since alteration of the subject matter of the question could invalidate the tree.

For example, if the question "Does it have stripes?" had "yes" for an answer leading to a Zebra and "no" leading to a cow, then changing the question to "Does it have four legs?" is obviously incorrect and destroys the logic. This is an extreme example but illustrates the need for care.

As a consequence of this problem, when reviewing questions in a particular category, there is also the facility to review all the objects that would be effected by a change to the displayed question. They are in two columns, those that lead from a "yes" answer

and those that lead from a "no" answer. Thus, a question can be constructed to keep these answers valid should the displayed question be invalid. Obviously the more objects that are dependant on the question the harder it is to find a new question without having to edit dependant objects.

After entering the review and edit facility from the menu, a choice of category is made. Having made your choice, the first question in the appropriate category is displayed. The following options are then available:

N — to move on to the Next entry which is then displayed.

E — Edit the question or object shown. Simply use the delete key to work back and then re-enter. Press ENTER to indicate completion.

R — to Review the branching tree nature of the program, listing the objects that lead from the displayed question.

It is more important to review the questions at an early stage in the building of a database since a question that occurs in the first five has a greater chance of being encountered, whereas one that occurs as the fifteenth is relatively unlikely to be asked!

Note that as the database grows the chance of encountering a specific object also grows less and less.

The combination of the monitoring facility and the review and edit option is extremely powerful. Using the monitor you can see all entries made during the last session and see if any objects or questions need to be altered. It allows you to watch and assist children should they be having difficulty. As a result, a child who is less able than others can join in the exercise without risking other childrens' work.

OTHER BES PROGRAMS

Animal/Vegetable/Mineral is one of a series of Microcomputer programs produced by Bourne Educational Software Ltd with the aimof making learning both easy and enjoyable. The programs are aimed at both home and school use, and are designed to enable children of the appropriate age range to operate them readily through common use of such items as the ESCape key to return to 'starting choices'; < SPACE > to move on to a next screen and so on.

BES programs are designed to be largely self explanatory, and follow similar styles. Children rapidly familiarise themselves with new programs, and can use them if required with the minimum of help.

Timeman One

The program helps children tell the time and set a clock. Attractive scoring with man and a ladder keeps children's interest. Choice of twelve progressive stages of difficulty, together with the usual attractive sound, colour and monitoring facilities.

(Age 4–9 years).

DOOMDARK'S REVENGE

Foreword

It is many moons now since the Lords of Midnight first appeared out of the soft, wearing gloom. Those of you who took up their challenge and rode with them to battle against the cruel Witchking will need no reminding of that epic struggle. But now a new epic tale unfolds, the story of Doomdark's Revenge.

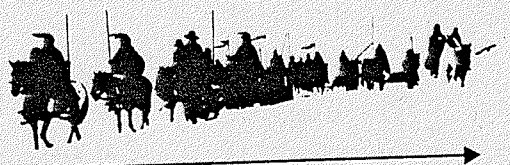
The Lords of Midnight was the first game to use "landscaping", which allows the player to view the world through the eyes of the characters and commanders he controls, to move through it as if he truly were riding across its broad plains, through its deep and silent forests, between its towering mountains. Doomdark's Revenge uses the same technique but paints on an even broader canvas that yields no less than six thousand map locations and forty-eight thousand panoramic views.

The game itself involves both quest and warfare, bold exploration and careful strategy. You can play on your own of with friends; there are enough different characters at your command for all the family to join in your struggle against Shareth Heartstealer, Empress of the Frozen Empire! On the Audio cassette, you will find the tale of the Moonprince and his son, Morkin, when peace befell Midnight after the War of the Solstice. And the tale of Shareth's anger which brought a premature halt to the rejoicing. This you must listen to if you are to put on the mantle of the Moonprince and do battle against the Cold Empress in full knowledge of her dread powers.

I wish you luck on your quest and hope you enjoy the game as much as I enjoyed writing it!

Mike Singleton.

DOOMDARK'S REVENGE



GUIDE TO PLAY

Loading Instructions

Spectrum	:	Type LOAD"" and press ENTER.
CBM 64	:	Cassette users press SHIFT and RUN/STOP. Disk users type LOAD"*",8,1 and press RETURN.
Amstrad	:	Cassette users press CTRL and small ENTER. Disk users type RUN"DISC and press ENTER.
Atari 8 bit	:	Cassette users turn on computer with BASIC absent and press RETURN. Disk users boot disk with BASIC absent.

Starting off

When loading is complete, the title screen will vanish and instead you will find yourself looking through the eyes of Luxor the Moonprince upon the chill land of Icemark. From now on, single key presses will control your actions, something you will find useful as you gather diverse Lords of the Icemark to your banner and come to make decisions for them all.

Entering your commands

All commands are entered with single key presses. The actual keys used varies according to the computer on which you are playing the game. Spectrum users have a keyboard overlay which shows all the keys used, but for other computer users the keys used are shown in the table below.

	CBM 64	Atari	Amstrad
Look	<–	Esc	Esc
Directions, eg N, NE	1-8	1-8	1-8
Dawn	9	9	9
Night	0	0	0
Check Place	+	Q	Q
Check Battle	–	W	W
Check Army	£	E	E
Check Person	Home	R	R
Select	Del	Select	[
Choose	Restore	Option	]
More	Return	Return	Return
Move	Space	Space	Space
Yes (also More)	Y	Y	Y
No (also No More)	N	N	N
Save to tape	S	S	S
Load from tape	L	L	L
Save to disk	Shift S	Shift S	Shift S
Load from disk	Shift L	Shift L	Shift L
Luxor	F1	Z	Z
Morkin	F3	X	X
Tarithel	F5	C	C
Rorthron	F7	V	V
Restart Game	Stop/Restore	Reset	Ctrl/Enter

Saving a game in progress

The data for Doomdark's Revenge can be saved and verified at any stage of the game. To save a game in progress, you must first press the SAVE key. It should only be pressed at a time when the computer is waiting for you to press an option key: at any other time it will have no effect.

When you select SAVE, you must follow the on-screen instructions. If a verify option appears then your computer is ready to check the data just written to tape. If this is the case, rewind the tape and press PLAY and press any key to begin the verification if you computer requires it.

Disk users can only have one saved game per disk. To save to disk, insert a blank formatted disk ready to receive the game data. Tape users should use separate cassette tapes per saved game.

Loading a saved game

First, of course, you must load the Doomdark's Revenge program. Then, at any stage during the game, you can load the data for an old game by pressing the key marked LOAD. Don't try this unless you already have some saved data to load!

If loading is successful, you will be returned immediately to the game but you will find yourself in the situation stored on your data tape.
If loading is unsuccessful, you must choose between trying to load again or continuing with the current game.

Abandoning a game



The Spectrum version of Doomdark's Revenge contains so much data that there is no room in RAM to hold a copy of the start-up conditions. Therefore, you can't simply start a fresh game at the press of a button. Instead, you must either load the entire load the entire program back or load the data from a game you have already saved.

Loading the entire Doomdark's Revenge back in takes some time but loading saved data is much quicker. Therefore we recommend that you make a copy of the early stages of Doomdark's Revenge by pressing SAVE either at the very start of a game or during your first few moves. At this time it is expected that the other computer formats will hold the start-up information in RAM. If this turns out not to be the case, then follow the above guide for Spectrum users when abandoning a game.

Keeping track – Spectrum only

Because Doomdark's Revenge presents such a vast canvas for you to make your mark upon, we have provided a facility whereby you can keep a printed record of each game as it progresses. Of course, you will need a printer compatible with the Spectrum and you will doubtless need a lot of paper. Pressing the COPY key at any stage of the game will print-out the screen you are looking at.

You and the computer

You, the player, take the role of Luxor, the Moonprince of Midnight. By virtue of the Moonring, which lends you the Power of Vision and the Power of Command, you can control those characters in the land if Icemark who are friendly to your cause, looking through their eyes at the surrounding landscape and guiding them in their many tasks. Some will be just individuals, some will be commanders at the head of whole armies; when you move a commander, his army moves with him.

The computer plays the part of Shareth the Heartstealer, Empress of the Frozen Empire and controls the characters and armies under her sway. It also guides the fortunes of the many independent characters you will find in the land of Icemark, making impartial decisions on their behalf. Independent characters may be persuaded to join your cause, but equally may be persuaded by Shareth to fall in with her.

Victory for the Heartstealer

Shareth the Heartstealer has one single goal, the destruction of Luxor the Moonprince, he who slew her Father, Doomdark, Witchking of Midnight and who, in her eyes, usurped her rightful inheritance. Her cold powers are, even now, greater than Doomdark's ever were and if Shareth can bring about the death of the Moonprince, Midnight will inevitably fall under her sway eventually. Shareth, therefore, wins the game outright if Luxor is slain.

Victory for you, the Moonprince

Many choices face Luxor, the Moonprince. Should he simply rescue Morkin and retreat to the Gate of Varenorn and thence to Midnight? Should he seek to limit Shareth's power before returning through the Frozen Gates? Or should he seek ultimate victory and, risking all, attempt to destroy her forever?

Accordingly, Doomdark's Revenge allows for different kinds of victory, some lesser, some greater, but **before** any of these victories can be claimed, Luxor **must** return safely to the **Gate of Varenorn.** The most basic victory that can be achieved is the rescue of Morkin, Luxor's son. He must be brought alive and well,

Greater victories can be won by bringing other characters safe to the Gate of Varenorn. Tarithel's safe return is important and so is Rorthron's. The spoils of war play their part too. Bring to Varenorn any of the Crowns of Icemark and you victory will be the greater. It will be the greater still if you discover and return with any of the arcane objects upon which Shareth's power depends. Knowledge of these must be found during your struggles.

If, by any chance Morkin should be slain, only one victory remains to Luxor – Shareth's complete destruction. How this can be achieved, you must discover during your travels through the Icemark but be warned, it is no easy task. If Morkin dies, Luxor, racked with grief, will diminish in power.

The greatest victory of all is the destruction of Shareth and the safe return of Luxor, Morkin, Tarithel and Rorthron to Varenorn. Upon this event, glowing letters will flame on the surface of the Moonring, revealing to Luxor the ancient Watchwords of Midnight that when spoken will awaken all the land to whatever peril gathers. With these words at his command, the Moonprince will be sure to protect Midnight for as long as he lives.

Victory is acknowledged when you press the NIGHT key. You will then be told of the greatness of your triumph. Defeat, however, will immediately follow upon Luxor's death. After victory or defeat, only the LOAD key will continue to function.

Selecting a character



At the beginning of the game you have three characters under your control. These are LUXOR the Moonprince, RORTHRON the Wise and TARITHEL the Fey. You can select any of these by pressing the key marked with their name. Morkin also has his own selection key but this will not work until you have released him from Shareth's spell of enchantment. When selected, the display will switch immediately to that charater's point of view.

To select other characters (which you must rally to your banner during the course of the game) you must press the SELECT key. When you do this, a list of all the characters you control will appear, together with a list of the keys that will select them. Press one of these selection keys and the display will switch immediately to that character's point of view.

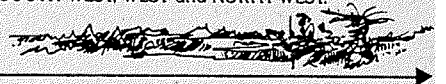
If you control more characters than can be listed on the screen, the message "More..." will appear at the bottom of the display. Press the key marked MORE to view the rest of the list.

Controlling a character

Doomdark's Revenge is not an ordinary adventure game and controlling the characters does not require you to guess at the right phrase of command. Instead, you have four basic options, each available at the press of a single key:-

1) Look

On screen will appear a landscape corresponding to the view that the character sees in the direction he is looking at the time. During the LOOK option, you can turn the character to look in another direction by pressing one of the compass keys: NORTH, NORTH-EAST, EAST, SOUTH-EAST, SOUTH, SOUTH-WEST, WEST and NORTH-WEST.



2) Move

When this key is pressed, the character will move forward in the direction he was last looking. When he reaches his new location, he will continue looking in that direction and a new panorama will appear. Characters cannot move during night nor can they move into the Icy Wastes that surround the Icemark. Other factors may also restrict movement – exhaustion, cowardice and so on.

3) Choose

The CHOOSE screen presents you with a list of special options and the keys you must press to obtain each. What special options are open will depend upon the situation the character finds himself or herself in but they also reflect the particular personality of the character. So, the choices open to a greedy character will seldom include acts of generosity, nor the choices open to a cowardly character include brave deeds.

4) Check

There are four **CHECK** keys. They enable you to access detailed information concerning the character you control and the situation he or she is in.

a) **CHECK PLACE:** Gives you general information about the time of day, the place and what your character may or may not have found there.

b) **CHECK BATTLE:** Gives you details of any battle or skirmish your character has been involved in.

c) **CHECK ARMY:** Gives you details of your own army, any other army in the same location and any army in the location immediatley ahead of your character.

d) **CHECK PERSON:** Gives a run-down on the personality of the character you are controlling. Beware – some personalities may change as the game progresses!

You can press **LOOK**, **MOVE**, **CHOOSE** and **CHECK** keys at any stage during any of the four basic options and the new screen will appear at once.

More...

Sometimes there may be no room on a screen to print all the relevant information. Whenever this happens, the message "**More...**" will appear at the bottom of the display. Pressing the key marked MORE will access the remaining text.

Night and Dawn

The game begins on the day that the Moonprince rides forth from the Gate of Varenorn into the Icemark and proceeds by day and by night. During the day you can move any or all of the characters you control, together with any armies that accompany them. The distance a character can move in one day depends on the difficulty of the terrain and whether he is riding or walking as well as his general vigour. You must learn by experience how far you can travel under given circumstances. However, there is one important thing to remember: when you travel directly north, south, east or west you are moving just one league at a time; moving in any other direction, you are travelling along the diagonal of a square, a distance of approximately 1.4 leagues. This will therefore take you longer and leave less hours of daylight for your journey.

Each character has his own, individual "clock" and when he has exhausted his hours of daylight, night will fall for him. He will be unable to make any further movement until the following day. Other characters under your control, however, will still be able to move.

Once you have moved all the characters you wish to, you must press the **NIGHT** key. This lets night fall everywhere and signals the beginning of movement for the forces of the Heartstealer. Independent characters will also move at this time. There will be a pause as the computer "thinks" and rumours of battle and other events may appear on the screen.
Soon, however, the night will be over and the message, "Dawn breaks" will appear on the screen.

To begin the new day you must press the DAWN key and then you will be able to control your characters afresh. **IF YOU DO NOT PRESS THE NIGHT KEY OR THE DAWN KEY AT THE APPROPRIATE TIME, NOTHING FURTHER WILL HAPPEN AT ALL!**

THE WARRING FACTIONS

BATTLE

Minor skirmishes involving individual characters can take place at any stage during the day and will have an immediate result. Battles between armies, however, are not decided until the day is over.

You are **NOT** able to move an army into the same location as an unfriendly army by using the **MOVE** key. Such a decision is always a special option that you must select using the CHOOSE option. Some of the commanders you control may be so afraid that the possibility does not occur in their list of options.

Two options can move an army onto unfriendly ground, **ATTACK** and **APPROACH**. **ATTACK** should be used if you want to fight a battle regardless of the other commander's intentions. **APPROACH** is like going forward under a flag of truce; you may be able to parley with the other commander and perhaps persuade him to join your cause. On the other hand, he may well ignore your flag of truce and fall upon you.
The **APPROACH** option should be used with some caution, for if battle does follow, you will be at a disadvantage compared to **ATTACK**.

Once battle has been joined, the character will not be able to move until the following day. You can, however, move other characters into the same battle if you wish. At the morrow's dawn, the outcome of the battle will be known to your commanders. If the enemy has lost, his armies will have been destroyed or have fled, leaving the battlefield in your possession. If the enemy has won a decisive victory, you will find your characters (if they still live) scattered and bereft of troops. If, however, the battle continues, you can move your commanders away that dawn or leave them there to fight on through the next night.

Many things influence the outcome of a battle but you must learn by hard-won experience which are crucial.

THE KINGDOMS OF ICEMARK

The land of Icemark is ruled by five major races and the map that Luxor carries with him, though lamentably lacking in detail, shows their Kingdoms. To the North-east, the Men of the Frozen Empire are governed by Shareth the Heartstealer. To the North-west lies the Kingdom of the Giants, to the East the Kingdom of the Dwarves whilst to the South are the Outlands of the Barbarians and the Realm of the Fey. All these are intermittently at war with each other, involved in petty feuds and border raids but of them all the Frozen Empire is the strongest and the most feared. To defeat Shareth, Luxor must find allies in these foreign domains. The Lords Of Fey should be counted most friendly, the Lords of the Iceguard least so, but a cunning Moonprince will exploit their differences to his own purpose. There is only one in the whole of the Icemark who will never rally to his banner – Shareth Heartstealer, his mortal enemy.



The Landscape

During your travels through the Icemark, you will see many different scenes. This is a traveller's guide to some of the things you will see.



MOUNTAIN

Moving across a mountain range will take many hours of travel and leave you exhausted at the end of your journey.



CITY

A strongly fortified township which may harbour enemy forces or offer shelter to a friendly army. Storming a city will be a hard task.



FOREST

Movement through a forest will not be swift, save for the Fey whose homes lie there.



TOWER

The Watchtowers of the Icemark may hold dark secrets; approach with care!



PIT

Through the dark mouth of the abyss, you may find access to subterranean passages, but foul creatures may issue forth from the bowels of the earth.



HALL

A war-chief's hall can offer warmth and shelter to the lonely traveller, if its people prove friendly.



ARMY

A friendly army offers no hindrance to the traveller but an attempt to go through the midst of an enemy army offers the gravest of peril. As you look around during your travels, large figures may appear in the foreground of each panorama you see. These are the warriors, characters and creatures that lie immediately ahead of you. You do not, however, see all that lies ahead. If, perchance, you find yourself in an underground tunnel, tall pillars crowned with fire mark the way forward. If there is no way ahead, you will see naught but darkness. Tunnels only lead north, south, east or west.



HUT

Brief respite can be found here from the cold mists and winds of the Icemark.



HILLS

Hills slow a traveller, but not severely. Unseen dangers may lie beyond.



FORTRESS

The stronghold of minor Lords of the Icemark, a fortress will offer some protection.



PALACE

Though not designed to withstand armed assault, a palace is still a centre of power.



TEMPLE

A temple is apt to harbour dark and mysterious forces. Some give access to benighted ways beneath the earth.



GATE

Set at the entrances of subterranean roads, the Gates of the Icemark stand at the threshold of the dark world below.



STONES

Stones mark the route of ancient, forgotten roads beneath the icy carpet that covers the land. Strange powers of oft gather about them.



FOUNTAIN

Little in the bleak landscape of the Icemark offers succour to the traveller but from a sparkling fountain, he may drink his fill and be refreshed.



ICY WASTES

The barrier ice of the Northern glaciers allows no traveller to pass through. The Icy Wastes are impenetrable to all.



MIST

Cold mists block the landscape from view as they roll across the Icemark. All save Shareth's Iceguard find their courage and strength sapped if caught in their grip.

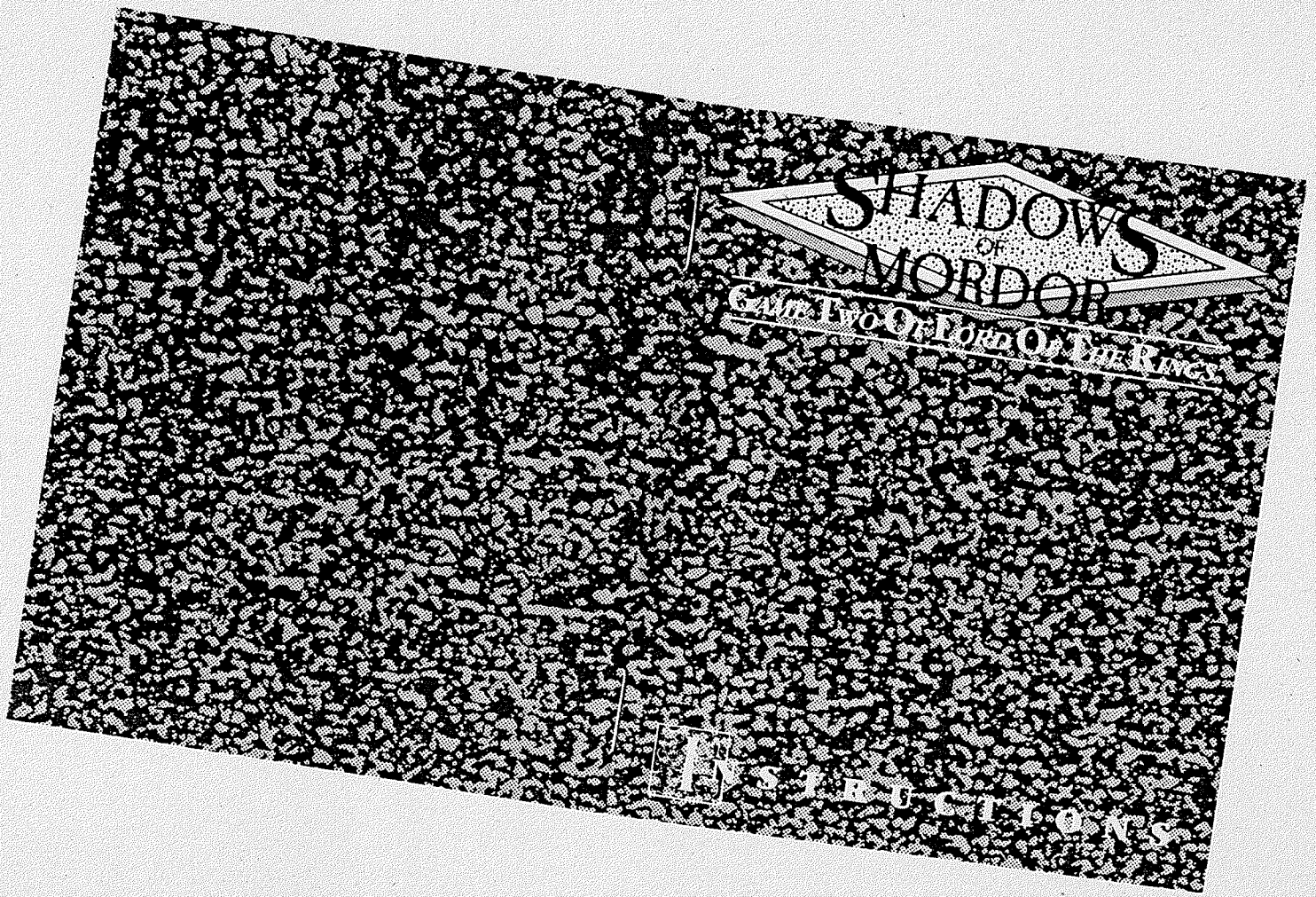
DOOMDARK'S REVENGE – THE STORY.



Written by Mike Singleton.

Narrated by Marc Peirson.
The Players – Mandy Baber, Francis Lee, Marc Peirson.
Doomdark's March – written and performed by Dominic Kersey.
Incidental Music – written and performed by Francis Lee.
Engineered by Steve Murrell.
Recorded at RAM Studios.




SHADOWS
OF
MORDOR
GAME TWO OF LORD OF THE RINGS
INSTRUCTIONS

INTRODUCTION

Welcome to **The Shadows of Mordor**, in which Frodo Baggins and Sam Gamgee continue their quest to destroy the power of the evil Dark Lord, Sauron.

In playing this adventure game, you will be assuming the role of characters in J.R.R. Tolkien's fantasy world. You must detail out the actions which your characters are to perform, and the computer will moderate the results accordingly. It should be noted that there are few if any problems in this game which have a single solution. The game has been designed to allow a variety of responses to the adventure problems, some of which are more efficient than others.

The Shadows of Mordor is a brilliant piece of fantasy software thanks to the re-working of many of the game's systems by a highly trained team of idiots. The game system will be familiar to players of **Lord of the Rings Game One**, with the exception of the improvements in the flexibility of play. For instance, it is now possible to talk to characters and give them a string of instructions which they will follow in sequence, rather than painstakingly telling them what to do at each and every turn.

In order to provide players with the host of problems expected from a high quality computer adventure, it has been necessary to take minor liberties with **Lord of the Rings** storyline (it wouldn't be much of a game if there was no challenge to interrupt the storyline of Tolkien's master work), and thus we hope that you will see them in the light in which they were intended, and not as blasphemous attempts to butcher one of the great works of fantasy literature. The essential atmosphere of Middle Earth remains unchanged, and we trust that it always shall.

Good luck, and don't let the Balrogs bite.

GETTING STARTED

The Shadows of Mordor is loaded into your computer using the normal procedure for your machine. While loading the cassette, your computer will not load parts of the tape. This is intentional. It is not a loading error. The parts not loaded are used when you fail, or when you end the game so that you can start again. Do not adjust your sets – reality is at fault.

Once the game is loaded, you will find yourself being asked the question:

WHICH HOBBIT CHARACTERS WOULD YOU LIKE TO PLAY:
Frodo or Sam?

By typing in the name of one or both hobbits, you enable yourself to assume the identity of the specified character during the game. If you simply hit RETURN without making a choice of character, the computer will assume that you will play the role of Frodo, and you will not have the option of playing the role of Sam.

When you choose to play just one character, the computer will take control of the other character and ensure that his actions are in keeping with his personality. It also means that whenever you wish this character to perform specific actions for you, you will need to instruct him by talking to him, using the SAY TO command.

When you play more than one character, the computer will perform some basic actions for the hobbit not "in play" – for instance, while you play Frodo, Sam will follow you around (unless told otherwise). If you choose not to play both characters at the beginning of the game, the computer will more fully "animate" your companion.

The command to change from one Hobbit character to another is:

BECOME (name).

such as "BECOME FRODO." Note you must add the full stop, and you can only BECOME one of the Hobbit characters you have specified at the beginning of the game.

An alternative to the BECOME command is the I AM command, which works in the same way and has the same effect:

I AM FRODO.

Alternatively, both commands can be omitted, and just the name of the character you wish to become entered:

FRODO.

You are now ready to commence play. A description of the area around you will now appear, allowing you to perform your first actions as the chosen character.

BACKGROUND

Three Rings for the Elven-kings under the sky,
Seven for the Dwarf-Lords in their halls of stone,
Nine for the Mortal Men doomed to die,
One for the Dark Lord on his dark throne
in the Land of Mordor where the Shadows lie.
One Ring to rule them all, One Ring to find them,
One Ring to bring them all and in the darkness bind them
in the Land of Mordor where the Shadows lie.

In a previous age of the Earth, in a time when the Elves were powerful and men less prolific, the great Rings of Power were made. Great magical powers were granted to the wearer, but only if the ringbearer knew how to draw and shape the power of the rings. Sauron, who was fair to look upon in those days, helped to make the 19 lesser rings, which were given to the great and powerful lords of the Earth. In secret, Sauron made the One Ring, a ring which would enslave the bearers of the lesser rings to his will. After tying most of his power and magic into the Ring, his task was finally complete, and the ring's power flooded forth.

. . . . .

Milennia later, through a long and tortuous path, the ring has somehow ended up in the hands of Frodo Baggins, a Hobbit of the Shire. Sauron has risen again, and seeks for his ring to gain the power he needs to snuff out his beleagured enemies. Fleeing the Shire, Frodo and his companions reached Rivendell, an Elven stronghold, where a party was formed to help Frodo destroy the ring by casting it into the volcano ORODRUIN where it was made, deep in the heart of Mordor itself.

After a long and dangerous journey, the party reached the hidden Elf kingdom of Loth Lorien, where our last game left the party setting off down the great river Anduin in elven boats. The first leg of the journey was over, but at the cost of Gandalf the grey, the party's wizard and leader.

The second game begins at the edge of Lake Nen-hithoel, at the end of an uneventful journey down the river. Frodo and Sam have left their companions on an island in the middle of the lake, and have secretly gone on alone to continue their quest. Somehow our intrepid adventurers must negotiate the desolate wastelands and cross the evil mountains which surround their enemies' homeland. The way is dangerous and unknown, but will Hobbit cunning and home grown courage be enough to overcome the enemy? Who knows. I'm certainly not going to tell you. Play the game and find out for yourself!



COMMUNICATING WITH THE COMPUTER

The Shadows of Mordor game includes a very sophisticated program, INGLISH, which can understand your instructions in everyday language.

More details are given later in this booklet about the power of INGLISH, but the important thing is that you can enter your commands freely and the computer will then react according to yoru requests.

The computer program **The Shadows of Mordor** has a very large vocabulary, so you should not have any difficulty in expressing your ideas and commands. Your commands will usually take the form of actions, and at the back of this booklet you will find an abbreviated list of the actions you can carry out. The power of INGLISH together with the very large vocabulary of over 800 words makes this one of the easiest and friendliest adventure games ever published on micro-computers.

Moreover, if the computer is not sure of something that you mean, or if you are ambiguous in any way, it will ask you for clarification.

The computer is also your source of information on what is happening to you, where you are and the characters around you. Some things may not be readily apparent to you, and thus can prove dangerous to the unwary player.

Performing Actions

INGLISH is one of the most sophisticated language-recognition programs ever developed for micro-computers. It allows you to communicate with the program in a language and structure that is familiar to you.

The rules of INGLISH are simple. The main thing to keep in mind is that each instruction must be in the form of "verb-then-noun", where the noun (or pronoun) can also be implied.

Each sentence must have a verb.

the following examples in this instruction booklet are a guide to the way INGLISH sentences can be constructed. Note however that the specific examples shown may not be valid in this adventure.

When an action does not directly concern any object, only a verb is necessary, e.g.

WAIT
LOOK

This is also the case if you simply wish to travel in some direction, e.g.

SOUTH
EAST

If the action concerns an object or a person, this must be identified by a noun, English grammar applies, and the order of the different parts of the sentence is not critical, e.g.

WEAR THE RING
DROP THE ROPE ONTO THE TABLE

Adjectives that describe nouns must come before the noun. If it sounds right in English, it is probably valid in INGLISH, e.g.

THROW THE HEAVY AXE AT THE HORRIBLE ORC
LIGHT THE WOODEN PIPE WITH THE MATCH

Terms used when making an instruction to the computer must be free from ambiguity. If there were two doors in a room, one red and one green, and you were to say:

GO THROUGH THE DOOR

then the computer is placed in a quandry as to which door to put you through. In such situations, the program will put you through the first door it finds, which may not be the direction you intended.

In this case, it would be better to specify exactly what you mean:

GO THROUGH THE GREEN DOOR

Prepositions

The meaning of many verbs can be altered by the use of prepositions, such as ON, OFF, ONTO, and so on. Examples of INGLISH sentences using prepositions are:

ATTACK WITH THE SWORD
PICK UP THE RING

Prepositions in INGLISH usually go before the noun, but in some cases it sounds more natural to have them after the noun, such as:

TURN THE LIGHT ON
LEVER ROCK WITH BRANCH SOUTH

Prepositions can also be used to specify the position of an object, or where you wish an action to be performed, such as:

PUT THE GOLD INTO THE BAG
TAKE THE GOLD AND RUN

Use of "AND"

You can use the word AND in all its normal meaning in INGLISH. This means, among other things, that you can enter more than one sentence or perform more than one action at a time.

TAKE THE LAMP AND THE MATCH FROM THE CUPBOARD
DROP THE SHORT AND THE LONG SWORDS
TAKE THE GOLD AND RUN

Use of "ALL"

It is possible to use the word "all" instead of a direct object when making a command to the computer, e.g.

"TAKE ALL"
"KILL ALL BUT FRODO"

Be careful when using this technique, as the player characcter is included in the term "all"...

Punctuation

Sentences can be separated by the use of punctuation. You can use commas and full stops as you normally would.

The only limitation the program places on your commands is that your command should not be more than 128 characters long.

Conversing with Other Characters

The Shadows of Mordor adventure also allows you to talk and converse with the characters you meet on your journey.

On encountering a person on your journey, you may wish to speak to them. The general form is:

SAY TO (name) "(sentence)"

e.g.

SAY TO GANDALF "HELLO"

This is usually sufficient to draw most characters into conversation.

You can ask the characters within earshot to do specific commands that are of use to you, such as:

SAY TO SAM "KILL THE ORC WITH THE SWORD"
SAY TO SMEAGOL "TAKE THE GOLD FROM THE ORC"

Of course, because all the other characters have an independence of their own, there is no guarantee that they will do what you ask of them. Their decision will be based on a number of factors, including their allegiance to you, what they are currently doing, and so on.

Some characters that you encounter will have messages for you that they will deliver only when you identify yourself, or ask them certain questions.

In order to solve **The Shadows of Mordor** adventure, it will be necessary for you to become familiar with the SAY TO command. This is because some of the problems you face can only be solved by cooperating with the other members of the party. Each character also has his own limitations, such as strength and so on.

Be warned that sometimes a certain character will be required in order to succeed with a certain action. Thus it will be necessary to become familiar with the varied talents of your party members.

The Shadows of Mordor allows you another method of instructing the hobbits in your party on what to do. This is done by taking over their character for the time being, using the BECOME command. (It is recommended that you should be familiar with the adventure from a single player point of view before tackling the multi-character game.) e.g.

BECOME SAM.

(Note that you can only become one of the two hobbit characters you have selected at the beginning of the game.) This technique can be used whenever the player wishes to detail out complex actions to a character, or wishes to react to ongoing situations that will confront the character. This is a useful means of conducting operations without endangering the ring, or for controlling the party if you wish the hobbits to split up and go separate ways.

Special Adventure Commands

As well as the extensive INGLISH vocabulary, there are a few commands which are specific to **The Shadows of Mordor** adventure, and which are used to help you control the game.

The following is a list of these special commands:

LOOK (can be abvbreviated to L): Describes where you are, what you can see, and all possible exits. This command should also be used after you take over the role of another character (using the "become" command) who is at another location.

INVENTORY (can be abbreviated to I): Describes all your inventory that you are currently holding or carrying.

EXAMINE: Although this is a standard INGLISH word, special mention of it is made here because this command is very useful in trying to obtain more information about your surroundings in Middle Earth. Examining objects often reveals information about those objects that is not readily apparent from a cursory look.

SAVE: This command allows you to save the game for play at a later time. After entering the command, the program will prompt you for your tape or disk for saving the game. The saved game has all the details of what is happening throughout Middle Earth, including all the other characters and locations. After you have saved the game, play will continue normally. This command is especially useful before embarking on a dangerous course of action.

LOAD: Loads a previously saved game. Once again the program will prompt you for your tape or disk. After loading, play continues from the point where the game was saved.

SCORE: Tells you what your percentage is so far.

PAUSE: Suspends the game until another key is pressed.

QUIT: Stops the game and returns to the beginning. Because of memory limitations the information about Middle Earth at the beginning of the game is not stored in memory, but needs to be loaded in. Following this command, the computer will prompt you for the tape or disk; if the tape is requested, rewind the game tape and place in the cassette recorder in the normal way.

Abbreviation of Commands

The abbreviation of your commands is quite permissible. For instance, if you wish to attack a green knight, you might say:

KILL GREEN WITH SWORD

The computer will see that "Green" corresponds with the green knight. Note also that the definite article "THE" can be omitted at will. In most circumstances, the computer will understand exactly what you mean.

Unfortunately, if the Knight stood before a green door, then "green" no longer serves to identify the Knight only, in which case you could write:

KILL KNIGHT WITH SWORD

Multiple entries are easily effected simply by placing a comma between your instructions e.g.:

OPEN BOX, TAKE AXE, GIVE AXE TO SAM

Each of the commands in the sentence will be dealt with by the computer in order.

THE SCREEN DISPLAY

On your screen will appear (in normal script) the adventure description – the text which describes your surroundings, and the happenings around you. Upon entering a new location, the computer will give you a full description of the area, and the objects that are in plain sight. You will be given a list of the exits that you can currently see.

The second time that you enter a location, the computer will only give you a brief description of where you are. If you wish to obtain a more complete description, you can simply enter the command LOOK, and the computer will repeat the lengthy text.

Below the adventure script, an arrow indicates your "instruction window"; the space in which you will type in the actions that you wish your characters to perform. This will appear on the screen in capital letters.

Once you have typed in your commands and hit the RETURN/ENTER key, the computer will either acknowledge your action, or inform you that it does not understand you for some reason. Once the computer has acknowledged an entry, it will print any new text which results from your actions, and then indicate that it is ready to receive a new instruction.

GENERAL RULES IN MIDDLE EARTH

General

- A map of Middle Earth can be found in each book of **Lord of the Rings**, in the inside rear cover (map one).
- During the adventure, you will encounter many objects. Some are usable as weapons, others are intended as food or drink, still others are used as containers in which to carry other things. Liquids behave as such: They cannot be carried about without a container. You cannot lift too heavy an object, or carry too great a load.
- Most containers must be opened in order to reach their contents. Once a container is open you may look it or take the objects that are held within. Once the objects inside a container have been exposed, they may be used. Some containers may be transparent, allowing you to see their contents without opening the container itself.
- Some doors are locked, this means that either the proper key is required to unlock them, or that someone on the other side of the door must open the door for you.

Finding Your Way

SPECIFYING DIRECTION

There are assumed to be ten possible directions of travel:

NORTH, SOUTH, EAST, WEST, NORTH EAST, SOUTH EAST, NORTH WEST, SOUTH WEST, UP and DOWN.

It is possible to abbreviate the words used to describe directions down to a single letter for each word, e.g.

NORTH EAST
N E

Are both valid entries for movement instruction.

PASSING THROUGH PORTALS:

If you want to go through an entrance, such as a door or window, it is quite possible to say so, e.g.:

GO THROUGH OPEN DOOR

LIGHT AND DARK

In some areas, there will be no natural light. Unless you have the means to create light – such as matches and a candle – you will receive no description of the area that is in darkness. Once a light has been struck, you will be able to see the area in question.

Additionally, hobbits don't move well when they can't see where they're going – a problem other creatures may not share!

MAPPING

It is suggested that you keep a map of your travels to assist you in finding your way. Be warned! Maps cannot be entirely relied upon.

COMBAT

Hobbits are poor fighters, but brave. It is not possible to attack any inanimate objects. These must instead be BROKEN. A weapon is required in order to attack any enemy. A weapon may also be used to break objects.

To attack your opponent, you must tell the computer that you wish to kill the creature with a specific weapon, e.g.

KILL WOLF WITH SWORD

No matter how well you arm them, be wary of throwing Hobbits into the midst of gory battle. Being furry footed little runts, they have a tendency to die with spectacular suddenness.

Persistence in combat is rewarded, but be careful. Most opponents hit back, and an already wounded character is much more susceptible to being killed than a healthy one.

Carrying Items

During the course of play, it will become necessary to pick up and carry inanimate objects. Once you have found an item, you need simply take the item in order to pick it up and carry it, e.g.:

TAKE ROPE

To check on the equipment that you are already carrying, simply make an inventory of your character, e.g.:

INVENTORY

To rid yourself of an item, you need merely drop it, i.e.:

DROP ROPE

As an alternative, you may give the item to another member of the party, e.g.:

GIVE ROPE TO SAM

In addition to adding weight to your burden, some objects increase your effective size. This can be troublesome if you intend to go through a small door or tunnel, so beware of adopting the pack-rat syndrome.

FATIGUE, WOUNDS AND EATING

All characters are rated for their strength and stamina. During the game these characteristics may suffer from combat, or simple weariness.

As a character takes wounds, its strength becomes lower, and its hold on life more tenuous. As time passes, characters become more and more tired as their energy is used up. Highly strenuous activities, such as combat, may exhaust you even more.

Legends and Common Knowledge

For players who are unfamiliar with Tolkien's Middle Earth mythos, we provide the following information on the places and creatures of which Frodo and Sam could be expected to know through legend and rumour.

DAGORLAD: The desolate, lifeless plains which lie before the gates of Mordor. "Dagorlad" is the Sindarin word for "Battle plain", for it was here that the might of Sauron was defeated in the final battle of the first war of the Ring. With his armies destroyed in battle, Sauron retreated to his fortress of Barad-Dur, where he was finally defeated in mortal combat after a seven year siege by the forces of the Elves and the men of the west.

THE DEAD MARSHES: A gloomy waste of trackless swamps which lie to the west of the plains of Dagorlad. The marshes first began to spread when Sauron once again began to extend his influence into the lands of Mordor during the middle years of the third age, and they soon swallowed the graves of the Men and Elves who were slain in the battle of Dagorlad so many years before.

EMYN MUIL: A knotted range of hills which lie between the Anduin river the Dagorlad plains.

HARAD: A patchwork of minor kingdoms and city-states which devote the bulk of their time to warring with the peoples of Gondor. They thus formed a ready made ally for Sauron upon his return to power.

MINAS MORGUL: Originally titled **Minas Ithil**, the "tower of the rising moon", this twin city to Minas Tirith (the current capital of GONDOR) fell to the NAZGUL and their armies many years before Sauron's re-appearance. Now named **Minas Morgul**, "the tower of death", the fortified city of Minas Morgul is the home base of the NAZGUL and their evil armies.

MORDOR: The realm of Sauron. Already bleak and infertile before the advent of the Dark Lord, Mordor is now chiefly composed of poisoned wastelands and plains of ash. At the centre of the realm lies mount ORODRUIN, the volcano in which the ring of power was forged. Close by lies the fortress of BARAD-DUR, where Sauron holds his court. Mordor is ringed with impassable mountains which provide it with unsurpassable protection against attack. The only two passes through the mountains of shadow are fortified and guarded, although the mountains also harbour older secrets of their own.

MORGUL VALLEY: The once fair valley in which lies the tower of Minas Morgul. The valley is now choked with rottenness and decay, poisoned waterways and noxious flowers.

NAZGUL: The nine ring-wraiths, perhaps more familiar to the player as the "Black riders" of Game One. After the disaster at the ford of Rivendell, where the Nazgul lost their black horses, Sauron gave his servants fearsome flying creatures which had been bred from eyries discovered in some dark recess of the mountains of shadow. Thus mounted, the Nazgul took to the air to further their search for the ruling ring.

SAURON: The Dark Lord. The embodiment of evil in Middle Earth. Once thought to have been destroyed during the wars against him in the second age of the world. Sauron has re-arisen to once again attempt to spread his power over all of Middle Earth. Sauron seeks to recover his Ring of power in order to gain the strength that he needs to complete his conquests and enslave all right thinking people everywhere.

Possible Actions:

Below is a list of all the verbs that the player will need to play the game. The verb list has been divided into two sections. The first section is composed of directions which the computer will understand for character movement, the rolling of rocks etc. The second section contains the verbs which the characters may use in performing actions. Any verb in this section which is underlined does not take any game time to perform.

NORTH, SOUTH, EAST, WEST, NORTH EAST, NORTH WEST, SOUTH EAST, SOUTH WEST, UP, DOWN.

BECOME, BREAK, BREAK WITH, CLIMB UP, CLIMB DOWN, CLIMB INTO, CLIMB OUT OF, CLIMB ONTO, CLIMB OFF, CLOSE, COOK, DRAG, DROP, DROP IN, EAT, EMPTY, EMPTY ONTO, EXAMINE, FILL, FILL WITH, GALADRIEL, GET, GET IN, GET OUT, GIVE TO, GO FISHING, GO THROUGH, HELLO, HELP, HOLD UP, INVENTORY, JUMP OVER, JUMP OFF, JUMP ONTO, JUMP OUT, JUMP THROUGH, KILL, KILL WITH, LEVER (direction), LEVER OVER, LIGHT, LIGHT WITH, LOAD, LOOK, LOWER, MAKE, NO, OPEN, PAUSE, POLE, POUR ON, PROMISE, PULL ON, PUT ON, PUT ONTO, PUT OUT, QUIT, RAISE, REST, ROLL (direction), ROLL OVER, SAVE, SAY TO, SCORE, SPRINKLE ON, SPRINKLE WITH, STOP, SWIM, TAKE, TAKE OFF, TALK TO, THANK YOU, THROW AT, TIE WITH, TIE TO, UNTIE, WEAR, YES.

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Credits
The Faceless Programmers Cooperative
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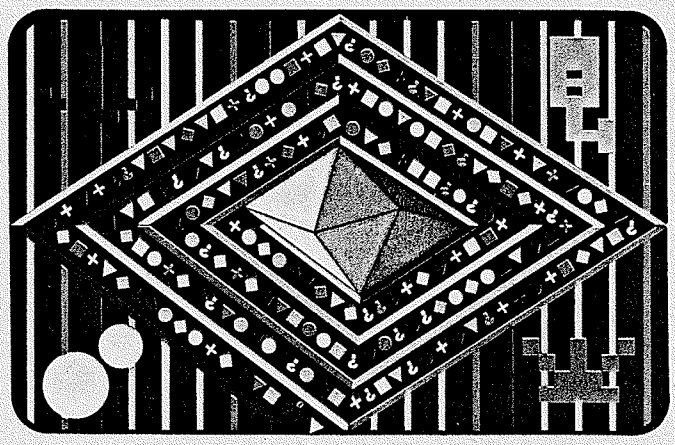
Dr. Who and the Mines
of Terror



the capabilities of Splinx.
At several locations in the mining station the Doctor will come across Cryogenic Sleep chambers. With the Doctor standing next to a chamber, if you press:

L . . . . the game position will be SAVED

and may be re-loaded at the start of a game.

FÜR SCHNEIDER-BESITZER:

LADEANLEITUNG

Bei Computern mit eingebautem oder angeschlossenem Disketten-Laufwerk muß vor dem Einlegen der Kassette dieser Befehl eingegeben werden:

|TAPE (danach ENTER drücken)

Jetzt die Kassette in den Kassettenrekorder legen und eingeben:

RUN" (danach ENTER drücken)

SPIELANLEITUNG

Doctor Who und das Bergwerk des Schreckens ist ein komplexes und spannendes Abenteuer, das sich ganz auf dem Bildschirm abspielt. Die Steuerung kann über den Joystick erfolgen oder auch über die Tastatur.

Bewegungen:

Z . . . . Bewegung nach LINKS
X . . . . Bewegung nach RECHTS
] . . . . HINAUF über Stufen oder Leitern
/ . . . . HINUNTER über Stufen oder Leitern
ENTER . . . . SPRUNG ausführen

Im Verlauf seiner Abenteuer stößt Doctor Who auf viele nützliche Objekte. Diese kann er auflesen und sofort Gebrauch davon machen oder sie in einer seiner vier großen Taschen verstauen.

P . . . . Objekt AUFLESEN
U . . . . Objekt BENUTZEN (siehe Anmerkung)
I . . . . INFORMATION über Taschenінhalt
S . . . . Objekt in eine leeren Tasche VERSTAUEN

Ein Objekt, das der Doctor bereits in der Hand hält, kann mit der P-Taste geworfen oder fallen gelassen werden. Die Richtung wird mit den Tasten LINKS, RECHTS, HINAUF und HINUNTER gewählt.

Anmerkung zur U-Taste: Wenn sich der Doctor zum Beispiel in der Nähe eines Knopfes befindet, dann dient die U-Taste (Objekt benutzen) zum Drücken dieses Knopfes.

Wenn das INFO-Menü am Bildschirm erscheint, bewegen die LINKS- und RECHTS-Tasten den Objektzeiger (einen beweglichen Strich, den sogenannten "Cursor") unterhalb der Objekte entlang. Zum Herausholen eines Objekts aus einer Tasche "I" drücken, eine Tasche wählen, mit ENTER ins Spiel zurückkehren. Mit "S" bekommt der Doctor das Objekt in seine Hände, wenn diese nicht bereits voll sind.

SPLINX - DIE KYBERNETISCHE GEFÄHRTIN VON DOCTOR WHO

C . . . . zum Aufrufen des Commando-Menüs

Splinx-Marken werden wie Objekte behandelt und befinden sich in den Taschen des Doktors.

Für ausführlichere Informationen über die besonderen Fähigkeiten von Splinx verweisen wir auf das separate Splinx-Blatt.

An verschiedenen Stellen im Bergwerk kommt der Doctor an Tiefstkühlschlafkammern vorbei. Wenn er an der Tür zu einer solchen Kammer steht, bewirkt ein Tastendruck auf

L . . . . das ABSPEICHERN der Spielposition.

Diese kann bei Spielbeginn wieder geladen werden.

POUR LECTURE PAR LES UTILISATEURS DE L'ORDINATEUR ARMSTRAD

INSTRUCTIONS DE CHARGEMENT

Si votre ordinateur est équipé d'une unité de disquettes raccordée ou incorporée, il est nécessaire de taper:

|TAPE

et d'actionner la touche ENTER avant le chargement

Placer la cassette dans le lecteur de cassettes et taper:

RUN"

et appuyer sur la touche ENTER.

a. SHUT DOWN. Splinx will become inactive to conserve power.
b. FOLLOW. Splinx will follow the Doctor.
c. PICK UP. Splinx will pick up any object within reach.
d. DROP. Splinx will put the object down.
e. RE-CHARGE. Splinx will connect to the terminals if close to a re-charge point.
f. GOTO. There are several markers which can be thrown or dropped to mark points on the journey. When instructed, Splinx will go to the marker with the given number and then carry out further tasks as required.
g. RETURN. Splinx will attempt to return to the Doctor.

Putting Splinx through her paces. An example.

The Doctor can use Splinx to collect an object and bring it back to him, even though it is guarded by a light beam - Splinx is invisible to photo-sensors, too. He throws the Marker 1 past the beam to land near the object. He then gives Splinx her instructions.

F1 (Goto Marker 1)
B (Pick up object there)
G (Return with object)
D (Drop the object)

Once Splinx has been programmed she simple needs to be activated to automatically carry out the sequence.

This is a very basic example of how Splinx can be used. It is advisable to experiment thoroughly with her, before using Splinx on an important job.

INSTRUKTIONEN FÜR ALLE TEILNEHMER AN DER MISSION "DOCTOR WHO UND DAS BERGWERK DES SCHRECKENS"

Die folgende Nachricht wurde von den Time Lords an Doctor Who an Bord der TARDIS übermittelt.

"WIR HABEN MITTEILUNG ERHALTEN ÜBER EINEN PLAN ZUR ÜBERNAHME DER HERRSCHAFT IM UNIVERSUM MIT HILFE EINES TIME INSTANT REPLAY UNIT (TIRU), DAS AUF DEM 2. MOND DES PLANETEN RIJAR GEBAUT WIRD. BÖSE MÄCHTE HABEN DIE BERGWERKSTATION IN IHRE GEWALT GEBRACHT UND SIND DABEI, DAS SELTENE MINERAL 'HEATONIT' ZU RAFFINIEREN, WELCHES FÜR DIE PRODUKTION DES TIRU ERFORDERLICH IST.

VERHINDERN SIE DEN WEITEREN ABBAU VON HEATONIT. BESCHAFFEN SIE DIE 'SPEICHERKAPSEL' MIT DEN PLÄNEN FÜR DAS TIRU.

INFORMATIONEN WURDEN IN DER COMPUTERBIBLIOTHEK GESPEICHERT."

Es kann nur noch Sekunden dauern, bis der Doctor im Bergwerk-Komplex ankommt. Deine Aufgabe ist es, ihm nach ganzen Kräften Beistand zu leisten. Den zuletzt eingetroffenen Nachrichten zufolge sieht es so aus, als sei er in ersthafter Gefahr. Der Erfolg dieser kritischen Mission hängt jetzt ganz von Dir ab.

EXPRESS-INFORMATION

LETZTEN MELDUNGEN ZUFOLGE SOLL DER DOCTOR IM RIJAN MONDKOMPLEX IN DIE KRALLEN DES MEISTERS GELOCKT WERDEN. DER MEISTER VERFOLGT ANSCHEINEND DEN PLAN, DAS GEHIRN DES DOCTORS ALS BESTANDTEIL DES MODIFIZIERTEN TIRU ZU VERWENDEN UND DAMIT DIE ZUKUNFT UND AUCH DIE VERGANGENHEIT IN SEINE KONTROLLE ZU BRINGEN. DIES KÖNNTE DEN MEISTER FÜR ALLE ZEITEN ZUM ABSOLUTISTISCHEN TYRANNEN DES GESAMTEN KOSMOS MACHEN. SEINE UNSTERBLICHKEIT WÜRDE DEN UNWEIGERLICHEN ABSTIEG ZUM ABSOLUT BÖSEN BEWIRKEN. ES HÄUFEN SICH DIE BEWEISE, DASS DER MEISTER IN DER GEWALT EINER PSYCHO-PARANOIDEN PHANTASIE IST, UNTER DEREN EINFLUSS ER DIE INKARNATION DES 'TEUFELS' AUS EINEM ANTIKEN SONNENMYTHOS AUSLEBT - DIE EWIGE, NICHT-MATERIELLE VERKÖRPERUNG DES CHAOS. HÖCHSTE WACHSAMKEIT IST FÜR ALLE BETEILIGTEN OBERSTES GEBOT. BESCHAFFUNG DER TIRU-PLÄNE VON GRÖSSTER WICHTIGKEIT. RIJAN-MISSION VON UNSCHÄTZBARER BEDEUTUNG.

DIE FOLGENDEN INFORMATIONEN SIND SORGFÄLTIG ZU STUDIEREN. SIE DÜRFEN UNTER KEINEN UMSTÄNDEN AUS DER HAND GEGEBEN WERDEN.

HEATONIT

Ein radioaktives/organisches/metallenes Mineral, unabdingbare Voraussetzung zum Bau des TIRU. Selbst im natürlichen Zustand verfügt es über erheblic zeitverzerrende Eigenschaften, was allein schon durch seine Existenz demonstriert wird. Im Hinblick auf seinen starken Gehalt an radioaktiven Komponenten hätte es schon längst verfallen müssen.

Gefunden wird Heatonit in tiefliegenden Lehm- und Schieferschichten unterhalb der Lava-Kruste des 2. Monds von Rijar. Seine Erscheinungsform ist eine perfekte, hexagonale (sechskantige) Säule von 7,6 cm Länge. Es absorbiert die meisten Strahlen, einschließlich Licht. Farbe: tiefdunkles Grün bis Schwarz, mit einem feinen Schimmer direkt unter der Oberfläche. Seine Atome sind in einer fortlaufenden Spirale von der Art eines Moebius-Streifens angeordnet. Reagiert wie ein Zyklotron und beschleunigt alle Typen von Strahlung über die Lichtgeschwindigkeit hinaus, wodurch die Zeitverzerrung zustandekommt.

Seine höchst komplexe Struktur enthält mit Sicherheit Uran, Zirkonium und Flourin sowie eine Reihe von aminosäure-ähnlichen Strukturen. Obwohl eine vollständige spektroskopische Analyse noch aussteht, liegt die Vermutung nahe, daß alle Atome sich in ihre radioaktiven Isotopen verwandeln.

Die Heatonit-Kristalle migrieren durch die Lehmschicht und bilden Agglomerationen. Diese scheinen aktiv nach Komponentenmolekülen zu suchen, ganz besonders nach organischen. Das Heatonit übt eine beinahe hypnotische Wirkung auf die Rijaner aus, deren primitiver Religion die Verehrung des Alters zugrundeliegt. Der ständige Kontakt mit dem Mineral über viele Generationen hat bei den Rijanern Langlebigkeit hervorgerufen. Allerdings auf Kosten fast vollständiger Degeneration.

Größere Verbände von Kristallen können massive Energie-Impulse ausstrahlen, die für praktische alle Lebensformen tödliche Wirkung haben. Viele Rijaner opfern sich diesen Herrscher-Kristallen, im Glauben, dann Teil der Gottheit zu werden.

Rijaner, die solche Begegnungen mit Heatonit-Konzentrationen ungeschoren überstehen, werden dafür mit einer beschränkten hellseherischen Fähigkeit belohnt. Es liegen telepathisch übermittelte Beweismaterialien vor, daß der Meister mit Gehirnen von Rijanern Experimente mit einer primitiven Version des TIRU durchgeführt hat, mit dem Ziel, in der Zukunft liegendeEreignisse vorherzusehen und zu beeinflussen. Wenn man den telepathischen Quellen Glauben schenken will, bewirkte ein plötzlicher Energiestoß anläßlich eines derartigen Experiments eine unerwartete psychische Kräfteentwicklung, welche die gesamten Abschirmeinrichtungen des Labors durchbrach.

DAS TIME INSTANT REPLAY UNIT (TIRU)
(zu deutsch etwa: SOFORT-ZEIT-REPLAY-EINHEIT)

Konzipiert von den Time Lords, mit dem Ziel einer besseren Ordnung in der Chronosphäre, ist das TIRU imstande, spezifische zeitliche Abläufe aufzuzeichnen und sie mit Modifikationen und Verbesserungen zurückzuspielen. Das TIRU dient zur Korrektur der 'Zeitrutscher', die im Universum immer wieder vorkommen. Wenn sie isoliert auftreten, sind sie praktisch harmlos. Bei gehäuftem Auftreten kann sich jedoch eine Zeitverzerrung bilden, welche eine bedenkliche Bedrohung der herrschenden Ordnung darstellt, die in dem Maße zunimmt, wie sich das Universum von der Zeit 0 - dem moment des 'Großen Knalls' - entfernt.

Für das ordnungsgemäße Funktionieren des TIRU ist ein komplexes Kristallgitter aus in einem Kräftefeld miteinander verbundenen Heatonit-Säulen erforderlich.

WENN DAS TIRU IN UNBEFUGTE HÄNDE GERÄT, IST ES EIN ÜBERAUS GEFÄHRLICHES WERKZEUG

Die Zeit an sich ist gefährdet, wenn der Meister ein TIRU in seine Gewalt bekommt - selbst wenn es sich dabei um eine unmodifizierte Standardausführung handelt.

RIJAR. Ein obskurer und unfruchtbarer Planet, weit weg from galaktischen Zentrum einer isoliert gelegenen Riesenspirale, genannt Y-Absolem. Seine Sonne ist nichts als eine rote Minikugel, lediglich ein paar Mal größer als der Planet selbst. Ein einziges Mal machte Rijar kurz Schlagzeilen. Das war bei seiner Entdeckung und ersten Katalogisierung durch eine Roboter-Sonde, als eigenartige Phänomene in

der Umlaufbahn des zweiten Mondes festgestellt wurden, für die es keine Erklärung gab.

In der Folge kam jedoch die Föderation Aller Welten unter einen massiven Angriff von Seiten der Ky-Al-Nargath. Ohne erklärlichen Grund – so schien es damals – ereigneten sich die heftigsten Gemetzel dieses titanischen Kampfes im Sektor von Y-Absolem. Erst kürzliche Berichte werfen einiges Licht in das Dunkel dieser geheimnisvollen Vorfälle.

Heutigem Wissensstand zufolge scheint es, daß die Ky-Al-Nargath die Entdecker des Heatonit waren, obwohl Prof. Abacus Heaton seine Existenz bereits einige Jahrhunderte zuvor theoretisch nachgewiesen hatte. Von ihm stammt denn auch der Name dieses exotischen Minerals. Tatsächlich waren es aber die Ky-Al-Nargath, die mit dem Abbau begannen und die Raffinierien erbauten, deren Betrieb nunmehr der Meister an sich gerissen hat.

Welches das treibende Interesse der Ky-Al-Nargath an diesem Mineral gewesen sein mag, kann man nur spekulieren, da sie selbst so urplötzlich vom bekannten Universum verschwanden, wie sie aufgetaucht waren. In Anbetracht der kriegerischen Natur der "Nargies" drängt sich allerdings die Vermutung auf, daß sie beabsichtigten, ihre Flotte mit Chrono-Phasern auszurüsten, um beschädigte Schiffe in ihren intakten Zustand zurückzuverwandeln. Diese Theorie wird im besondern von den Veteranen der Ky-Kriege mit Vehemenz vertreten.

RIJANER. Die Bewohner des zweiten Monds von Rijar leiten ihren Namen von ihrem Mutterplaneten her, von dem sie vermutlich auch ursprünglich herstammen. Offenbar waren sie in einer vergangenen Epoche eine hochentwickelte Lebensform (Beta O – Klassifikation 4h), die zumindest in beschränktem Maße Raumfahrt betrieb. Inzwischen sind sie jedoch in einen primitiven stammesherrschaftlichen Urzustand verfallen – eine tragische Folge der kontinuierlichen schädlichen Nebeneffekte des Heatonit.

Die Rijaner sind friedliebende Humanoide von extremer Langlebigkeit. Feindliche Handlungen gegenüber dem Missionspersonal sind kaum zu befürchten. Allerdings kann auch mit keinerlei Hilfestellung gegechnet werden. Der gänzliche Mangel an Aggressivität macht die Rijaner zu Sklaven des Meisters, so daß sie nach Möglichkeit seinem Willen Folge leisten. Unter gewissen Umständen kann ihnen Kooperation aufgezwungen werden, aber lediglich für streng begrenzte Aufgaben.

KONTROLLEURE

Die SS der Robotwelt.

Tödliche Kyber-Wachen der Ky-Al-Nargath, programmiert zur Überwachung aller im Bergwerk stattfindenden Aktivitäten. Sie kennen nur eine Reaktion auf Ungehorsam: Tod.

Bewaffnet mit einer Multiphasen-Sonde. Ihr Wirkungsspektrum umfaßt die schlimmsten Qualen und kann zum-Tod durch "Nervenbrand" führen, wobei das gesamte Nervensystem Feuer fängt. Die Kontrolleure sind mit Sensorbanken ausgestattet, die jegliche Form von Ausstrahlung ermitteln, einschließlich psychische Energie.

Ihr Computersystem wird von Ergötzungsschaltkreisen durchzogen, welche ihre vorprogrammierte Boshaftigkeit noch verstärken. Wenn sie quälen und morden, kommt es zu einer Mikrostrom-Aufwallung in diesen Schaltkreisen, allerdings nur dann, wenn dies zur Aufbietung von zusätzlichen Kräften notwendig ist bzw. wenn die Sicherheit bedroht ist. Die Kontrolleure laufen auf einem metallnetz, von welchem sie Energie aus dem Reaktor beziehen.

KRYOSTAN-PFLANZEN

Eine durch experimentelle Genetik gezüchtete Pflanze, aus deren Früchten ein Extrakt gewonnen wird, das bei entsprechender Behandlung ein Superkühlmittel produziert. Dieses ist für das Bergwerk und die Produktionsstätten von ausschlaggebender Bedeutung. Es bewirkt eine Super-Leitfähigkeit in vielen wichtigen Stromkreisen und verringert auf diese Weise die Beanspruchung des zentralen Reaktors.

MADRAG.

Die vorherrschende einheimische Tiergattung auf dem 2. Mond von Rijar. Durch und durch bösartig. Verteidigt seine Eier mit einer Heftigkeit, welche seine entfernten saurierartigen Verwandten vom Typ Tyrannosaurus Rex wie Kätzchen erscheinen läßt.

Madrags leben in vielen Bereichen der Bergwerke. Die Tatsache, daß sie Rijaner verschlingen, die in ihr Territorium eindringen, nimmt der Meister als ein kleines Übel zur Kenntnis, welches durch die zusätzliche Sicherheit, die ihre Anwesenheit garantiert, allemal wettgemacht wird.

Die Madrags sind vermutlich die Kreatur mit dem verheerendsten Biß im ganzen Universum. Die Nähe zum Heatonit hat eine Mutation bewirkt, wobei das Kalzium in Zähnen und Knochen zu Titan geworden ist.

Ihre Kieferknochen sind permanent aufgerissen. Dies wird durch enorme Muskeln bewerkstelligt, die über den Schädel und den Rücken hinunter verlaufen, als Gegenkraft zu den höchstelastischen Sehnen, welche die Kiefer verbinden. Beim Loslassen schnappen die Kieferknochen mit einer unbändigen Kraft zu, die Stangen von bis zu 20 cm Durchmesser aus Keramival-Vanadium durchschneidet.

Die Jungen werden durch die Nähe von geeigneten freßbaren Tieren zum Ausschlüpfen angeregt, obwohl dies vielleicht nicht ganz die richtige Beschreibung ist, da sie durch einen speziellen, in der zähen und dennoch sehr flexiblen Eierschale eingebauten Federungsmechanismus buchstäblich hinausgeschleudert werden.

Fressalien werden durch Infrarot-Sensoren in der Schnauze lokalisiert. Die Zähne gehen mit einer rasend schnellen Bewegung nach vorn und hacken in das Fleisch, einen Sekundenbruchteil vor dem Zuschnappen der Kiefer.

Leidenschaftlich gern fressen die Madrag die Früchte der Kryostan-Pflanze, mit denen sie auf Befehl des Meisters seit langem gefüttert werden. Bei ihnen bewirkt das Super-Kühlungsmittel eine Super-Leitfähigkeit in den Nervenfasern, was sie blitzschnell in ihren Reaktion macht und ihre Eignung als Wachhunde noch verstärkt.

DIE SPEICHERKAPSEL

Enthält die Baupläne des TIRU. Geschützt durch ein Vàblatt Berkofski Sicherheitsfeld und daher immun gegen jede Art von Schnüffelei. Selbst für ausgebildete Telepathen unzugänglich.

Diese Kapsel wurde den Time Lords durch einen Abtrünnigen – genannt "Der Meister" – entwendet.

Um jeglichen weiteren Mißbrauch zu verhindern, muß die Kapsel unbedingt wiederbeschafft werden.

SPLINX

Als dem persönlichen Abgeordneten der Time Lords ist es dem Doctor streng untersagt, Waffen irgendwelcher Art zu tragen. Dennoch muß er den zahlreichen Gefahren im Bergwerk des Schreckens nicht mit leeren Händen entgegentreten. Als Helfer in ganz verzwickten Situationen, und das ist kein Ausnahmezustand, steht ihm eine gewitzte kleine elektronische Gefährtin mit dem Namen Splinx zur Seite.

Obwohl im Aussehen von einem gewöhnlichen Erden-Moggie nicht zu unterscheiden, kann Splinx sur Ausführung einfacher Aufgaben programmiert werden. Zum Glück ignorieren die meisten Bewohner der Bergwerke des Schreckens die Splinx ganz einfach. Das gilt auch für die wilden Madrags. Die Splinx kann sich deshalb unbehelligt in dem riesigen Bergwerk und dem Produktions-Komplex bewegen und für den Doctor Dinge holen und horumtragen.

Ähnlich wie bei Tardis steckt im Innern der Splinx mehr als es von außen den Anschein macht. So kann sie z.B. Objekte, die größer als sie selbst sind, spurlos in ihrem Hyperspace Lademodul unterbringen. Allerdings, und dies muß betont werden, gilt dies nur für Objekte. Jeder Versuch, die Splinx beispielsweise zum Verschlucken eines Madrag zu überreden, ist zum Scheitern verurteilt. Was die Splinx mit sich herumträgt, ist durch eine ausgeklügelte Abschirmung so verborgen, daß die gesamte Batterie an Sensoren, die zur Standardausrüstung der Kontrolleure gehören, nichts ausrichten können.

Die Energieversorgung der Splinx stammt von Ulrick Neobium Energiezellen. Von Zeit zu Zeit müssen diese an einer Stromquelle neu aufgeladen werden.

Hier die Liste der sieben Anweisungen, die Splinx nach entsprech

ender Programme rung Befolgen kann:

a. AUS. Splinx wird inaktiv und verbraucht keinen Stron.
b. FUSS. Splinx läuft dem Doctor hinterher.
c. AUFLESEN. Splinx liest ein Objekt in greifbarer Nähe auf.
d. FALLENLASSEN. Splinx legt daf Objekt nieder.
e. AUFLADEN. Splinx lädt ihre Energiezellen an einer nahe gelegenen Stromquelle auf.
f. GEHEN ZU. Es giet mehrere Marken, die als Wegweiser verwendet werden können. Auf Anweisung geht Splinx zu der Marke mit der entsprechenden Nummer und erledigt dort nach Bedarf weitere Aufgaun.
g. ZURÜCK. Splinx demüht fich, an die feite def Doctors zurückzukehren.

Vorprogrammieren der Splinx: Ein Beispiel

Der Doctor kann die Splinx anweisen, ein Objekt zu holen und es ihm zu bringen, selbst wenn dieses durch einen Lichtstrahl bewacht wird (Splinx ist auch für Photosensoren unsichtbar). Er wirft die Marke 1 über den Strahl hinaus, in die Nähe des gewünschten Objekts, und gibt Splinx dann diese Serie von Anweisungen:

F1 (GEHEN ZU Marke 1)
B (Das dort befindliche Objekt hochheben)
G (Das Objekt zurückbringen)
D (Das Objekt fallen lassen)

Die so programmierte Splinx braucht dann nur aktiviert zu werden, um die gewünschten Aktionen der Reihe nach auszuführen.

Das ist ein ganz einfaches Beispiel, wie Splinx eingesetzt werden kann. Es empfiehlt sich, vor einem Ernstfall eine Anzahl Übungen durchzuführen.

NOTES DE BRIEFING À TOUT LE PERSONNEL INTERVENANT DANS LA MISSION DESIGNÉE DOCTEUR WHO ET LES MINES DE LA TERREUR

Le message suivant a été transmis par les Seigneurs du Temps au Docteur, à bord du TARDIS.

"LA NOUVELLE VIENT DE NOUS PARVENIR QU'UN PLAN VISANT A DOMINER L'UNIVERS AU MOYEN D'UN MODULE CHRONO-REPETITEUR INSTANTANE (TIRU), EN COURS DE CONSTRUCTION SUR LA 2E LUNE DE LA PLANETE RIJAR. UNE FORCE MALFAISANTE CONTROLE LA BASE MINIERE ET L'AFFINAGE D'UN MINERAI RARE, LA "HEATONITE", UTILISEE DANS LA CONSTRUCTION DU TIRU.

ARRETER L'EXTRACTION DE LA HEATONITE. REPRENDRE POSSESSION DE LA "CAPSULE DE MEMOIRE" CONTENANT LES PLANS DU TIRU. METTRE LE TIRU HORS D'ETAT DE NUIRE.

CES INFORMATIONS ONT ETE PLACEES DANS LA BIBLIOTHEQUE INFORMATISEE".

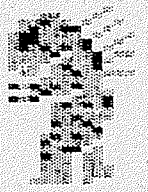
Le Docteur est attendu à tout moment dans le complexe minier. Vos instructions sont de lui prêter toute assistance possible. Les dernières informations reçues suggèrent qu'il court peut-être un grand danger. Le succès de cette mission d'importance critique est peut-être maintenant entièrement entre vos mains.

MISE A JOUR URGENTE.

LES TOUS DERNIERS RENSEIGNEMENTS RECUS SUGGERENT QUE LE COMPLEXE MINIER DE RIJAN EST CONCU AFIN D'ATTIRER LE DOCTEUR DANS LES GRIFFES DU MAITRE. IL EST ESTIME QUE CE DERNIER ENVISAGE D'INCORPORER LE CERVEAU DU DOCTEUR EN TANT QUE COMPOSANT DANS LE TIRU MODIFIE. CECI LUI PERMETTRAIT DE CONTROLER L'AVENIR AUSSI BIEN QUE LE PASSE. EST PEUT-ETRE CAPABLE DE RENDRE LE MAITRE LE TYRAN ABSOLU DE TOUT L'UNIVERS A JAMAIS. L'IMMORTALITE GARANTIRAIT LA DESCENTE DANS UN ENFER ABSOLU. IL EST DE PLUS EN PLUS APPARENT QUE LE MAITRE EST AUX PRISES D' UN FANTASME PSYCHO-PARANOIAQUE, REVIVANT L'ANCIEN MYTHE SOLAIRE DU "DIABLE" - L'INCARNATION AMATERIELLE, ETERNELLE DU CHAOS. IL EST D'IMPORTANCE CRITIQUE QUE TOUTE LA VIGILANCE POSSIBLE SOIT EXERCEE PAR TOUTES LES PERSONNES INTERVENANT DANS LA MISSION. IL EST VITAL QUE LES PLANS DU TIRU SOIENT REPRIS. L'IMPORTANCE DE LA MISSION RIJAN NE SAURAIT ETRE SUFFISAMMENT SOULIGNEE.

LES NOTES DE BRIEFING SUIVANTES DEVRONT ETRE SOIGNEUSEMENT

MADRAG



MADRAG EGG



SPLINX (INACTIVE)



SPLINX (ACTIVE)



RIJAN



CIRCUIT BOARDS



SPLINX MARKERS:



PACKING CASE



PICK



DETONATOR



EXPLOSIVES



MEMORY CAPSULE



HATCH



ESCAPE POD ACTIVATOR



CLOTH



CRYSTAL



PASS CARD



ELECTRONIC SPANNER

STOOL



HEATONITE ORE



ANTI GRAV. MAT



OXYGEN



INSTRUCTIONS ON DISTRACTING A MADRAG.

Madrags eat you first and ask questions afterwards. This makes getting out of the mine somewhat hazardous, as you've probably noticed. The trick is to use Splinx to distract the beast.
Move left from the TARDIS and climb down the first ladder. Get a Splinx marker from the Doctor's pocket and drop it here. Walk right until you see the Madrag eggs. Don't get too close, it could seriously damage your health. Now get another marker and throw it to the right to land near the eggs.
Call up the Splinx command menu and instruct her as follows:

Goto marker	(The one near the egg.)
Pick up object	(An egg in this case.)
Goto marker	(The one dropped near the ladder.)
Drop object	(Splinx will leave the egg.)
Return	(Splinx will attempt to return to the Doctor.)

Do not activate Splinx yet. Leave her SHUT DOWN at this point and make your way back to the TARDIS. Walk to the right, jumping the first two cravasses and get into the ledge half way up the third. You should now be able to see the Madrag.
Activate Splinx and she will collect the egg and move it to the ladder, even though she's out of sight. As soon as the Madrag senses an intruder moving an egg it will go to investigate.
Now quickly drop to the floor of the passageway and dig your way through the rock-fall to the right. This will prove much easier if you have first taken a pick-axe off one of the Rijar.
Once you've broken through move to the right into the store room and wait for Splinx to return.

ANLEITUNG: ABLENKMANÖVER FÜR MADRAGS

Madrags fressen erst und fragen nachher. Aus diesem Grund ist das Entkommen aus dem Bergwerk nicht ganz ungefährlich, wie Du sicher auch schon festgestellt hast. Der Trick besteht darin, die Biester mit Hilfe von Splinx abzulenken.
Stell' Dich links von TARDIS hin und klettere die erste Leiter hinunter. Hol' Dir aus der ersten Tasche des Doctors eine Marke, die Du an dieser Stelle hinlegst. Geh' solange nach rechts, bis Du die Madrag Eier siehst. Halte genügend Abstand zum Nest, weil die Eier ein gesundheitliches Risiko darstellen. Nimm' Dir nochmals eine Marke und wirf sie nach rechts, in die Nähe der Eier.
Fordere das Splinx-Commando-Menü an und gib ihr die folgenden Anweisungen:

GEHEN ZU Marke	(bei den Eiern)
Objekt HOCHHEBEN	(hier: ein Ei)
GEHEN ZU Marke	(bei der Leiter)
OBJEKT HINLEGEN	(Splinx läßt Ei fallen)
ZURÜCK	(Splinx versucht, zu Dr Who zurück-zukehren)

Warte noch ab mit der Aktivierung von Splinx. Laß sie vorläufig noch im AUS-Zustand und kehre zu TARDIS zurück. Geh' nach rechts und überspringe die ersten beiden Spalten. Klettere auf den Vorsprung in der Mitte der dritten. Von hier aus solltest Du den Madrag sehen können.
Aktiviere jetzt die Splinx. Sie holt das Ei und bringt es zur Leiter, auch wenn sie außer Sichtweite ist. Sobald der Madrag Wind bekommt, daß jemand ihm ein Ei wegstiehlt, geht er der Sache nach.
Laß Dich ganz schnell auf die erste Ebene der Passage fallen und verschaffe Dir einen Weg durch den Steinschlag nach rechts. Dies dürfte Dir um einiges leichter fallen, wenn Du vorher einem Rijaren eine Axt abgenommen hast.
Wenn Du das soweit geschafft hast, gehst Du weiter nach rechts und in den Lagerraum. Warte dort auf Splinx.

METHODE A UTILISER POUR DETOURNER L'ATTENTION D'UNE MADRAGUE

Les madragues vous mangent d'abord et posent des questions ensuite. Comme vous l'avez probablement remarqué, il est donc quelque peu dangereux de quitter le centre minier. La supercherie consiste à détourner l'attention due monstre.
Déplacez-vous à gauche du TARDIS et descendez de la première échelle. Obtenez un repère Splinx de la poche du Docteur et posez-le ici. Marchez jusqu'à ce que vous aperceviez les oeufs de la madrague. Ne vous approchez pas de trop près, sinon votre état de santé s'en ressentira! Obtenez maintenant un autre repère et lancez-le vers la droite, afin qu'il tombe à proximité des oeufs.
Appelez le menu de commande de Splinx et donner les instructions suivantes:

Repère Goto	(Celui à proximité de l'oeuf).
Prendre un objet	(Il s'agit d'un oeuf dans ce cas).
Repère Goto	(Le repère posé près de l'échelle).
Lâcher un objet	(Splinx lâchera l'oeuf).
Retour	(Splinx tentera de revenir auprès du Docteur).

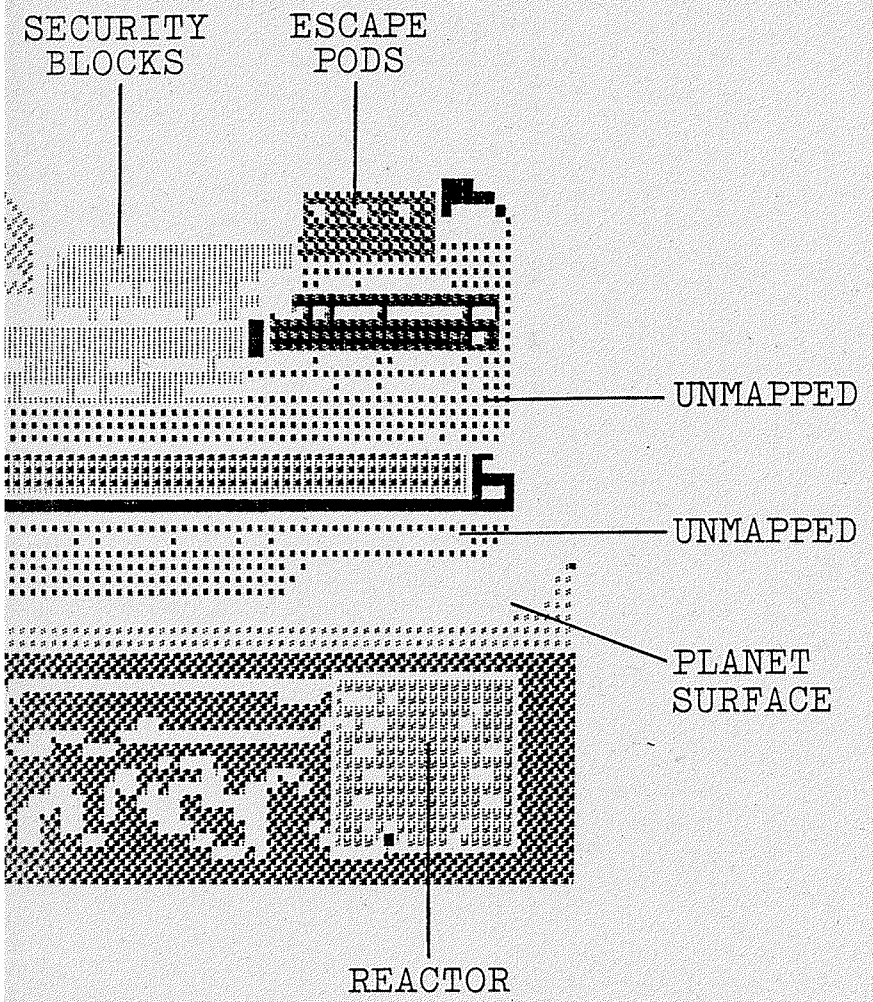
Ne pas mettre Splinx en fonction pour le moment. A ce point le laisser s'ARRETETER et revenez vers le TARDIS. Marchez vers la droite, enjambez les deux premières crevasses et placez-vous sur la corniche à mi-chemin de la troisième. Vous devez maintenant être à même d'apercevoir la madrague.
Mettez Splinx en fonction et il prendra l'oeuf et l'amènera à l'échelle, même si on ne la voit pas. Dès que la madrague détectera qu'un intrus déplace un oeuf, elle ira se rendre compte de la situation.
Descendez maintenant rapidement sur le sol du passage et creusez un chemin à travers l'amoncellement de rochers à droite. Si vous avez pris une pioche de l'un des Rijars, cette opération sera beaucoup plus facile.
Une fois que vous avez traversé, déplacez-vous à droite dans le magasin et attendez le retour de Splinx.

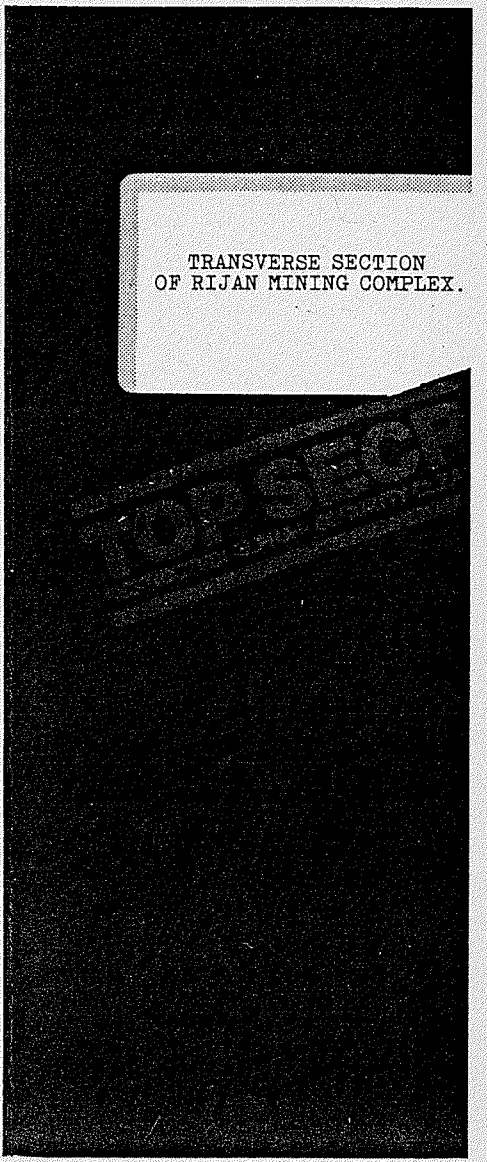
INSTRUCCIONES PARA DISTRAER A UN MADRAG

Los Madrags le comen y luego preguntan. Esto hace que sea un tanto peligroso salir de la mina, como ya se habrá dado cuenta. El truco es servirse de Splinx para distraer a la bestia.
Desde el TARDIS, mueva hacia la izquierda y baje por la primera escalera. Obtenga un marcador de Splinx del bolsillo del Doctor y déjelo caer aquí. Camine hacia la derecha hasta que vea los huevos del Madrag. No se acerque mucho, ya que podría resultar muy peligroso para su salud. Obtenga ahora otro marcador y arrójelo hacia la derecha para dejarlo caer cerca de los huevos.
Invoque el menú de comandos de Splinx e instrúyale como sigue:

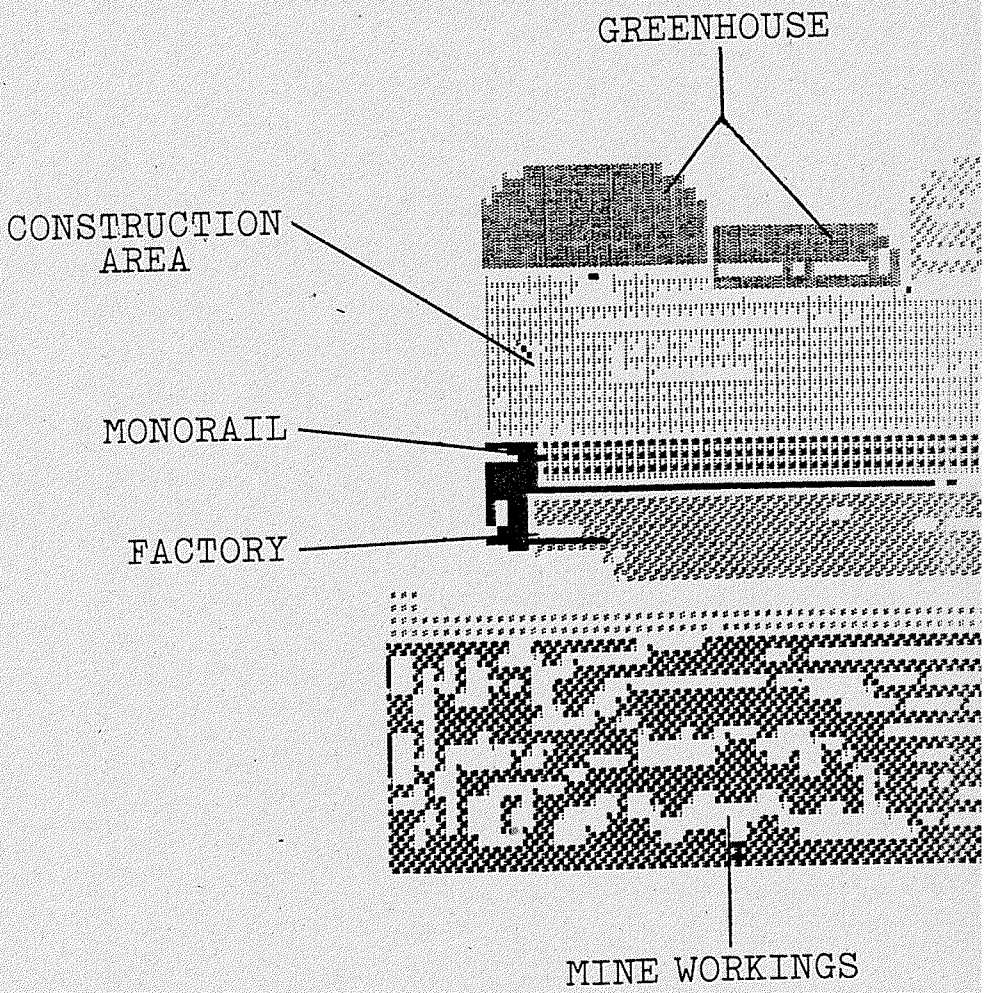
Vete a marcador	(el que está cerca de los huevos)
Recoge objeto	(en este caso un huevo)
Vete a marcador	(el que ha dejado cerca de la escalera)
Deja objeto	(Splinx dejará el huevo)
Regresa	(Splinx tratará de regresar al Doctor)

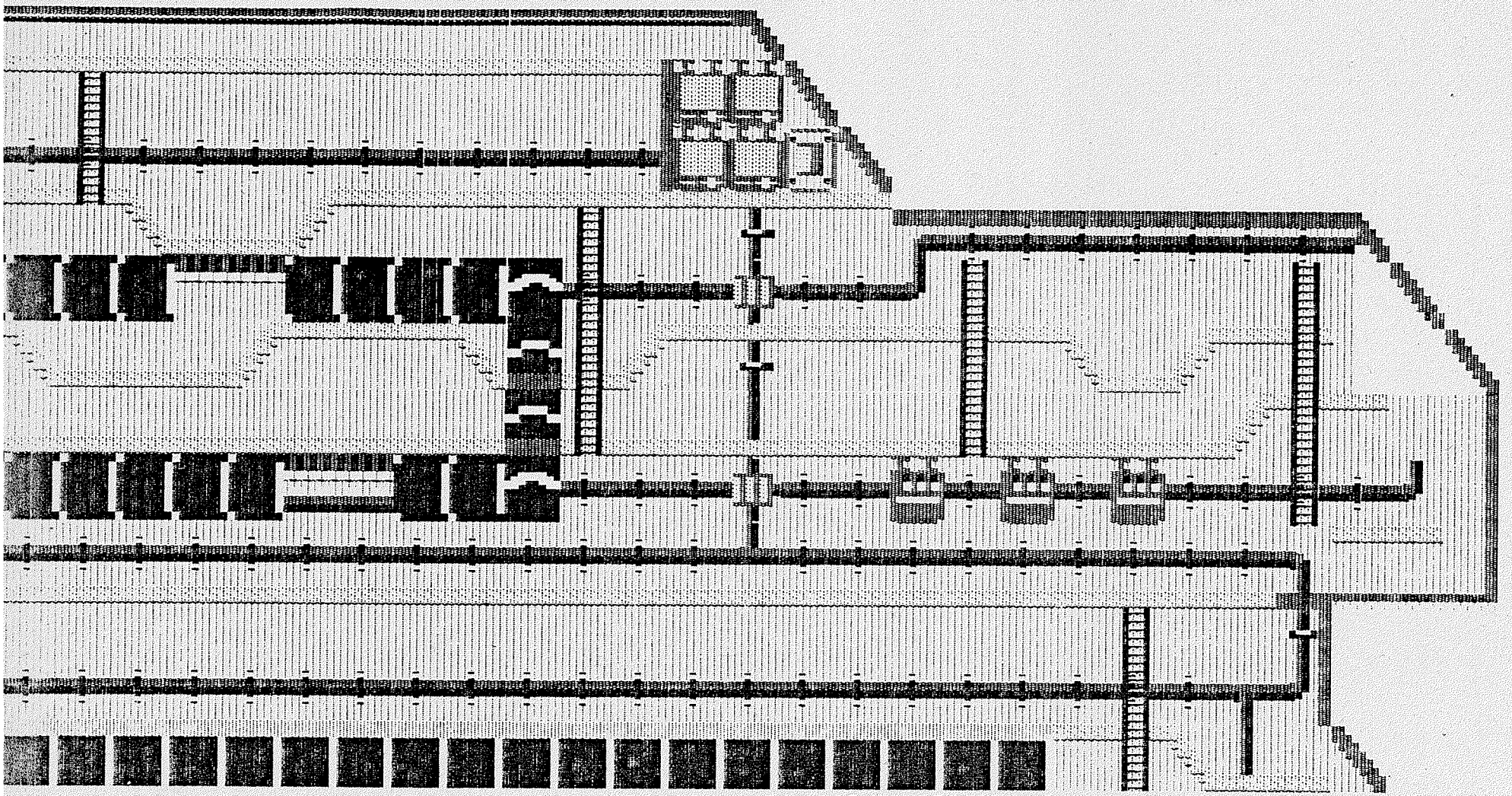
No active Splinx todavía. Déjelo APAGADO de momento y regrese hacia el TARDIS. Camine hacia la derecha, saltando las dos hendeduras, y colóquese en el borde a mitad de camino de la tercera. Podrá ahora ver el Madrag.
Active Splinx, que recogerá el huevo y lo trasladará a la escalera, aun cuando Splinx no esté a la vista. Tan pronto como el Madrag detecte que un intruso está robando un huevo, se acercará para investigar.
Baje ahora rápidamente al piso de la galería y ábrase camino a través del derrumbe a la derecha. Esto le resultará mucho más fácil si tuvo la precaución de coger un pico de uno de los Rijar.
Despues de abrirse camino, tuerza a la derecha para entrar al almacén y aguardar allí a que regrese Splinx.





TRANSVERSE SECTION
OF RIJAN MINING COMPLEX.


GREENHOUSE
CONSTRUCTION AREA
MONORAIL
FACTORY
MINE WORKINGS



BARBARIAN – SPIELANWEISUNGEN
SPECTRUM/AMSTRAD

Ziel des Spiels ist es, den Kristall, der die Quelle aller bösen Kräfte auf Necron ist, zu lokalisieren und zu zerstören. Wenn der Kristall zerstört wurde, wird der Vulkan, in dem Durgan liegt, wieder aktiv und zwingt Sie, die Oberfläche rechtzeitig zu erreichen, bevor der Vulkan ausbricht.

Die Zeit, die Sie zum Zerstören des Kristalls brauchten, ist nicht nur Ihre Punktezahl, sondern ist auch die Zeit, die Ihnen für die Rückkehr an den Ausgangspunkt im Sumpf zur Verfügung steht. Die Phase "vor dem Ausbruch" wird durch Rückwärtstählen der Punkte angezeigt.

Das Spiel wird über die Tastatur oder durch einen Joystick kontrolliert. Während Sie Barbarian spielen, erscheint am unteren Bildschirmrand eine Iconen-Reihe. Wenn Sie das Ende der ersten Reihe überschreiten, erscheint eine zweite Iconen-Reihe, die weitere Informationen für das Spiel enthält.

LINKS HOCH/RUNTER RECHTS STOP SPRUNG RENNEN ANGRIFF VERTEIDIGUNG FLUCHT

LINKS
Hegor geht nach links, wenn er bereits nach links schaut, oder er dreht sich nach links, wenn er zuvor nach rechts schaute.

HOCH
Hegor geht die Leiter bei der nächsten Gelegenheit hoch.

RUNTER
Hegor geht die Leiter bei der nächsten Gelegenheit runter.

RECHTS
Hegor geht nach rechts, wenn er bereits nach rechts schaut, oder er dreht sich nach rechts, wenn er zuvor nach links schaute.

STOP
Hegor bleibt stehen.

SPRUNG
Hegor springt in die Richtung, in die er gerade schaut. (Beachten Sie, daß der Sprung unterschiedlich ausfällt, wenn Hegor rennt.)

RENNEN
Hegor rennt in die Richtung, in die er gerade schaut.

ANGRIFF
Hegor greift in der geeigneten Form an. (Dies hängt davon ab, weiche Waffen er benutzt und was er angreift.)

VERTEIDIGUNG
Hegor verteidigt sich in der angebrachten Form. (Dies hängt davon ab, welche Waffen er benutzt und gegen was er sich verteidigt.)

FLUCHT
Hegor dreht sich sofort um und flieht. (Zur Strafe verliert er alles, was er bei sich trägt.)

AUFNEHMEN BENUTZEN
ABLEGEN ....OBJEKT-ICONE....
PUNKTE/ZEIT

AUFNEHMEN
Hegor nimmt alles auf, was sich in seiner Nähe befindet, und packt es in seinen "magischen Mantel".

BENUTZEN
Sie müssen dieses Icon klicken, um den gewünschten Gegenstand zu benutzen.

ABLEGEN
Hegor entledigt sich des Gegenstandes, den er gerade benutzt.

OBJEKT-ICONE
Bildliche Wiedergabe der objekte, die sich in Hegors Besitz befinden; wird zusammen mit dem BENUTZEN-Befehl angewandt. Das Icon für den gerade benutzten Gegenstand blinkt.

PFEIL-ZÄHLER
Abzahl der Pfeile, die Hegor bei sich trägt. Ohne Pfeile ist der Begen unbrauchbar.

ÜBRIGE LEBEN
Maximal drei kleine Bilder von Hegor zeigen an, wieviele Leben iüm für die Erfullung seine Aufgabe verbleiben.

PUNKTE/ZEIT
Die Zeit, die Sie für Ihre Suche bisher benötigten. In der Endphase des Spiels (vor Ausbruch des Vulkans) zählt die Zeitanzeige ruckwärts. Dies zeigt Ihnen die Zeit an, die Ihnen verbleibt, um den Sumpf rechtzeitig zu erreichen, bevor der Berg explodiert.

LADEANWEISUNGEN

48k – LOAD""
128k – Benutzen Sie die Ladeoption für Kassetten.

KONTROLLEN

Tastatur
Q = Mann Links
W = Mann Rechts

O = Icon Links
P = Icon Rechts
M = Wählen des icons
Leertaste = Icohen-Reihe wechseln

Joystick
Joy. Links = Mann Links
Joy. Rechts = Mann Rechts
Joy. Hoch = Icon Rechts
Joy. Runter = Icon Links
Feuer = Wählen des Icons
Leertaste = Iconen-Reihe wechseln

IL BARBARO SPECTRUM/AMSTRAD

Per Poter Portare a termine il gioco, devi trovare e distruggere il cristallo che è la fonte del potere maligno di Necron. Distrutto il cristallo, il vulcano dove si trova Durgan comincia ad eruttare, per cui devi assolutamente tornare di nuovo in superficie prima che scoppi.

Il tempo impiegato a distruggere il cristallo non solo conta per il punteggio, ma è anche il tempo a tua disposizione per tornare al punto di partenza nella palude. La fase di "eruzione" viene indicata dal contatore che adesso conta alla rovescia.

Il Gioco può essere controllato sia dalla tastiera, sia dal joystick in qualsiasi combinazione. Durante l'esecuzione del gioco, una striscia di icone appare in basso sullo schermo. Per scoprire una seconda striscia di icone contenenti informazioni sul gioco, basta portarsi fuori alla fine della prima striscia.

SINISTRA SU/GIÙ STOP SALTA CORRI ATTACCA DIFENDI SCAPPA

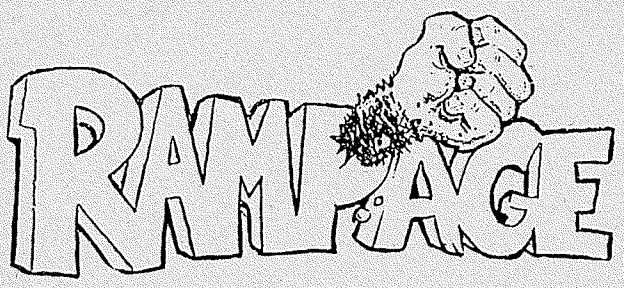
SINISTRA
Muove Hegor a sinistra, se è rivolto a sinistra, oppure lo gira verso sinistra se è rivolto a destra.

SU
Hegor sale la scala alla prima occasione.

GIÙ
Hegor scende la scala alla prima occasione

DESTRA
Muove Hegor a destra, se è rivolto a destra, oppure lo gira verso destra se è rivolto a sinistra.

STOP
Blocca tutti i movimenti di Hegor.



INSTRUCTIONS FOR SPECTRUM 48/128K/+ AMSTRAD CPC COMMODORE 64/128

ACTIVISION®

RAMPAGE

LOADING

SPECTRUM 48/128K/+

Ensure the cassette is fully rewound. Type LOAD "" and ENTER. Then start the tape.

AMSTRAD CPC

Cassette: Ensure the cassette is fully rewound. Owners of disk machines should select the appropriate filing system using|TAPE. Press the CTRL key and the small ENTER key together. Then start the tape and press any key.

Disk: Ensure the disk filing system is selected (using|DISC). Insert the disk into the drive and type RUN "DISC". Then ENTER.

COMMODORE 64/128

If using a 128. First select 64 mode.

Cassette: Ensure the cassette is fully rewound. Press the SHIFT and RUN/STOP keys together, then press ENTER on the recorder.

Disk: Insert the disk into the drive. Side A up. Type LOAD "*",0,1 and press RETURN.

GAME DETAILS

See proud cities reduced to rubble! Witness acts of primeval savagery! Gasp at male and female nudity! RAMPAGE – loading soon in a computer near you!

In the very best Hollywood tradition, RAMPAGE unleashes monstrous mayhem on an unsuspecting public. No fewer than three of your favourite B-movie behemoths are loose among the skyscrapers - and nothing short of total destruction will satisfy them!

It seemed like any other day at the Greaseburger Fast Food Emporium - but three unlucky customers were to get something even nastier than usual in their Big Mucks. If only the company's Research Division hadn't accidentally shipped some of the experimental food additives...

A wave of nausea, a foul aftertaste, chronic indigestion: everything was normal until George, Lizzie and Ralph ripped out of their clothing and into designer fur and scales. Life isn't fun as a fifty-foot Gorilla, Lizard or Wolfman - and soon everyone's going to find out how angry they are!

Up to three people can play, each controlling a different monster. In a desperate battle for survival, you climb the skyscrapers and smash the walls with your fists, searching for edibles - anything from goldfish bowls to the occasional tasty human - that appear behind the shattered windows. Grabbing inedibles such as toasters, TVs, and potted cacti will inflict some damage on you, though. Each player's stamina is indicated by the energy bars at the top of the screen.

Damaged buildings will eventually collapse into rubble, but leap off when the foundations start to give way - getting trapped in the falling masonry will weaken you. The nation's military might is also bent on your destruction, so try to avoid (or punch) the troops who fire from the windows, and the gunship helicopters that are constantly circling overhead. You can also punch - and be punched by - your fellow monsters.

If you lose all you energy, you revert back to human form and, hiding your nakedness as best you can, shuffle off-screen in embarrassment.

When a whole screenful of buildings has been demolished, a new city block appears, ready to be flattened. There are 50 cities, and the monsters spend three days in each one, making 150 different screens.

GAME CONTROLS

Players with joysticks use the four stick directions and the fire button to control their monster. See the table below for the keyboard equivalents. LEFT and RIGHT cause the monster to walk along the street, or across the top of buildings. UP and DOWN are used to climb up and down the sides of buildings. Pressing FIRE on its own makes the monster jump. Pressing FIRE while pressing a direction key, then FIRE, throws a punch or makes a grab in the chosen direction. All versions are designed for three players.
Commodore Users: One on keyboard, two on joysticks.
Spectrum Users: Any combination of keyboard and/or joystick.
Amstrad Users: One on joystick, two on keyboards.

	LEFT	RIGHT	UP	DOWN	FIRE
COMMODORE 64/128					
1 PLAYER	<	?	@	:	=
SPECTRUM					
PLAYER 1	Q	W	O	K	P
PLAYER 2			DEFINABLE		
PLAYER 3			DEFINABLE		
AMSTRAD					
1 PLAYER	C	V	A	Z	COPY
2 PLAYER	←	→	↑	↓	SMALL ENTER KEY
			(These are the CURSOR KEYS)		

CHARGEMENT

SPECTRUM 48/128K/+

Vérifiez que la cassette est entièrement rembobinée. Tapez LOAD"" et frappez ENTER, puis démarrez la cassette.

AMSTRAD CPC

Cassette: vérifiez que la cassette est entièrement rembobinée. Si votre ordinateur est équipé d'une unité de disques, sélectionnez le système de classement approprié en tapant |TAPE. Frappez simultanément CTRL et la petite touche ENTER, puis démarrez la cassette et frappez une touche quelconque.

Disquette: sélectionnez le système de classement approprié (en tapant |DISC). Introduisez la disquette dans l'unité et tapez RUN "DISC", puis frappez ENTER.

COMMODORE 64/128

Si vous utilisez un 128, commencez par sélectionner le mode 64.

Cassette: Vérifiez que la cassette est entièrement rembobinée. Frappez simultanément SHIFT et RUN/STOP, puis enfoncez la touche de lecture (PLAY) du magnétophone.

Disquette: insérez la disquette dans l'unité, face A vers le haut. Tapez LOAD"*",8,1 et frappez RETURN.

DESCRIPTION DU JEU

De fières cités réduites en poussière, des actes de sauvagerie primitive, la nudité au naturel! Voici RAMPAGE qui envahit d'ores et déjà tous les ordinateurs.

Dans la meilleure tradition holywoodienne, RAMPAGE sème une panique monstrueuse dans un public confiant. Trois de vos énormes monstres préférés se promènent en toute liberté parmi les gratte-ciels. Rien ne saurait les satisfaire, si ce n'est une destruction complète.

Une journée comme les autres commence au Greaseburger Fast Food Emporium — mais trois clients malchanceux vont découvrir quelque chose de plus dégoûtant que d'habitude dans leur Big Mucks. Si seulement le service des recherches de la société n'avait pas accidentellement envoyés des additifs alimentaires encore au stade de l'expérience.

Une vague de renvoi, un arrière-goût épouvantable et une indigestion chronique: tout allait bien jusqu'à ce que George, Lizzie et Ralph arrachent leurs vêtements et enfilent des fourrures de création. La vie n'est pas toujours marrante pour Gorilla, Lizard et Wolfman du haut de leurs quinze mètres, et personne ne va tarder à s'apercevoir à quel point ils sont en colère.

RAMPAGE peut se jouer à trois joueurs, chacun d'entre eux contrôlant un monstre différent. Dans une lutte désespérée pour survivre, vous escaladez les gratte-ciels et fracassez les murs de vos poings, à la recherche de nourriture. Tous les produits comestibles - des aquariums de poissons rouges aux savoureux humains - que dévoilent les fenêtres fracassées sont bons,

mais les autres articles, tels que les grille-pains, les postes de télévision et les cactus en pot vous poseront des problèmes de digestion. La résistance de chaque joueur est signalée par les barres d'énergie au sommet de l'écran.

Les bâtiments endommagés finissent par s'écrouler. Il est conseillé de s'en échapper avant que les fondations ne commencent à s'effondrer - car vous perdrez des forces si vous êtes retenu prisonnier par les briques s'écroulant. Toutes les armées du pays sont aussi à votre poursuite, et vous devez donc éviter (ou détruire) les troupes tirant des fenêtres et les hélicoptères qui circulent constamment sur vos têtes. Vous pouvez également vous en prendre aux autres monstres qui peuvent aussi vous attaquer.

En perdant toute votre énergie, vous reprenez votre forme humaine et disparaissez de l'écran rouge de gêne en cachant de votre mieux votre nudité.

Lorsqu'un écran de bâtiments a été détruit, un nouveau bloc de cités apparaît, prêt à être réduit en poussière. Il existe 50 cités et les monstres passent trois jours dans chacune d'entre elles donnant ainsi un total de 150 écrans.

COMMANDES DU JEU

Si vous vous servez d'une manette de jeu, manoeuvrez-la dans les quatre directions et appuyez sur le bouton de tir pour contrôler votre monstre. Les commandes équivalentes au clavier sont données au tableau suivant. En manoeuvrant la manette de jeu vers la GAUCHE ou la DROITE, vous obligez le monstre à marcher dans les rues et sur le toit des bâtiments. Pour le faire escalader et descendre les bâtiments, poussez et tirez la manette. lorsque vous appuyez sur le bouton de tir, le monstre saute, à moins que vous ne pressiez en même temps une touche de direction, auquel cas le monstre donne un coup de poing ou saisit quelque chose dans la direction en question.

Toutes les versions ont été conçues pour trois joueurs.

Sur Commodore: *un joueur au clavier, deux à la manette de jeux.*

Sur Spectrum: *toute combinaison de clavier et/ou manette de jeux*

Sur Amstrad: *un joueur à la manette de jeux, deux au clavier*

	GAUCHE	DROITE	HAUT	BAS	FEU
COMMODORE 64/128					
1 JOUEUR	<	?	@	:	=
SPECTRUM					
JOUEUR 1	Q	W	O	K	P
JOUEUR 2		DEFINISSABLE			
JOUEUR 3		DEFINISSABLE			
AMSTRAD					
1 JOUEUR	C	V	A	Z	COPY
2 JOUEUR	←	→	↑	↓	PETITE TOUCHE ENTER
		(TOUCHES CURSEUR)			

LADEANLEITUNG

SPECTRUM 48/128K/+

Sicherstellen, daß das Band ganz zurückgespult ist. LOAD"" eingeben und ENTER drücken, dann das Band starten.

SCHNEIDER CPC

Kassette: Sicherstellen, daß das Band ganz zurückgespult ist. Besitzer von Geräten, die mit Diskettensystemen ausgerüstet sind, müssen mit dem Befehl |TAPE auf Kassettenbetrieb umschalten. Danach CTRL und die kleine ENTER Taste zusammen drücken und das Band starten. Eine beliebige Taste drücken.

Diskette: Sicherstellen, daß Diskettenbetrieb aktiviert ist (mit |DISC). Die Spieldiskette ins Laufwerk einlegen und RUN"DISC" eingeben, dann ENTER drücken.

COMMODORE 64/128

Bei Verwendung eines 128er Modells, erst auf 64er Modus umschalten.

Kassette: Sicherstellen, daß das Band vollkommen zurückgespult ist, dann gleichzeitig SHIFT und RUN/STOP und anschließend die PLAY-Taste des Rekorders drücken.

Diskette: Diskette mit dem Etikett nach oben ins Laufwerk einlegen, dann LOAD"*",8,1 eingeben und RETURN drücken.

SPIELGESCHEHEN

Stolze Städte werden dem Erdboden gleichgemacht. Akte primitiver Barbarei sind an der Tagesordnung. Die Zivilisation ist dahin! Alle Hüllen fallen.

RAMPAGE — in Kürze auf einer Computerleinwand in Ihrer Nähe!

In der vorbildlichsten Hollywood-Tradition entfesselt RAMPAGE Chaos und Schrecken unter der arglosen Bevölkerung. Nicht weniger als drei der größten Ungetüme der Filmindustrie toben sich hier im Dschungel der Wolkenkratzer aus — und geben erst Ruhe, wenn alles der totalen Vernichtung anheimgefallen ist.

Im Greaseburger Schnellimbiß ging es zu wie an jedem anderen Tag. Doch drei Kunden bekamen etwas vorgesetzt, was bestimmt nicht dem Lebensmittelgesetz entsprach: experimentelle Zusatzstoffe zur Geschmacksverfeinerung waren statt in die Forschungsabteilung in die Küche und in die Bouletten geraten

Ein Gefühl der Übelkeit, ein unangenehmer Nachgeschmack, chronische Verstopfung stellten sich ein. Diese Symptome waren weiter nicht beunruhigend, man hatte sich längst daran gewöhnt. Daß etwas nicht mit rechten Dingen zuging, zeigte sich erst, als George, Lizzie und Ralph sich die Kleider vom Leibe rissen und plötzlich mit Pelz und Schuppen bedeckt waren. Ein Leben als 15m hoher Gorilla, als Echse oder als Wolfmensch ist kein reines Vergnügen — für den Betroffenen nicht, und für die Umwelt noch weniger.

Bis zu drei Spieler können sich an diesem atavistischen Abenteuer beteiligen, jeder in Form eines anderen Ungeheuers. In einem verzweifelten Kampf um Leben und Tod erklettern sie Wolkenkratzer, zertrümmern Mauern und suchen nach Eßbarem. Wählerisch sein können sie nicht, in der Not tut's ein Goldfisch, gelegentlich auch ein Mensch, der sich hinter zertrümmerten Scheiben hervorwagt. Das Verspeisen von unverdaulichen Objekten, Toastern, Fernsehern und Zierkakteen bekommt auch den Monstern nicht so recht und zehrt an den Lebenskräften, deren Niveau am oberen Bildschirmrand abgelesen werden kann.

Beschädigte Gebäude fallen schließlich in sich zusammen, und man muß sich rechtzeitig in Sicherheit bringen, wenn die Fundamente zu wanken beginnen, um nicht lebendigen Leibes begraben und empfindlich geschwächt zu werden. Das Militär ist in großem Stil hinter den Monstern her, die den Soldaten ausweichen oder versuchen müssen, ihnen eins auszuwischen und die bewaffneten Helikopter herunterzuholen, die über dem Gebiet kreisen. Zwischendurch kommen sich die Monster auch mal selbst ins Gehege...

Wenn die Energie alle ist, nehmen die Monster wieder ihre menschliche Gestalt an — doch so mancher wird sich scheuen, in Adams Kostüm über den Bildschirm zu flimmern.

Nach der erfolgreichen Zerstörung eines ganzen Bildschirms voller Gebäude wird eine neue Häuserfront eingeblendet, deren Schicksal schon besiegelt ist. 50 Städte gibt es insgesamt, und die Monster halten sich je drei Tage in jeder auf — das sind zusammen 150 verschiedene Szenen!

SPIELSTEUERUNG

Spieler mit Joystick steuern ihre Monster über die vier Grundstellungen und den Feuerknopf.Die Tastenensprechungen werden in der nachstehenden Tabelle aufgeführt. LINKS und RECHTS manövrieren das Monster entlang einer Straße oder über die Dächer. AUF und AB dienen zum Hoch- und Runterklettern an Gebäuden. Drücken des Feuerknopfs alleine veranlaßt das Monster zu einem Sprung; Drücken einer Richtungstaste und anschließendes Betätigen des Feuerknopfs führt dazu, daß es einen Schlag in die entsprechende Richtung austeilt oder etwas ergreift.

Alle Versionen sind für drei Spieler konzipiert.

Commodore-Benutzer: *1 x Tastatur, 2 x Joysticks*

Spectrum-Benutzer: *Beliebige Kombination, Tastatur/Joystick*

Schneider-Benutzer: *1 x Joystick, 2 x Tastatur*

	LINKS	RECHTS	HOCH	RUNTER	FEUER
COMMODORE 64/128					
1 SPIELER	<	?	@	:	=
SPECTRUM					
SPIELER 1	Q	W	O	K	P
SPIELER 2		DEFINIERBAR			
SPIELER 3		DEFINIERBAR			
AMSTRAD					
1 SPIELER	C	V	A	Z	COPY
2 SPIELER	←	→	↑	↓	KLEINE ENTER TASTE
		(CURSOR TASTEN)			

THE FLINTSTONES

©1988 Hanna Barbera Productions Inc.

Yabba Dabba Doo - it's the Weekend!
Fred is looking forward to the final of the Bedrock Super-Bowl contest the next day but Wilma reminds him of his promise to paint the living room before her Mother arrives. No painting, no bowling!
Fred may not be much of a painter but Pebbles certainly is and when his back is turned she's drawing all over the walls. So Fred's task is not only to paint the wall before Wilma returns home but to keep Pebbles in her pen and to keep hold of that very elusive paintbrush!

The Next Day
Fred and Barney set off for the Bowling final but run into trouble when they lose a wheel on Fred's car. How quickly can they find a fit a suitable replacement?

The Bowling Alley
Fred and Barney have made it to the Bedrock Super-Bowl and it's Fred with his twinkle toes style against no-nonsense, butter finger Barney. May the best man win.

The Rescue
Fred and Barney return home to find Wilma very distressed as Pebbles has escaped from her pen and disappeared.
Fred eventually finds her perched high up on a stone girder, above the new building site, totally unaware of the dangers around her.
It's Fred Flintstone to the rescue but with such a bewildering array of girders and ladders will he be able to get to her in time?

CONTROL KEYS

Z = Left
X = Right
O = Up
K = Down
Space = Fire
H = Pause ON/OFF
CTRL & ESCAPE = BREAK

Painting Scene
Space bar = to paint

Rescue Scene
Basic control keys

Driving Scene
Fire = Jump
Slow down = Z
Speed up = X
Jack up car = O & K

Bowling Scene
Move Fred up screen = O
Move Fred down screen = K
Add left hand spin = Z
Add right hand spin = X
Hold down space to select speed
Release space on desired speed

LOADING INSTRUCTIONS

Control and little enter

Claim your Free Flintstone Poster and Badge by writing to: Grandslam Entertainments Ltd., 12-18 Paul Street, London EC2A 4JS. Please enclose SAE.

Robin of Sherlock

A TEXT/GRAPHIC ADVENTURE IN 3 PARTS
By DELTA 4 Software

I leant back against the lamp-post, surveying the busy rush of traffic along Sherwood boulevard. It had been a hard day at the forest. First, there was the Dorothy kid, bush-whacked on her way to the Wizard of Huddersfield, her dog held to ransom. Then there was the anonymous tip-off about the convent's link with Godfather Smurph.When his name crawled out of the files it always meant some sort of racket. I smelled a rat, and one using Brut 33!

Jerking myself away from the cold security of the streetlight, I trudged down a dim alley to where I knew I could get a cab and it wasn't long before Al pulled up. Al had always been a good cabbie but that night I couldn't help help noticing something odd about him, or rather his cab. It had been stolen!

Yet another mystery in one day! Something had to be going down. I figured I'd better go and check out Marian and see if she was okay. It looked like being a tough week!

QUOTE: "More fun than my interesting pebble collection" — Darth Vader

FULL INSTRUCTIONS ON THE REVERSE OF THIS INLAY

CRL Group PLC,
CRL House, 9 Kings Yard,
Carpenters Road,
London E15 2HD.

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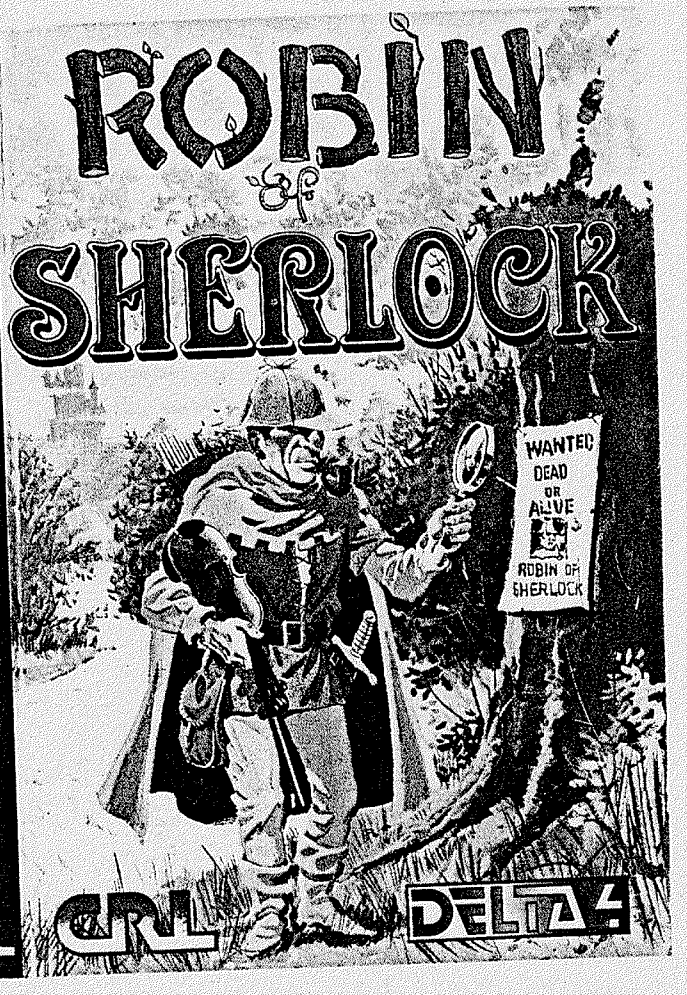
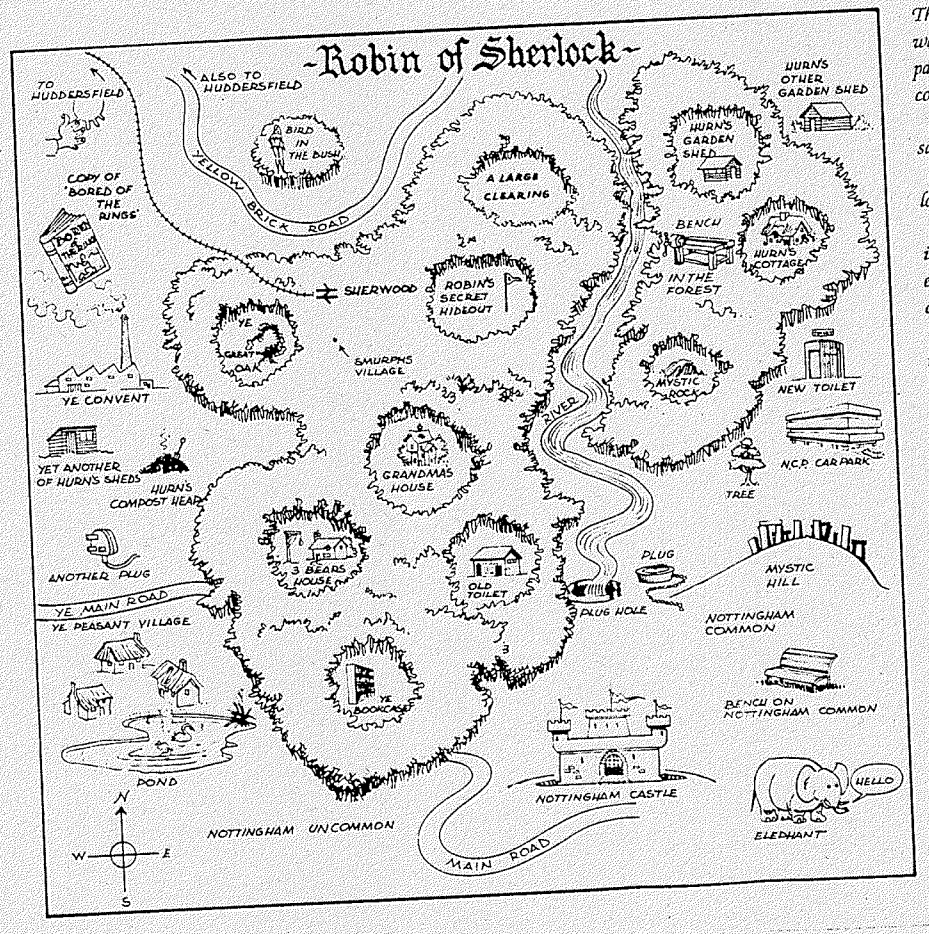
Robin of Sherlock

AMSTRAD

CRL





The quest is split into 3 parts and you can move backwards and forwards through the sections freely. All 3 parts play as one huge adventure so there is no loss of continuity.

When you go onto a new section, the computer will save game date to disk/cassette.

When the next part begins, you will be prompted to load the saved data before you can continue.

Commands can be given in plain English e.g. Examine The Victorian Bookcase, but this can be shortened to a verb and noun format e.g. Examine Bookcase.

You can talk to the many characters in the game using the commands Talk To ,name of character. followed by Tell Me About ,whatever. Tell Me About Your Alibi or anything else you might want to say.

Other useful commands are

Ram Save — Saves game position to Buffer

Ram Load — Load saves position from Buffer

Quit — Ends the game

Graphics On/Off/Sometimes — switch pictures on/off/display once only

Game position can only be dumped to cassette/disk at the end of a section.

ROBIN OF SHERLOCK was written by DELTA 4 Software using the Quill and the Illustrator, an Elephant Gun and an Articulated Lorry.

720°™

The Game

The player controls a skateboarder. The object of the game is to perform stunts accumulating points for which skate park tickets are obtained. In the parks you compete to gain medals and cash. Cash may be used to purchase better equipment (e.g. boards, shoes, pads, protective helmets) which improves the performance of the player.

After loading press **FIRE** to begin the game.

You then skate around "Skate City" visiting the four shops and four parks. There are four parks in Skate City each of which may be visited only once on each level of the game. The parks are Downhill, Jump, Ramp and Slalom. Tickets are used as the parks are visited (these are indicated under "T" on the screen). Extra tickets are awarded at 5,000, 15,000, 25,000, 35,000 points, etc. Medals are awarded for good performance in the parks with cash prizes and bonus points. After visiting each park a status sheet is displayed indicating medals awarded.

When in the vicinity of a shop an icon to the right of the screen flashes alternately with the price. These icons represent helmets, shoes, skateboards and pads. The level of equipment is indicated alongside the appropriate icon. Approaching the counter at the correct place either results in a "SALE" or "NO SALE" message. If a purchase is successful cash is deducted from the player (display indicated by $ sign). Bonus points are awarded for remaining cash at the end of the game.

If the player does not enter a park within the time limit displayed on the bar timer he is pursued by killer bees. These become more dangerous if the player does not enter a park quickly transforming into various objects.

Extra points may be gained by passing over certain hidden locations. Dollar bills on the road may be collected.

The player should avoid contact with other characters appearing on the screen.

Included on side 2 of this cassette is a recording of the original soundtrack music from the coin op machine. Load in the game as instructed and when fully loaded, remove the cassette and insert it into your HiFi player. Rewind the tape fully on side 2. Turn the music off if applicable in your program and turn your HiFi volume up. You will then experience the full arcade atmosphere with scintillating reality to make this game an absolutely captivating experience.

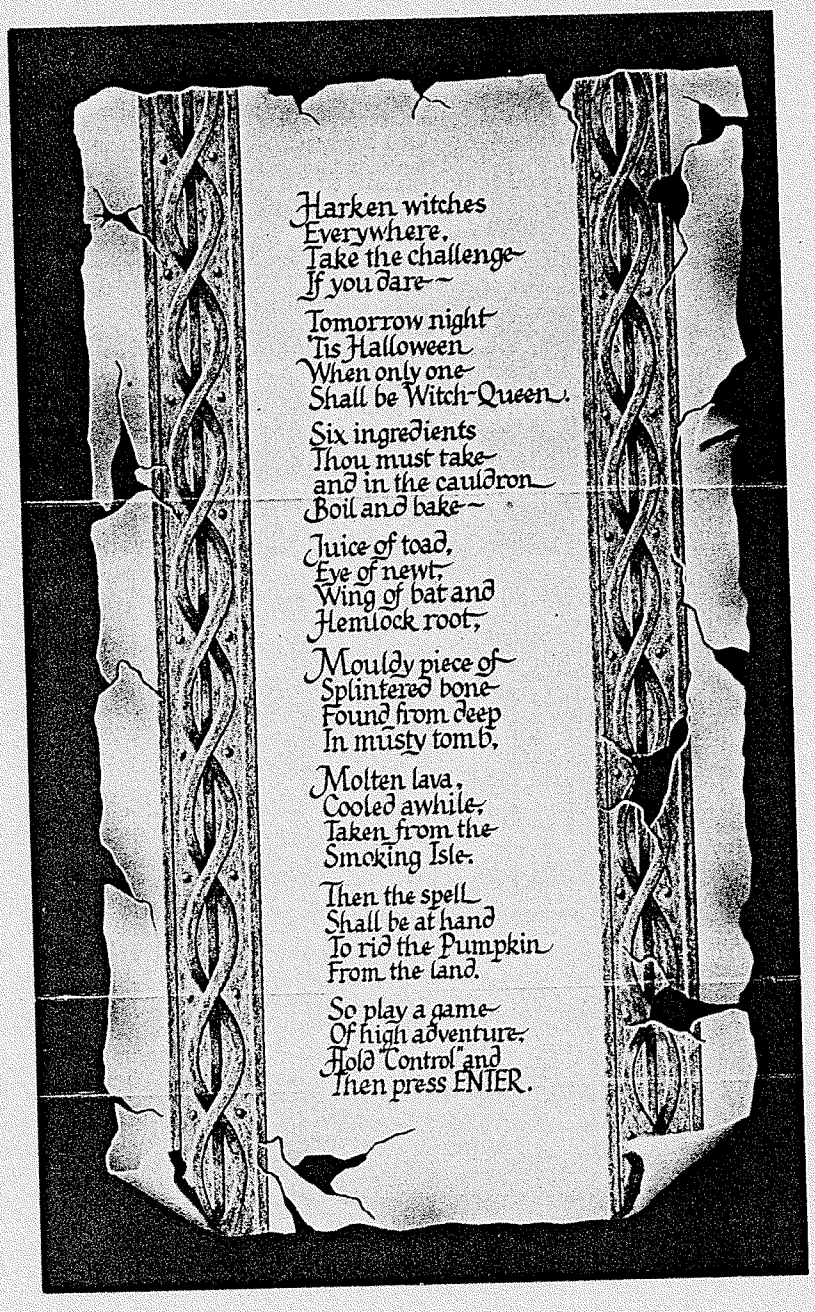
Control

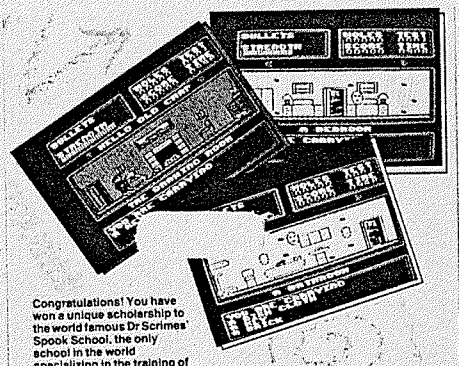
Joystick: – Press joystick to direction you wish to move. The skater will turn to face that direction. Continuing to press in the same direction causes the skater to "kick" and move forward. Acceleration increases as equipment levels improve. Pressing the **FIRE BUTTON** causes the skater to jump. The skater may twist and perform tricks while jumping.

Keyboard: – A – Left, **D** – Right,
W – Up, **X** – Down, **S** – Fire.

Other Keys: – P – Pause, **M** – Music on/ off (music only plays at start of game).

CAULDRON
Amstrad
Actual screen shots from the Amstrad.
SCORE
MAGIC
Amstrad
464/664/6128
CAULDRON
PALACE software
PAD 1010
5 013518 010107
Experience the breath-taking excitement of CAULDRON, an arcade -adventure game that sets a new standard in graphic realism.
Joystick required.
Programmed by Richard Leinfellner. Graphics by Steve Brown.


Harken witches
Everywhere,
Take the challenge
If you dare—
Tomorrow night
'Tis Halloween
When only one
Shall be Witch-Queen.
Six ingredients
Thou must take
and in the cauldron
Boil and bake—
Juice of toad,
Eye of newt,
Wing of bat and
Hemlock root,
Mouldy piece of
Splintered bone
Found from deep
In musty tomb,
Molten lava,
Cooled awhile,
Taken from the
Smoking Isle.
Then the spell
Shall be at hand
To rid the Pumpkin
From the land.
So play a game
Of high adventure,
Hold "Control" and
Then press ENTER.

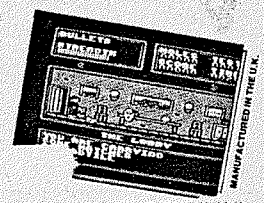


Congratulations! You have won a unique scholarship to the world famous Dr Scrimes' Spook School, the only school in the world specializing in the training of Ghost Hunters and Spook Smashers, that is fully stocked with spooks to test you, and your ingenuity.

A Menu Driven Arcade adventure for the Amstrad.

Featuring Gruesome Ghouls, Ghastly Ghosts, Frightening Frank, Hideous Hunchbacks, Malevolent Mummies, and Spine-chilling Spooks.

Full Colour Graphics Joystick or Keyboard.



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5 012967 800468

AMSTRAD

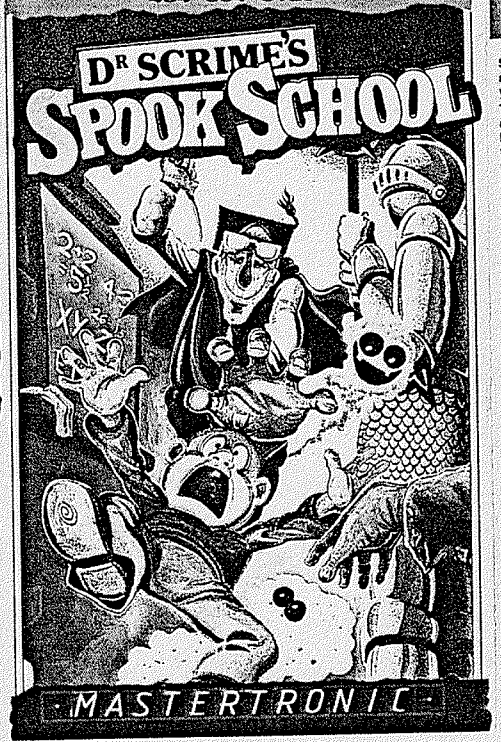
DR SCRIMES SPOOK SCHOOL

RECORDED ON BASF TAPE

CPC 17

AMSTRAD/SCHNEIDER
464 · 664 · 6128

DR SCRIMES SPOOK SCHOOL



MASTERTRONIC

THE GAME

So you're here at Dr. Scrimes' Spook School, world famous as the only spook smasher's school, fully stocked with ghosts and ghouls to test your mettle.

The only problem is that though you are here, you do not know what to do; the door has opened by itself revealing an empty hallway. You had better find Dr. Scrimes and find out what to do, he should be able to tell you. After all, it is his school! You will just have to avoid the monsters until then.

Collect the objects along the way, but be careful, some are hidden in the strangest places. Objects can be combined to make new ones, or used to fix broken ones. Some objects will give you immunity in certain rooms, very useful when you are out of bullets.

All the monsters can be killed, but not necessarily with ordinary bullets – you are going to have to use your ingenuity.

Once you have found Dr. Scrimes he will give you a series of tests. You have to complete each of these within a time limit. Between tests you will have a series of bonus sequences.

Loading Instructions
464: Press CNTRL and small ENTER.
6128: Type ITape and press RETURN
Press CNTRL and small ENTER.

Controls

Left	Select Down
Right	Select Item
Fire	Jump
Menu	Burp
Go In	Pick
Call Lift	Drop
Select Up	

You can choose joystick directions as well as keys for these functions.

The following keys are reserved for special functions:

TAB	Saves game
CAPS SHIFT	Loads game
ENTER	Starts game



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Made in Great Britain
Design: Words & Pictures Ltd., London



THE GAME

MAD GAMES PRESENTS "THE GOLDEN TALISMAN"

Far, far away, beyond the mists of time and space there is a great city which was protected from the forces of evil by the Golden Talisman Death and destruction now hang over the city where the 5 pieces of the Talisman are scattered in a forbidding labyrinth guarded by the lost souls of your predecessors, reincarnated as monsters.

You must find your way through the maze of tunnels and underground watercourses collecting useful objects on your way. You will need spells as well as continuous firepower to destroy the fireball breathing dragons.

Before diving into the deep pools, ensure you have enough air and remember you can only climb out onto the hanging ropes.

Your skill and courage can piece together the Talisman, find the evil Wizard who has cursed the city and release the people from their torment.

CONTROLS

Joystick:

H – PAUSE
S – RESTART
ESC – QUIT

LOADING INSTRUCTIONS

HOLD DOWN CTRL AND PRESS THE SMALL ENTER KEY

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Made in Great Britain



ANOL
TROLES

...es con que empecés. Podés ...l entre 1 (algo muy fácil) y el ...e (FUEGO) en vuestra palanca.

	Palanca
	IZQUIERDA
	DERECHA
	ARRIBA
	ABAJO

...usa durante el juego ...sar a la pequeña pantalla

...UEGO

...comida en el laberinto antes ...nivel.

...50 puntos por terminar un

...el completado hay un dibujo ...a una vida extra.

...etos poco densos que solo ...e son claramente útiles.

...que Dizzy puede echar abajo ...a buena carrera cuesta arriba ...sobrepasar un nivel, lo más ...también la próxima vez ...mente listo y alcance el nivel ...

...osas caerán en el laberinto.

...la velocidad de Dizzy cuando ...tras que pensar rápidamente, ...s dejarlo todo atrás!

...ella VERDE) hace que los ...vayan más despacio

...ella NARANJA ...s monstruos

...ella ROJA) dice adiós a los

...OS que permiten a Dizzy que ...gnias que te hacen INVISIBLE ...R O AUMENTAR la velocidad

DEUTSCH
STEUCRUNG

Drücke auf 1, um Deine jeweilige Ausgangsstufe zu erhalten. Du kannst überall zwischen Stufe 1 (kinderleicht) und Stufe 20 (jetzt wird's knifflig) beginnen. Drücke auf **SPACE** oder auf **"Fire"** (Feuern) auf Deinem Joystick, um das Spiel zu beginnen.

	Tasten	Joystick
Links	**Z**	**LINKS**
Rechts	**X**	**RECHTS**
Rauf	**K**	**RAUF**
Runter	**M**	**RUNTER**

P drücken, um während des Spieles zu pausieren.
Q drücken, um zurück zum Titelbild zu gelangen.

SPIELVERLAUF

Bevor Dizzy zur nächsten Ebene gehen kann, muß er sämtliche Nahrungsmittel in einem Labyrinth aufessen. Für das Beenden einer Stufe bekommst Du einen Trickfilm anschauen und bekommst ein Extra-Leben. In den höheren Stufen gibt es dünne Hecken, welche eindeutig hilfreich sind, da nur Dizzy durch sie hindurchgehen kann.

Es gibt auch vertrocknete Hecken, die Dizzy mit entsprechendem Anlauf niederLecten kann.

Wenn Du eine gute Methode gefunden hast, eine Stufe zu überwinden, bestehen gute Chancen, diese Methode bei der nächsten Stufe auch anwenden zu können. Für jeden, der schlau genug war, Stufe 30 zu erreichen, gibt es eine Riesenüberraschung!!!

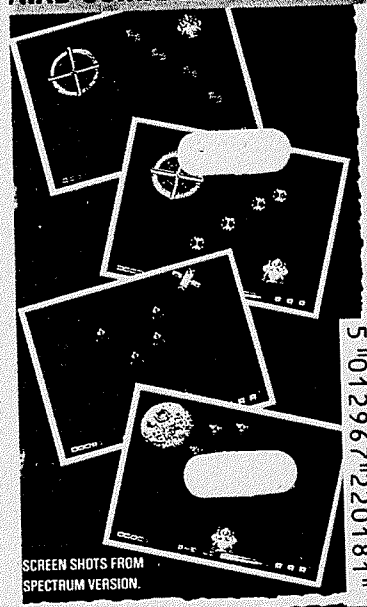
Manchesmal werden noch andere mysteriöse Pinge in das Labyrinth einfallen, wie zum Beispiel:

ZAUBERSTIEFEL	verdoppeln Dizzys Laufgeschwindigkeit. Du mußt dahn schnell denken, aber Du kannst allem davonlaufen.
GEWÜRZSOSE	(in einer GRÜNEN Flasche) verlangsamt die Monster.
SENF	(in einer ORANGENEN Flasche) friert die Monster ein.
KETCHUP	(in einer ROTEN Flasche) läßt Dich den schrecklichen Monstern endgültig Auf Wiedersehen zuwinken!

Achte auch auf **Schilde,** mit deren Hilfe Dizzy die Monster essen kann, auf Bons, um ihn **unsichtbar** zu machen und auf Bons, um das Spiel **schneller** oder **langsamer** zu machen.

PECTRUM·48·128·PLUS 2·SPECTRUM·48·128·

TRAD·SCHNEIDER·464·664·6128·AMSTRAD·S



SCREEN SHOTS FROM SPECTRUM VERSION.

Enter the Speedzone in a frantic defence against marauding alien forces. A survey ship sent into the area comes under attack. As an enemy vessel draws closer your "STARFIRE" class attack craft is launched.

BASF TAPE TITLE

SPEED ZONE

MACHINE TYPE

SPECTRUM · AMSTRAD

PAL SA2

5 012967 220181

MASTERTRONiC

MASTERTRONiC

SPECTRUM·48·128·PLUS 2·SPECTRUM·48·128·PLUS 2·SPECTRUM·4

AMSTRAD·SCHNEIDER·464·664·6128·AMSTRAD·SCHNEIDER·464·6



Enter the Speedzone in a frantic defence against marauding alien forces.

Many vessels have disappeared without trace in the region of space known as the Sarek-Kholinor Anomaly.

The region is better known in spacefaring circles as 'The Speedzone'. The survey ship Heart of Epsilon has been sent into this area to find if a safe passage can be found through the area.

To protect the survey ship, a Starfire class attack craft has been sent with it, captained by Captain Bjorn Androm.

Suddenly, without warning an ominous blip appears on the ships long range scanners.

As the 'blip' draws closer, visual confirmation reveals an enemy vessel, bursting with armaments, all pointing the same way, at you!

The attack craft is launched and the battle is on.

More blips appear and you are heavily out numbered.

Never the less, the fate of the crew of the survey ship is now in your hands.

The Battle Is On.

A MEMBER OF THE VIRGIN MASTERTRONIC GROUP OF COMPANIES
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MASTERTRONIC



CONTROLS

O Left
P Right
Q Up
A Down
Space Fire

LOADING INSTRUCTIONS

SPECTRUM

Put your machine in 48K mode.
Type LOAD " "and press ENTER.
Press PLAY on tape.

AMSTRAD

464: Press CTRL and Small ENTER.
6128: Type TAPE and press RETURN.
PRESS CTRL and Small ENTER.

FRENCH

SPEEDZONE

Vous vous engagez désespérément dans la SPEEDZONE pour repousser des étrangers maraudeurs. Un vaisseau de reconnaissance qu'on a envoyé dans la zone se fait attaquer. A l'approche d'un vaisseau ennemi, votre engin d'assaut STARFIRE est lancé.

La bataille a commencé

AMSTRAD

Instructions de chargement:

464: Appuyez sur CTRL et petit ENTER.

6128: Tapez |TAPE et appuyez sur RETURN
Appuyez sur CTRL et petit ENTER.

Commandes:

O A gauche
P A droite
Q Vers le haut
A Vers le bas
SPACE Feu

SPECTRUM

Instructions de chargement:

Sélectionnez mode 48K.
Tapez LOAD " " et appuyez sur ENTER.
Appuyez sur PLAY sur le magnétocassette.

Commandes:

O A gauche
P A droite
Q Vers le haut
A Vers le bas
SPACE Feu

GERMAN

SPEEDZONE

Sie fliegen in die SPEEDZONE, in einem verzweifelten Kampf gegen plündernde Heere aus anderen Welten. Ein in die Zone geschicktes Vermessungs-Raumschiff steht unter Angriff. Ein feindliches Schiff nahert sich ihnen–und Ihr Angriffsfahrzeug Klasse "STARFIRE" wird abgeschossen.

Der Kampf geht los

AMSTRAD

Ladeanweisungen:

464: CTRL und kleine ENTER-Taste drücken.

6128: |TAPE eintippen und RETURN drücken
CTRL und kleine ENTER-Taste drücken.

Steuerung:

O links
P rechts
Q aufwärts
A abwärts
LEERTASTE Feuer

SPECTRUM

Ladeanweisungen:

Maschine auf Betriebsart 48K stellen.
LOAD " " eintippen und ENTER drücken.
PLAY auf dem Cassettenrecorder drücken.

Steuerung:

O links
P rechts
Q aufwärts
A abwärts
LEERTASTE Feuer

ITALIAN

SPEEDZONE

Portati nella Speedzone, in una frenetica lotta contro forze di alieni invasori. Una nave da esplorazione inviata nell'area, viene attaccata. Mentre il nemico si avvicina, il tuo mezzo d'assalto della classe "STARFIRE" viene lanciato.

La battaglia incomincia.

AMSTRAD

Istruzioni di caricamento:

464: Premere CTRL ed ENTER piccolo.

6128: Battere |TAPE e premere RETURN
Premere CTRL ed ENTER piccolo.

Controlli:

O Sinistra
P Destra
Q Su
A Giù
BARRA Fuoco

SPECTRUM

Istruzioni di caricamento:

Mettere il computer in modalità 48K
Battere LOAD " " e premere ENTER
Premere PLAY sul registratore

Controlli:

O Sinistra
P Destra
Q Su
A Giù
BARRA Fuoco

PROGRAM © P.A.L. DEVELOPMENTS 1989



The master of the martial arts, the ninja, the highly-trained exponent of the killer blow, is devastating enough, but here deathstars, grenades, flames and machine guns make sure the acrobatic master is unstoppable.

Program Brian Cross

Made in UK

EXCELLENT GRAPHICS!

5 016414 030620

AMSTRAD/SCHNEIDER

NINJA commando

A062

NINJA commando

七 生



Gremlin Games

£2.99

DEADLY NINJA WEAPONRY

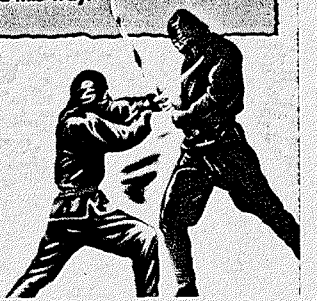
Gremlin Games

NINJA commando

AMSTRAD LOADING INSTRUCTIONS

RUN" or CTRL/ENTER

The game has 8 horizontal scrolling levels. The object of the game is for your ninja to travel right through to the end of the level by jumping and running across the platforms and structures.
The ninja starts a level without a weapon and the only way to kill other ninjas etc is by jumping on them. Certain flying enemies cannot be killed this way.



CONTROLS

JOYSTICK
FIRE - fire weapon

JUMP UP

JUMP UP LEFT — JUMP UP RIGHT

RUN LEFT — RUN RIGHT

KEYBOARD

Q UP

O LEFT — P RIGHT

A FIRE

SPACE - PAUSES GAME

Every few alien kills a weapon is left which can be picked up, starting with a ninja star, then grenade, flames and machine gun. All enemies can be killed with a weapon.

Enemy ninjas appear randomly from openings and buildings. Your ninja is killed when in contact with any enemy or when he falls to the abyss at the bottom of the screen. When killed your ninja returns to where he last stood still and loses the weapons.

The ninja is not killed by enemies who have just appeared from an opening (they flash colour to indicate this). Each level has a bonus timer, with bonus points added up at the end of a level.

Have you played Jocky Wilson's Darts Challenge, Zeppelin's definitive darts game?



Efficient production techniques and immediate cash advances could see your game on the market within 3 weeks. Send for fast valuation within 24 hours to the address shown.

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Code Masters
Music by David Whittaker
AMSTRAD SCHNEIDER
Amazing Playability!! A brilliant stuntman simulation. Featuring fantastic desert car chases – Power speed-boat racing – Frantic forest ralleying and turbo boost Grand Canyon jumping!! These are just a few of the amazing stunts included!
INTERNATIONAL INSTRUCTIONS
5 015026 030677
ACTUAL AMSTRAD SCREEN SHOTS
3067
Super STUNT MAN
AMSTRAD SCHNEIDER
NEW RELEASE
Code Masters
By Peter Williamson
As SUPER STUNTMAN, you must fight your way through fires, explosions, canonballs and more to complete each scene. All the while, the bad guys try to barge you into the blazing fires.
Each scene presents a different challenge. . . .
Scene 1) Deadly CAR CHASE through the boulder strewn desert.
Scene 2) Ultra-fast POWER BOAT race.
Scene 3) Weave your way through the trees of a forest at break-neck speed.
Scene 4) Use turbo-boost to jump the GRAND CANYON . . . or face a grizzly death on the rocks below.
Scene 5) Battle it out with the violent street gangs at midnight on the streets of New York.
Scene 6) Steer your boat through the rapids in the rough white water chase.
Scene 7) The GRAND FINALE
Graphics by James Wilson
JOYSTICK OR KEYBOARD!

CONTROLS

Left	**O**
Right	**P**
Accelerate	**Q**
Brake	**A**
Fire	**SPACE**
Quit	**ESC**
Pause	**1**

If you hit the blue mines, or if a cannonball hits you, you will crash. On each scene you can crash twice, and get a bonus each time for showing amazing action. But if you crash a third time you are dead and the game is over.

Hitting the rocks does not harm you. When you hit the other cars/boats you gain extra points for showing more action.



Controles

Izquierda	O
Derecha	P
Acelerar	Q
Freno	A
Tiro	SPACE
Salir	ESC
Pausa	1

Si da en los fuegos AZUL o le alcanza una bala de cañón, usted se estrellará. En cada escena podrá chocar dos veces, y recibirá una recompensa cada vez por realizar una hazaña asombrosa. Pero si choca por tercera vez pierde la vida y termina el juego.

Chocar contra las rocas no le hace daño. Cuando choque contra otros coches/barcos ganará puntos adicionales por ejecutar más acciones.



Commandes

Gauche	O
Droite	P
Accélération	Q
Frein	A
Tir	SPACE
Abandon	ESC
Pause	1

Si vous heurtez à des flammes bleu ou si un boulet de canon vous heurte, vous serez accidenté. Pour chaque scène vous pourrez être accidenté deux fois et obtenir un bonus chaque fois pour avoir accompli un acte spectaculaire. Mais si vous êtes accidenté trois fois, vous serz morte et le jeu sera terminé.

Heurter les rochers ne vous blesse pas. Lorsque vous heurtez d'autres voitures/bateaux vous gagnez des points supplémentaires pour vos actes spectaculaires répétés.



Steuerung

links	O
rechts	P
beschleunigen	Q
bremsen	A
Feuer	SPACE
verlassen (quit)	ESC
Pause	1

Wenn Sie die blau Feuer treffen, oder wenn Sie von einer Kanonenkugel getroffen werden, bauen Sie einen Crash. Dies darf Ihnen jedoch nur zweimal in jedem Bild passieren. Sie bekommen jedes mal einen Bonus, wenn Sie wirklich aufregend Aktion darbieten. Sollten Ihnen aber auch der dritte Versuch mißblingen, werden Sie leider nicht mehr in Lage sein, es noch einmal zu versuchen.

Wenn Sie die Felsen berühren passiert Ihnen nichts; und wenn andere Autos oder Boote rammen, bringt Ihnen das mehr Punkte. Sie noch mehr Aktion zeigen.

These are other Codemasters games available for the AMSTRAD.

SIMULATORS
BMX Simulator
Pro Snooker Simulator
Pro SKi Simulator
Grand Prix Simulator

ARCADE ACTION
Terra Cognita
Transmuter
Mission Jupiter
3-D Starfighter

CARTOON ADVENTURE
Dizzy

PLATFORM/ACTION
Vampire
Brainache
Ghost Hunters
Super Robin Hood

ADVENTURE
Necris Dome

PLUS RANGE
Jet Bike Simulator

YOU COULD WRITE FOR CODEMASTERS

Codemasters excellence is a result of utilizing the best games programmers there are. The best programmers deserve the best rewards. If you are good enough to program for us then write to David Darling now, you won't regret it.

Code Masters, P.O. Box 200,
Banbury, Oxon OX16 7GA

Programming —
Concept —
Graphics —
Cover Design —
Illustration —
Music —
Produced —
Directed —

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THREE CAN PLAY!
BRILLIANTLY REALISTIC! 3 can play simultaneously! POWERSLIDE round hairpins – CAREFUL! Don't spin it! SMASH your mate into a TREE but don't damage your own car! C'mon – hurry up! PUT THE PEDAL TO THE METAL!!!
I'm utterly gobsmacked! This is REALLY GOOD – I think that this is the best Oliver Twins game ever! David Darling
INTERNATIONAL INSTRUCTIONS
MODE D'EMPLOI
ANLEITUNG
5 015026 031469
ACTUAL AMSTRAD SCREENSHOTS
3146
GRAND PRIX 2
AMSTRAD CPC464/6128
Simulator
NEW RELEASE
Code Masters
BY THE BESTSELLING OLIVER TWINS
DIGITIZED VOICE SYNTHESIS
HINTS AND TIPS
★ Crashing your car damages it as well as slowing you down – you'll lose valuable seconds.
★ Remember to use your brakes!
★ Taking the right line into a corner gives you a much better chance of getting through it
★ Race hard because you'll need to save up your bonus time for the later tracks
★ You'll be given a percentage score when you get to the pits – this tells you how far thru the game you are.
8 CUNNING CIRCUITS!
LOADING
on the 464/6128 type: TAPE (ENTER) RUN" (ENTER)

CONTROLS

ɔose to be player 3 if you want to use a joystick.
ıs **SPACE** to start the game.
ıs **P** to pause during play, and again to restart the
ıe.
s **Q** to quit during play, or go back to the pits
en during an action replay.
s **R** on the pits screen to see an action replay of
last race.

	Player 1 Keyboard	Player 2 Keyboard	Player 3 Keyboard
ı LEFT	**Z**	**N**	**LEFT**
ı RIGHT	**X**	**M**	**RIGHT**
vard	**R**	**O**	**UP/FIRE**
erse	**D**	**K**	**DOWN**

PLAYING THE GAME . . .

time that you have left over after finishing a race
ɔe carried thru into the next race. You will need
ke advantage of this because the time limits on
e of the later tracks are very tight.
hes are registered on your damage meter (On
creen next to your countdown timer). Your car's
ɔrmance will suffer as it gets more damaged.
e's a lap counter under each player's damage
ır at the top of the screen, so you know how far
must race.

FRANCAIS

CONTRÔLES

vous voulez utiliser un levier.
Appuyez **ESPACE** pour commencer le jeu.
Appuyez **P** pour marquer une pause durant le jeu, et une fois encore pour relancer le jeu.
Appuyez **Q** pour quitter le jeu ou pour retourner aux stands sur l'écran durant une action replay.
Appuyez **R** sur les stands le l'écran pour voir une action "replay" de la dernière course.

	Joueur no.1 Clavier	Joueur no.2 Clavier	Joueur no.3 Clavier
Tourner a gauche	**Z**	**N**	**GAUCHE**
Tourner a droite	**X**	**M**	**DROITE**
Vers l'avant	**R**	**O**	**HAUT/FEU**
Vers l'arriere	**D**	**K**	**BAS**

JOUER LE JEU:

Le temps que vous préservez à l'issue d'une compétitionsera porté à la prochaine course. Vous pourrez en bénéficier plus tard car les limites temporelles de certains jeux seront très serrées.
Les grinçages sont notés sur le compteur de dégâtas (situé sur l'écran à côté du minuteur du compte à rebours). La performance de votre voiture en souffrira conséquemment.
Il y a un compteur de tours ou de circuits sous le compteur de dégâts de chaque joueur, situé en haut de l'écran, ce qui vous permettra d'évaluer justqu'a quel point vous devez faire la course.

CONSEILS UTILES:

★ Faire grincer votre voiture ne servira qu'a l'endommager mais aussi a ralentir votre course. Vous perdrez ainsi des secondes précieuses.
★ N'oubliez pas d'utiliser vos freins!
★ Prendre la ligne doite dans un virage vous donnera une meilleure chance d'en sortir.
★ Jouez serré car vous aurez besoin de préserver le temps gagné pour d'autres courses.
★ Vous aurez un pourcentage de score quand vous atteindrez les stands. Ceci vous aidera a déterminer a quel point de jeu vous êtes arrivé.

DEUTSCH

STEUERUNG

LEERTASTE drücken, um das Spiel zu beginnen.
P drücken, um während des Spiels zu pausieren, dann nochmals, um das Spiel wieder zu starten.
Q drücken, um während des Spiels aufzuhören oder um während der Zeitlupe zu den Boxen zurückzukehren.
R drücken während Du an den Boxen bist, um das letze Rennen in Zeitlupe zu sehen.

	Spieler 1 Keyboard	Spieler 2 Keyboard	Spieler 3 Joystick
Nach LINKS	**Z**	**N**	**LINKS**
Nach RECHTS	**X**	**M**	**RECHTS**
Geradeaus	**R**	**O**	**RAUF/FEUERN**
Rückwärts	**D**	**K**	**RUNTER**

SPIELVERLAUF

Hast Du am Ende eines Rennens noch Spielzeit übrig, wird sie ins nächste Rennen mitgenommen. Nimm diesen Vorteil wahr, denn die Zeitbegrenzungen auf einigen der späteren Rennstrecken sind sehr knapp bemessen.
Karambolagen werden auf dem Schadenszähler registriert (auf dem Bildschirm neben Deinem Zeitmesser). Je mehr Dein Wagen beschädigt wird, desto geringer wird seine Leistung.
Oben auf dem Bildschirm unter jedem Schadenszähler gibt es für jeden Spieler einen Rundenzähler für die noch verbliebene Rennstrecke.

HINWEISE UND TIPS

★ Jeder Unfall beschädigt Deinen Wagen und verringert seine Geschwindigkeit – Du verlierst dann wertvolle Sekunden.
★ Benutze auch Deine Bremsen!
★ Du host die besten Chancen, gut durch eine Kurve zu kommen, wenn Du so nah wie möglich an der Ideallinie bist.
★ Streng' Dich an, denn Du wirst Dein Zeitguthaben für die späteren Strecken nötig haben.
★ Wenn Du an die Boxen gehst, bekommst Du ein prozentuales Ergebnis, das Dir zeight, wie weit Du im Spiel schon bist.

These are other great games for your Amstrad . . .

SIMULATORS
BMX Simulator · Grand Prix Simulator
Fruit Machine Simulator · Pro Snooker Simulator
Pro Ski Simulator · ATV Simulator
Advanced Pinball Simulator · BMX Freestyle
SAS Combat Simulator · International Rugby Simulator

ARCADE ACTION
Transmuter · Super Stunt Man · 3D Starfighter
Super Hero · Death Stalker · Ninja Massacre

PLATFORM ACTION
Ghost Hunters · Super Robin Hood · Vampire

CARTOON ADVENTURE
Dizzy · Treasure Island Dizzy · BigFoot

In our PLUS range . . .
Jet Bike Simulator · The Race Against Time
Pro BMX Simulator

And in the new GOLD range . . .
4 Soccer Simulators

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MADE IN ENGLAND

Grand Prix II was br
Design and Coding
Graphics
Music/Sound FX

Project director
Production

Design and artwork
Cover Illustration

Published by CodeMaster
PO Box 6, Southam, Warwi

THE ADVANCED ART STUDIO™



AMSTRAD
CPC 6128

Advanced Art Studio features

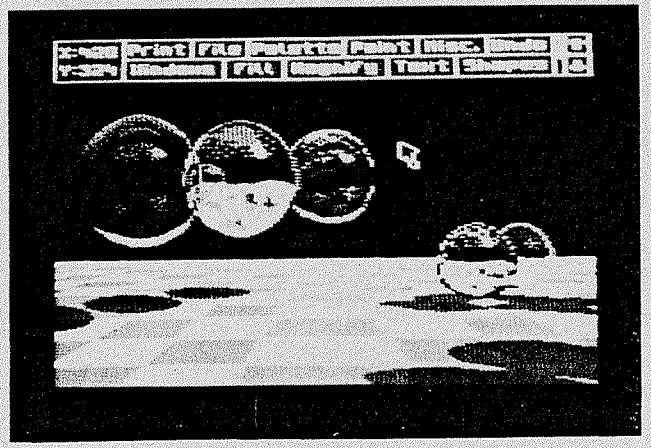
* Windows - icons - pull down menus - pointing devices
* Operates in screen modes 0,1 and 2, with intelligent picture convert between modes
* All information on screen - no need to repeatedly switch between the picture and a menu screen
* Compatible with keyboard, joystick, AMX and Kempston mice
* Continuous display of cursor coordinates
* 25 sizes of grey-scale screen and window dumps to bit-image Epson and Amstrad compatible printers, and includes user-defined printer driver option
* Save, load and merge pictures to and from disc
* Extensive colour control, including colour cycling for animation, and colour priority enabling powerful manipulation of all colours, such as drawing 'behind' areas of the screen, and ignoring any colours during cut and paste operations and masking areas of the screen
* Solid and multicoloured patterned fills with over-fill option. 12 user-definable patterns from 1x1 up to 16x16, can be saved to and loaded from disc. Comprehensive pattern edit facility
* 16 drawing pens, 8 random spray cans with three spray speeds, 15 user-definable multicoloured brushes
* 'Undo' facility for last operation
* Text - 9 character sizes, 2 directions, bold and italic with variable spacing
* Ninety-six user-definable font characters with comprehensive editor. Fonts may be saved to and loaded from disc
* User-defined windows may be cleared, copied, moved, squashed, stretched, flipped or rotated
* Windows may be saved to disc, enabling libraries of picture elements to be compiled, and called up onto the screen at any time for rapid picture creation
* 3 levels of magnification with pan and zoom, pixel plot, cycle and view
* Points, lines, triangles, rectangles, circles, filled circles, rays, ellipses and filled ellipses, all with elastic facility
* The entire program may be re-saved to disc, so user preferences may customized
* Cursor may reflect current operational mode, or may be shown as a cross-hair to aid alignment

CONTENTS

How to load ADVANCED ART STUDIO	1
How to use this manual	1
Introduction	2
PRINT	5
FILE	7
PALETTE	10
INKS	13
PAINT	14
PATTERN EDITOR	17
MISCELLANEOUS	20
INPUT DEVICES	23
UNDO	25
WINDOWS	26
FILL	31
MAGNIFY	34
TEXT	37
FONT EDITOR	39
SHAPES	43
APPENDIX 1 - USER DEFINED PRINTERS	45
APPENDIX 2 - FILES ON THE MASTER DISC	48
APPENDIX 3 - WORKED EXAMPLE	50
GLOSSARY - GERMAN AND FRENCH	57
INDEX	62

Introduction

ADVANCED ART STUDIO is built upon the 'windows - icons - mouse - pointing device' concepts as pioneered by Xerox at Palo Alto and popularised by Apple with the Lisa and Macintosh computers. The guiding philosophy behind these developments is that a program should be easy for the first-time user to operate, with all relevant information 'on screen', and no complicated keyboard sequences to learn. Instead, commands are given by simply 'pointing' at options in screen menus.



When you first run ADVANCED ART STUDIO, you will be presented with a clear screen with a blue and white 'menu bar' at the top and a small black arrow in the centre. The arrow (known as the 'pointer' or 'cursor') is the key to the program. It is controlled by the arrow (cursor) keys, pressing the left arrow key moves it to the left, pressing the up arrow moves it up, and so on. It is also possible to control the pointer using a joystick or mouse, but this will be covered later. The motion of the cursor is 'intelligent', in the sense that it speeds up the longer a key is held down.

The menu bar at the top of the screen contains a number of individual boxes with headings in them. Moving the cursor to within one of these boxes and pressing the space bar (from now on known as the 'select' button) causes a subsidiary menu to be drawn on the screen partly overlaying the main menu bar. This process is called 'pulling down' a menu. The subsidiary menu will contain a number of entries or 'options', which may lead to further sub-menus, or cause certain actions or commands to be performed. An option is chosen by moving the cursor over it (it will 'highlight' if it's available) and pressing the select button. This process is known as 'clicking' an option. If the option is a command, then what usually happens is that the pull-down

menu disappears and the arrow cursor changes into a small icon which bears some relation to the command selected. For example, a paint brush when painting on the screen. The icon here is acting as a reminder of the current 'mode'. This new cursor can then be moved about the screen using the same controls as the arrow cursor. The action of the select button depends on the particular icon. For example, with the brush icon, pressing select paints pixels on the screen.

If the icon cursor is moved into the menu bar at the top of the screen, it reverts to its arrow form. However if it is moved back out again, then it returns to its icon form (unless another command has been selected in the meantime). The program will continue to stay in the current mode (with the current icon) until another mode is selected.

As mentioned above, if an option in a pull-down menu is highlighted as the cursor is moved over it then that option is available. Options in some menus will only be highlighted if certain conditions have been met. For example, the option in the Print menu to print out part of the screen on a dot matrix printer. This will only be highlighted if a window has been defined before the Print menu is pulled down.

Some menus contain options which are neither commands nor lead to sub-menus. These are known as flags or 'switches' - devices which can be in one of two states, on or off. These switches generally modify the behaviour of other options in the same menu. For example, there is a switch in the Text menu which controls whether characters are printed sideways or not. The on state is represented by a tick, and the off state is represented by a cross. The state of a switch can be changed ('toggled') by moving the cursor to it and pressing select.

Often a menu presents two or three ways of performing an operation. For example, there are three sizes in which characters can be printed, either 'Normal height', 'Double height', or 'Treble height'. These are shown as three separate options in the Text menu, only one of which is marked with a tick, the others being unmarked. The tick indicates which height currently applies. The height can be changed by moving the cursor to one of the unmarked options and pressing select.

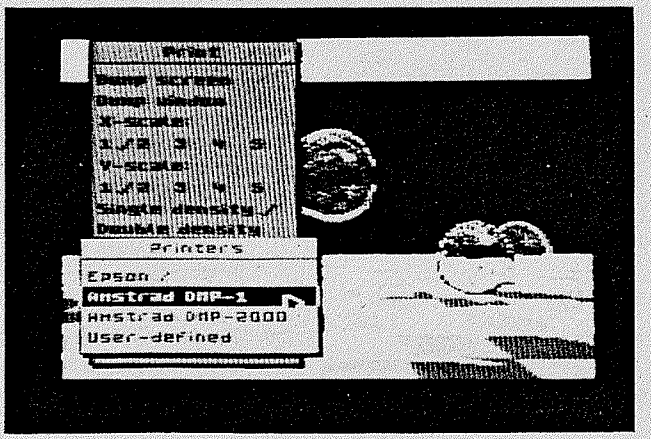
A full CPC6128 screen is 25 'lines', but the menu bar permanently occupies 3 of these lines. You may think then that you are limited to designing pictures that fit in the remaining 22 lines. However, this is not the case. The two boxes in the menu bar with arrows in them allow you to 'scroll' the visible part of the screen over the full 25 lines. Clicking one of the arrow boxes scrolls the screen by one line, clicking it three times scrolls it by the full amount. The small white bar immediately to the left of the arrow boxes shows which part of the whole screen is currently being displayed.

To remove or collapse a menu pulled down by mistake, just move the cursor away from it and press select.

ADVANCED ART STUDIO supports all three screen modes available on the CPC6128. The number of inks and the number of pixels are different in each of the three modes (a 'pixel' is a single dot on the screen, the smallest picture element). In mode 0, sixteen colours are available at a resolution of 160 horizontal by 200 vertical pixels. In mode 1, four colours are available at a resolution of 320 horizontal by 200 vertical pixels. In mode 2, two colours are available at a resolution of 640 horizontal by 200 vertical pixels. In mode 1 the pixels are square, in mode 0 they are double-width, and in mode 2 they are half-width. Note that the SHIFT key can be used in conjunction with the direction keys (cursor keys) to move the cursor a single pixel at a time.

The rest of this manual is divided into sections, each section covering one of the options in the main menu. The sections logically follow the same order as this menu, reading from left to right, then top to bottom.

PRINT



This menu allows you to take a hard copy, or 'dump' as it is called, of your finished picture (either the whole screen or just a part of it) on a dot matrix printer capable of bit image graphics. Various sizes of printout are available via independently adjustable horizontal and vertical scaling factors. The horizontal or X-scale corresponds to the number of dots across the printer paper to one pixel on the screen, and the vertical or Y-scale corresponds to the number of dots down the paper to one pixel on the screen. For example, if the X-scale was set to 2 and Y-scale to 4, then each pixel on the screen would be represented by a block of 2 by 4 dots on the paper. Note that the actual physical dimensions of the printed dots vary from printer to printer. Some experimenting will be necessary to get the best 'aspect ratio' for a particular printer, so that circles on the screen appear as circles on the printout and not as ellipses.

The whole screen is printed by selecting the 'Dump screen' option, or a part of the screen printed by selecting the 'Dump window' option. The latter requires that a window be defined before the Print menu is pulled down (see the section on Windows below).

Not all of the sizes of printout will necessarily be possible with the particular printer you are using - it depends on the total number of dots the printer is capable of resolving across a page. If a particular sized dump is available, the 'Dump screen' or 'Dump window' option in the Print menu will be highlighted as the cursor is moved over it. If it isn't highlighted, then you must try a smaller X-scale factor, or turn the 'Sideways' switch on (see below). Note that a mode 2 screen dump needs at least 640 dots across the page if not in sideways mode.

ADVANCED ART STUDIO uses 'stipples' - arrangements of dots of varying

density - to represent the different colours on the CPC6128's screen. With the smaller dumps, the stipples for some of the colours will, unavoidably, be duplicated. In general, therefore, you should aim for as large a dump as possible on your printer to get the best differentiation between the various colours. If this is not feasible you should choose your colours from the palette to be far apart from each other.

As each pixel is sent to the printer, it is echoed to the screen. A dump can be aborted at any time by pressing the ESC key. Note that your printer may need resetting (just turn it off and then back on again) if you stop it while it's in the middle of printing a line.

Most dot matrix printers capable of bit image graphics can operate in two different graphics modes known as single density and double density. The resolution in the latter mode is generally greater than that in the former, i.e. more dots can be printed across the page. You can switch between these two modes from the Print menu. Some of the dump sizes not available in single density mode may become available in double density mode as a consequence of the increased resolution.

It is possible to print a picture sideways, from left to right, rather than from top to bottom. Because the CPC6128 screen has a smaller height than width (in screen modes 1 and 2), it may be possible to make a larger dump in sideways mode than would otherwise be available.

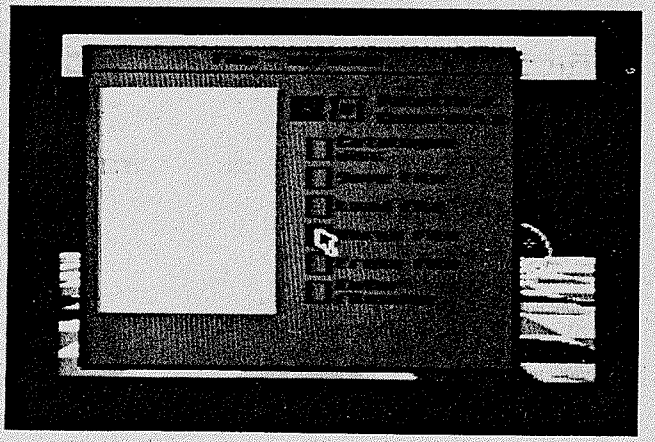
The three options 'Left justify', 'Centre', and 'Right justify' determine whereabouts across the page a dump is situated, either hard against the left-hand edge, in the centre with equally spaced margins, or hard against the right-hand edge. The tick indicates which option applies.

If your printer automatically generates a line feed after receiving a carriage return, then you must ensure that the 'Line feed' switch near the bottom of the menu is turned off (otherwise you will find your printout consists of alternate lines of dots and spaces). If it doesn't, then leave the switch turned on.

The final option in the Print menu pulls down a menu listing the printers supported directly by ADVANCED ART STUDIO. Click the entry for the printer you are using.

It is possible to extend the system to support a printer not included in this menu, the 'User-defined' printer. On loading, ADVANCED ART STUDIO looks for a printer definition file on the disc and loads it if one is found. This file contains the necessary codes to control the printer. Consult Appendix 1 to learn how to construct such a file.

FILE



ADVANCED ART STUDIO fully supports discs for the storage and retrieval of pictures (known as 'files'). It has the ability to maintain a RAM-based catalogue, that is a catalogue that is stored permanently in memory and can be displayed and accessed without the need to actually read the disc each time. To generate the catalogue for a disc, move the cursor to the box alongside 'Catalogue disc' and press select. The drive motor will start, and after a few seconds the large white box on the left-hand side of the screen will fill with information. At the top of the box is the free space on the disc in kilobytes, and below that a list of filenames (assuming that you have a disc with some picture files on it).

You may notice that only certain files on a disc are displayed in the RAM catalogue - specifically only those files that have the file-type extension **.SCR** (for screen) to their filenames (although this extension is not actually displayed on screen in the File menu). These files can be highlighted by pointing the cursor at their filenames and pressing select. A highlighted file can then be saved, loaded, merged or erased by moving the cursor to the box alongside the desired operation, and pressing select again. This is a considerably more convenient and elegant means of file handling than the typing of commands and filenames in at the keyboard.

The total capacity of the RAM catalogue is 56 entries, although only 10 can be displayed at any one time. The up-arrow and down-arrow boxes, however, allow you to scroll through the whole catalogue to find a particular entry. The box with the linked squares symbol (the 'home' symbol) moves you back to the start of the catalogue, and the bar between the two arrow boxes shows which part of the whole catalogue is currently being displayed.

A filename can be entered at the keyboard when a file is being saved for the first time (and hence doesn't appear in the RAM catalogue) by moving the cursor to the box marked 'Enter filename' and pressing select. A prompt will appear requesting a filename. Type in the filename (up to 8 characters) and then press **ENTER** (pressing **ENTER** on a empty line aborts the operation). You do not need to actually type in the file-type extension when saving a file, it will be appended automatically (although the default can be overridden if required). If a drive is not specified (A or B), the current drive will be used (highlighted at the top of the File menu). It is possible to load files which do not appear in the RAM catalogue, because they don't have the right file-type, by entering the filenames manually.

A file can be 'merged' with the current screen contents, a process in which pairs of pixels are combined to produce a composite picture. The merging is on the same basis as the pasting of a window, i.e. taking account of excluded and protected inks and the current paste mode - refer to the Windows menu. Note that palettes are not merged (see below).

A file can be erased from a disc by highlighting it in the RAM catalogue or entering its filename manually, and then clicking the box by the 'Erase file' option. Confirmation is sought before proceeding. The disc is automatically re-catalogued afterwards so that the free space value will be accurate.

Note that files can be saved or loaded by first clicking the save or load boxes and then highlighting the filename. This is the recommended sequence as it removes the possibility of saving a file when loading was intended, and vice versa. A filename can be un-highlighted by selecting it for a second time.

To keep a complete record of a finished picture, it is necessary to save the current palette alongside the actual screen contents (see the section covering the Palette menu for a description of what the palette is). To do this, simply set the 'Palette' switch at the top right of the File menu to 'on' before saving a screen. The palette will then be saved as a separate file with the same first name part as the screen file, but with the file-type extension **.PAL**. For example, if you saved a screen with the palette switch on, using the name **MYPIC**, then your disc would contain the files **MYPIC.SCR** and **MYPIC.PAL**.

The current screen mode is also saved in the palette file, and when a screen and its palette are loaded back into ADVANCED ART STUDIO, the program will automatically put itself into the correct mode. Loading a file with the palette switch off will not change the screen mode, nor will it change the current palette. Erasing a screen file with the palette switch on also erases the associated palette file (if it exists).

Pictures can be compressed when they are saved, using a technique known as 'run-length' compression. A compressed file will typically be one third smaller (it depends on the amount of detail in the picture), giving 40% to 50% more pictures on a disc. To compress a picture, set the 'Compress'

switch at the top right of the File menu to on before saving it. Note that you don't have to set the switch when loading back a compressed picture, since the file will have been specially 'watermarked' to enable it to be recognised.

ADVANCED ART STUDIO supports the additional FD1 disc drive that can be connected to the CPC6128. To catalogue a disc in the second drive, click the 'B' box at the top of the File menu, then click the 'Catalogue disc' box. The free space on the disc in drive B will be displayed below that for the disc in drive A. The RAM catalogue will contain files from both discs, the drive number preceeding the actual filename. When a highlighted file is saved or loaded therefore, ADVANCED ART STUDIO knows which drive to use.

Note that ADVANCED ART STUDIO will only load files of the binary type, and will not load a screen file if its length is greater than 16384 (4000 hex) bytes. Some sample pictures are included on the supplied disc. If you load a screen into ADVANCED ART STUDIO that has been created under another art package or from BASIC, then it must have a zero offset, i.e. the screen must not have been hardware rolled.

Filetypes **.SRN** and **.PIC** are also recognised by ADVANCED ART STUDIO and will appear in the RAM catalogue. Only files in USER 0 are displayed, but files can be saved and loaded to other user areas by including a user number in a manually entered filename.

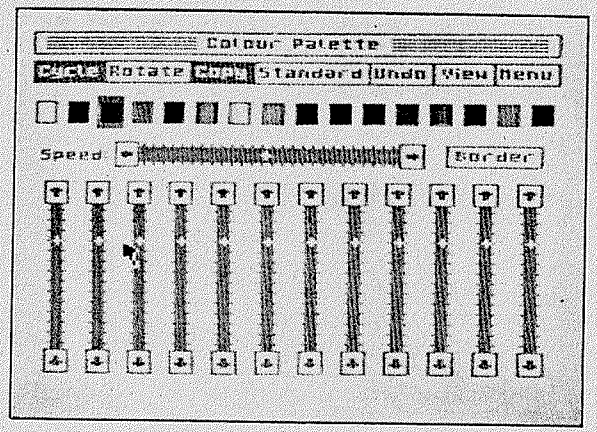
Because the CPC6128 disc operating system automatically maintains a one-level backup for files (with filetype extension **.BAK**), when overwriting a file to a nearly full disc, it may be necessary to erase the previous version before saving the new version. Beware that if you erase an old **.BAK** version of a screen file, ADVANCED ART STUDIO will also erase the associated palette file if the palette switch has been left on.

Similar File menus are used to load and save character fonts, patterns and windows (see below). In those menus, naturally, only font, pattern and window files respectively are displayed in the RAM catalogue. Note that you do not have to catalogue a disc separately in each File menu, catalogue in one and the others are updated automatically (since only one RAM catalogue is actually used internally). The current palette can be saved with pattern and window files, but not with font files. Window files can also be compressed, but pattern and font files cannot be.

Pictures you have created using ADVANCED ART STUDIO (they must not have been compressed) can be loaded back from BASIC with the commands:-

MODE 0: LOAD "picture.scr",&C000 for mode 0 screens or
MODE 1: LOAD "picture.scr",&C000 for mode 1 screens or
MODE 2: LOAD "picture.scr",&C000 for mode 2 screens.

PALETTE



The palette is one of the most interesting features of the Amstrad CPC6128. A total of 27 physical colours can be displayed by the video circuitry in the machine, but not all of these colours can be on the screen at the same time (in fact a maximum of sixteen colours in mode 0, four colours in mode 1, and two colours in mode 2). So, instead of referring directly to colours when working on the screen, we deal with 'inks'. These are 'logical' rather than physical colours. Each ink is linked to one of the available colours (at any one time), but the links are not permanent. Changing the links will actually change the colours that appear on the screen. The Colour Palette menu allows you to set up these links to the colours you want.

The menu contains a number of vertical 'scroll bars', each with graduations representing the 27 colours available on the CPC6128. The indicator in each scroll bar shows which is the chosen colour for that bar. The indicators can be moved up and down the scroll bars (and the colours changed) by clicking the arrow boxes at their ends.

Twelve colours (hence twelve scroll bars) are associated with each of the sixteen inks, and ADVANCED ART STUDIO sequences through the sets of twelve colours at a specified rate. Recall that BASIC allows two colours to be associated with an ink, and that the CPC6128 operating system flashes between the two colours. The ADVANCED ART STUDIO system is an extension of this, to enable more complicated palette animation effects to be realised.

The choice of twelve colours per ink is not an arbitrary one. It readily allows 2-part, 3-part, 4-part, 6-part, and 12-part animation sequences to be set up

(since all these numbers are factors of 12).

The scroll bar at the far left of the screen sets the first colour for an ink, the scroll bar to its right sets the second colour, and so on up to the bar at the far right of the screen which sets the twelfth colour. Note that all the bars to the right of a given bar will automatically track its indicator. Therefore, if you don't want palette animation, just use the leftmost scroll bar to set your colours. Otherwise set your colours one at a time working from left to right across the bars.

In addition to clicking the arrow boxes to change an ink, you can also click on the scroll bars themselves. If the cursor is moved up or down a scroll bar while the select button is held down, the indicator will move with it.

The twelve vertical scroll bars give the set of twelve colours for the current ink, which is the ink outlined at the top of the screen. The current ink is changed by clicking one of the sixteen ink boxes. As a convenience for keyboard users, the current ink can also be changed by pressing function key 0 or the second dot key (the keys immediately above the left and right arrow keys). The f0 key scrolls the current ink to the left, the dot key scrolls it to the right.

The horizontal scroll bar near the top of the screen sets the speed of the palette animation. The fastest speed is obtained by moving its indicator to the far left, and the slowest speed by moving it to the far right.

The border colour can also be changed from the Palette menu by clicking the box marked 'Border'. Again twelve colours can be set, sequenced at the same speed as the inks.

The 'Cycle' switch at the top left of the Palette menu allows the palette animation to be suspended, in which case only the first colour for each ink is significant. The 'Rotate' option is used in conjunction with this switch, and rotates the set of colours for each ink by one position to the left. As an alternative to a single animated palette, you can elect to have twelve stationary palettes, and use the 'Rotate' option to swap between them. Note that if the 'Cycle' switch is off, scroll bar indicators do not track one another.

The set of colours for one ink can be copied to another ink. To do this, first select the ink to be copied from, click the 'Copy' option, then select the ink to be copied to.

'Standard' sets the palette back to its default or initial state. Pressing the ESC key also restores the palette to its standard state. This key is useful to remember if you accidentally set two inks to the same physical colour and lose sight of the cursor!

The 'Undo' option cancels any changes made to the palette since the current ink was selected by clicking one of the sixteen ink boxes. If the

current ink was selected by using the f0 and dot keys, the 'Undo' will cancel all changes since the beginning of the palette change operation, or since the last ink was selected by clicking an ink box.

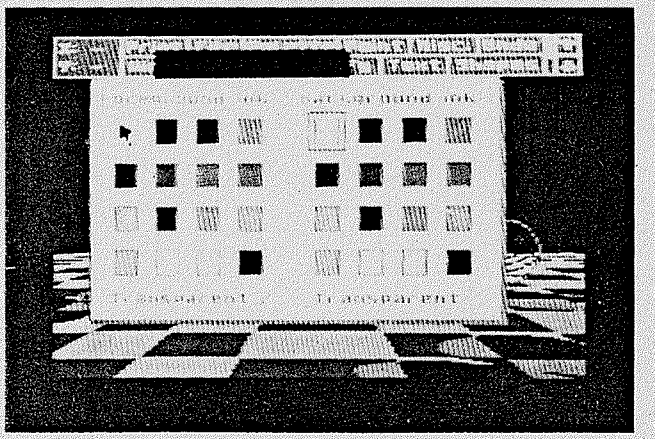
The effects of any palette changes to the picture being worked upon can be checked by moving the cursor to the 'View' box and holding down the select button.

The 'Menu' option is the exit from the Colour Palette menu, and confirms the new choice of palette.

When a palette is saved to disc (see File above), all the relevant information about it is recorded, i.e. the ink and border colours, the animation speed, excluded and protected inks, and the state of the cycle switch.

In screen modes 1 and 2, it is perhaps best to design your pictures using the standard colours, and then adjust the palette at the end just before saving the screen. This will ensure that all the pull-down menus are legible, since, with some arrangements of colours, they would not be.

INKS



For the sake of convenience, the Inks menu can be reached from most of the main pull-down menus via the 'Set inks' option. The menu allows two inks to be defined, a foreground ink and a background ink. Each ink can be set to one of sixteen colours or to transparent. The outlines around the boxes indicate which inks are current. Note that the same Inks menu is used in all three screen modes, where the number of inks actually available changes. In modes 1 and 2, therefore, some of the ink boxes are repeated, however the duplicates give the same results if used.

The foreground ink is used to specify an ink for most of the drawing that is done on the screen. For example, all shapes are drawn in the current foreground ink, and all pens paint in the current foreground ink. The background ink is used, for example, to specify an ink when clearing a window, or to specify the background of characters printed on the screen.

The Inks menu is also used to specify inks where the terms foreground and background don't have any literal meaning. For example, when swapping two inks within a window on the screen, the inks are defined via this menu.

A 'transparent' ink is one which leaves the screen unchanged when anything is drawn. For example, printing text with a transparent background ink allows the existing pixels between the characters to show through.

Note that you can pull down the Inks menu to change the foreground and background inks without losing the 'mode' you are in, in other words the cursor icon doesn't change.

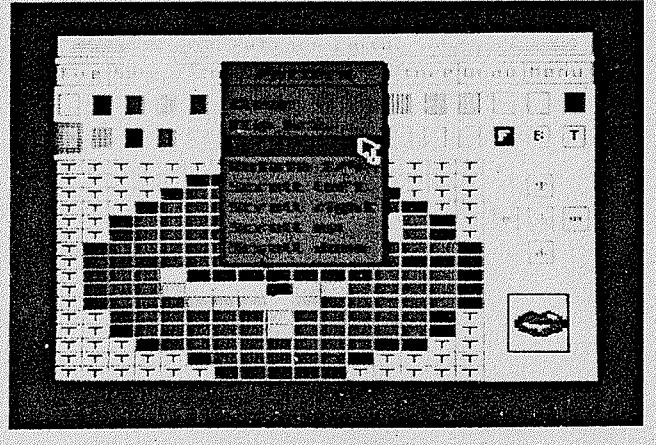
The patterns are really made up of pixels with 'pseudo-inks', where each pseudo-ink is linked to one of the real inks. Changing the links changes the colour of the pixels in the patterns. The top row of sixteen ink boxes represents the colours set from the Palette menu (the real inks). The bottom row represents the sixteen pseudo-inks. Clicking on one of the boxes from the top row changes the physical ink of the current pseudo-ink (the one marked with an outline) in the bottom row.

The last three pseudo-inks are different. 'F' and 'B' are the current foreground and background inks, set from the Inks menu. These pseudo-inks are used for developing two-colour patterns. 'T' stands for transparent, and this pseudo-ink is used for masking out irregularly shaped brushes, or for designing overlaying fills. Note that the links for these three pseudo-inks cannot be changed.

This may all sound complicated (and indeed it is complicated), but a little practice will hopefully clarify things.

The size of the current pattern can be altered by clicking one of the four arrow boxes at the right-hand side of the display. The size is adjustable from 1 by 1 up to 16 by 16 pixels, in steps of a single pixel. The box between the arrows sets the pattern to the maximum size. Note that a pattern used as a fill texture is tessellated to fit exactly within the example box whatever its size.

The current pattern can be changed by pulling down the 'Select' menu, and clicking one of the fifteen patterns. The current pattern is marked with an outline.



There are a number of operations that can be performed upon the current pattern by pulling down the menu from the 'Pattern' box. 'Clear' sets all the pixels in the current pattern to the current ink (which could be transparent for example). 'Flip hrz.' and 'Flip vrt.' flip the current pattern about its horizontal or vertical axis respectively. 'Rotate 1/4' rotates the current pattern by 90 degrees clockwise. 'Scroll left', 'Scroll right', 'Scroll up' and 'Scroll down' scroll the current pattern by one pixel left, right, up or down respectively. A pattern can be rotated by more than 90 degrees by selecting the rotate option two or three times, or scrolled by more than one pixel by repeatedly selecting the last four options.

One pattern can be copied to another. To do this, first select the pattern to be copied from, click the 'Copy' switch, then select the pattern to be copied to.

The 'Capture' option is only highlighted if a window has previously been defined (see the section covering the Windows menu below). Its function is to copy pixels from the defined window into the current pattern, in other words it grabs a pattern from the screen. The resulting pattern will be the same size as the window, unless it is larger than 16 by 16 pixels, in which case it will be clipped from its bottom right-hand corner.

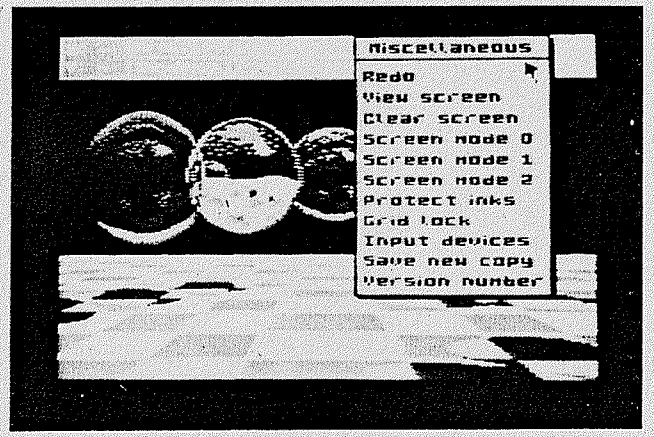
An 'Undo' facility is available within the Pattern Editor. This cancels any changes made to the current pattern, up until the point another pattern is selected, or an option in the 'Pattern' menu is used. For example, if a pattern was cleared by mistake, then clicking the 'Undo' box immediately afterwards would restore it.

Clicking the example box at the bottom right-hand corner of the display allows a newly edited pattern to be used as a fill texture or as a paint brush (depending on whether the Pattern Editor was entered via the Fill or Paint menus respectively). The 'Menu' option is an exit from the Pattern Editor without filling or painting.

Patterns can be saved to and loaded from disc by pulling down the menu from the 'File' box. This is very similar to the file options in the main menu (see above) except that merge is not available, and, of course, only the pattern files on a disc are displayed (those with the .**PAT** filetype). If the palette switch is set, the current palette will be saved or loaded alongside the patterns. Pattern files cannot be compressed.

A number of sample pattern files are provided on the supplied disc, some multi-colour as well as some two-colour fill and brush files. Study of the latter will show how the 'F', 'B' and 'T' inks can be effectively used.

MISCELLANEOUS



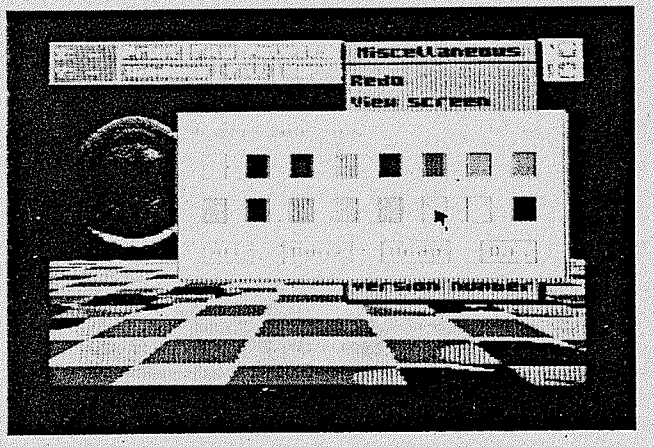
The first option in this menu, 'Redo', is the complement of the 'Undo' function (see below). It swaps the main screen with its back-up store (as opposed to replacing it with), and thus allows an 'Undo' to be previewed. Selecting 'Redo' a second time cancels the effects of a first 'Redo'.

The second option in this menu removes the menu bar from the top of the screen and allows you to view the entire 25 lines of your picture. Press the select button to return to the menu. Note that 'Undo' does not function after viewing the screen, but remember that you can always scroll a picture by clicking the up-arrow and down-arrow boxes to see the extra three lines and still retain the 'Undo' facility.

The third option clears the whole screen (including pixels with protected inks) to the current background ink. 'Undo' is available if you clear the screen by mistake. To clear the screen, but leave protected inks on the screen, select 'Whole screen' in the 'Windows' menu and then 'Clear window'.

The next three options allow you to switch between the different screen modes of the CPC6128. (To recap, mode 0 offers a resolution of 160 by 200 pixels in sixteen colours, mode 1 offers a resolution of 320 by 200 pixels in four colours, and mode 2 offers a resolution of 640 by 200 pixels in two colours). Your picture is not lost when changing mode, it is converted to the new format. Obviously some compromises have to be made in doing this. In going to a higher resolution mode, for example from mode 1 to mode 2, some of the colours in a picture are lost (with the standard palette, white and black are unchanged, red is changed to white, and blue is changed to

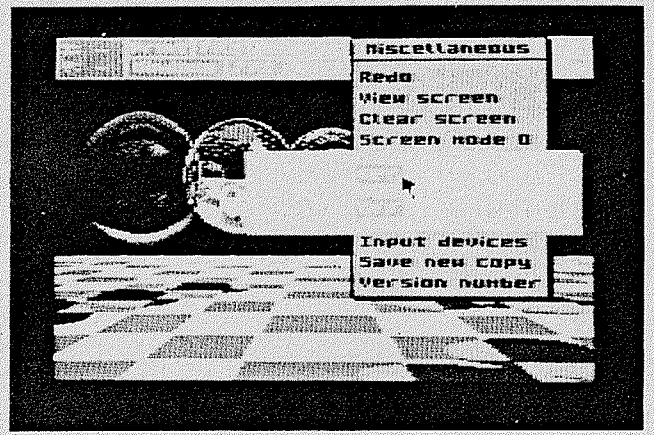
black). In going to a lower resolution mode, for example from mode 1 to mode 0, no colours are lost, but some of the fine detail in a picture may be. Note that you can always undo a mode change by clicking the 'Undo' box in the main menu bar. If a fresh start is required in the new mode, the screen can be cleared after the mode has been changed.



Ink protection is a powerful facility which specifies which inks have a higher priority over others. Pixels with protected inks are not obscured when anything is drawn over them. Ink protection applies to just about any drawing done on the screen - it applies to shapes, text, windows, pens, sprays, brushes, and to fills.

The protection of an ink can be set or reset by clicking its associated box in the Protected Inks menu - an outline around the box signifying that it is protected. The option to protect 'All' the inks would, at first sight, seem to be of limited value, but is useful when protecting all but one of the inks. The box marked 'None' sets no ink to be protected. The 'Undo' option cancels any changes made since the ink protection menu was last pulled down, and the 'O.K.' option exits from the menu confirming the ink protection settings. Protected ink settings are saved with the palette file.

A grid lock is available in ADVANCED ART STUDIO, which locks the cursor to an imaginary grid on the screen. The grid is useful in aligning the components of a drawing. The lock can be set independently in the two axes, and at a number of graduations. For example, if the X-lock was set to 4 and the Y-lock to 8, then the cursor would be restricted to every 4th pixel horizontally and 8th pixel vertically. If a shape was being drawn at the time, then the vertices of the shape would be locked to those particular pixels. Note that the grid lock also applies to painting, windowing, and text.

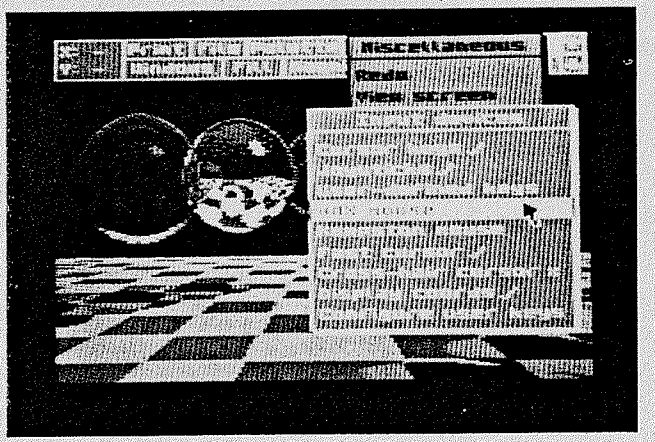


The next option pulls down a menu which controls the Input devices. This menu is dealt with in the section below.

The option 'Save new copy' saves a personalised copy of ADVANCED ART STUDIO to the disc in drive A. The copy will be personalised in the sense of being saved with the state of the menu switches, the screen mode, the current palette, the current set of patterns, the RAM catalogue, and the current font all intact. Consequently, when the copy is loaded back, the system will be already set up for individual requirements. Make sure you have a formatted disc in drive A when selecting this option (Do not use the master disc supplied with ADVANCED ART STUDIO). Copies of ADVANCED ART STUDIO are loaded in the same way as the original, i.e. reset your CPC6128, then enter the command **RUN "STUDIO"**.

The final option in the Miscellaneous menu displays a copyright message and the release number of the particular version of ADVANCED ART STUDIO you are using.

INPUT DEVICES



This menu enables you to specify the input device for your copy of ADVANCED ART STUDIO, i.e. what actually moves the pointer around the screen. In fact, ADVANCED ART STUDIO allows more than one input device to be 'active' at the same time, two devices can act in 'tandem'. For example, a joystick might be used for most of the movement around the screen, and then the keyboard brought in for very fine pixel work. The program is initially set up to use the cursor (arrow) keys to move the pointer and the space bar to select options, in tandem with a joystick (joystick #0 or #1, either 'fire' button).

You can configure the program to use your own choice of five keys on the keyboard (four direction keys and select). The final option in this menu (see below) allows this. Once defined, the new arrangement of keys can be brought into play by clicking the 'User-defined keys' option. Note that the user keys are initially set to cursor keys and ENTER.

ADVANCED ART STUDIO also supports AMX and Kempston mice. A mouse is a far more sophisticated input device than a joystick or the keyboard, and allows much greater control over the movement of the cursor. Note that any of the select buttons on a mouse can be used to control the program.

Two cursor speeds are available, whether the pointer is being moved by the keyboard/joystick or by a mouse. The initial setting is the slower speed. To engage the faster speed, simply set the 'Fast cursor' switch to on.

To can elect to use a cross-hair cursor instead of the icon cursors (except

the window and text cursors) by setting the 'Cross-hair cursor' switch to on. Icons are useful reminders of the 'mode' you are in, but experienced users may prefer the less cluttered cross-hair cursor. It is also easier to gauge the actual point of application of the latter.

The coordinates of the cursor can be continuously displayed in the top left-hand corner of the screen by turning the 'Display coords' switch on (the coords are only actually displayed when the cursor is not in a menu). These coordinates uniquely identify every pixel on the screen, and so are useful in positioning the cursor accurately. The origin of the coordinate system is the bottom left-hand corner of the screen (when fully scrolled up). The X-coord runs from 0 to 639 (in increments of four in screen mode 0, increments of two in mode 1, and increments of one in mode 2), and the Y-coord runs from 0 to 398 (in increments of two in all three modes). This is the same coordinate system as is used by BASIC. Recall that the SHIFT key in conjunction with the direction keys can be used to move the cursor a single pixel at a time.

The final option in the Input devices menu allows the user-defined keys to be reconfigured. Click this option and you will be asked to specify the five keys, in the order corresponding to 'left', 'right', 'up', 'down', and 'select'. For each, press your choice of key. You should only use letter, number and punctuation keys, not CAPS LOCK, SHIFT etc. as these have other meanings.



UNDO

This is one of the most useful facilities in ADVANCED ART STUDIO as it undoes the effects of the last command or operation.

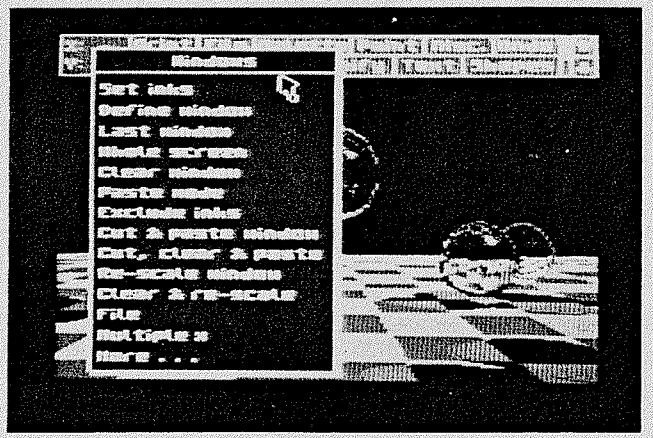
When a command such as 'fill' is selected, the main screen is automatically copied to a special back-up store. The fill operation is then performed on the main screen. If the result is not what's required, then clicking the 'Undo' box causes the back-up store to be restored to the main screen.

Note that this facility only works immediately after any change to the screen.

Undo will not change the current mode of operation, in other words the current icon is not lost. If a window outline is on screen when undo is selected, then it will be retained.

To avoid disappointment, it is important to appreciate exactly when the screen is 'backed up'. As a rule, the screen is copied to its back-up store when a command in a pull-down menu that flashes is selected (defining windows is an exception to this), or, for example, the Font Editor is entered. It is not backed-up when a menu switch is changed, or when a new ink is selected. If in doubt, remember that you can always force a back-up by re-selecting the command.

WINDOWS



A window is a rectangular section of the screen, marked by a dotted outline, which can be acted upon as a whole. Windows can be cleared, moved copied, smeared, re-scaled, flipped, rotated, and saved to or loaded from disc. 'Undo' can be used after a window has been processed to reverse any effects.

A window can be defined by pulling down the menu from the 'Windows' box, moving the cursor to the 'Define window' option, and pressing select. The arrow cursor will be replaced by a small box cursor. This cursor can then be moved about the screen and the select button pressed twice to define two opposite corners of a window. The outline of the window will be marked on the screen with a dotted line, and the cursor will turn back into an arrow. The Windows menu can then be pulled down for a second time and one of the window processing commands selected. Note that at any time while the window is being defined, you may abort the definition by pressing the ESC.

A window that is larger than the 22 visible lines of the screen can be defined by clicking the first corner, clicking one of the arrow boxes to scroll the screen, then clicking the second corner. The option 'Whole screen' defines the whole screen as a window. The option 'Last window' re-defines the last used window.

Clicking the option 'Clear window' clears the pixels in a window to the current background ink, set from the Inks menu. Pixels with protected inks (see Misc. above) are not cleared.

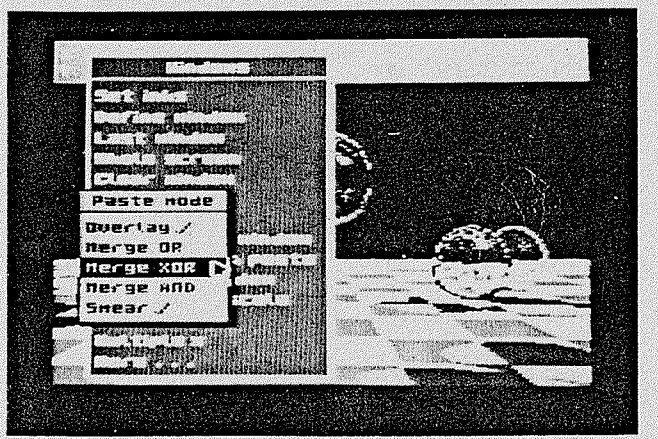
As explained above, a window can be cleared by first defining it using the

'Define window' option, then pulling down the Windows menu a second time and selecting the 'Clear window' option. But an easier and faster method is to select the 'Clear window' option directly, which allows a window to be defined and then immediately clears it. The rest of the window processing commands in this menu work in the same way, they can be selected directly, or selected after a window has been defined. You should use the separate 'Define window' option however in the following situations:- for capturing pixels from a window into a pattern or font, for printing a window, or for saving a window to disc.

The 'Multiple' switch allows multiple windows to be cleared, or multiple windows to be pasted, re-scaled, flipped, rotated etc. Set the switch to on before selecting a window processing command to use this facility.

A window can be copied to another point on the screen by clicking the 'Cut & paste window' option. Once the window has been defined, a second window outline appears which moves as a whole with the cursor, and when the select button is pressed, the original window is copied to the new window. Note that the second window is moved via the first corner defined in the original window. If the 'Multiple' switch is on, as many copies of the window can be made as required.

The option 'Cut, clear and paste' is similar to the above with the addition of clearing the original window (to the current background ink) when copying it, i.e. it effectively moves a window.



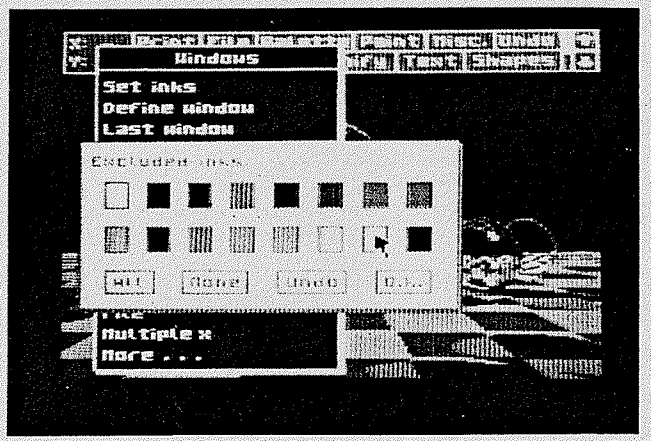
The sub-menu 'Paste mode' contains a number of switches which affect the pasting of windows.

Normally a window overwrites the screen when it is pasted. It can, however, be combined or merged with the existing screen by selecting one of the

'Merge' options. If 'Merge OR' is set, pixels are combined on an OR basis. If 'Merge XOR' is set pixels are combined on an XOR basis. Finally, if 'Merge AND' is set, pixels are combined on an AND basis. To turn off merging, re-select the 'Overlay' option.

'Smear' is essentially an auto-repeat on the select button when pasting, and allows a window to be used like a paint brush. It is best in conjunction with small windows.

Ink exclusion is a powerful feature that allows particular inks to be excluded when a window is pasted, in other words the inks are left behind. It is useful to exclude the background of an object being pasted, so as not to obscure the object's new surroundings.

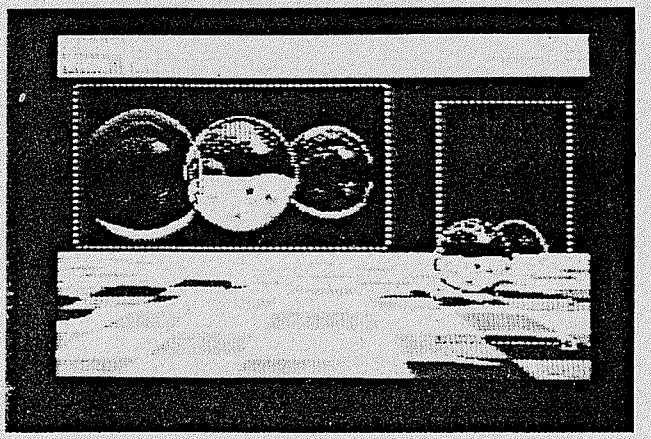


The exclusion of an ink can be set or reset by clicking its associated box in the Excluded Inks menu - an outline around the box signifying that it is excluded. The option to exclude 'All' the inks would, at first sight, seem to be of limited value, but is useful when excluding all but one of the inks. The box marked 'None' sets no ink to be excluded. The 'Undo' option cancels any changes made since the ink exclusion menu was last pulled down, and the 'O.K.' option exits from the menu confirming the ink exclusion settings. Excluded ink settings are saved along with the colour palette.

Ink protection also applies to the pasting of windows, any pixel with a protected ink will show through when pasted over. This enables windows to be pasted behind other objects, typically to preserve the foreground of a picture.

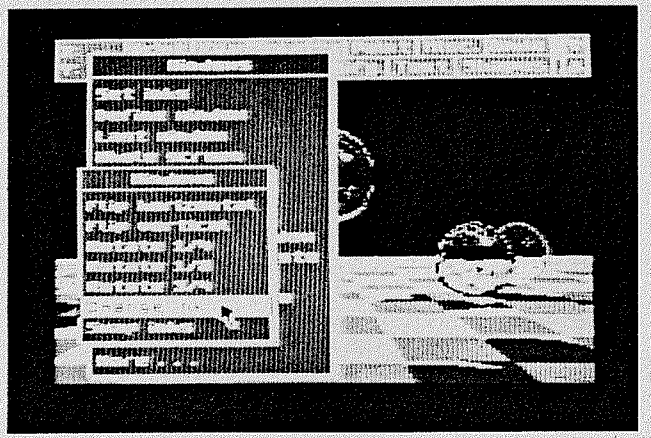
A window can be enlarged, reduced, squashed, or stretched - actions

collectively known as 're-scaling' - by clicking the 'Re-scale window' option. This allows two windows to be defined, the first window is then 'mapped' onto the second window, being re-scaled as necessary to fit into the new outline. Note that there may be some loss of fine detail when a window is reduced in size.



The option 'Clear & re-scale' clears the original window when re-scaling it. Ink protection, ink exclusion and the switches in the Paste mode menu (apart from 'Smear') apply to the re-scaling of windows in the same way that they apply to the cutting and pasting of windows.

Windows can be saved to and loaded from disc by pulling down the menu from the 'File' entry. This is very similar to the file options in the main menu (see above) except that merge is not available and, of course, only the window files on a disc are displayed (those with **.WIN** filetype). A window to be saved to disc must be defined before the File menu is pulled down. Loading a window is equivalent to pasting with it. Ink protection, ink exclusion and the switches in the Paste mode menu apply as before. A loaded window is moved via the first corner defined when the window was saved. Note that the paste mode, any excluded inks etc. must be set up before the window is loaded, if a menu is subsequently pulled down the window will be lost (because the internal buffer used to store the window is also used to store the section of the screen under a pull-down menu).
If the palette switch is set, the current palette will be saved or loaded alongside a window. Window files can be compressed in the same way that whole screens are, by setting the 'Compress' switch at the top right of the File menu. Some sample windows are provided on the supplied disc, and are detailed in Appendix 2.



Clicking the 'More . . .' option at the bottom of the Windows menu pulls down an extension to the menu containing some more window processing commands.

Windows can be 'flipped' or mirrored about their horizontal and vertical axes by selecting the 'Flip' options in this menu.

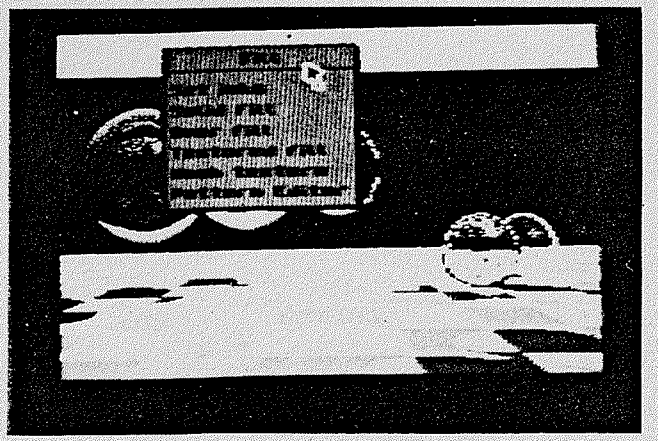
Windows can be rotated clockwise by one-quarter, one-half, and three quarters of a complete turn (equivalent to 90, 180 and 270 degrees respectively) by selecting the 'Rotate' options.

The function of the 'Change ink' option is to change one ink into another over the whole, or part of, the screen. Two inks are defined via the Inks menu, a source ink is specified as the background ink, and a destination ink is specified as the foreground ink. The option then converts all occurences of the source ink to the destination ink within a window.

The 'Swap inks' option takes two inks within a window and exhanges them. Again, the inks are defined via the Inks menu as foreground and background.

It should be realised that these last two options physically change the inks of pixels on the screen, and have nothing to do with the palette.

FILL

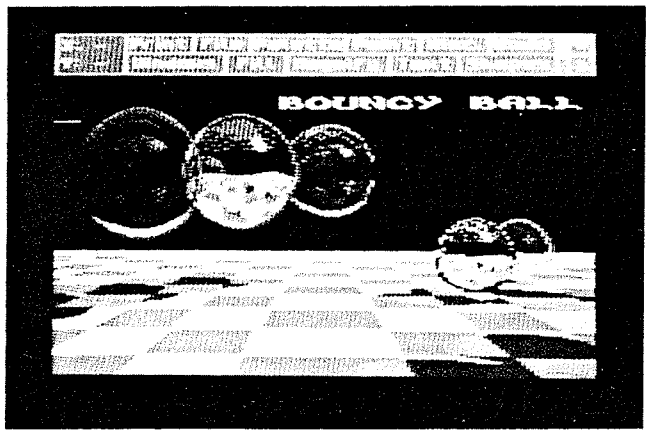


Filling is a technique for rapidly setting all the pixels within an object or shape on the screen. The object to be filled must have a continuous outline, but the outline can be quite complex. An object can be filled with solid colour or it can be filled with a pattern (or texture, as it is known). Textures can be in two colours or they can be multi-coloured. A wide range of textures is provided on the supplied disc - these include various stipples and hatches, and specialised patterns such as bricks and roof tiles. In addition, new textures can be designed to suit individual requirements.

To fill an object solidly, move the cursor down the Fill menu until the 'Solid fill' or 'Over fill' option is highlighted and press select. The arrow cursor will be replaced by a representation of a paint roller. Move this cursor about the screen to some point within the object you wish to fill, then press select again. The fill will proceed outwards in every direction, in the current foreground ink, from the chosen point until the outline of the object or the border of the screen is encountered.

The distinction between 'Solid fill' and 'Over fill' is a subtle but important one, and rests upon their different 'boundary conditions'. A solid fill fills outwards until a pixel of a different ink to the starting point is encountered. An over fill fills outwards until a pixel of a different ink to the starting point is encountered. Both fills set pixels in the current foreground ink. For example, imagine a triangle on a white background with one side of the triangle black, another red, and the third blue. Selecting 'Solid fill' and clicking some point within the triangle, with black foreground ink set, will result in the triangle being neatly filled in black. Or, selecting 'Over fill' and clicking some point within the triangle, again with black foreground ink, will

Three character widths are available, labelled 'Normal width' to 'Treble width', and three character heights are available, labelled 'Normal height' to 'Treble height'. The ticks in the Text menu indicate which options currently apply. Combination of these widths and heights leads to a total of nine possible character sizes, ranging from short, fat characters to tall, thin characters. Note that the characters in screen mode 2 are half the width of the corresponding characters in mode 1 (because the pixels are half the width), and those in mode 0 are twice the width (because the pixels are twice the width). However, the size of each character is reflected in the size of the capital I cursor.



The spacing of text is variable, and can be altered by pulling down the menu from the 'Spacing' option. This specifies the separation of characters in pixels, in the range 4 to 15 (normally 8). There is a half-width character font on the supplied disc (see below), which will give, with the spacing set to 4, double the number of characters per line.

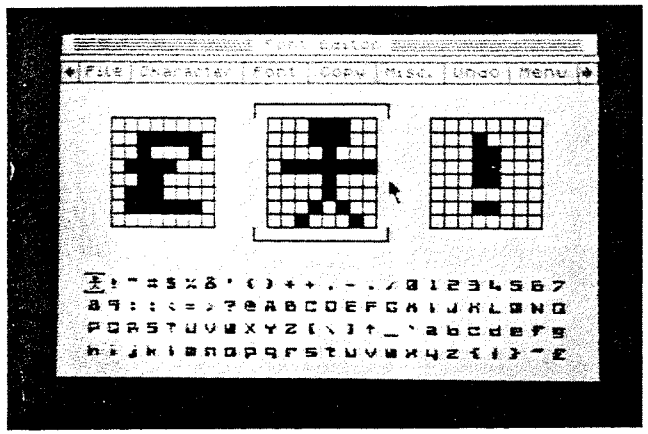
Individual characters can be printed at normal orientation or sideways. The latter helps with the annotation of diagrams, etc. To print characters in this way, simply set the 'Sideways' switch in the Text menu to on before selecting 'Left to right' or 'Downwards' (or indeed, after selecting).

Text can be bold, where each character is printed twice, the second time one pixel to the right, and so appears to stand out. To print bold characters, set the 'Bold' switch to on.

Text can also be printed in italic, a forward slanting style, by setting the 'Italic' switch to on. However, this does not always give satisfactory results for every character, so a separate italic font is included on the disc (see below).

Finally, the last option in the Text menu invokes a Font Editor.

FONT EDITOR

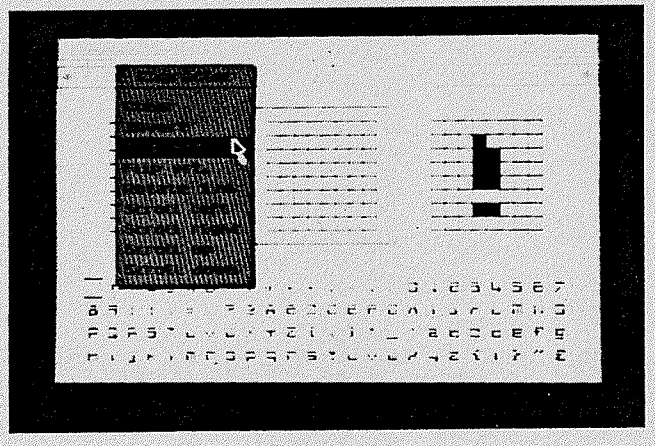


This menu allows you to edit the character set, or font as it is called, that the Text options use. There are 96 characters in a font, ranging from the space character to the pound symbol (ASCII 32 to 127). (Technically this last character is out of ASCII sequence but is included in this position so that there are equivalents in the font for all the symbols marked on the keyboard.) Whole new fonts can be created using this menu, or existing fonts can be altered. Fonts can be stored on disc, and loaded into memory as required.

The 96 characters in a font are displayed at the bottom of the screen, each consisting of 8 by 8 pixels. One of these characters is the current character, this is marked by a top and tail cursor. The current character and the characters immediately to its left and right are shown in enlarged form above the font.

The individual pixels in these enlarged characters can be altered with the arrow cursor. Positioning the cursor over a pixel and pressing select will toggle the pixel. Then, as long as select is held down, and the cursor is moved about, other pixels under the cursor will be changed in the same way as the first. For example, clicking on a set pixel will reset that pixel and reset any others until select is released, and clicking on a reset pixel will set the pixel and subsequent pixels until select is released.

A particular character can be made the current character by pointing at it in the font at the bottom of the screen and pressing select. Alternatively the current character can be scrolled through the entire font by clicking the boxes with arrows in them. The scrolling auto-repeats if the select button is held down. As a convenience for keyboard users, the current character can also be scrolled by pressing CONTROL and a direction key.



There are a number of operations that can be performed upon the current character by pulling down the menu from the 'Character' box. These operations are:- clear (reset all pixels), invert (toggle all pixels), flip horizontal, flip vertical, rotate 1/4 (90 degrees clockwise), scroll left, scroll right, scroll up and scroll down (by 1 pixel). A character can be rotated by more than 90 degrees by selecting the rotate option two or three times, or scrolled by more than one pixel by repeatedly selecting the last four options.

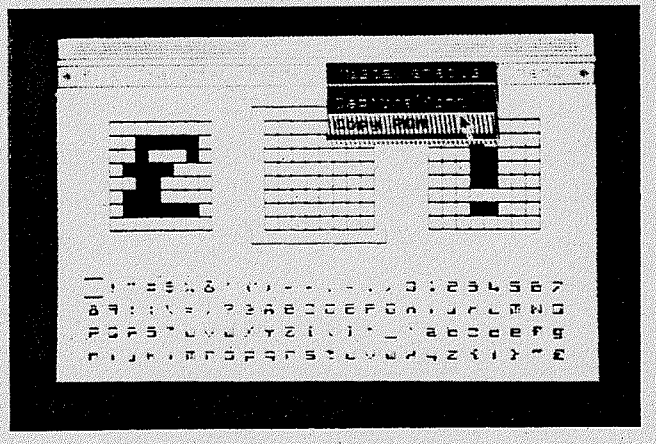
The same set of operations can be performed upon the font as a whole by pulling down the menu from the 'Font' box.

An 'Undo' facility is available within the Font Editor. This cancels any changes made to the character set, up until the point the current character is scrolled or an option in one of the pull-down menus is selected. For example, if the whole font was cleared by mistake, then clicking the 'Undo' box immediately afterwards would restore it.

One character in the font can be copied to another. To do this, first select the character to be copied from, click the 'Copy' box in the menu bar, then select the character to be copied to.

The character set contained in the CPC6128's ROM (the characters

available in BASIC) can be loaded into ADVANCED ART STUDIO's font by selecting the 'Copy ROM' option in the Misc. menu (this is the font that is in memory when ADVANCED ART STUDIO is loaded for the first time).



The 'Capture font' option in the Misc. menu is only highlighted if a window has previously been defined (see the section covering the Windows menu above). Its function is to copy blocks of pixels from the defined window on the screen into the font. Copying starts at the current character and proceeds left to right across the window, from top to bottom, until all the pixels have been used. In screen modes 0 and 1 the least significant ink bit determines whether a pixel is set or reset.

Fonts can be saved to and loaded from disc by pulling down the menu from the 'File' box. This is very similar to the file options in the main menu (see above) except that merge is not available and, of course, only the font files on a disc are displayed (those with **.FNT** filetype). Note that there are 768 bytes (96 x 8) in a font, and ADVANCED ART STUDIO will refuse to load a file if it's larger than this value (it can be smaller though). Fonts cannot be compressed - they are already the minimum file size.

A number of sample fonts are provided on the supplied disc (including a special italic font and a half-width font). These fonts can be used in the design of your own pictures.

When editing is complete, a return to the main menu can be made by moving the cursor to the box marked 'Menu' and pressing select. The font created or loaded is then available via the Text menu.

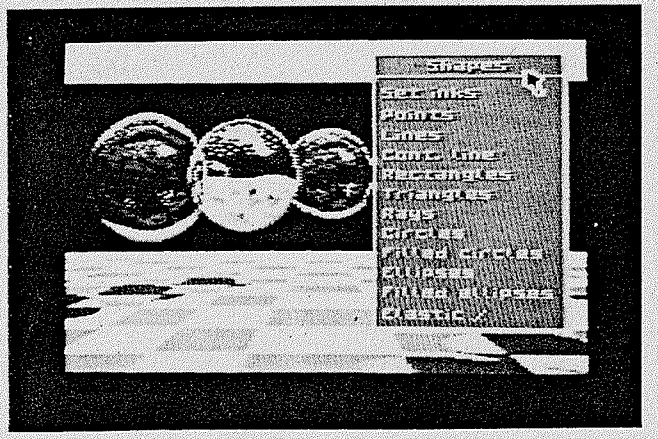
Note that this font editor doesn't have to be used exclusively for ordinary

letters and numbers. It could just as well be used for the creation and editing of user defined characters, or any other symbols that fit into an 8 by 8 grid.

Character sets that you have created using the font editor in ADVANCED ART STUDIO can be used in your own programs with the following BASIC routine:-

```
10 SYMBOL AFTER 32
20 x=HIMEM+1
30 LOAD "filename.fnt",x
```


SHAPES



This menu is used to draw various shapes on the screen. Ten different shapes are available, namely single points, lines, a continuous line, rectangles, triangles, rays, circles, filled circles, ellipses, and filled ellipses. Shapes are drawn by moving the cursor about the screen and pressing select to define the vertices. All shapes are drawn in the current foreground ink, and pixels on the screen with protected inks are not obscured by any shapes drawn over them. Rectangles, triangles etc. are composed of line segments of single pixel width.

For example, to draw a triangle, pull down the Shapes menu, then click the 'Triangles' option. Move the cursor about the screen, and press the select button three times to define the three corners of the triangle.

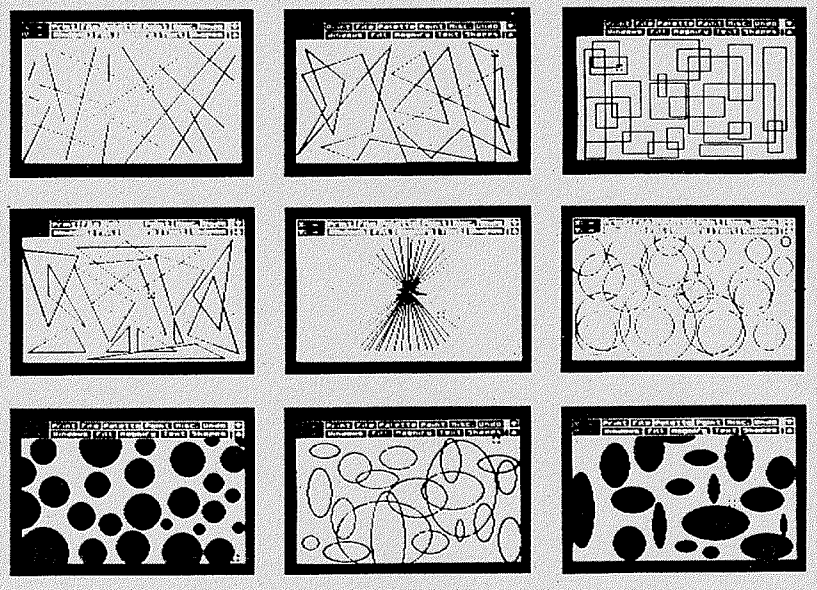
Rays are line segments radiating out from a common centre point, the first point defined.

A circle is drawn by pressing select once to define the centre, then pressing select a second time to define a point on the circumference. An ellipse is similarly drawn - pressing select the first time to define the centre, then pressing it a second time to define the dimensions (think of it as defining the centre and corner of a box into which the ellipse is fitted).

Filled circles and ellipses are drawn in the same way as outline circles and ellipses. They are filled in the current foreground ink. Note that circles and ellipses are drawn over the whole screen, including the three lines not visible at any one time.

Multiple shapes can be drawn without needing to pull down the Shapes menu each time. ADVANCED ART STUDIO stays in 'shapes mode' until something else is selected.

Shapes can be drawn 'elastically'. An elastic shape moves with the cursor across the screen, expanding and contracting as necessary. Pressing select fixes the vertex of an elastic shape as before. This is helpful in getting a shape into the correct position before being committed to that position. To draw an elastic shape, set the 'Elastic' switch in the menu to on before selecting one of the shape options. Note that an elastic shape can be aborted by pressing the ESC key.



APPENDIX 1 - USER-DEFINED PRINTERS

Provision has been made in ADVANCED ART STUDIO to support printers not explicitly listed in the Print menu. The system is expanded via a printer parameter file, which is stored on the same disc as the working copy of the program (don't use the master copy). When ADVANCED ART STUDIO is booted, it looks for the parameter file on the disc, and loads it if present. This must be a 29 byte binary file with the filename **"PRINTER.DEF"**. It can then be selected by setting the 'User-defined' option in the Print menu. The information needed to construct a parameter file for your printer should be contained in its user manual.

Note that subsequent copies of ADVANCED ART STUDIO saved have the printer parameters built into them, and no longer need the parameter file on the disc.

The parameter file can be created with an assembler or with a short BASIC program. An example of the former, for Epson compatible printers, and an example of the latter, for the Amstrad DMP-1, are given below.

The first byte in the parameter file is a flags byte. Bit 0 of this byte is reset if the top wire in the print head is controlled via the most significant bit (m.s.b.) of data bytes sent to it, or set if it is controlled by the least significant bit (l.s.b.). For most printers, it is the m.s.b. Bit 1 of the flags byte is reset for Epson-type printers, or set for printers specifically designed for 7-bit Centronics ports (such as the Amstrad DMP-1).

The next eight bytes in the file are a set of control codes sent to the printer at the start of a screen dump. These control codes will typically be used to set the correct line spacing (7 dot spacing).

The next two bytes are the total number of dots across a printer page in single density mode, low byte first. These are followed by eight control codes to select single density mode. The control codes should be padded out to the left with nulls (zeroes), rather than to the right.

The next two bytes are the total number of dots across a page in double density mode, low byte first. If your printer has only one graphics mode, these two bytes should be zeroes. The final eight bytes are control codes to select double density mode. Again the control codes should be padded out to the left with nulls.

The distinction between Epson-type printers and 7-bit printers needs some elaboration. Epson-type printers are switched into graphics mode by sending a control sequence such as ESC K followed by the number of bytes of graphics data (number of dots) per line. This number is invariably greater than 255, so it must be transmitted as two bytes, the low byte first, then the high byte. At a single density resolution of 480 dots per line, this comes out as the numbers 224 and 1. The byte 224 cannot be sent through the 7-bit

parallel port on the CPC6128. To overcome this problem, ADVANCED ART STUDIO splits pixel lines into groups of up to 127 bytes at a time (127 being the largest number in 7 bits) and precedes each group with the appropriate control codes. Consequently, the set of control codes in the parameter file for Epson-type printers do not need the two bytes for the number of dots as part of them. The DMP-1, on the other hand, is designed by some clever juggling not to need an eighth bit. It can transmit a complete line with only one set of control codes at the beginning. For these types of printers, the number of data bytes per line should be built into the set of (7-bit) control codes in the parameter file.

Assembler example:-

```
; Parameters for Epson printers
;
        DEFB 0      ;       top wire = m.s.b.

;
        DEFB 27     ;       control codes to set line
        DEFB 65     ;       spacing at 7/72"
        DEFB 7
        DEFB 0
        DEFB 0
        DEFB 0
        DEFB 0
        DEFB 0
;
        DEFW 480    ;       dots in single density mode
;
        DEFB 0      ;       control codes to select
        DEFB 0      ;       single density mode
        DEFB 0
        DEFB 0
        DEFB 0
        DEFB 0
        DEFB 27
        DEFB 75
;
        DEFW 960    ;       dots in double density mode
;
        DEFB 0      ;       control codes to select
        DEFB 0      ;       double density mode
        DEFB 0
        DEFB 0
        DEFB 0
        DEFB 0
        DEFB 27
        DEFB 76
```


BASIC example :-

```
10  REM Parameters for Amstrad DMP-1
20  FOR a = 32768 to 32768+28
30  READ b
40  POKE a,b
50  NEXT
60  SAVE "printer.def",b,32768,29
100 DATA  3,0,0,0,0,0,0,0,0
110 DATA  224,1,0,0,0,0,27,75,3,96
120 DATA  0,0,0,0,0,0,0,0,0,0
```

APPENDIX 2 - FILES ON THE MASTER DISC

The master copy of ADVANCED ART STUDIO contains a number of sample pictures, fonts, patterns, brushes and a window library.

Pictures (Set the PALETTE switch before loading). All in MODE 0

RAYTRACE	A demonstration of shadowing and reflection techniques.
FANTASY	A background landscape for the window library demonstration.
CYCLEDEM	A demonstration of colour cycling. Load this picture and select the CYCLE option from the Palette menu).

Character Fonts

ALPBET	FATCAT	FLY
HITECH	ITALIC	SCRIPT
SPYDER	SQUARE	SQUASHED
HALFSIZE		

Fill Patterns

There are six pattern files supplied:

PATTERNS0	This set of patterns is designed for use in MODE 0, and uses the default palette.
PATTERNS1-5	These sets of patterns have been specially designed in monochrome, and don't make use of any physical colours. Instead, they use the currently selected foreground and background inks at all times.

Brush Patterns

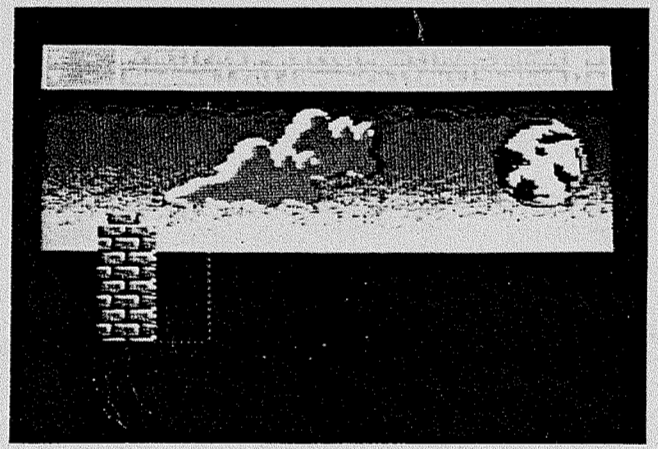
BRUSHES0	These brushes are based upon the PATTERNS0 file.
BRUSHES1	These are simple brushes which use the currently selected foreground and background inks.

Window library

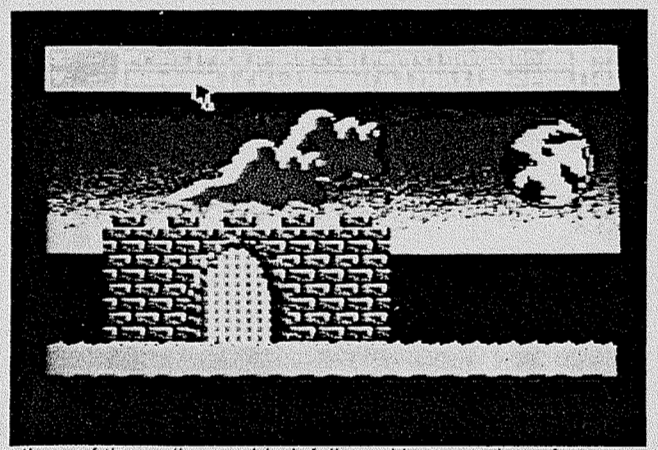
The window library contains a number of pre-drawn picture elements which can be used to produce a picture very quickly and easily. The picture sections supplied can be use to create a fantasy scene, using the picture FANTASY as a backdrop.

CLOUD	DOOR	DRAWBRID
FLAG	MOAT	MOON
WALL	WINDOW	

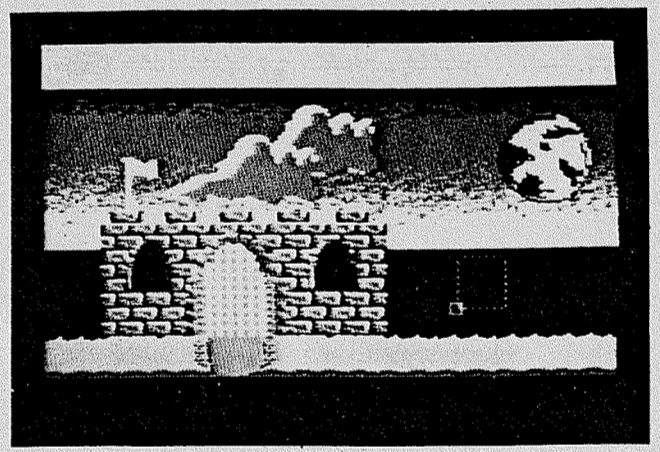
Also included is a section of the Raytrace picture which can then be called up and used as a 'brush'. The window file for this is called GLOBE.



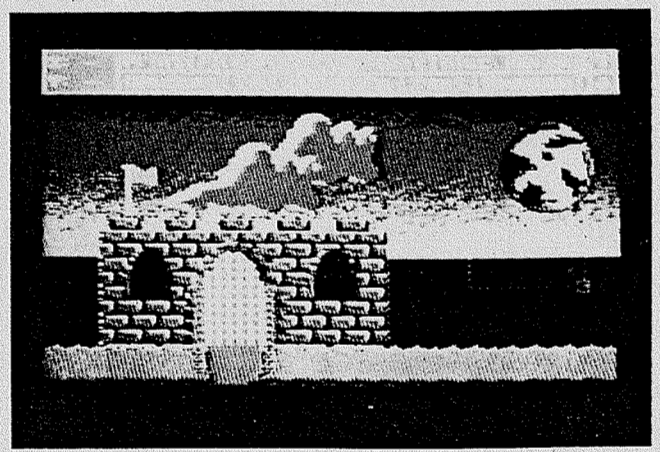
A brick wall is positioned on the screen. Because the Grid-lock is on, it makes positioning of multiple walls very straightforward.



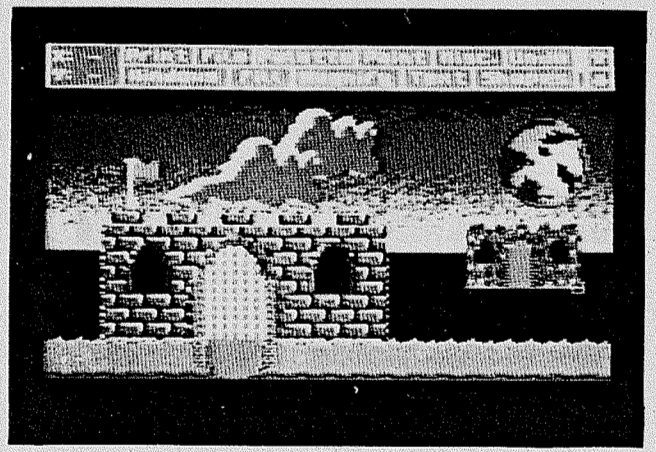
More sections of the wall are added, followed by a number of moat sections, and a portal with a door and lowered portcullis.



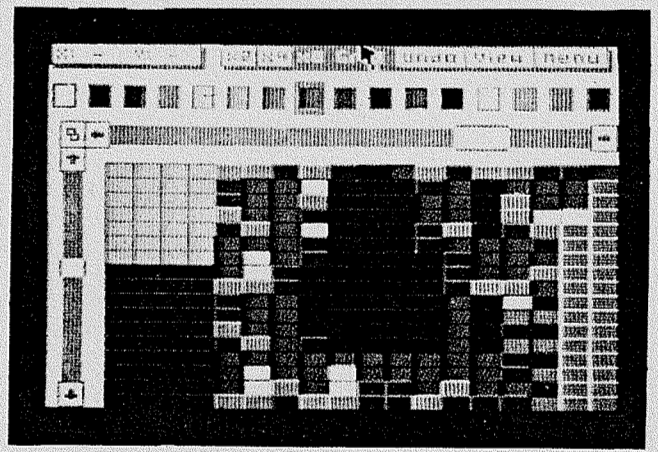
Two windows are positioned on the 'castle', along with a flag and a drawbridge.



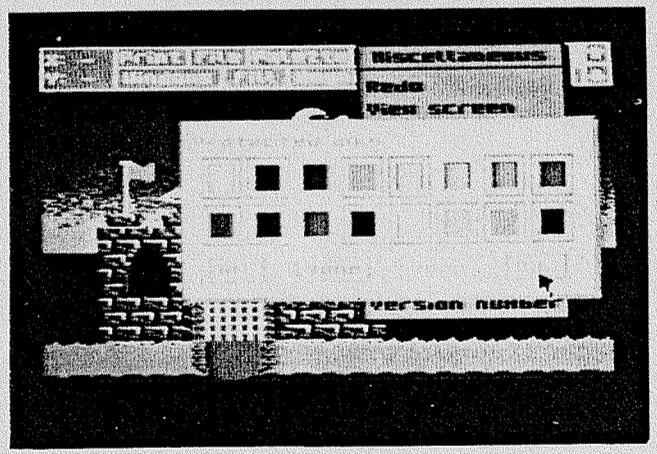
A window is defined around the castle, and then the re-scale option is selected.



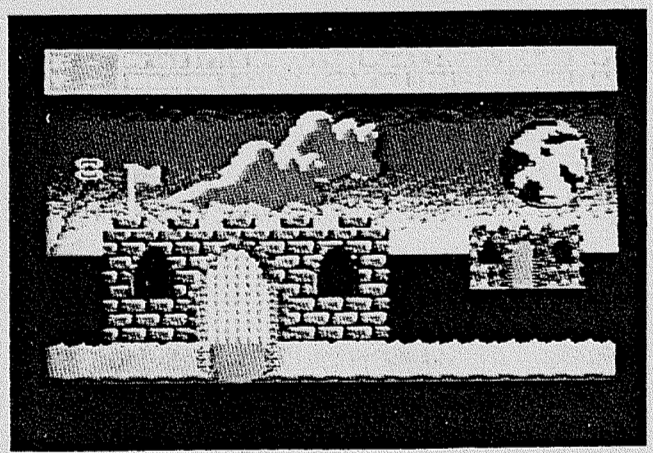
A second castle is now visible in the distance, although some of the moat has been rescaled along with the castle itself.



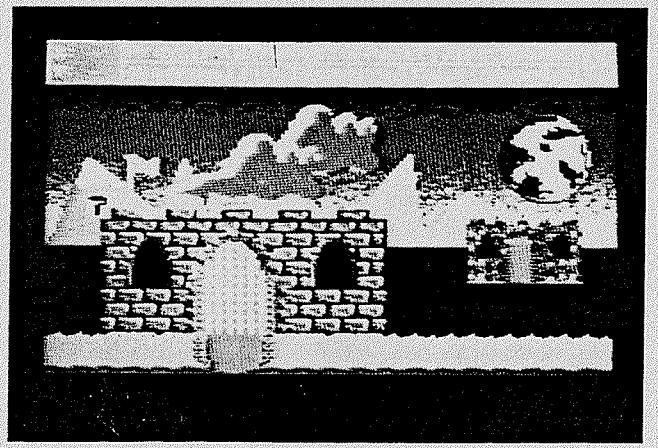
Magnify mode is now selected, with x8 magnification and a grid. The castle is 'touched up', and the offending pixels are removed.



The colours used in the castle are now protected, in order for some background scenery to be positioned behind the castle.



The 'triangle' option is selected from the Shapes menu, in order to draw some mountains.



Once the mountains have been drawn, they are filled, and snow-capped peaks are added.

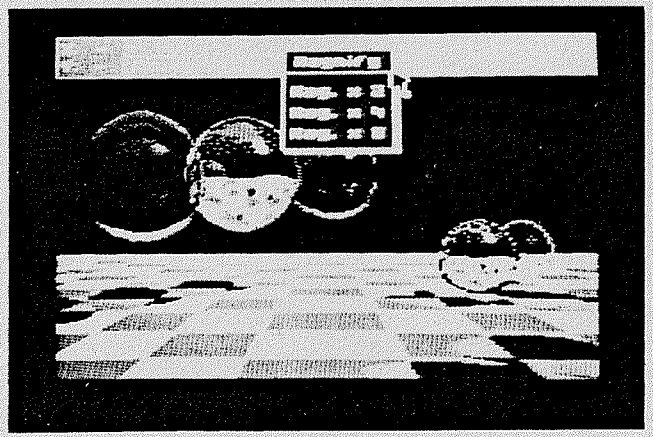


Finally, a title is added, using the Text option.

GLOSSARY

English	Deutsch	Français
A		
arrow boxes	Pfeilkästchen	cases flêchées
B		
background	Hintergrund	fond
back-up store	Zusatzspeicher	copie de sauvegarde
binary	binär	binaire
bold	fett	gras
bold print	Fettdruck	impression en gras
border	Rand, Grenze; angrenzen	bord, bordure, avoisiner
boundary	Grenzlinie	limite
brushes	Pinsel	pinceaux
C		
caps.lock	Großdruck einstellen	mettre en capitales
capture font	Font einnehmen	saisir un caractere
catalogue	Verzeichnis	catalogue
centre	Mittelpunkt/Zentrum	centrer, centre
change colour	Farbe wechseln	changer la couleur
circles	Kreise	cercles
circumference	Peripherie	circonférence
clear	löschen	effacer, supprimer
clear character(s)	Zeichen löschen	effacer un caractère(s)
clear screen	Bildschirm löschen	effacer un écran
clear window	Fenster löschen	effacer une fenêtre
clicking	Einklicken; durch Knopfdrücken aktivieren	cliquer, valider
colour palette	Farbpalette	palette de couleurs
colours	Farben	couleurs
compressed	komprimiert	condensé, compacté
control codes	Kontroll-Codes	codes de contrôle
co-ordinates	koordinieren	coordonnées
copy ROM	kopieren ROM	copier ROM
cross-hair	Fadenkreuz	en forme de croix
cursor	Cursor, Positionszeichen	curseur
cut and paste	ausschneiden und einkleben bzw. inserieren, einfügen	couper et coller
D		
define window	Fenster festlegen, definieren	définir une fenêtre
diameter	Durchmesser	diamètre
discs	Disketten	disquettes
dot matrix printer	Punktmatrixdrucker	imprimante matricielle à points
double density	doppelte Dichte	intensité double

MAGNIFY

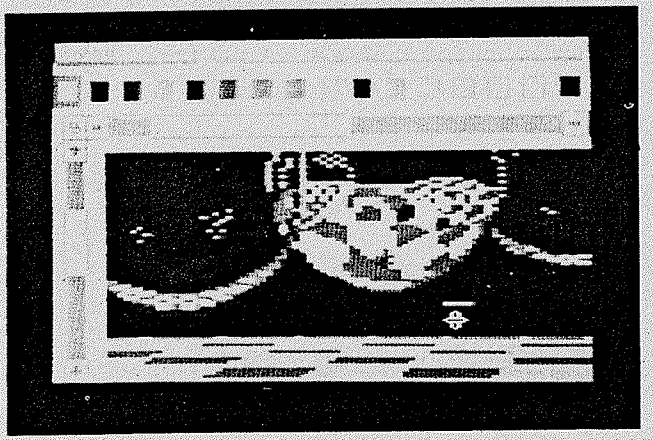


ADVANCED ART STUDIO allows areas of the screen to be magnified for detailed examination and alteration on a pixel by pixel basis. Three levels of magnification are available, with facilities to edit pixels and pan and zoom in each.

To magnify a section of the screen, pull down the Magnify menu from the main menu bar, then move the cursor down this menu until one of the cptions 'Mag. x 2', 'Mag. x 4', or 'Mag. x 8' is highlighted, and press select. The arrow cursor will change into a representation of a magnifying glass. Move this cursor about the screen to the particular area you wish to magnify, then press select again. The main screen will be replaced by a magnified image of this section of your picture.

An individual pixel within the magnified section can be altered by positioning the cross-hair cursor over it and pressing select. The pixel will be changed to the current ink, which is shown outlined at the top of the display. The current ink is changed by clicking one of the sixteen ink boxes. Note that the cursor can be moved while the select button is held down to alter pixels more rapidly.

As a convenience for keyboard users, the current ink can also be changed by pressing function key 0 or the second dot key (the keys immediately above the left and right arrow keys) when the cursor is in the magnified section. The f0 key scrolls the current ink to the left, the dot key scrolls it to the right.



The area to be magnified can be scrolled over the whole screen by clicking the boxes with arrows in them, or 'homed' by clicking the box containing the linked squares symbol. The scrolling auto-repeats if the select button is held down. Alternatively, clicking on the bars between the pairs of arrow boxes scrolls the screen directly. The white markers on these scroll bars show which fraction of the whole screen is currently being magnifed.

As a convenience for keyboard users, the screen can also be scrolled by pressing CONTROL and a direction key when the cursor is in the magnified section.

The magnification can be changed at any time by clicking one of the 'x2', 'x4', or 'x8' boxes at the top of the display. The current magnification is shown highlighted.

A grid is available in the x8 magnification mode - one square in the grid representing one pixel on the screen. This grid can be switched on or off from the 'Grid' option in the menu bar. Note that the pixels in screen mode 1 are square, whilst those in mode 2 are half as wide as they are tall, and those in mode 0 twice as wide as they are tall.

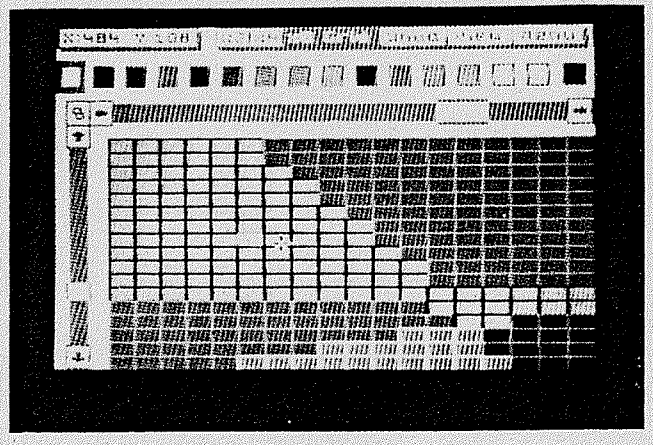
A local 'Undo' facility is available to cancel any changes made to the magnified section, up until the point the screen is scrolled or the magnification is changed.

The 'View' option allows the whole screen to be seen un-magnified, for as long as the select button is held down. A box is drawn around the area currently being magnified.

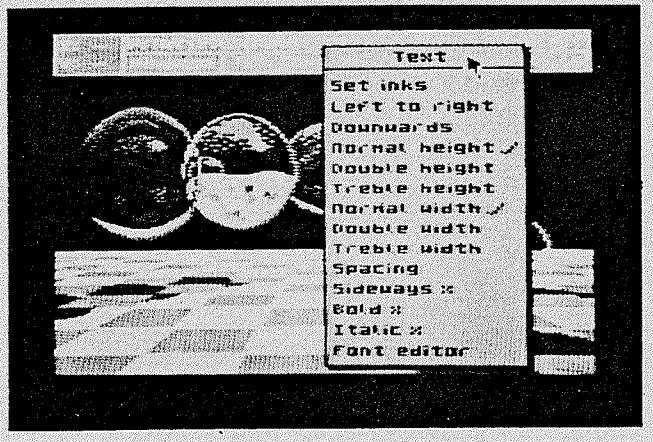
The coordinates of the pixel under the cross-hair cursor - using the same

coordinate system as in the main screen - can be continuously displayed if desired. The coords display is switched on or off from the Input devices menu (see MISCELLANEOUS above).

When editing is complete, a return to the main menu is made by moving the cursor to the box marked 'Menu' and pressing select.



TEXT



This menu controls the addition of text - letters, numbers, punctuation etc. - to a picture. Text can be printed in two directions, to read from left to right, or to read from top to bottom, and individual characters can be printed in one of nine different sizes and in a number of different styles.

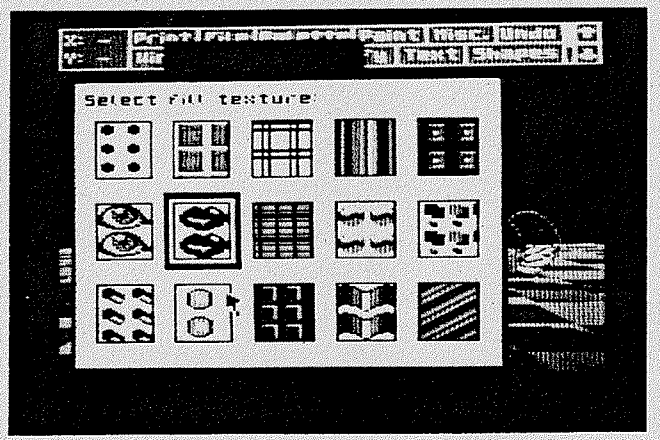
To add text to the screen, move the cursor down the Text menu until the 'Left to right' or the 'Downwards' option is highlighted, and press select. The arrow cursor will change into a cursor which looks like a capital **I**. Move this cursor about the screen to the point at which you wish to add your text, then press select again. The **I** cursor will be replaced by an underscore character, which is the text entry cursor. Type in your text using the keyboard. All the symbols marked as the key legends are available. If you make a mistake, the last character can be deleted by pressing DEL. All keys auto-repeat, and full cursor control (with wrap-around) is available using the cursor keys. The CAPS LOCK key functions as normal, as does the CLR key which clears the character under the cursor.

All characters are printed in the current foreground and background inks, set from the Inks menu. Either ink may be transparent, but note that, with a transparent background, DEL and CLR will be ineffective. Any pixels on the screen with protected inks (see MISCELLANEOUS) are left unchanged when a character is printed.

As each character is printed, the text cursor is advanced to the next character position either immediately to the right or immediately below, depending on the direction chosen originally from the Text menu. Pressing ENTER or RETURN terminates the input of text and recovers the **I** cursor.

result in the fill going right over the red and blue sides and probably ending up covering the whole screen.

Any pixel on the screen with a protected ink will not be affected by a fill, in fact any fill will go right underneath such a pixel (it does not act as a boundary).



To fill an object with a pattern, move the cursor down the Fill menu until the 'Textured fill' option is highlighted, then press select to pull down a menu containing the fifteen available textures. Click the desired texture, then click some point within the object to be filled. A textured fill is a two stage process. First an ordinary solid fill is done, then the chosen texture is 'mapped' onto all the pixels on the screen that have been set by the solid fill.

Note that fills take place over the whole screen including the three lines not visible at any one time. The results of a fill can be checked by clicking the up-arrow and down-arrow boxes in the main menu bar to see these extra lines. A fill can be aborted by pressing the ESC key. If a fill 'leaks' out of an object, or is in any way unsatisfactory, it can be removed by clicking the 'Undo' box.

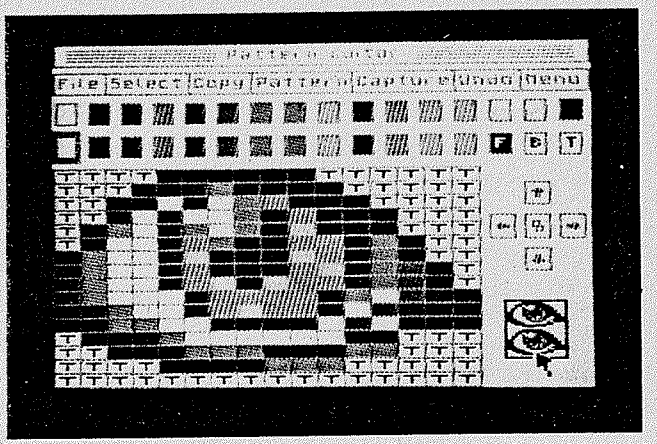
You may like to know that the fill algorithm is structured around an internal stack which stores line segments for the object being filled. Approximately 8 kilobytes of memory are available to this stack, but it is possible that very convoluted shapes may cause the stack to overflow. If this happens, ADVANCED ART STUDIO will not crash, but it may leave some small holes in the object being filled. However, this is hardly ever likely to happen in practice.

'Wash texture' is a versatile feature that effectively allows you to paint directly with a pattern. It uses the same menu of fifteen textures as the above, and works by 'mapping' a chosen texture onto any pixels on the screen that have been changed by a previous operation. This process is essentially an extension of the second stage of a textured fill. Note that it only works immediately after pixels have been altered.

For example, you could draw a rectangle using the Shapes menu (see below), and then wash a stipple texture onto it to get a dotted outline. Or you could wash a striped texture onto a line of text for distinctive lettering.

Note that it is possible to wash a texture onto the results of an over fill. This is a powerful facility, allowing textures to be overlayed on to one another.

The last option in the Fill menu invokes a Pattern Editor. This enables you to edit each of the fifteen textures to fit your particular requirements, or to load some of the pre-defined textures. Refer to the previous discussion of the Pattern Editor following the description of the Paint menu.



dump screen	drucke Bildschirm	vidage de mémoire de l'écran
dump window	drucke Fenster	vidage de mémoire de la fenêtre
E		
edit	editieren	éditer
edit brush	Pinsel editieren	éditer un pinceau
edit texture	Textur, Struktur editieren	éditer une texture, une structure
elastic	elastisch	élastique
ellipse	Ellipse	ellipse
erase	löschen, streichen	effacer, gommer
erasers	Löscher	gommes
exclude inks	Farben ausschließen	exclure des encres
F		
files	Dateien	fichiers
fill	füllen, an-, auf-, ausfüllen	remplir
filled circles	ausgefüllte Kreise	sphères
filled ellipses	ausgefüllte Ellipsen	ellipses pleines
fill, solid	einfarbiges füllen	remplir d'une couleur unie
fill, textured	texturiertes füllen	remplir d'une texture
flag	Fahne	indicateur
flip character(s)	Zeichen wenden, umdrehen	basculer un caractère
flip window	Fenster wenden, umdrehen	basculer une fenêtre
flow rate	Flussrate	taux de diffusion
font	Font, Schrift (-art, -form)	caractère(s), jeu de caractères
foreground	Vordergrund	au premier- plan
G		
grey-scale	Graufarbton-Skala	échelle de dégradés gris
grid	Raster	grille
grid-lock	Raster-Verschluß	verrouillage de grille
H		
hard copy	ausgedruckte Kopie	copie en clair ; support
hexadecimal	hexadezimal	héxadécimale
highlight	hervorheben	mettre en valeur
I		
icons	Steuer-, Vorrichtungssymbole bzw. -zeichen	icônes
ink	Druck, Tinte	encre
input devices	Eingabeeinheit	dispositifs d'entrée
inverse	invertieren, invertiert	inverse

invert character(s)	Zeichen invertieren	inverser les caractères
invert window	Fenster invertieren	inverser un fenêtre
J		
justify	Rand ausgleichen	justifier, aligner (des lignes, par ex.)
K		
keyboard	Tastatur	clavier
L		
last window	letztes Fenster	dernière fenêtre
linefeed	Zeilenvorschub	interligne
lines	Linien, Zeilen	lignes
load file	Datei laden	charger un fichier
logical colour	logische Farbe	couleur "logique"
M		
magnifying glass	Lupe	loupe
mask	Hülle	masque
menu bar	Menü-Balken bzw. -streifen	barre de menu
merge	miteinander verbinden, mischen	fusionner
merge file	Dateien miteinander verbinden bzw. mischen	fusionner des fichiers
merge window	Fenster mitienander verbinden	fusionner des fenêtres
miscellaneous	vielseitig	divers
mode	Modus	mode
mouse	Maus-Steuervorrichtung	souris
multiple	mehrfach	multiple
multiply	vervielfältigen, multiplizieren	multiplier
N		
null brush	Null-Pinsel	pinceau nul
null texture	Nulltextur	texture nulle
O		
overfill	übermalen	couvrir d'un remplissage
over, overwrite	überstempeln, überschreiben	recouvrir, écrire par recouvrement
P		
paint roller	Farbroller	rouleau à peinture
pan	richten (auf), zielen	panoramique
Paper	Papier	papier
parameter file	Parameter-File	fichier de paramètres

paste mode	Klebe-Modus	mode "colle"
patterns	Muster	modèles
pens	Stifte	stylos
physical colours	physikalische Farben	couleurs "physiques"
points	Punkte	points
printers	Drucker	imprimantes
protect inks	Farben sichern	protéger des encres
pseudo-inks	Pseudofarben	pseudo-encres, fausses encres
pull-down menus	'raus ('runter-) ziehbare Menüs	menus déroulants
punctuation	Punktion	ponctuation

R

rays	Strahlen	rayons
rectangles	Rechtecke	rectangles
redo	noch einmal machen	refaire
re-scale window	Fenstergröße neu festsetzen	rééchelonner une fenêtre
rotate character(s)	Zeichen rotieren	faire pivoter un caractère(s)
rotate window	Fenster rotieren	faire pivoter une fenêtre

S

save file	Datei (ab)speichern	sauvegarder un fichier
screen mode	Bildschirm-Modus	mode écran
scroll	durchlaufen (lassen), nach oben (unten, rechts, links) verschieben, durchrollen	faire défiler,vers le haut, le bas, vers la gauche, la droite
scroll catalogue	Verzeichnis durchlaufen lassen	défiler un faire catalogue
scroll character(s)	Zeichen rollen, durchlaufen lassen	faire défiler caractère(s)
scroll font	Font durchlaufen lassen	faire défiler l'écran
scroll screen	Bildschirm durchlaufen lassen	sélectionner une touche
set inks	Farben setzen	mettre des encres
sideways	seitlich	oblique, de côté
single density	einfache Dichte	densité simple
smear	schmieren	tâcher
snap	schnelles Einfügen, Aufsetzen	claquement, claquer, casser net
solid fill	festes Füllmuster	remplissage uni
spray cans	Sprühdose	aérosols
stipple	punktieren	pointillés
swap inks	Farben tauschen	échanger des encres
switches	Schalter	interrupteurs

T

tesselated texture	Mosaikboden	en mozaique
triangles	Textur, Struktur; texturieren	texture, structure
	Dreiecke	triangles

U

undo	ungültig bzw. rückgängig machen	défaire
user-defined graphics	durch den Benutzer festgelegte Graphiken	graphismes redéfinis oblique, de côté

V

version number	Ausgabe-Nummer	numéro de version
view screen	Bildschirm einsehen	visualiser la page écran

W

wash	mit einer Farbe "tünchen" bzw. kolorieren	badigeonner avec une couleur
wash texture	"Tünch"-Textur	badigeonner une texture
worked example	bearbeitetes Beispiel	exemple de travail
windows	Fenster	fenêtres

Z

zoom	zoomen, annähern	faire un zoom rapprocher

INDEX

A
arrow boxes 3,7,10,11,18,20,26,32,35
aspect ratio 5

B
back-up store 20,25
BASIC 9,10,24,41,42,45,47
bit-image graphics 5
bold 38
border 11,12,31
brushes 2,14,16,17,18,19,21,28,48

C
capture font 41
catalogue 7,8,9,22
Centronics 45
change ink 10,11,13,18,30
change mode 20,21,22
circles 5,43
clear, character(s) 37,40
clear, font 40
clear, pattern 19
clear, screen 15,20,21
clear, window 13,26,27,29
clicking 1,3
colour, rotate 11
colours 3,5,10,11,12,13,17,20,21,28,31
colours, cycle 11,12,48
colours, logical 10
colours, physical 10,11,18
compress, picture 8,9,19,29,41
cont. line 13,43
copy ROM 41
cross-hair cursor 23,24,34,35
cursor 2,3,4,23
cut and paste 27

D
define, window 26,27
disks 6,7,8,9,12,15,17,19,22,26,27,29,31,38,39,41,45
dot matrix printers 3,5,6,45
double density 6,45,46
dump, screen 5,6,45
dump, window 5,6,45

E
edit, font 25

edit, pattern 17,18,19,33
elastic 44
ellipses 5,43
erase, file 7,8,9
erasers 15
exclude ink 8,12,28,29,51

F
fast cursor 23
file extensions 7,8,9,10
files 7,8,9,19,29,41,48
fill, solid 31,32
fill, patterned 17,18,19,31,33
flags 3,45
flash 10,25
flip, character(s) 40
flip, font 40
flip, pattern 19
flip, window 26,27,30
font 9,22,25,27,38,39,40,41,42,48

G
grid 21,35,42,54
grid-lock 51,52

H
hard copy 5,6
highlight 2,3,5,7,8,9,14,19,31,32,34,35,37,41
home box 7,35

I
icons 1,3,13,23,25
ink 3,4,10-20,25,26,27,30,31,34,37,41
inks, excluded 8,28,29
inks, protected 8,15,16,21,29,32,37,43
input devices 22,23,24,36
invert, character(s) 40
invert, font 40
italics 38,41,48

J
joystick 2,23
justify 6

K
keyboard 2,7,8,11,17,23,34,35,37,39,40

L
last window 26

line feed 6
lines 3,6,15,20,26,32,43,46
load, file 7,8,9,48
load, font 39,42
load, pattern 19,33
load, window 26,29

M
magnifying glass 34
mask 18
menu bar 2,3,20,32,34,35,40
merge, file 7,8
merge, window 27,28
mode 3,4,6,9,10,12,13,20,21,22,24,35,38,41
mouse 2,23
multiple 27

O
over fill 31,33
overlay 28

P
paint roller 31
palette 6,8,9,10,11,12,18,19,20,21,22,28,29,30,48
paste mode 8,27,28,29
patterns 9,16,17,18,19,22,27,31,32,33
pens 13,14,15,21
pixel 2,13,15,17,18,19,23,24,26,27,28,30,31,32,33,34
points 43
printers 3,5,6,45,46,47
pull-down menus 2,3

R
rays 43
rectangles 33,43
re-scale window 26,27,29,53,54
rotate, character(s) 40
rotate, font 40
rotate, palette 11
rotate, pattern 19
rotate, window 26,27,30

S
save, file 7,8,9,12,21,28
save, font 41
save, pattern 19
save, printer parameters 45
save, window 26,29
save new copy 22

scroll, catalogue 7
scroll, character(s) 40
scroll, font 40
scroll, magnify 35
scroll, palette 11
scroll, pattern 18,19
scroll, screen 3,24,26
select, button 2,3
select, pattern 18,19
sideways 3,5,6,38
single density 6,45,46
smear 26,28,29
spray cans 14,15,16,21,50
stipples 5,31,33
swap ink 30
switches 3

T
textures 17,18,19,31,32,33
transparent 13,18,19,37
triangles 31,42,43

U
undo 11,12,19,20,21,25,26,28,32,35,40
user-defined graphics 42
user--defined keys 23,24
user-defined printer 6,43

V
version number 22
view screen 20,35

W
wash texture 33
windows 2,5,8,9,19,20,21,25,26,27,28,29,30,41

Z
zoom 34

!Line:

Eine Befehlserweiterung des Schneider-Basic um den Grafikbefehl LINE.
Dieser Befehl zeichnet eine Linie von Quellkoordinaten zu dem Zielkoordinaten. Der Syntax ist Folgender:

Shift<Klammeraffe> LINE ,X-start,Z-start,X-Ziel,Y-Ziel,Farbe

zbs. !LINE ,320,200,320,1,3: zeichnet eine Linie vom Mittelpunkt des Monitors senkrecht nach unten.

HI-Score:

Erstellt eine Hi-Score Tabelle für Ihre eigenen Spiele.

Var-Dump

Hier haben Sie die Möglichkeit alle, in Ihrem Basicprogramm vorkommenden Variablen aufzulisten und deren Wert zu erfahren. Hängen Sie diese Routine einfach an Ihr Basicprogramm an, und springen, falls nötig mit GOTO in das kleine Programm.

Modemix:

Mit diesem Programm kann man den Vorteil des MODE O (16 Farben) und den des MODE 1 (40 Zeichen pro Zeile, also gut lesbare Schriftzüge) mischen. Dies wurde folgendermaßen realisiert: Es gibt zwei Zeichensätze mit den 26 alphabetischen Zeichen sowie den 10 Ziffern. Im ersten Satz sind die Buchstaben alle links in der Zeichenmatrix angeordnet, im zweiten Satz rechts. Durch ein übereinanderprinten wird nun erreicht, daß auf jeder Zeichenstelle zwei Zeichen stehen.
Damit man nun aber möglichst komfortabel Zeichenketten ausgeben kann, sorgt diese Routine dafür, daß der String PR$ an der momentanen Cursorposition ausgegeben wird. Das Programm ist also zweiteilig:
1. Teil: Zeichendefinitionen (ab 60000)
2. Teil: Ausgabe Routine (ab 62000)
Die Ausgabe erfolgt mit PR$="<text>": GOSUB 62000.

Textzent:

Es werden die Texte, die Sie eingegeben haben, in die Mitte des Bildschirms zentriert.

Variabel:

Das Programm liest alle Variablen, die in einem Programm vorkommen aus den Variablenspeicher des CPC. Die Variablen werden alle in der Reihenfolge, in der sie im Programm vorkommen, aufgelistet und der aktuelle Wert angegeben. Die Ausgabe kann sowohl auf den Bildschirm als auch auf dem Drucker erfolgen. Nach den Variablen werden die Arrays ausgegeben. Hier wird nur der Name und die Größe der Felder angegeben.
Das Programm wird mit Merge an das zu untersuchende Programm gehängt und GOTO 50000 aufgerufen. Vor Aufruf muß das zu untersuchende Programm mindestens einmal in Betrieb genommen worden sein.

data media gmbh

ROUTINEN, TIPS UND TRICKS

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System Schneider CPC 464, 664 + 6128

Ladeanweisung: **RUN"DATA" [ENTER] (Diskette)**
RUN " " [ENTER] (Cassette)

Deutscher Zeichensatz:

Nach dem Aufruf dieser Routine sind folgende Tasten mit deutschen Zeichen belegt:

- eckige Klammer auf = ä
- eckige Klammer zu = ü
- Pfeil hoch = ß
- Klammeraffe = ö

geschiftet sind die oben aufgeführten Zeichen, außer 'ß' in Großschrift.

Außerdem sind'Z' und 'Y' vertauscht.

Hexdump:

Mit diesem kleinen Programm sind Sie in der Lage den Speicher Ihres Schneider CPC auszulesen. Sie haben die Möglichkeit den 'RAM' als auch den 'ROM-Speicher' auf dem Monitor anzeigen zu lassen. Und das alles entweder als ASCII, oder als Hexdump.

Menue-Generator:

Diese Routine produziert Ihnen automatisch ein vollständiges Menü. Selbstverständlich wird hierbei auch die Abfrage vorgenommen.
Der jeweilige Menütext muß vor dem Aufruf mit GOSUB der Indexvariablen a$(n), wobei 'n' der Nummer des Menütextes entspricht, zugewiesen werden. Anzahl und Positionen der Texte werden ebenfalls von der Routine errechnet. Nach der Rückkehr in Ihr Programm, finden Sie den selektierten Menüpunkt in der Variable 'B'.

Sorter:

Ein komplettes Programm, womit Sie Ihre Programmnamen archivieren können. Es erlaubt das Laden und Speichern, sowie Eingeben, Sortieren und Ausdrucken von Programmnamen.

Fast:

Falls Sie im Besitz von Programmen sind, welche in 'TURBO TAPE' Modus abgespeichert sind, dann haben Sie mit dieser Routine die Möglichkeit diese in Ihren Rechner zu laden. Nach dem Laden und Starten der Routine, laden Sie normal mit LOAD.

Type-Write:

TYPE-WRITE simuliert auf Ihren CPC eine Schreibmaschine. Nach dem Eingeben einer Zeile, wird durch betätigen der ENTER-Taste der Text auf den angeschlossenen Drukker ausgedruckt.

Poke's:

Einige nützliche CALL'S und POKE'S für Ihren Schneider.

Programm-Uhr:

Eine 'Analog'-Uhr, die in Ihren eigenen Programmen Ihre Verwendung finden sollte. Auf Tastendruck erscheint diese Uhr ÜBER Ihrem Programmtext mit Stunden, Minuten und Sekundenzeiger. Bei nochmaliger Tastenbedienung, verschwindet diese wieder, ohne irgendetwas an Ihrem Text manipuliert zu haben. Die Routine besteht aus zwei Teilen, wovon der erste Teil VOR Ihrem eigenem Programm stehen sollte und der zweite irgendwo, als Unterprogramm, untergebracht werden kann.

12 KB Buffer:

Dieses kurze Programm eröffnet Ihnen einen 12 Kilobyte großen Druckerbuffer, womit Sie nun nicht mehr auf die Beendigung des Druckvorgangs warten müssen.

Bin – Copy:

Routine zum Laden einfacher Binär-Dateien. Sie berechnet Startadresse und Länge der Datei und ermöglicht es dem Anwender diese Datei unter einem neuen Namen abzuspeichern.

Bufferex:

Dieses Programm erweitert den vom System bereitgestellten Speicherplatz für die Funktionstastenbelegung auf 800 Zeichen.

Circle:

'Circle' ermöglicht das schnelle Zeichnen von Kreisen. Die Routine wird als Unterprogramm aufgerufen, wobei x und y die Zentrumskoordinaten und r den Radius enthalten muß.

Datagen:

Wandelt Maschinenprogramme in Data – Zeilen um.

Dir-List

Diese Routine gibt Ihnen die Möglichkeit das Diskettendirectory auf einen angeschlossenen Drucker auszugeben.

Hardcopy:

Gibt auf den angeschlossenen Drucker eine genaue Kopie des Bildschirmes wieder, wobei es gleich ist ob es ein Text oder eine Grafik ist. Der Aufruf der Routine lautet: CALL &41000.

Graphik:

Dreidimensionale Darstellung eines Würfels, welcher seine Perspektive durch Rotation verändert.

Grossebu:

Dieses Programm vergrößert Buchstaben auf eine beliebige Größe durch Eingabe von x und y.

Inkey:

Modifizierte Eingabe-Routine. Nach Deklarieren der Locate-Variabeln ZZ, SS und EE können Sie die Routine mit Gosub in ihrem Programm aufnehmen. Nach Rückkehr in ihr Programm steht die Eingabe in BB$.

Invers:

Nach Eingabe eines ADCII-Code, wird dieses Zeichen nach Zufallskriterien geändert. Das ergibt tolle Effekte.

Merege Fix:

Nach dem Laden und Starten dieser Routine funktioniert der Schneiderbefehl 'Merge'.

Notizbl:

Ist ein Maschinenprogramm, daß, nach dem es einmal gestartet wurde, es dem Anwender ermöglicht eine Art Notizblock, während seiner Programmierarbeit im Speicher zu unterhalten. Beim Betätigen von 'FO' können Sie ihren zu merkenden Text eingeben, welchen Sie dann, durch drücken der Taste 'F1' wieder zu sehen bekommen.

Progwahl:

Diese Hilfe sollten Sie auf alle Ihre Disketten abspeichern. Durch Starten dieser Routine bekommen Sie augenblicklich eine Liste der Programme auf den Monitor, die sich auf der im Laufwerk befindlichen Diskette befinden. Sie brauchen dann nur mit dem Cursor an einen Namen zu fahren, Enter zu drücken, und das Programm wird geladen und gestartet.

Drucker:

Nach dem Laden und Starten dieser interessanten Routine wird eine Belegung der Funktionstasten aufgeführt. Diese Tasten werden dann mit mehrmalig vorkommenden Befehlen und Befehlsfolgen belegt. Nach nochmaligem Starten des Programms bekommen sie den zweiten Teil dieser Routine zu sehen. Eine komfortable Druckersteuerung, die sich selbst erklärt.

Druckte:

Überprüft durch springen in diese Routine mit GOSUB, ob der Drucker betriebsbereit ist.

Scratch:

Keine lästig langen Befehlsfolgen mehr beim Versuch, Files auf einer Diskette zu löschen. Nur noch den Namen eingeben und das File wird gelöscht.

Sortier:

Eine für Basic schnelle Sortierroutine, die in Ihren eigenen Programmen Verwendung finden sollte. Sie brauchen nur 'ANZ' mit der Anzahl der Strings und 'NA$' mit den Strings zu deklarieren.

Start:

Start ist ein Programm, von dem aus der gesamte Inhalt einer Diskette aufgerufen und am rechten Bildschirm dargestellt werden kann. Desweiteren befindet sich am linken Bildschirmfenster eine Weltzeituhr mit 19 verschiedenen Orten, die auf drei Seiten verteilt sind. Der eingebaute akustische Alarm kann auf jeden dieser Orte gesetzt werden.
Eine sehr genau gehende Stopuhr gehört mit zum Komfort dieses Programms. Auch nach Programmunterbrechung stellt die Uhr sich wieder auf die richtige Zeit nach. Wenn ein anderes Programm aufgerufen wird, werden die Zeitparameter h, m, s, die Sommer- oder Winterzeit durch die Variabeln s, w und der letzte Stand des im CPC eingebauten Timers (uh) in einem Datafile abgelegt. Um das Programm in der DISK-Version zum ersten Mal zu starten, wird das Programm "DUMMY" benötigt, das auf die Diskette abgespeichert und nur einmal betätigt wird.

Löschen Sie es jedoch nicht, weil Sie es noch auf anderen Disketten gebrauchen könnten.
Das Hilfsprogramm "DUMMY" legt auf der Diskette das Datafile PARA an das gebraucht wird, damit das Programm START keine Fehlermeldung vom AMSDOS bekommt. In Zukunft werden alle Disketten mit "RUN START" gestartet. Das Programm läuft auch ohne Floppy als Weltzeituhr. Dazu müssen allerdings folgende Zeilen entfernt werden * 10, 80, 140, 190, 640 und alle Zeilen von 1650 – 1880. Für die Kassettenversion müssen noch zwei Zeilen mit kleinen Änderungen versehen werden. ZEILE 90 Mode 1 : Zeile 240 GOSUB 1660 abtrennen.

Symboled:

Symboleditor ist ein Programm, mit dem Sie 96 Zeichen des CPC 464 auf bequeme Art und Weise neu definieren können. Für selbstgeschriebene Programme oder Figuren stellt es eine echte Hilfe dar. Nach dem Programmstart erscheinen auf dem Bildschirm 3 Felder. Im oberen Feld befindet sich eine Kurzübersicht aller Befehle. Im linken Feld erscheinen alle 96 Zeichen. Die aktuellen Zeichen stellen eine 8 x 8 Matrix im rechten

Feld dar. Mit den 4 Pfeiltasten können Sie den rechten Cursor jeweils um einen Punkt verschieben. Der linke Cursor wird durch SHIFT und den 4 Pfeiltasten bewegt. Mit der COPY-Taste werden Punkte gesetzt, die durch die DEL-Taste gelöscht werden können.

Sound:

Die Tastatur Ihres CPC wird zur kleinen Orgel. Durch Betätigen der eckigen Klammern sind Sie in der Lage, die Oktaven zu verstellen.

Waitkey:

Diese Routine ist in der Lage, eine von Ihnen bestimmte Taste abzufragen; solange, bis diese Taste von Ihnen gedrückt wurde. Das Programm ist in Maschinencode geschrieben. Sie poken den ASCII-Wert in die Speicherstelle 30001, wonach Sie dann mit CALL 30000 die Abfrage starten können.

F-Tasten:

Sie haben die Möglichkeit die Funktionstasten mit Texten Ihrer Wahl zu belegen.

Joy-Plot:

Ein nützliches Demonstrationsprogramm, mit dem Sie mittels eines angeschlossenen Joysticks auf dem Bildschirm zeichnen können. Ein Grundstein für Ihr eigenes Zeichenprogramm.

Dezpunkt:

Dieses Programm gibt Zahlen, welche mit Dezimalpunkt versehen sind, so wie sie z.B. auf Rechnungen geschrieben werden müssen, wieder.

Error-Ut:

Diese DISK-Fehlerabfangroutine, die Sie in ihren eigenen Programmen verwenden sollten, springen Sie mit 'GOSUB' an, nachdem Sie den Filenamen der Variablen 'Namen$' zugewiesen haben. Falls ein Disk-Fehler auftritt, bekommen Sie eine Meldung. In Zeile '20070' müssen Sie, vor der Benutzung der Routine, hinter GOTO noch eine Zahlennummer eingeben, womit Sie bestimmen, wo das Programm weiterfährt, falls das File nicht gefunden wurde.

Ilcat:

Ein komfortables Tape-Directory. Nach dem Laden und Starten des Programms wird Ihr Schneider um den Befehl 'ILCAT' erweitert. Der Syntax: 'n' entspricht 0 oder 1 = Bildschirm oder Drucker.
SYNTAX: SHIFT <Klammeraffe> ILCAT, n
Das Programm sucht den ersten Block eines Programms oder Files und lädt ihn in den Kassetten-Puffer. Dabei werden die Lademeldungen des BASIC-Interpreters unterdrückt. Name, Typ, Startadresse, Längen und Auto-Startadresse werden in tabellarischer Form ausgegeben. Der Programm-Typ wird als ASCII-Zeichen codiert ausgegeben.

Restore:

Dieses Unterprogramm erlaubt die Berechnung der Restore-Adresse an jeder Stelle eines Programms. Das Unterprogramm wird zunächst in Zeile 10 übersprungen. Die Zeilen 10 und 20 müssen stehenbleiben, damit die Poke-Adressen stimmen. Ab der Zeile 100 kann jederzeit der Wert für q berechnet werden; ein GOSUB 30 bewirkt anschließend ein Restore q.
Beispiel: Geben Sie die Adresse 2000 ein. Beim erneuten Auflisten des Programms erscheint in Zeile 20: RESTORE 2000: Return.

Kalender:

Nach der Eingabe des Datums sagt Ihnen der CPC sofort, auf welchen Wochentag dieser Tag fällt bzw. fiel! Jedoch nicht vor 1753!!!

Bildbewe:

In manchen BASIC-Dialekten gibt es den Befehl Scroll, der es erlaubt, den Bildschirminhalt um eine Zeile nach oben bzw. unten zu rollen.
In BASIC werden die Routinen mit CALL 43880 (aufwärts) und CALL 43886 (abwärts) aufgerufen. Um einen kompletten Bildschirm zu scrollen, müssen Sie den CALL-Befehl in eine For-Next-Schleife einbauen.
Sehen Sie sich dazu unser Beispiel ab Zeile 126 an.

Kollisi:

Dieses Kollisions-Abfrageprogramm fragt das Vorhandensein eines 8 x 8 großen Zeichens auf dem Bildschirm ab. Übergeben werden müssen:
x = x–Koordinate
y = y–Koordinate
far = Farbe des abzufragenden Zeichens.

Laufschr:

Dieses Programm produziert auf dem Bildschirm Ihres CPC eine Laufschrift. Der Text dazu wird vom Programm vorher abgefragt.

FIND:

Dieses Programm ist eine Befehlserweiterung, welche den Schneider um den BASIC-Befehl FIND erweitert. Dieser Befehl sucht im BASIC-Programm nach einer beliebigen Zeichenfolge, die vorher in eine String-Variable geschrieben sein muß. Die Zeilen in denen der Such-String vorkommt werden aufgelistet. BASIC-Befehlsworte müssen groß geschrieben werden. Der Syntax: Ifind, erste Zeile, letzte Zeile, String
Beispiel:
a$='Hallo'
Ifind ,10, 2000,a$
Nun wird zwischen den Zeilen 10 und 2000 nach dem Wort 'Hallo' gesucht.

452 STONEY STANTON RD, COVENTRY,



ANNALS OF ROME

**AMSTRAD CPC SERIES, SPECTRUM 48/128,
COMMODORE64/128, AMSTRAD PCW 8256/8512,
ATARI 520 ST, IBM PC COMPATIBLES.**

INDEX

SECTION	DESCRIPTION	PAGE
1	INTRODUCTION	1
2	LOADING	1
3	GAME STRUCTURE	2
4	GAME TURNS :	2
	A START/SAVE	3
	B ECONOMICS	3
	C PERSONNEL DISPLAY	5
	D PERSONNEL ASSIGNMENT	5
	E LOYALTY	6
	F CIVIL WAR	7
	G FOREIGN WARS	8
5	PLAYING THE GAME	8
6	MISCELLANEOUS NOTES	9
7	TABLE 1	14
8	TABLE 2	15
9	MAP	16
10	AUTHORS NOTES & REFERENCES	17

NOTE: ANNALS OF ROME will be best understood if you read these instructions carefully before beginning the game.

ANNALS OF ROME IS PRODUCED UNDER LICENCE FROM ROME SOFTWARE.

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1. INTRODUCTION

The ANNALS OF ROME is a vast strategy game based on the rise and fall of the Roman Empire. Starting in the year 273 B.C., the date by which the Roman Republic had gained control of Italy, your role is that of the ruling power group in the Roman Senate, deploying Roman armies and commanders in successive foreign and civil wars.

YOUR PRIME OBJECTIVE IS . . . SURVIVAL.

At any time you will be faced with up to THIRTEEN independent hostile powers, each fighting to extend its own range form the incompetent GAULS to the deadly CARTHAGINIANS, and many more. If you survive the initial centuries of the game and establish an empire, be prepared . . . Beyond your northern frontiers on the RHINE and DANUBE are the teeming hordes of barbarians, including ALLEMANI, MARCOMANNI, FRANKS, GOTHS, DACIANS, HUNS, VANDALS, and more. In the south, your eatern frontier on the EUPRATES is constantly diputed by the PARTHIAN EMPIRE and later by the PERSIAN (SASSANID) EMPIRE.

To give you a military advantage, you have at your disposal the incomparable Roman Citizen LEGIONARIES, reinforced by mobile AUXILIARIES and static Garrison troops (LIMITANEI). In addition, you have up to 21 individual OFFICERS, of a wide range of ability and loyalty. If you deploy them and your armies intelligently you will usually beat the oppostion. But beware . . . The cost of military failure is invasion and loss of territory, with consequent loss of popularity and confidence in your regime. If this becomes too serious some of your COMMANDERS may decide to rebel and attempt to seize power in Rome as DICTATOR, or even reach for the purple and become EMPEROR. This means CIVIL WAR, the consequences of which may be a disastrous weakening of the armed forces and withdrawal of legions from critical frontier regions.

NOTE : History rarely gives second chances. The only skill level in this game is ALL OR NOTHING.

2 LOADING INSTRUCTIONS

AMSTRAD CPC:

(A) Cassette Version — Ensure the tape is fully rewound and press the CTRL & Enter keys simultaneously and follow the screen prompts.

If you are loading a tape into a CPC 664 or CPC 6128 machine, type |TAPE/RETURN first.

(B) Disc Version — Type RUN "DISC/RETURN. Note: The game will access the disc from time to time so keep it in the drive at all times other than when saving or loading an unfinished game.

SPECTRUM 48/128
Load in the normal way using the command LOAD " ".

AMSTRAD PCW 8256/8512
ATARI 520 ST
IBM PC COMPATIBLES
With the machine turned off place the disc in your boot drive (normally drive A) and turn on the machine. The disc will now load automatically.

COMMODORE 64/128
(A) Cassette Version — Ensure the tape is fully rewound and press the SHIFT & RUNSTOP keys. Now follow the screen prompts.
(B) Disc version — Type LOAD "ANNALS", 8,1 / RETURN followed by RUN when the READY prompt appears.

ANNALS OF ROME has finished laoding when you are asked to select NEW/OLD/SAVE or CONTINUE. If this is the first time of loading select the CONTINUE option.

3. GAME STRUCTURE

The game may continue indefinitely, or until it is obvious that the Empire has utterly collapsed and no more can be gained by going on.

The game is played as a sequence of GAME-TURNS, each GAME-TURN representing between one and 25 historical years. The actual dates corresponding to a given GAME-TURN are displayed in the top right-hand corner during most phases of the game. The random variation in GAME-TURN length reflects the essential unpredictability of historical events. For instance, several long periods of relative stability may be suddenly followed by a few short periods with a rapid alternation of fortune.

4. GAME-TURNS

A GAME-TURN consists of the following phases:

a) START-SAVE PHASE
b) ECONOMICS PHASE
c) PERSONNEL DISPLAY PHASE
d) PERSONNEL ASSIGNMENT PHASE (if allowed)
e) LOYALTY PHASE

f) CIVIL WAR (if necessary)
g) FOREIGN WARS

There are additional phases which occur automatically, beyond your immediate control, such as COLONISATION of Roman controlled regions and DECOLONISATION from lost territories. Also, some phases occur only under exceptional circustances, such as TRANSFER OF CAPITAL if ROME has been sacked, or IMPERIAL SUCCESSION if the current Emperor has died peacefully.

The various phases are explained in the following sections.

4a). START — SAVE PHASE

After loading and at the start of each game turn, the computer asks you to select either a NEW game, LOAD and OLD game, SAVE the game at its current postion or CONTINUE.

1. NEW GAME: This option allows you to abandon the current game and restart from 273 BC. Press N for this option.
2. LOAD AN OLD GAME: To continue playing a previosly saved game, place the tape or disc with that game into the player/drive and press L.
3. SAVE GAME: To save the game at its present postion insert a blank tape or disk for each saved game.
4. CONTINUE: Simply press ENTER/RETURN to continue with the current game.

4b). ECONOMICS PHASE

In this phase the computer calculates revenue, population growth and army recruitment for each nation, based on populations in regions under control. Rome (ie you) only has the option of increasing revenue at will. This occurs during the TAXATION SUB-PHASE, when the computer asks<TAX RATE (1-2)>.

If you are confident that you can survive on the lowest income rate (1) type <1> and press ENTER. Otherwise, type in a suitable number, such as 1.5, between 1 and 2. A rate of 2 effectively DOUBLES your income for the current game-turn.

WARNING

It is recommended that you use the lowest tax rate of 1 as much as possible. A high tax rate has the following undesirable side-effects, apart from the immediate benefit of an increased revenue:

i) In the subsequent game-turn, the RATE OF INFLATION (displayed) increases, with a corresonding devaluation of your currency. This means

that you will pay later for increased revenue now.
ii) Your POPULATION may cease to grow and start to decline, because resources are being withdrawn from it.
iii) Your POPULARITY may drop, possibly by such an amount that CIVIL WAR breaks out, and you may lose more than the initial benefits from the increased revenue.

The best times to use a high tax-rate are when
a) Your popularity is high and you have used a low tax rate in the previous game-turn, or
b) Your popularity index is already very low and there is a definite frontier crisis calling for more expenditure on the army.

Apart from the tax-rate, all other aspects of ECONOMICS are dealt with automatically and are beyond your immediate control. These include:
i) POPULATION GROWTH or DECLINE (limited by available land.)
ii) ARMY RECRUITMENT. Generally, the army is no more than one tenth of the total population. Note that only one branch of the armed forces (ie LEGIONARY, AUXILLIARY or LIMITANEI) can be recruited in any given Roman controlled region. Details are given in TABLE 1.

Although only one nation can control a given region at any time, there may be several different national populations present in that region at that time, reflecting recent historical circumstances. This is because indigenous populations do not in general disappear on conquest, but decline over perhaps several centuries as the successful invaders establish themselves. During decline, certain conquered populations in their homeland regions may provide a source of resistance to the conquerors. Armies recruited in this way come free of recruitment cost.

HISTORICAL NOTE
POPULATION and ARMY size is always in units of ONE THOUSAND. ROMAN population would be much higher, but is not a factor in this game.

ROMAN army size is based on the historically known size of the Roman and Auxiliary armed forces. Although this fluctuates according to circumstances, the army will total several hundred thousand at the height of empire, with less than half mobile legionaries.

Note that on the map, figures on non-Roman controlled territories are in units of TEN THOUSAND soldiers. For Roman controlled territories, the figures are in LEGION units, ie FIVE THOUSAND soldiers. Because of superior training, one Roman Legion is usually comparable with most non-Roman ten-thousand soldier units. However, there are important exceptions, notably with the advent of cavalry based barbarian armies in the late third century and onwards, when the traditional Roman Legion became obsolete. Details of military capability are given in TABLE 2.

4c). PERSONNEL DISPLAY PHASE
This display shows the current status of the 21 Senators and Commanders after the previous game-turn. Some or all may have died,been killed, or retired, etc. The rest will have aged accordingly, and their current ages and official status is displayed. A typical example is:
IT D JULIUS MAXIMUS 34 56 COMMANDER 22
EXPLANATION: The first two letters denote the office's current location, in this case Italia. Each individual is assigned an identifying PERSONAL LETTER (from A to U), in this case D, which you must use when moving that particular individual. This is followed by the individual's full name, in this case JULIUS MAXIMUS. Note that in certain displays only the second (family) name is used. The two digits following the name are:
i) the individual's command ABILITY, ranging from 0 to 5 and
ii) the individual's LOYALTY, ranging from 0 to 5.

In each case, 0 represents the worse and 5 the best value from your point of view. In the example, JULIUS MAXIMUS has an ability of 3 (reasonable) and a loyalty of 4 (good) to the current regime.

An individual's ability can never change, but his loyalty can change, depending on STATUS changes due to promotion or demotion. The lowest status is that of SENATOR, as the SENATE is the recruitment pool for army officers. This is followed by TRIBUNE (junior offices), LEGATE (General) and finally COMMANDER (Regional Governor). Note that once a commander has been proclaimed DICTATOR by the Senate or IMPERATOR by his troops his new status cannot be altered except by his death.

The two digits following the ability and loyalty give the officer's current age. In the above example, JULIUS MAXIMUS is currently 56. NOTE that the older a regional commander is, the more likely he is to consider seizing power.

The age is followed by the individual's current status, in this case JULIUS MAXIMUS is a COMMANDER. Any COMMANDER status is followed by the EFFECTIVE REGIONAL COMBAT STRENGTH under his command. In the example, JULIUS MAXIMUS commands and effective force of 22 (thousand) in ITalia. In this display LEGIONAIRIES AND LIMITANEI are counted with a combat factor of 2 and AUXILIARIES with a factor of 1.

4d) PERSONNEL ASSIGNMENT PHASE
This phase will not occur if only one region is under Roman control or if the POPULARITY INDEX is below zero. The latter condition reflects the loss of organizational control which occurs when a regime is in disarray (as reflected by a negative popularity index). In such a case the next section follows on immediately.

In this phase you have the opportunity to reassign all or none of your available officers to regions under Roman control. On the right hand side there is a table of all regions. A number indicates the effective Roman army

strength. An asterisk (*) indicates that there is a COMMANDER currently assigned to that region. A dash (-) indicates that there is at least one non-commanding officer, such as LEGATE or TRIBUNE, in that region.

Note that REGIONS must be referred to by their initial two letters and all officers referred to by their PERSONAL LETTER. There is no need to press ENTER after each personal letter is a group of officers is being moved to a given region.

Note also that it is advisable to ensure large armies have strong commanders (ie high ABILITY factors). Armies CANNOT be moved during this phase.

4e).LOYALTY PHASE

In this phase the display is similar to the PERSONNEL DISPLAY PHASE, section c. Now, however, the objective is to show which regional commanders (if any) are plotting rebellion. In such a case, the entry for the commander concerned will be in reverse field.

The number of commanders who plan to rebel in the next phase is affected mainly by the current POPULARITY INDEX, which ranges from -5 (extremely unpopular) to +5 (very popular). Additional factors which contribute to disloyalty are

i) A commander with a low LOYALTY INDEX, perhaps due to demotion,
ii) A commander with a large LEGIONARY component under his command. This gives him more confidence in a successful rebellion. Note that only LEGIONARIES can rebel with their commander and march on Rome. Therefore, in this section, the numbers following a COMMANDER status are LEGIONARIES only, counted with a factor of one. AUXILIARIES and LIMITANEI play no role in CIVIL WAR. AUXILIARIES are non-Roman in origin and have no interest in Roman Power struggles, remaining in provinces to safeguard them. Similarly LIMITANEI are fixed garrison troops recruited locally, with no interest or motivation to move beyond their home regions. Both sorts of troops will immediately accept any change in the ruling regime in the capitol.

In this phase there are two ways in which you may attempt to pre-empt or eliminate a rebellion:

i) You may try to bribe the army to remain loyal. The computer asks <HOW MUCH TO THE TROOPS?>.

You can allocate up to 5000 talents to the troops, if the display shows that any commander is contemplating rebellion. This money is distributed to ALL soldiers in the Empire. Note that you may find yourself in debt (ie the TREASURY INDEX drops below zero). This will cost you resources in the next game-turn. Moreover the troops may take the money and still rebel.

Clearly, if all commanders plan to remain loyal, there is no need of largesse

to the troops and you can just type ENTER.

ii) The command of Rome is decisive. If the Capital Commander rebels successfully, he will automatically take over and become DICTATOR or EMPEROR. To prevent this, you have the ability to appoint another commander in his place in the Capital. This is possible in Rome only, because the Senate, being based in Rome is less likely to lose control of the situation there than in other regions. Note that a replacement commander may also decide to rebel, so it is important to consider the LOYALTY INDEX of prospective Commanders. Also, a commander is committed to rebel only if the current regime is in power at the start of the next phase, CIVIL WAR. If reports are received by the Senate that several commanders in the field are likely to rebel, it is possible that some of them will not do so if the current regime is replaced by a popular leader BEFORE they have declared themselves publicly in the next phase and actually implemented their revolt. Note that the sequence in which commanders may rebel is chosen randomly.

There may well be occasions when you (representing the ruling power group in the Senate) will decide to abandon an unpopular leader and support one of the rebel commanders. In such a case you should appoint a commander in Rome with a low Popularity index, making his disloyalty to the current leader more likely.

4f). CIVIL WAR

If any commanders rebel as a result of the previous phase they will first attempt to induce their LEGIONARIES to join them. If any legionaries or non-commanding officers remain loyal to the current regime there is an initial conflict subphase to determine the regional status. If the loyalists win, the region will remain loyal and all rebels will be executed. Otherwise, the successful rebel commander will march on Rome with his legions.

You will then have to decide whether to fight a CIVIL WAR, with the objective of elimination of all rebel forces, or whether to manoeuver your forces to avoid conflict with possibly superior rebel armies. The main objective should be to minimise losses in conflict during this phase, as the Empire can be disastrously weakened by prolonged civil war. Rebel Commanders will attack each other as well as loyal troops. They are able to move through non-Roman controlled territory at will, but once they have done so loyal armies will be able to follow. If a rebel army enters a loyal region without a commander, the loyal troops desert to the rebels.

When a rebel seizes power, he becomes head of the new regime, and you are now considered to be the ruling power group in the Senate supporting him. A new popularity index is assigned, between 0 and 5. If he is relatively unpopular, you may be able to replace him with a better candidate by further intrigue and Civil War.

4g). FOREIGN WARS

The final phase of the game-turn involves foreign wars between any of the power blocks currently on the map. All 28 regions are dealt with in a random sequence, and during the early years of the game when Rome controls only a few regions, you will just have to sit back and watch developments between other power blocks. This occurs automatically, and the results will be reflected by changing patterns on the map.

Note that you may decide to do nothing aggressive in this phase, but you will find yourself under constant attack nevertheless.

When a Roman controlled region has its turn, you will be able to decide where to send your troops (if any), which officers will lead them, and how many troops (LEGIONARY or AUXILIARY) will go. For example, ITalia cannot be reached directly from ILlyricum, because invaders have generally taken the land route to the north.

Once you have sent the Senate's instructions to the regional Commander they are implemented immediately. Conflict occurs automatically and is out of your hands at this stage. Consequently, you should only send commanders with high ability, as this greatly aids in battle. If a garrison without a current commander is attacked by an invader it defends with a leadership factor of zero.

Conflict takes into account the following factors:

i) the size of the armies concerned,
ii) the technological level of the armies,
iii) the leadership ability,
iv) the inevitable random element.

Conflict takes place as a sequence of BATTLES, the number of which is equal to the length of the game-turn in years. A report of the result of a battle involving Roman forces is displayed as soon as it is resolved, In some cases, control of a region is not decided completely, particularly if the game-turn corresponds to only a few years. In such a case, the map will display a lightly mottled region, indicating UNRESOLVED CONFLICT.

Note that conflict ceases only when ALL oppostion is eliminated, that there is no retreat, and there is a small ATTRITION RATE suffered by all parties involved.

5. PLAYING THE GAME

On average, there are about eight GAME-TURNS per century. It should be noted that the whole game has been structured on an accurate historical basis, and consequently, there are long term trends which may take several centuries to run their course. These include the following:

i) The initial centuries of the REPUBLIC, during which time the CARTHAGINIAN EMPIRE and the GAULS must be defeated and the foundation for Empire established.

ii) This is followed by a period of instability, during which time various DICTATORS may arise following CIVIL WARS. In the East, Rome will come into contact with the SELEUCID EMPIRE, one of the remaining splinters of the empire of ALEXANDER THE GREAT.

iii) Eventually, a stable regime will emerge and the EMPIRE under a series of popular EMPERORS will expand to its greatest extent during the first centuries A.D. In the east, Rome will find itself in conflict with the PARTHIAN EMPIRE, which has supplanted the collapsed Seleucid Empire.

iv) Barbarian invasions from the North will put pressure on Rome during the first two centuries. This will lead to further instability in the Empire, with frequent civil wars and changes of Emperor.

v) A successful defence in the early centuries A.D. will probably require a stagnating policy of high taxation and static defence, culminating in the epic struggle with new Barbarian invasions in the late fourth and fifth centuries.

vi) Survival beyond this time will probably leave Rome sacked, the Western Empire lost, and the Capital in a new region, possibly in Asia (C = CONSTANTINOPLE). Overall populations, standing armies, and territories will be greatly reduced. In the east, Rome will be locked in conflict with the PERSIAN (SASSANID) EMPIRE, the successor to the Parthian empire.

vii) Reconquest of the Western Empire will prove difficult and frustrating, particularly when the ARABS appear in the MIDDLE EAST in the early seventh century.

viii) Survival as the BYZANTINE EMPIRE, based in Asia, is possible for several centuries, but the advent of the TURKS in the eleventh century from the EAST makes continuation beyond that date problematical.

Note that the course of the development of the Roman Empire, is determined by two factors. The most important one involves historical events such as the barbarian invasions and the appearance of hostile empires. There is nothing you can do to prevent these. However, you retain at all times the ability to mould your strategic response to fit changing circumstances, and this will allow you to explore possible alternative historic paths. Consequently, some of the trends outlined above may not need to occur.

6. MISCELLANEOUS COMMENTS ON THE GAME.

1. CONTROL OF A REGION is assigned to an army only if there are no other armies (of any size) in that region.

2. If you control a region and plan to move on, you must leave AT LEAST

one thousand (ie one unit of) Legionaries, Auxiliaries, or Limitanei in that region to maintain control.

3. All armies age according to the length of the game turn, and veterans are retired at a corresponding rate. Roman veterans retire after 25 years service and do not re-enter the recruitment pool, (the POPULATION), whereas non-Romans retire after a longer period, reflecting the semi-professional nature of many national armies. In addition, non-roman veterans do re-enter their recruitment pools. Moreover, Roman veterans have to be pensioned off. This creates a drain on the Roman Treasury.

4. All armies tend to be acompanied by civilians, reflecting camp followers, colonists and traders. Accordingly, when the Romans successfully invade a region there will atuomatically be established in initial nucleus of Roman population in that region which will subsequently grow to the natural limiting size for that region over a period of years.

5. There is a constant process of population movement. In addition to COLONISATION to controlled regions, there is DECOLONISATION from lost territories, and a process of ROMANISATION, whereby native populations slowly become Roman in nature. There is a corresponding process of de-ROMANISATION in lost regions. This latter process occurs at a faster rate than ROMANISATION, reflecting the difficulty of establishing and maintaining a superior Roman civilization.

6. ATTACK and DEFENCE are not differentiated. The action takes place over a time-scale measured in years. On such a scale, both invaders and defenders would be fighting more or less on equal terms, apart from the advantages of superior military technology. For instance, Roman LIMITANEI have an enhanced combat factor reflecting the fixed fortifications built up in certain strategic frontier regions. Generally, barbarian armies have the advantage of large numbers.

7. The Roman Homeland is always ITalia. If ITalia is lost, there will be a national UPRISING by the Romans in ITalia ONLY if Rome is the Capital. If the Capital has been transferred, there is no uprising in ITalia. Moreover, if the new Capital is lost, there is no uprising in that region.

8. TRANSFER OF CAPITAL if Rome is sacked in the late centuries is recommended, since the entire treasury is lost when the current Capital is sacked. During the fourth century onwards, ITalia becomes a frequent target for Barbarian armies, and transfer to ASia is a good move, if possible. ASia will provide an excellent prospect for reviving the empire, at least in the EAST, and with CAppadocia, provides rich source of revenue, population, and Legionary recruitment. Alternative sites for the Capital remain for you to investigate.

9. The unit of ARMY SIZE appears to change from phase to phase, but the program always works in the basic integer unit of one tousand men, ie 1 = 1000 men. However, various display work in other units as follows:

i) ON THE MAP, non-Roman armies are in 10,000 man units. For example, 4 could mean 46000 Huns. This display size was chosen for several reasons, the most important being that the region display window can accommodate two digits only. If such an army is below this unit in strength, the national code letters are displayed. For example, HU could mean up to 9000 men.

ii) ON THE MAP Roman armies are in 5,000 man units, representing LEGIONS. Historicaly, individual legions existed for extended periods and many had their own historical identities. This feature is NOT incorporated in this game, due to memory limitations.

iii) The PERSONNEL STATUS and PERSONNEL ASSIGNMENT displays give EFFECTIVE ROMAN ARMY SIZE. This takes into account the enhanced combat value of LEGIONARIES AND LIMITANEI, and is given by the formula

EFFECTIVE STRENGTH = 2*LEG + AUX + 1.5*LIM

This formula is used because when assigning officers to regions, it is important to know the exact fighting strength in a given region.

iv) The LOYALTY PHASE displays LEGIONARY strengths directly, as only legionaries are involved in CIVIL WAR.

10. Various symbols appearing in certain displays have the following meanings:

PLN: POPULATION SIZE in 1000 man units
ARM: ARMY SIZE
POP: POPULARITY
TRE: TREASURY
SCO: SCORE
INF: INFLATION RATE

11. All leaders age and die, either in bed or by being deposed. When a DICTATOR dies naturally, the REPUBLIC is resumed. When an EMPEROR dies peacefully he is succeeded by his son, with a new popularity index, ranging between −5 and +5. There is an immediate LOYALTY PHASE with the possibility of CIVIL WAR, over and above the normal run of the game, if the imperial heir is unacceptable to the army.

12. POPULARITY

This ranges from −5 (highly unpopular) to +5 (very popular), and reflects attitudes of army officers to the current regime. This index is impòrtant in determining the likelyhood of a regional rebellion. The game starts in 273 B.C. with a popularity of +5.

Factors altering the popularty index are:

i) gain of a region : + 1
ii) loss of a region : − 2
iii) Officer killed in battle : − 0.1
iv) each army unit (one thousand men) lost: − 0.01

v) Tax rate : variable effect
vi) age of Dictator or Emperor : proportional drop in popularity
vii) New Dictator or Emperor : reset between 0 and + 5
viii) Imperial Succession (Emperor dies peacefully and replaced by heir) : reset between − 5 and + 5.

13. SCORE

The score reflects how well you have managed the Empire to date. You may well end up with a negative score.
Factors changing the score are :
i) Each region under Roman control per year : + 1
ii) All 28 regions under control at the end the the conflict phase : + 1000
iii) Each officer killed in battle : − 1
iv) Sack of Capital : − 5000
v) New Dictator or Emperor : − 25
vi) Imperial Succession (Emperor dies peacfully) : + 100

Clearly, the SCORE is a subjective estimate of the relative importance of various events. Possibly, a better indicator of success is simply the DATE when the very last region is lost to you.

14. HOMELANDS

Each nation has a HOMELAND assigned to it which it has an absolute PRIORITY to recover if lost. The only exception is ROME. If you lose ITalia, you may decide to TRANSFER YOUR CPITAL to a new region (one under your control), and it will be your new centre of operations.

You will be able to divert potential invasions of your territory if you launch a successful raid and capture the invader's homeland. Their armies will have no option but to abort their current campaigns and return home as quickly as possible. The relevant information is displayed in TABLE 2. An immediate benefit of the capture of an enemy homeland is that you also capture their entire current treasury. This will severely affect their ability to recruit armies in the next phase, and greatly aid you. In the initial part of the game you may consider rapid strategic knockout blows aimed at capturing the Carthaginian homeland of AFrica, the Aacedonian homeland in GRaecia, and the Gaul's homeland in GAllia.

15. THE MELTING POT OF HISTORY

In certain ways, nations are like organisms; they grow, mature, and decay, sometimes disappearing from history for ever. In this simulation, certain races will disappear spontaneously at predetermined time, reflecting internal dissentions, etc, and other races will appear in their place. Details are given in TABLE 2. After you have played the game several times you will be able to plan ahead to anticipate the arrival of powerful new nations. You may find that your anticipation of developing situations has not greatly helped you, particularly if your fine but obsolete imperial army has been placed in the path of an invading steamroller and been flattened. The ultimate question in this game is :

WAS THE FALL OF ROME INEVITABLE GIVEN THE CIRCUMSTANCES AT THE TIME?

7. TABLE 1

	Region	Land	Income	Recruitment	Neighbouring Regions				
IT	Italia	1000	1000	Legionaries	AL	SA	SI	GR	
AF	Africa	750	500	Auxiliaries	MA	SA	SI	CY	
GA	Gallia	750	500	Auxiliaries	BR	BE	AL	NA	
GE	Germania	1500	750		BE	RA	PA		
GR	Graecia	500	350	Auxiliaries	IT	IL	TH	CR	SI
AS	Asia	01000	750	Legionaires	TH	CA	CP	CR	
ME	Mesopotamia	500	350		AE	SY			
AE	Aegyptus	400	400	Limitanei	CY	CR	CP	JU	
JU	Judaea	250	100		AE	SY	CP		
DA	Dacia	1500	500		PA	IL	GR	AS	
HI	Hispania	500	300	Legionaries	NA	MA			
MA	Mauretania	250	150	Auxilliaries	HI	AF			
TH	Thracia	300	300	Auxilliaries	DA	IL	GR	AS	
PA	Pannonia	250	250	Limitanei	GE	RA	IL	DA	
RA	Raetia	250	200	Limitanei	GE	BE	AL	PA	
AL	Alpes	500	250	Legionaires	IT	NA	GA	BE	RA
BR	Britannia	200	100	Limitanei	BE	GA			
NA	Narbonensis	500	250	Legionaries	GA	AL	HI	SA	
CY	Cyrenaica	250	200	Auxiliaries	AF	SI	CR	AE	
SY	Syria	500	300	Limitanei	CA	ME	JU	CP	
AR	Armenia	250	150		CA	ME			
BE	Belgica	500	250	Limitanei	BR	GA	AL	RA	GE
CA	Cappadocia	750	500	Legionaries	AR	SY	AS	ME	
IL	Illyricum	300	250	Limitanei	PA	DA	TH	GR	
SI	Sicilia	100	100	Legionaries	IT	SA	AS	CY	GR
SA	Sardinia	100	100	Legionaries	NA	IT	SI	AF	
CR	Creta	100	50	Auxiliaries	GR	AS	AE	CY	CP
CP	Cyprus	100	50	Auxiliaries	AS	CR	EA	JU	SY

8. TABLE 2

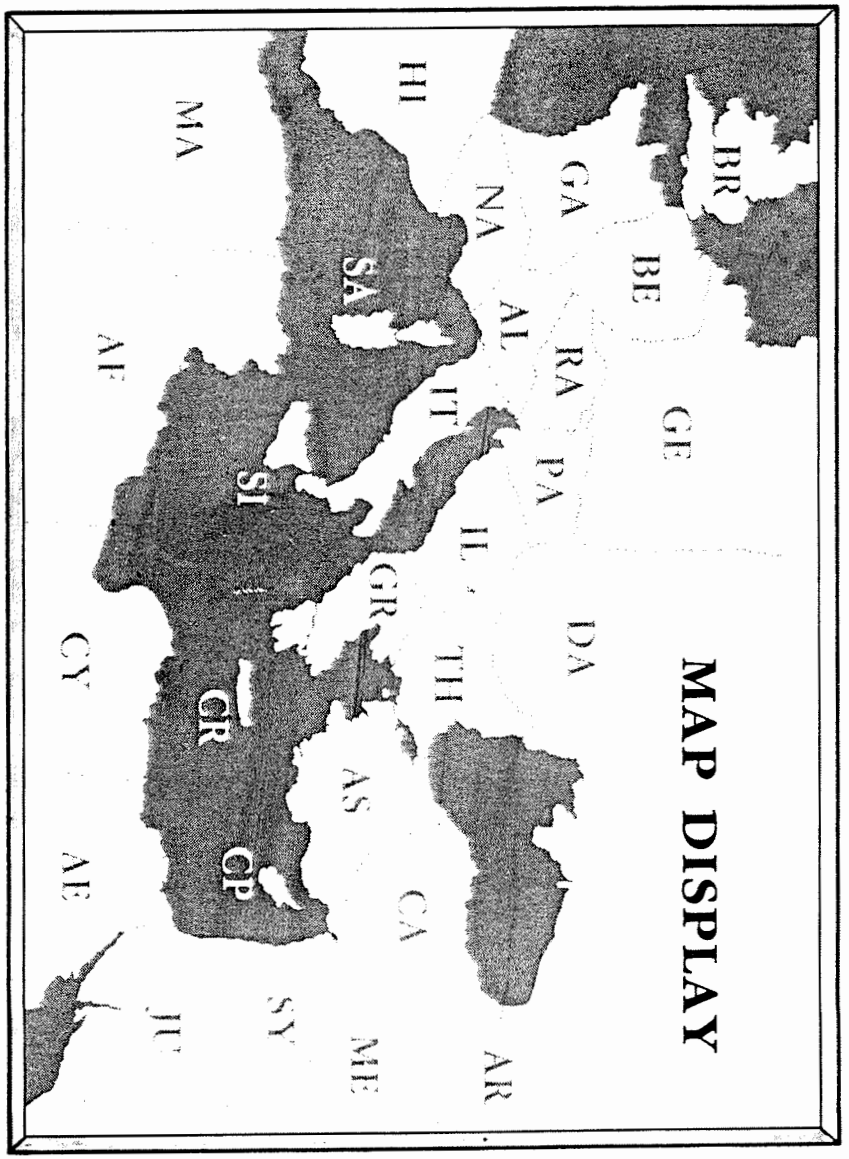
Armies	Combat Value	Homeland	Period	Invasion Routes
Legionaries	10			
Auxiliaries	5*			
Limitanei	7.5**			
Carthaginians	10	Africa	273BC-525AD	
Gauls	3	Gallia	273BC-200AD	
Macedonians	7	Graecia	273BC-250AD	
Phrygians	3	Cappadocia	273BC- 75BC	CA
Seleucids	4	Mesopotamia	273BC-100BC	ME
Egyptians	4	Aegyptus	273BC- 25AD	
Numidians	3	Mauretania	273BC- 25AD	MA
Celtiberians	2	Hispania	273BC-200AD	
Illyrians	5	Illyricum	273BC-375AD	
Celts	3	Britannia	273BC-375AD	BR
Greeks	4	Graecia	273BC- 0AD	
Germans	4	Germania	115BC-825AD	GE
Dacians	4	Dacia	190BC-275AD	DA
Parthians	5	Mesopotamia	75BC-225AD	ME
Armenians	2	Armenia	50BC-150AD	AR
Marcomanni	3	Alpes	AD-375AD	RA
Berbers	2	Africa	50AD-	MA AF CY
Jews	2	Aegyptus	50AD-150AD	JU
Alemanni	4	Raetia	225AD-450AD	RA
Franks	5	Gallia	225AD-	BE
Persians	5	Mesopotamia	250AD-640AD	ME
Goths	5	Graecia	250-325AD	TH
Gepids	2	Dacia	300AD-450AD	DA
Visigoths	10	Hispania	350AD-475AD	TH
Ostrogoths	10	Italia	400-563AD	PA
Vandals	10	Mauretania	400AD-500AD	RA BE
Huns	10	Pannonia	400AD-475AD	PA DA
Slavs	2	Dacia	475AD	DA
Saxons	4	Britannia	475AD	BR
Lombards	7	Alps	500AD	PA
Avars	3	Dacia	550AD-796AD	DA
Arabs	10	Mauretania	625AD	JU
Abbasids	5	Aegyptus	750AD-1000AD	ME
Germans	10	Italia	850AD	GE
Castilians	5	Hispania	1026AD	HI
Turks	10	Asia	1075AD	AR

FOOTNOTES:

* : AUXILIARIES are non-Roman soldiers led by Roman officers, acting as support for the main Roman Legions

** : LIMITANEI are garrison troops equivalent to auxiliaries. However, their fixed fortifications and defence works give them an advantage in combat, hence their enhanced combat value.

Invasions occur through INVASION ROUTES if the homland is occupied by a hostile power. All nationalities may revolt in their homeland if it is occupied by a hostile power and there is a non-zero homeland population.



Regions

IT Italia
AF Africa
GA Gallia
GE Germania
GR Graecia
AS Asia
ME Mesopotamia
AE Aegyptus
JU Judaea
DA Dacia
HI Hispania
MA Mauretania
TH Thracia
PA Pannonia
RA Raetia
AL Alpes
BR Britannia
NA Narbonensis
CY Cyrenaica
SY Syria
AR Armenia
BE Belgica
CA Cappadocia
IL Illyricum
SI Sicilia
SA Sardinia
CR Creta
CP Cyprus

AUTHORS NOTES AND REFERENCES.

MORAL NOTE

Hopefully, this simulation will not be regarded as just a game, but provide some useful historical perspectives. Perhaps the most important lesson learned by the author is the ultimate futility of Imperialism, of one sort or another. To be fair, it should be pointed out that this simulation does not do justice to the positive benefits of the PAX ROMANA to many millions of humans over many centuries. Ultimately, YOU will have to judge the worth of the Roman Empire, with all the benfits of hindsight and safe distance.

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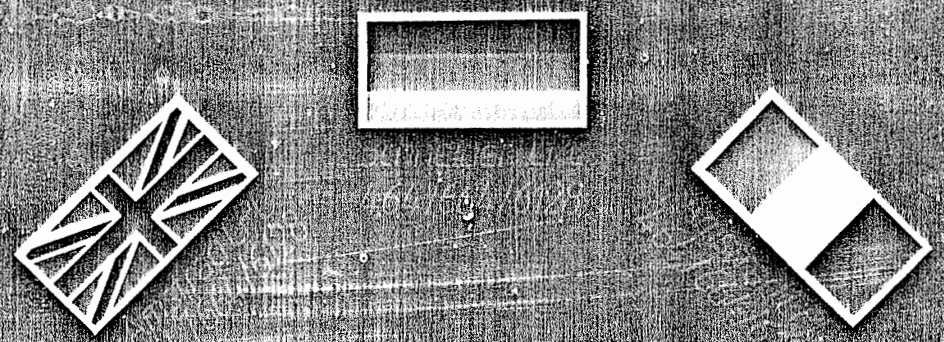
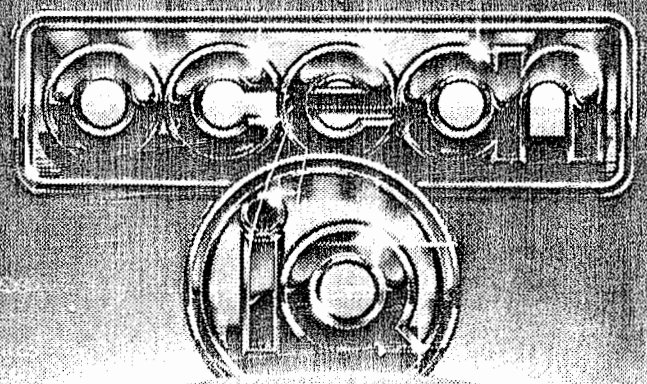
In addition, numerous other references were consulted to provide backup information for matters such as the Roman Army.

Note that in this game there will be mumerous and destructive foreign and civil wars, rebellions and depositions of Emperors by violence. Any cursory reading of history text on the period in question will show beyond doubt that there is little exaggeration, and if anything, the historical reality was more turbulent in some cases. For example, THE HISTORIES by Cornelius Tacitus (above) describes the events of just ONE YEAR, 69 A.D.,'THE YEAR OF THE FOUR EMPERORS', when truly amazing and turbulent events took place, The game will appear very violent merely because enormous spans of time are compressed into single game-turns. Undoubtedly, there was scope for some people to die peacefully in bed.

Laser Compiler





INHALT

EINFÜHRUNG 32

BANDVERZEICHNIS 32

BEDIENUNGSANLEITUNG 32

KOMPILIERZEITFEHLER 35

- Syntaxfehler 35
- Semantikfehler 35
- Benutzungsfehler 35

AUSFÜHRUNG VON KOMPILIERTEN PROGRAMMEN 35

- Programme, die keine Laser BASIC Befehle verwenden 35
- Programme, die Laser BASIC Befehle verwenden 36
- Betrieb des kompilierten Demo 37

BEISPIELPROGRAMME 37

BESCHRÄNKUNGEN FÜR DIE ZU KOMPILIERENDE BASIC 40

LADEN UND ZWISCHENSPEICHERN VON SPRITES VON EINEM KOMPILIERTEN PROGRAMM 43

INTEGRE ARITHMETIK 43

- Zweierkomplement-Bezeichnung 44

VERWENDUNG VON VARIABLEN 44

UNTERSTÜTZUNG VON KOMPILIERTEN PROGRAMMEN 44

RSX UND UNTERSTÜTZENDE ROMS 45

BETRIEBSZEITFEHLER 45

SPEICHERVERZEICHNIS 45

- Kompilierer 45
- Kompilierte Programme 45
- Kompilierte Laser BASIC Programme 45

Der Laser BASIC Kompilierer
von Vinay Sajip

EINFÜHRUNG

Der Laser-BASIC Kompilierer wurde als Begleitprodukt für die Laser-BASIC-Erweiterung geschrieben. Da es jedoch einen vollen integreren Teilsatz der residenten Amstrad-BASIC kompiliert, ist er auch nützlich für Programmierer, die Laser BASIC nicht benutzen. Der Betrieb des Kompilierers wurde so ausgelegt, um die Länge der zu kompilierenden Programme zu optimieren. Aus diesem Grund folgt das Laden des Kompilierers in zwei Durchläufen, und während der Kompilierung werden die Betriebszeitbibliotheken umgespeichert. Dies bedeutet, daß sich Bandbenutzer mit der Unannehmlichkeit abfinden müssen, die Bänder ziemlich häufig zu wechseln. Wir glauben jedoch, daß die hieraus entstehenden Vorteile die Nachteile überwiegen, würden jedoch Ihr Kommentar hierzu begrüßen.

Der entstandene Code ist außschließlich integer, so daß keins der Fließkommamerkmale von Amstrad kompiliert werden kann. Eine genaue Liste der Ausnahmen finden Sie in einem späteren Abschnitt. Der Vorteil eines integren Kompilierers besteht daraus, daß der erzeugte Code sehr schnell und sehr kompakt ist. Der Kompilierer erzeugt reinen Z80 Code und nicht P-Code – was wiederum zu schnellerer Ausführung führt.

Wenn ein Laser Basic Programm kompiliert wird, ist der Laser BASIC Betriebszeitcode nicht mit dem kompilierten Code zu verketten, und dieses Verfahren wird in einem späteren Kapitel beschrieben. Es handelt sich um die einzige Form, in der kompilierte Laser BASIC Programme reproduziert und verkauft werden können. Der Laser BASIC Interpreter selbst kann unter keinen Umständen reproduziert werden, außer zu Unterstützungszwecken.

Der kompilierte Code führt RSX (BAR Befehle) aus, wenn sie vom kompilierten Code geladen oder registriert werden. Wenn Sie beabsichtigen, Software zu vertreiben, die RSX ausführt, sind diese offensichtlich mit Ihrem kompilierten Code zwischenzuspeichern. Wenn der Code, den Sie zwischenspeichern, durch Copyright-Hinweis geschützt wird, sorgen Sie dafür, daß Sie die Genehmigung von den Herausgebern haben. Wie bereits erwähnt, gibt Oasis keine Genehmigung dafür, daß der Laser BASIC Interpreter in dieser Weise benutzt wird, da jedoch der Betriebszeitcode mit dem Paket geliefert wird, besteht keine Notwendigkeit dafür.

BANDVERZEICHNIS

Das Verteilerband enthält folgende Dateien:

SEITE A:	(i)	COMP.BAS	Die BASIC-Ladedatei für den Kompilierer
	(ii)	COMP.BIN	Der Kompilierer selbst
	(iii)	COMP2.BIN	Der Codeerzeugungsdurchlauf
	(iv)	BRTS.BIN	Der BASIC-Betriebszeitcode
	(v)	LASE.BIN	Der Laser-BASIC-Betriebszeitcode
	(vi)	XFR.BIN	Das Dateienübertragungsdienstprogramm
SEITE B:	(i)	DEMO.BIN	Das kompilierte Demo-Programm

BEDIENUNGSANLEITUNG

1. Der erste Schritt besteht aus dem Laden des BASIC Programms, das Sie kompilieren wollen und dann erneuter Zwischenspeicherung als ASCII Datei. Wenn das Programm, das Sie kompilieren wollen z.B. "DEMO" hieße, würden Sie eingeben:

   LOAD"DEMO

   Jetzt stecken Sie das neue Band ein (Diskettenbenutzer setzen eine Diskette ein und geben ein:

SAVE"DEMO",A

Wir verweisen auf das ',A' nach der Dateibezeichnung. Dies befiehlt dem System, die Datei im ASCII Format zu speichern. Sie werden feststellen, daß die ASCII Datei länger als die normale BASIC Datei ist. Sie haben daher sicherzustellen, daß das Band lang genug ist oder daß Sie ausreichenden Platz auf Ihrer Bestimmungsdiskette haben. Diskettenbenutzer müssen weiterhin beachten, daß die Bestimmungsdiskette genügend Speicherplatz für die vorübergehende Speicherung von BRTS.BIN und LASE.BIN hat.

2. Maschine rückstellen (SHIFT/CTRL /ESC drücken) dann den Kompilierer mit folgendem Verfahren ausführen:

Bandbenutzer: Das Kompiliererband einlegen und auf den Anfang von Seite A zurückspulen, wenn Sie dies nicht bereits getan haben und eingeben:

RUN"

Diskettenbenutzer: Kompiliererdiskette einlegen und eingeben:

RUN"COMP

Jetzt lädt der Kompilierer und führt aus.

3. Jetzt gibt der Kompilierer die Aufforderung aus:

"Tape or Disk (T/D)" ("Band oder Diskette (T/D)")

Bandbenutzer müssen dann "T", Diskettenbenutzer "D" eintasten. Wurde "D" für Diskette eingegeben, lädt der Kompilierer jetzt BRTS.BIN und LASE.BIN und erteilt die Aufforderung:

"Insert destination disk" ("Bestimmungsdiskette einlegen")

Sodann die Bestimmungsdiskette einlegen und eine beliebige Taste betätigen. BRTS.BIN und LASE.BIN werden jetzt umgespeichert.

ANMERKUNG: Es wäre wahrscheinlich praktisch, die gleiche Diskette für die ASCII-Ursprungsdatei und die Objektausgabe zu verwenden.

Der Kompilierer fragt jetzt nach der Bezeichnung der Ursprungsdatei, die zu kompilieren ist. In unserem Beispiel heißt die Datei "DEMO".

Bandbenutzer: Band einlegen, auf dem Sie die ASCII Version der "DEMO" zwischengespeichert haben und zum Dateibeginn zurückspulen. Jetzt Dateibezeichnung eingeben, die in diesem Fall "DEMO" ist.

Diskettenbenutzer: Diskette einlegen, auf der Sie die ASCII Version von "DEMO" zwischengespeichert haben, dann Dateibezeichnung eingeben, in diesem Fall "DEMO"

4. Der Kompilierer lädt jetzt die ASCII Datei über Band oder Diskette und führt eine Syntaxkontrolle aus. Damit wird auch die Ursprungsdatei in ein internes Format umgewandelt und prüft die Syntax. Wenn Fehler gefunden werden, wird eine Fehlermeldung mit grobem Hinweis darauf, wo der Fehler entstand, ausgedruckt. Alle Ursprungszeilen werden auf dem Bildschirm gedruckt, wie sie gelesen wurden, so daß Fehlermeldungen direkt nach der fehlerhaften Zeile erscheinen. Wenn ein Fehler festgestellt wurde, wartet das Programme darauf, daß Sie eine Taste drücken, bevor es sich fortsetzt.

Wenn ein Syntaxfehler auftritt, wird die Kompilierung abgebrochen, und der Kompilierer fragt nach der Bezeichnung der neuen Ursprungsdatei. Eine andere Dateibezeichnung oder CTRL-C (oder CTRL-SHIFT-ESC) eingeben, um das Gerät rückzustellen und das Ursprungsprogramm zu ändern, das die Fehler verursachte.

Traten keine Fehler auf, lädt der Kompilierer den Codeerzeugungsdurchlauf. Dieser auf dem Kompiliererband oder der Kompiliererdiskette geschrieben. Deshalb erscheint ein Programmaufruf, das richtige Band oder die Diskette einzugeben. Syntax- und Codeerzeugungsdurchläufe werden separat geladen, um Speicherplatz zu sparen und das Kompilieren von umfangreicheren Programmen zu erlauben. Diese Methode hat nur den Nachteil, daß beim Auftreten von Fehlern während des Codeerzeugungsdurchlaufs der Kompilierer selbst neu geladen werden muß, bevor ein zweiter Versuch der Kompilierung erfolgt. Wir glaubten jedoch, daß die bessere Leistung diese Unannehmlichkeit während der Benutzung ausgleicht.

Der Kompilierer beginnt sodann den Codeerzeugungsdurchlauf.

Bandbenutzer: Der erste Teil des Codeerzeugungsdurchlaufs besteht aus dem Laden und der Ausgabe von BRTS.BIN, den Betriebszeitcode. Während dieser Zeit müssen Sie zwischen dem Kompiliererband (aufgefordert durch "press PLAY then any key": "PLAY betätigen, sodann eine beliebige Taste) und dem Zielband (aufgefordert durch "press REC and PLAY then any key": "REC und PLAY betätigen, sodann eine beliebige Taste") abwechselnd.

Diskettenbenutzer: Bestimmungsdiskette einlegen

Sodann beginnt der eigentliche Codeerzeugungsdurchlauf und der Objektcode wird auf Bestimmungsband/-diskette geschrieben. Wenn Fehler während dieses Durchgangs entstehen, wird die Kompilierung abgebrochen und die Ausgabedatei verlassen. In diesem Fall müssen Sie den Kompilierer erneut laden, um einen weiteren Versuch einzuleiten. Wird die Kompilierung erfolgreich beendet, erfolgt ein Ausdrucken der Länge des kompilierten Codes. Wiederum werden die Zeilenzahlen mitgedruckt, um bei der Fehlersuche zu helfen.

Bandbenutzer: Kompilieren Sie ein Laser-BASIC-Programm, besteht die letzte Phase der Kompilierung im Laden und der Ausgabe von LASE.BIN, dem Laser-BASIC-Betriebszeitcode. Während dieser Phase müssen Sie wieder zwischen dem Kompiliererband (aufgefordert durch "press PLAY then any key": PLAY betätigen, sodann eine beliebige Taste") und dem Bestimmungsband (aufgefordert durch "press REC and PLAY then any key": "REC und PLAY betätigen, sodann eine beliebige Taste") abwechselnd.

Jetzt sollte Ihr Programm kompiliert sein. Die Dateibezeichnung der Ausgabedatei ist dann die gleiche wie die Ursprungsdatei, hat jedoch eine Erweiterung von .BIN. In unserem Beispiel nennen wir die Ausgabedatei "DEMO.BIN". Das kompilierte Programm ist stets etwa 7 k lang, denn der Betriebszeitcode des Kompilierers wird stets damit zwischengespeichert, ungeachtet der Dateigröße. Bevor wir weitergehen, um festzustellen, wie das kompilierte Programm abläuft, betrachten wir zunächst die Kompiliererzeitfehler, die während der Kompilierung Ihrer Ursprungsdatei entstehen können.

KOMPILIERZEITFEHLER

Es gibt drei Fehlerarten: Benutzungs-, Syntax- und Semantikfehler. Syntaxfehler treten während des ersten Durchgangs auf und werden hauptsächlich durch fehlende Datenteile Schlüsselworte oder Punktierung verursacht. Semantikfehler sind die, die bedeutungslose Fehler angeben (z.B. Multiplizieren von zwei Zeichenreihen). Sie werden normalerweise im zweiten Durchgang festgestellt.

Syntaxfehler

Die meisten Syntaxfehler treten auf, weil ein Symbol, das erwartet wurde, nicht gefunden wurde. Diese Fehler werden durch Angabe des erwarteten Symbols bezeichnet. Was folgt ist keine erschöpfende Liste aber bezeichnend für das, was gefunden werden kann:

'(' EXPECTED	INTEGER EXPECTED	LINE NUMBER EXPECTED
')' EXPECTED	VARIABLE EXPECTED	BOOLEAN EXPRESSION EXPECTED
'GOSUB' EXPECTED	IDENTIFIER EXPECTED	
'=' EXPECTED	TOO MANY ARGUMENTS	
'TO' EXPECTED	TOO FEW ARGUMENTS	
END OF STATEMENT EXPECTED	COMMAND EXPECTED	

Weitere Beispiele sind Fehler in der Programmzusammensetzung, z.B.

FOR/NEXT MISMATCH	BAD PRIMARY EXPRESSION
BAD STATEMENT	BAD SUBEXPRESSION

Weitere werden gefunden, wenn Schlüsselworte oder Punktierung gelesen werden z.B.

ILLEGAL CHARACTER

Benutzungsfehler

Es entstehen Fehler, bedingt durch Speicher-, Disketten- oder Bandfehler oder durch inkompatible Dateiart wie

INPUT FILE MUST BE ASCII – please try again
NEED MORE SPACE!! (Arbeitsplatz für den Kompilierer erschöpft)

Semantikfehler

Diese Fehler sind normalerweise bedingt durch Fehlpassung oder falschen Datenfeldfolgewert, d.h.

ILLEGAL OPERATION ON STRING ATTEMPTED
BAD ARRAY INDEX

Datenfeld-Indexfehler werden durch Fehlpassung zwischen den Maßen einer Datenfelderklärung und ihrer Benutzung verursacht. Der Kompilierer nimmt keine Kontrolle der Feldfolgewerte vor, selbst wenn diese bei Kompilierzeit bekannt sind. Der Kompilierer betrachtet den Einsatz von nicht initialisierten Variablen nicht als Fehler.

AUSFÜHRUNG VON KOMPILIERTEN PROGRAMMEN

Programme, die keine Laser BASIC Befehle benutzen

Wenn das Programm, das Sie kompiliert haben, keine erweiterten Laser BASIC Befehle enthält, kann es so ausgeführt werden, wie es ist.

Bandbenutzer: Das Band mit dem kompilierten Code einlegen und rückspulen, falls Sie dies nicht bereits getan haben. Dann RUN" eingeben, und der Code lädt sich und wird ausgeführt.

Diskettenbenutzer: Die Diskette einlegen, die den kompilierten Code enthält, und RUN" Dateibezeichnung (in unserem Beispiel RUN"DEMO) eingeben. Der Code lädt sich und führt das Programm aus. Es ist zu bemerken, daß falls DEMO.BAS sich auf der gleichen Diskette befindet wie DEMO.BIN, diese ausgeführt wird und nicht die kompilierte Version.

Programme, die Laser BASIC Befehle benutzen

Wenn der Kompilierer Laser BASIC Befehle während der Syntaxkontrolle findet, wird ein Zeichen gesetzt, um dem System zu sagen, daß LASE.BIN (der Betriebszeitcode für Laser BASIC) mit dem kompilierten Code zu verketten ist. Die Betriebszeitbibliothek ist 12k lang, und die gesamte Bibliothek wird verkettet. Dies bedeutet, daß kompilierte Laser BASIC Programme mindestens nach Kompilieren diese Größe aufweisen. Der Betriebszeitcode wird übrigens als Teil des kompilierten Code gespeichert, und das erste, was das kompilierte Demo tut, wenn es ausgeführt wird, ist die Bibliothek als Block auf &7600 zu bringen, ihre laufende Ausführungsadresse.

Wenn Ihr Programm keine Laser BASIC Befehle benutzt, bittet Sie der Kompilierer automatisch, das Band/die Diskette einzulegen, die die LASE.BIN enthält (Seite A – direkt nach dem BASIC Betriebszeitcode).

In der Praxis enthält Ihre Hauptdatei wahrscheinlich zwei Dateien, denn Ihr Programm lädt wahrscheinlich in einer bestimmten Stufe Sprites (siehe Absatz über das Laden von Sprites in ein kompiliertes Programm). Berücksichtigen wir einmal die Schritte, die erforderlich sind, um die endgültige Originalkopie eines kompilierten Laser BASIC Programms zu erstellen. Nehmen wir an, das Programm ist "DEMO" genannt und verwendet einen Spritesatz, der als "DEMOSPR" zwischengespeichert wird. Wir nehmen ferner an, daß die Sprites unter Verwendung des Laser BASIC Interpreter zwischengespeichert wurden und daher normalerweise ab &6FFF nach unten residieren.

Bandbenutzer benutzen 4 Bänder – das Laser Kompilierband, das Band mit dem Ursprungsprogramm (dem zu kompilierenden Programm), das Band mit den Spriteteilen und ein leeres Band für das endgültige Hauptprogramm. Diskettenbenutzer benutzen wahrscheinlich mehrere Disketten, abgesehen von der Kompilierer-Verteilerdiskette.

(i) Der erste Schritt besteht daraus, das Programm so zu ändern, daß die Sprites auf eine höhere Adresse des Betriebszeitcode geladen werden. Dies wird erzielt, indem die SSPR,SMAX,&7000 durch SSPR,SMAX,&7600 ersetzt werden und dann durch Ersatz aller GSPR Befehle durch MSPR Befehle (siehe Absatz über Laden der Sprites von kompilierten Programmen).

(ii) Der nächste Schritt besteht aus der Änderung des Einsatzes für den MEMORY Befehl (siehe Absatz "BESCHRÄNKUNGEN FÜR DIE ZU KOMPILIERENDE BASIC", der den Einsatz des MEMORY Befehls beschreibt).

(iii) Wenn Sie die RND Funktion benutzt haben, müssen Sie auch die Syntax ändern (siehe Absatz "BESCHRÄNKUNGEN DER ZU KOMPILIERENDEN BASIC").

(vi) Nachdem die vorstehenden Änderungen ausgeführt wurden, wird die Datei erneut als ASCII Datei zwischengespeichert und kompiliert. Das kompilierte Programm ist die erste Datei auf dem Hauptband/der Hauptdiskette. Wenn Ihr kompiliertes Programm Sprites lädt, ist das Hauptband nicht rückzuspulen, jedoch statt dessen Vorgang (v) auszuführen.

(v) Gerät durch Drücken von SHIFT/CTRL/ESC, rückstellen. Laser BASIC laden und ausführen, dann die gewünschten Sprites unter Verwendung von GSPR (in Ihrem Beispiel A$="DEMOSPR":|GSPR,@A$) laden. Jetzt Hauptband oder -diskette einsetzen und die Sprites zwischenspeichern.

Das Band/die Diskette enthält jetzt das endgültige Hauptprogramm, das durch Eingabe von RUN"Dateibezeichnung (in unserem Fall RUN"DEMO) ausgeführt werden kann.

ANMERKUNG: RSX von Laser BASIC brauchen viel Speicherplatz während der Kompilierphase, und, wo möglich, spart ein GOSUB Befehl zu einer Zeile, die den RSX enthält, Platz und ermöglicht die Kompilierung von größeren Programmen.

Betrieb des kompilierten Demo

Auf Seite B des Verteilerbandes befindet sich eine kompilierte Version der Laser BASIC Demo. Sie sind wahrscheinlich erstaunt darüber festzustellen, daß die Ausführungsgeschwindigkeiten nicht viel kürzer sind als bei den unkompilierten Äquivalenten. Dafür gibt es mehrere Gründe.

1. Laser BASIC ist der schnellen Graphik gewidmet, und daher wird ein großer Teil der Prozessorzeit mit dem Ausführen der Graphikbefehle verbracht. Die Kompilierung hat wenig Wirkung auf Programme, die keine Logik enthalten. Ihre eigenen Programme enthalten wahrscheinlich viel Logik und werden daher merklich beschleunigt.
2. Der größte Teil der Bewegung wird durch Synchronisierung auf Bildrücklauf gemessen.
3. Ein großer Teil des Code wird bei Unterbrechung ausgeführt.

ANMERKUNG: Das kompilierte Demonstrationsprogramm auf Seite B des Verteilerbandes ist genau dasselbe wie das mit dem Laser BASIC Paket gelieferte, außer daß die ISET Befehle durch IGETS ersetzt und die RND und MEMORY Befehle geändert wurden.

BEISPIELPROGRAMME

Was Sie nicht sehen, ist die enorme Steigerung in der Geschwindigkeit, mit der die Spiellogik ausgeführt wird. Um Ihnen eine Vorstellung davon zu geben, wie viel schneller die Programmlogik nach Kompilierung läuft, geben wir Ihnen nachstehend zwei Beispielprogramme zum Kompilieren und Betreiben.

Das Sieb des Eratosthenes (ungefähre Geschwindigkeitssteigerung: 30:1)

```
100 REM
110 REM Sieb des Eratosthenes.
120 REM
130 DIM prime%(5000)
140 start=TIME
150 FOR i%=2 TO 2500
160 IF prime%(i%)=1 THEN 215
170 j%=i%+i%
180 WHILE j%<=5000
190 prime%(j%)=1
200 j%=j%+i%
210 WEND
215 REM ziel für GOTO
220 NEXT i%
230 calcstook=(TIME-start)/3
240 start=TIME
250 FOR i%=2 TO 5000
260 IF prime%(i%)=0 THEN PRINT i%,
270 NEXT i%
280 printstook=(TIME-start)/3
290 PRINT
300 PRINT:PRINT "Berechnungsdauer ";USING "###"; calcstook;
310 PRINT " Hunderstel Sek"
320 PRINT:PRINT "Druckdauer ";USING "###";printstook;
330 PRINT " Hunderstel Sek"
340 END
```

Kreiszeichnung (ungefähre Geschwindigkeitssteigerung 5:1)

```
100 REM
110 REM Demo Kreiszeichnung.
120 REM
130 DEFINT a-z
140 CLS
150 WINDOW 1,80,23,25
160 INPUT "Kreismitte ";xc,yc
170 INPUT "Kreisradius ";radius
180 ORIGIN xc, yc
190 GOSUB 260
200 GOTO 160
210 REM
220 REM Kreis zeichnen
230 REM   Diese Routine erwartet, daß der graphsiche Ausgangspunkt in der Kreismitte
240 REM   benötigt wird und die Variable "Radius", um den gewünschten Radius zu halten
250 REM
260 x=0:y=radius
270 delta=3-radius-radius
280 WHILE x<y
290 GOSUB 390
300 delta=delta+x+x+x+x+6
310 IF delta>=0 THEN delta=delta-y-y-y-y+4:y=y-1
320 x=x+1
330 WEND
340 IF x=y THEN GOSUB 390
350 RETURN
360 REM
370 REM Einen Punkt in jedem der acht Oktanten zeichnen.
380 REM
390 PLOT x,y:PLOT -x,y:PLOT -x,-y:PLOT x,-y:PLOT y,x:PLOT -y,x:PLOT -y,-x:PLOT
    y,-x:RETURN
```


BESCHRÄNKUNGEN FÜR DIE ZU KOMPILIERENDE BASIC

Der Laser BASIC Kompilierer ist kompatibel mit einer ziemlich kompletten integren Implementation Locomotive BASIC – keine der Fließkommafunktionen wird unterstützt. Sofortige Befehle werden nicht unterstützt, ebenfalls keine Befehle und Funktionen, die sich auf die Zuweisung des BASIC Interpreter von Speicherplatz für Programm und Variable beziehen. Die MEMORY Funktion wird noch unterstützt, so daß andere Programme (insbesondere RSX und Laser BASIC Sprites) mit dem kompilierten Benutzerprogramm im Speicher aufgenommen werden können.

Spezifische Schlüsselwortausnahmen sind:

ATN	AUTO	CHAIN	CINT	CLEAR	CONT	COS	CREAL
DEFREAL	DEG	DELETE	EDIT	ERASE	ERR	ERL	EXP
FRE	HIMEM	LIST	LOG	LOG10	MERGE	NEW	PI
RAD	RENUM	RESUME	ROUND	SIN	TAN	TRON	TROFF

Ausnahmen für Laser BASIC sind:

ADDR ISET

Es gibt ferner mehrere Befehle und Funktionen, deren Einsatz nach Kompilieren etwas anders ist:

LOAD: BASIC Dateien können nicht geladen werden. Binäre Dateien werden direkt in ihre Bestimmungsadresse geladen, wenn eine angegeben ist. Das bedeutet, daß der Zwischenspeicher von 2k nur erforderlich ist, wenn eine binäre Datei ohne Angabe der Ladeadresse geladen wird. Aus diesem Grund sollten Sie stets die Ladeadresse angeben, wenn sie bekannt ist. Während des Ladens werden keine Kontrollen vorgenommen, so daß Sie darauf achten müssen, keine reservierten Speicherbereiche zu überschreiben.

END Dieser führt nur einen RET Befehl aus und bei Kompiliervorgängen den gleichen Code wie RETURN. Das bedeutet, daß wenn Ihr Programm richtig mit END endet, die Steuerung zum Befehlsniveau zurückkehrt.

FIX FIX durchläuft die Syntaxkontrolle des Kompilierers, hat jedoch keine Wirkung.

INT INT durchläuft die Syntaxkontrolle des Kompilierers, hat jedoch keine Wirkung.

CINT CINT durchläuft die Syntaxkontrolle des Kompilierers, hat jedoch keine Wirkung.

MEMORY Der MEMORY Befehl diktiert die höchste Speicherposition, die der kompilierte Code benutzen kann. Der Kompilierer benötigt Platz für die dynamischen Variablen und die Reihenverarbeitung. Der Standardwert für die oberste Speicherposition, wenn ein Programm, das nicht Laser BASIC verwendet, kompiliert wird, ist &A4FF, und der Standardwert für die oberste Speicherposition, wenn ein Programm, das Laser BASIC verwendet, kompiliert wird, ist &75FF. Es ist zu bemerken, daß der MEMORY Befehl und der Äquivalentbefehl MSET von Laser BASIC zum Einrichten des Speicherschutzes in der gleichen Höhe wie die Sprites (falls geladen) benutzt werden sollte, was vor Kompilierung möglich ist. Achten Sie darauf, daß Sie alle dynamisch zugewiesene Spriteplatze berücksichtigen! Um festzustellen, wo Sprites beginnen, laden Sie diese unter Verwendung des Befehls GSPR in Laser BASIC. Der Beginn der Sprites kann jetzt durch folgende Eingabe festgestellt werden:

START=0:|DEEK,&7004,@START

Jetzt wurde der START auf die Position eingestellt, an der die Spritedaten beginnen, wenn sie mit Interpreter betrieben werden. Wenn Sprites in kompiliertem Code geladen werden, beginnen sie jedoch &600 höher. Jetzt sollten Sie eingeben:

START=START+&600

Der START weist jetzt auf die geänderte Startadresse. Wenn Ihr Programm dynamisch gewisse Sprites erzeugt, müssen Sie den Speicherplatz berechnen, den Sie benötigen (jeder Sprite benötigt HGTxLEN – Höhe x Länge – Bytes), und dieser ist vom START abzuziehen. In unserem Beispiel nehmen wir an, daß wir dynamisch 2 Sprites mit den Maßen 3x4, 5x7 und 6x8 erzeugen. Sie würden eingeben:

START=START-3*4-5*7-6*8:PRINT START

Die einzige weitere Speicherberücksichtigung ist jetzt senkrechter Durchlauf mit zyklischer Adressfolge. Wenn Sie einen senkrechten Durchlauf ausführen müssen, brauchen Sie weiteren Platz, wodurch sich START weiter reduziert. Zwischenspeicherplatz wird im Handbuch für Laser BASIC im Absatz über Sprite-Dienstprogramme besprochen. Wenn Sie sich nicht sicher sind, welchen senkrechten Durchlaufbedarf Sie haben, ist es gut, den START um etwa 256 Bytes zu reduzieren. Der Wert, den Sie jetzt für START haben, sollte der Wert sein, den Sie für MSET im zu kompilierenden Programm benutzen. Ihr Programm sollte auch sobald wie möglich ein MEMORY bis START-1 ausführen.

DEFINT DEFINT und DEFSTR werden voll implementiert, DEFREAL nicht. Es ist jedoch gut, alle Ihre BASIC Programme mit dem Befehl DEFINT A-Z zu beginnen, so daß Ihr interpretiertes Programm in mehr oder weniger der gleichen Weise ausgeführt wird wie Ihr kompiliertes Programme – siehe Absatz über integre Arithmetik. Die Variablen werden als integer angenommen, außer wenn sie mit einem '$' enden oder wenn erklärt wird, daß sie DEFSTR benutzen.

RND Durch RND(N) entsteht ein Wert im Bereich von bis N-1, d.h.
PRINT RND(6) würde einen Wert im Bereich von 0 bis 5 drucken.

TIME Dieser funktioniert sehr ähnlich wie die normale TIME Funktion, hierbei wird jedoch das Ergebnis als Zahl von 16 Bit gespeichert. Das bedeutet, daß die Uhr überfließt und (ca.) alle 3 1/2 Minuten erneut von 0 zu zählen beginnt. Es ist auch zu bemerken, daß der Wert anscheinend negativ wird, wenn TIME=32768, da die Integren als Zweierkomplementzahlen betrachtet werden (siehe integre Arithmetik). Falls Sie die TIME Funktion benutzen, sollte dies mit Vorsicht geschehen.

USING PRINT USING funktioniert in der gleichen Weise wie bei interpretierter BASIC, außer daß "." und die darauffolgenden Felder ignoriert werden.

GOTO Dieser funktioniert in der gleichen Weise wie der normale GOTO, jedoch sollten kompilierte Programme nicht zu Zeilen gehen, die 'WEND' oder 'NEXT' enthalten. Statt dessen ist eine 'REM' Zeile zu ersetzen, die der Zeile voraufgeht, die den Befehl 'WEND' oder 'NEXT' enthält. Die 'REM' Zeile ist die Zeile für GOTO. (Siehe Beispielprogramme 'Das Sieb des Eratosthenes')

UNT Dies hat keine Wirkung, da alle Zahlen als Standardannahme als zweier komplementäre Ganzzahlen behandelt werden.

INPUT Der vollständige Amstrad-Editor wird nicht implementiert. Die Löschtaste dient jedoch für das Löschen von falsch eingegebenen Zeichen.

.5 Amstrad BASIC rundet Reste von .5 oder mehr während der Durchführung von ganzzahligen Kalkulationen nach oben ab, während kompiliertes BASIC stets die Reste nach unten abrundet (abschneidet).

SUM

	Amstrad ganzzahliges Ergebnis	Kompiliertes Ergebnis
7/8	1	0
4/8	1	0
3/8	0	0
15/8	2	1
12/8	2	1
11/8	1	1

Um kompilierte Programme in interpretiertem BASIC zu simulieren, müssen Sie alle "/" (Divisionen) durch "\" (Rückwärtsschrägstriche) ersetzen. Dies zwingt Armstrad BASIC auf gleiche Weise wie kompiliertes BASIC abzuschneiden.

UNTERBRECHUNGEN Kompilierte Programme unterliegen nicht der Unterbrechungstaste und können deshalb nicht unterbrochen werden. ON BREAK GOSUB wird nicht implementiert und die Hintergrundausführung von Laser BASIC kann nicht abgebrochen werden.

Gleitpunktfunktionen Der Kompilierer erwartet nicht das Auftreten von Gleitpunktfunktionen wie z.B. COS (5), diese werden deshalb als Variable oder Arrays behandelt.

Anweisung	Aktion
PRINT COS (5)	Schreibt 0 (COS wahrscheinlich nicht zugewiesen), danach 5.
PRINT COS(5)	Fehlermeldung "END OF STATEMENT EXPECTED" ("ANWEISUNGSENDE ERWARTET").

Arrays Parametergruppen werden im kompilierten Code nicht auf Bereich geprüft, während sie in BASIC interpretiert werden. Wird ein Array mit 100 Parameter reserviert, würde bei Verwendung des 101. Parameter BASIC einen Fehler erzeugen, dies ist beim kompilierten Code jedoch nicht der Fall. Wird es versucht, einen außerhalb des Bereichs liegenden Parameter zu lesen, ist das Resultat Müll. Wird es versucht, einem Parameter außerhalb des Bereichs einen Wert zuzuweisen, sind die Resultate nicht vorhersehbar.

↑ Eine Potentierung wird nicht unterstützt.

DEFINT DEFINT wird nur im Format DEFINT A-Z implementiert. Einzelne Variablenbezeichnungen verursachen den Fehler "unerwartetes Zeichen".

SOUND Eine Bereichsprüfung von Parametern findet nicht statt, das Resultat von Fehlern ist unvorhersehbar.

LADEN UND ZWISCHENSPEICHERN VON SPRITES VON EINEM KOMPILIERTEN PROGRAMM

Wenn Laser BASIC eine Sprite-Datei zwischenspeichert, speichert sie auch gewisse Systemvariablen zwischen, die die Position diktieren, in die sie mit dem Befehl GSPR zurückgeladen werden. Dies bedeutet, daß Sprites, die vom erweiterten Interpreter von Laser BASIC zwischengespeichert werden oder der Sprite-Generator zurückgeladen werden, so daß sie bei &6FFF nach unten im Speicher aufgenommen werden, wogegen sie beim kompilierten Programm bei &75FF nach unten aufgenommen werden. Das kann durch Einstellen des Sprite-Platzes auf eine höhere Adresse gelöst werden – unter Verwendung von SSPR, SMAX,&7600 und dann durch Verschmelzen der Sprites mit einem MSPR anstatt mit GSPR.

Es ist äußerst wichtig zu bemerken, daß SSPR,SMAX,&7000 stets durch SSPR,SMAX,&7600 vor Kompilierung zu ersetzen sind, ungeachtet dessen, ob die Sprites geladen oder zwischengespeichert werden sollen. Wenn dies nicht geschieht, kann im System ein Zusammenstoß erfolgen, der 1.5k Platz verschwendet.

Wenn Ihr Programm mehr als einen GSPR Befehl verwendet, müssen Sie SSPR,SMAX,&7600 wiederholen. Dies wirkt sich jedoch nicht auf den Befehl MSPR aus. Sprites, die von einem kompilierten Programm (unter Verwendung von PSPR) zwischengespeichert werden, sind in das unkompilierte Programm unter Verwendung des gleichen Verfahrens zurückzuladen, d.h. SSPR,SMAX,&7000 und dann MSPR.

INTEGRE ARITHMETIK

Die vom Kompilierer ausgeführte Arithmetik ist ausschließlich integer. Wenn das Programm, das Sie kompilieren, mit einem DEFINT A-Z beginnt, verhält sich das kompilierte Programm mehr oder weniger in der gleichen Weise wie das interpretierte Programm. Wenn Sie die möglichen Fallen der integren Arithmetik kennen, gehen Sie zum nächsten Abschnitt über, aber wenn nicht, sollte folgendes Beispiel berücksichtigt werden:

```
PRINT 5*4/2,5/2*4
```

damit entsteht

```
10          10
```

wenn dies mit Interpreter betrieben wird.

Der gleiche Befehl würde

```
10          8
```

erzeugen, wenn er kompiliert wird. Der Grund dafür liegt in der Tatsache, daß interpretierte BASIC ein Fließkomma-Zwischenergebnis speichert, wenn geteilt wird (unabhängig von DEFINT), wogegen der kompilierte Code ein integres Zwischenergebnis benutzt.

5*4/2 — Die 5 wird zuerst mit 4 multipliziert, so daß sich 20 ergibt und durch 2 geteilt, so daß sich 10 ergibt. Dies funktioniert mit Interpreter oder Kompilierer.

5/2*4 — Die 5 wird zuerst durch 2 geteilt, so daß sich 2.5 bzw. 2 im interpretierten bzw. kompilierten Programm ergibt. Diese Ergebnisse werden dann mit 4 multipliziert, so daß sich 10 bzw. 8 ergibt.

Wenn Ihr kompiliertes Programm sich nicht in der gleichen Weise verhält wie Ihr interpretiertes Programm, ist das fast immer die Ursache und kann gewöhnlich behoben werden, indem die Terms des arithmetischen Ausdrucks umgeordnet werden. Als allgemeine Regel sind alle Teilungen als letzter Teil (rechts von) jeder Summe durchzuführen.

Zweierkomplement-Bezeichnung

Der Laser Kompilierer benutzt eine 'Zweierkomplement'-Bezeichnung. Wenn daher eine Zeichenreihe gedruckt wird, entsteht ein Ergebnis im Bereich von –32768 bis 32767. Zuweisungen sind mit Werten im Bereich von –32768 bis 65535 zulässig. Wenn eine Zeichenreihe mit HEX$ gedruckt wird, liegt sie im Bereich von 0 bis &FFFF.

Die im Amstrad residente BASIC ermöglicht nicht die Zuweisung von integren Variablen für Werte von über 32767, wenn diese in dezimaler BASE gehalten sind, d.h.

X%=32768	erzeugt einen Überlauf
X%=&8000	erzeugt jedoch keine Überlauf
X%=&8000:PRINT X%	druckt –32768, weil 32768 eigentlich –32768 in der Zweierkomplement-Bezeichnung ist.

Die integren Variablen von kompilierter BASIC verhalten sich in mehr oder weniger der gleichen Weise wie die integren Variablen von Amstrad, außer daß Zuweisungen zu Dezimalwerten von über 32767 legal sind.

VERWENDUNG VON VARIABLEN

Es gibt einige kleine Punkte, die hinsichtlich des Einsatzes von Variablen durch den Kompilierer anzuführen sind.

(i) Wenn das kompilierte Programm zuerst eingegeben wird, kann der Variablenplatz Unrat enthalten, daher ist allen Variablen vor Gebrauch ein Wert zuzuweisen. Wenn eine Variable zuerst in BASIC erklärt wird, wird sie initialisiert, so daß sie 0 enthält. Wenn Ihr kompiliertes Programm nicht in der gleichen Weise ausgeführt wird wie Ihr interpretiertes Äquivalent, ist dies ein guter Bereich, um damit zu beginnen, nach Problemen zu suchen.

(ii) Versuchen Sie, nicht zu viele Reihenkonstanten zu verwenden, da der Kompilierer keine 'Unratsammlung' durchführt. Wenn z.B. B$ die gleiche Zeichenreihe enthalten soll wie A$, verwenden Sie lieber B$=A$, anstatt B$ der gleichen Zeichenreihe zuzuweisen.

(iii) Wenn ein Datenfeld in interpretierter BASIC benutzt wird, bevor es in einem Dimensionsbefehl erklärt wurde, wird es automatisch als Datenfeld von 10 Elementen eingerichtet. Bei kompilierten Programmen sind jedoch alle Datenfelder zu dimensionieren, bevor sie benutzt werden, sonst erscheint eine Fehlermeldung BAD ARRAY INDEX.

UNTERSTÜTZUNG VON KOMPILIERTEN PROGRAMMEN

Kompilierte Programme beginnen bei &40. Die Länge des Code wird am Ende der Kompilierung gemeldet. Um eine Unterstützung des kompilierten Code vorzunehmen, müssen Sie das Daten-Übertragungsdienstprogramm benutzen, das Bandbenutzer als die letzte Datei auf Seite A des Verteilerbandes finden. Zum Ausführen geben Sie nur ein RUN"XFR.BIN, worauf sich das Programm lädt und die folgenden Weckbefehle ausführt:

ENTER INPUT FILE — Jetzt sollten Sie den Namen der Datei, die Sie unterstützen wollen, eingeben, das Ursprungsband/die Diskette einsetzen und dann ENTER drücken.

INSERT DESTINATION TAPE/DISK — Jetzt sollten Sie das Band oder die Diskette einsetzen, auf der die Datei zwischengespeichert werden soll und dann jede beliebige Taste drücken.

RSX UND UNTERSTÜTZENDE ROMS

Der Kompilierer und sein Arbeitsplatz nehmen den gesamten Amstrad RAM-Platz ein – daher ist es nicht möglich, daß RSX in der Maschine vorhanden sind, während der Kompilierer betrieben wird.

Kompilierte Programme sind normale Maschinencode-Programme. Wenn sie daher betrieben werden, stellt die Firmware die Maschine auf ihren EMS-Zustand (Einschaltzustand am frühen Morgen) zurück. Wenn im Programm RSX verwendet werden, sind sie vom Programm selbst zu laden und zu erfassen. Das gleiche gilt für alle unterstützenden ROMs, die vom Programm eventuell benutzt werden. Laser BASIC verwendet das RST ≠30 und ist daher mit gewissen RSX inkompatibel.

BETRIEBSZEITFEHLER

– Div by zero	– Teilen durch Null
– String too long	– Datenreihe zu lang
– Bad argument to function	– Falsche Variable für Funktion
– String space exhausted	– Datenreihenplatz erschöpft

Bei allen ensteht die Anzeige einer Meldung (Standard). Wenn ON ERROR eingesetzt wird, wird ausgeführt. Sonst wird die Ausführung durch Drücken jeder beliebigen Taste fortgesetzt.

ACHTUNG: RESUME wird als RET kompiliert.

SPEICHERVERZEICHNIS

KOMPILIERER:

&40	→	&7BFF	Arbeitsplatz
&7C00	→	&A700	Kompilierercode und -daten

KOMPILIERTE PROGRAMME:

&40	→	&1BFF	Betriebszeit-Unterstützungscode (ungefähr)
&1C00	→	?	Benutzerprogrammcode
?	→	??	Benutzerdaten
??	→	???	Zeichenreihen und dynamischer Arbeitsplatz
???	→	MEMORY-1	Fester Arbeitsplatz für Betriebszeitcode
MEMORY	→	ROM WS	Nicht benutzt (kann Betriebszeitcode für Laser-BASIC und Sprites oder programmgeladene RSXs sein)

KOMPILIERTE LASER-BASIC-PROGRAMME:

&40	→	&1BFF	Betriebszeit-Unterstützungscode (ungefähr)
&1C00	→	?	Benutzerprogrammcode
?	→	??	Benutzerdaten
??	→	???	Zeichenreihen und dynamischer Arbeitsplatz
???	→	MEMORY-1	Fester Arbeitsplatz für Betriebszeitcode
MEMORY	→	&75FF	Sprites und Laser-BASIC-Arbeitsplatz
&7600	→	&A4FF	Laser-BASIC-Betriebszeitcode
&A500	→	ROM WS	Nicht benutzt





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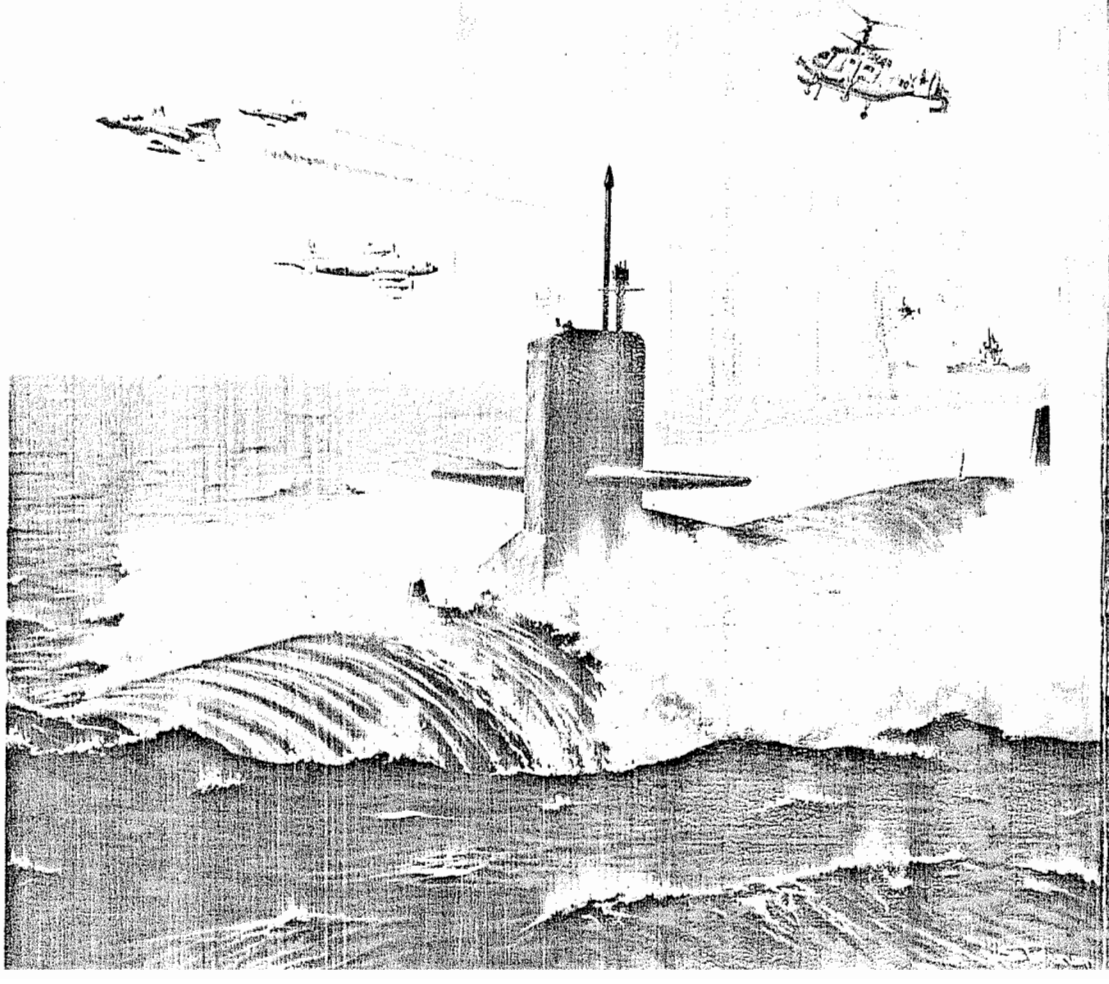
JAGD AUF ROTER OKTOBER





KOMMANDOHANDBUCH

DIE JAGD AUF DIE ROTE OKTOBER - CPC 464/6128

Ladeanleitung

Kassette: Kassette einlegen, dann gleichzeitig die CONTROL - und die kleine ENTER-Taste drücken. Die PLAY-Taste des Rekorders betätigen und dann eine beliebige Taste auf der Computertastatur drücken, worauf das Spiel geladen und gestartet wird.

Diskette: Diskette einlegen, dann den Befehl RUN "DISC" (RETURN) eingeben, worauf das Spiel automatisch geladen und gestartet wird.

Die wesentlichen Unterschiede gegenüber der Beschreibung im Handbuch zur Amstrad/Schneider-Version sind:

1. Die Anordnung des Bildschirms ist etwas anders; der Kompaß wird als horizontaler Balken dargestellt, und nicht, wie im Handbuch beschrieben, als runde Form. Auf die Kontur - und Sonarknöpfe unter dem Kursanzeiger wurde verzichtet; ebenso auf den Zielkontrollknopf. Oberhalb des Text-fensters befinden sich vier Kästchen. Die Pfeile dienen zum Auf - und Abwärtsrollen des Textfensters. Zwischen den beiden Pfeilen ist das Icon zum Hin - und Herschalten zwischen dem Text - und dem Sonarmeldungs-fenster. Das vierte Kästchen (TAPE) dient zum Abrufen des Hilfe-Menüs.
2. Einige der Funktionen, die auf anderen Modellen implementiert wurden, mußten hier aufgrund der beschrankteren Kapazitat wegfallen, namlich:
   a) Das Gelandefenster. Stattdessen erscheinen im Textfonster Angabon über die Tiefe unter Kiel.
   b) Die "current trace acoustic signatures" aus der Hydrophonik-Apparatur entfallen. Stattdessen werden im Textfenster die möglichen Identitäten anderer Schiffe eingeblendet - allerdings nur, wenn das Hydrophik-Icon aktiviert ist.
   c) Im Waffensteuermodus wird die manuelle Übersteuerung numerisch statt graphisch dargestellt. Durch Klicken von INCREASE (erhöhen) bzw. DECREASE (senken) kann die Einstellung geändert werden.
   d) Auf dem Bildschirm sind keine Diagramme zur Identifikation von Schiffen verfügbar. Bitte konsultieren Sie stattdessen die mitgelieferte Papierkarte.
3. Die Funktionen SAVE und LOAD (SICHERN und LADEN).

   Kassettenversion:
   Anklicken des Kassetten-Icons (TAPE) holt ein Hilfsmenü auf den Bildschirm. Klicken von SAVE oder LOAD ermöglicht es dem Benutzer, eine Spielposition für später - nach einer Pause oder einem Unglück auf hoher See - abzuspeichern. Bitte befolgen Sie hierbei sorgfältig die Anweisungen, die auf dem Bildschirm erscheinen. Das Pausen-Icon gestattet die Wiederaufnahme des Spiels nach Benutzung des Hilfsmenüs.
   HINWEIS:
   ES EMPFIEHLT SICH, GLEICH NACH BEGINN DES SPIELS EINE POSITION AUF KASSETTE ZU SPEICHERN, UM SICH AUF DIESE WEISE DAS KOMPLETTE NEULADEN ZU ERSPAREN, SIE BRAUCHEN ZU DIESEM ZWECK EINE LEERE KASSETTE.

   Diskettenversion:
   Es gilt das im vorstehenden Abschnitt zur Kassettenversion Gesagte, nur daß hier eine leere, formatierte Diskette zum Abspeichern benötigt wird.

INHALT

Hintergrundinformationen 5

Kommandantenbesprechung 7

Spiel, Strategie und Taktik 9

Anleitung 14

Zusätzliche Möglichkeiten 36

HINTERGRUNDINFORMATIONEN

Unterseeboote bezeichnet man als die wichtigsten Schiffe der heutigen Zeit. Jede größere Seemacht investiert immer mehr Forschung in die Bereiche Technologie und Konstruktion, um diese mächtigen Waffen noch schwerer auffindbar und gefährlicher zu machen.

Der Hauptfeind des U-Bootes ist das Sonar. Obwohl passive Maßnahmen, wie neue Rumpfformen und der Einsatz schallschluckender Rumpfplatten sich immer weiter verbreiten, müssen die Unterseeboote immer noch die nervenzermürbende Suche durch Sonargeräte, mit denen die modernen Schiffe und Flugzeuge ausgestattet sind, über sich ergehen lassen. Sind sie erst einmal von den Jägern lokalisiert, so ist die traditionelle Waffe gegen angreifende U-Boote die Wasserbombe. Allerdings ist es für das Überwasserschiff ein riskantes Unterfangen ein modernes U-Boot mit seinen hochentwickelten Waffensystemen in Wasserbombenreichweite gelangen zu lassen.

Die meisten sowjetischen Anti-U-Boot-Schiffe sind mit einem Raketenabschuß-System ausgestattet. So wird das Problem der geringen Reichweite und Geschwindigkeit eines Torpedos gelöst, da dieses System die Waffe an einen Punkt bringt, von dem aus sie sich auf das Ziel einpeilen kann. Die US-Marine ist gerade dabei ein Anti-U-Boot-System einzuführen, bei dem der Torpedo mit einer Rakete ins Zielgebiet gebracht wird, und dort an einem Fallschirm ins Meer fällt.

Unterseeboote können Torpedos auf andere U-Boote abfeuern, aber im Regelfall kann das beschossene Boot dem Projektil davonfahren. Eine weitaus größere Gefahr droht dem Unterseeboot durch Minen und Flugzeuge.

Die meisten U-Boote sind mit einem Minenwarnsystem ausgestattet.
Das Warnsystem verhindert, daß sie Einrichtungen, wie den "Kaperminen" der US-Marine, die keinerlei Freund/Feind-Erkennung besitzen und bei Annäherung akustische Torpedos abfeuern, zu nahe kommen.

Eine Bedrohung aus der Luft ist noch tödlicher, da sie vom U-Boot schwer erkannt und noch schwerer abgewehrt werden kann. Ein U-Boot-Jagdgeschwader kann um sich herum einen Suchbereich aufbauen, der weit über die effektive Torpedoreichweite hinausgeht.

Die typische U-Boot-Jagd besteht aus sechs Phasen:
Die erste Phase ist die Suche, bei der der Jäger sein Opfer aufspürt. In dieser Phase operiert der Jäger meist oberhalb der optimalen U-Boot-Jagdgeschwindigkeit und wird dadurch verwundbar. Die Suche erfolgt üblicherweise mit passiven Mitteln, die von anderen Systemen, wie Satelliten oder Grundsensoren unterstützt wird.

Ist der Kontakt hergestellt, beginnt die Klassifizierung. Die akustische "Handschrift" des Zieles wird mit den in den Datenbanken des Jägers gespeicherten verglichen. So wird der Zieltyp bestimmt und wenn möglich, die Daten mit Hilfe der passiven Sensoren vervollständigt, um nicht die Position des Jägers preiszugeben.

Der Jäger begibt sich nun in Angriffsposition, um die beste Chance für einen Erfolg seiner Waffensysteme zu erhalten. Im Falle von U-Booten liegt diese Position auf der Hälfte der 10 - 12 Seemeilen-Reichweite seiner Torpedos.

Ist der Angriff, die vierte Phase, nicht erfolgreich, folgt die Phase einer mit vielen Manövern verbundenen Verfolgungsjagd zwischen den Kontrahenten, bis die Begegnung beendet ist. Dies kann durch einen direkten Treffer oder das Ausbrechen eines der Beteiligten geschehen

Entwickelt sich ein direkter Kampf, ist ein einkommender Torpedo ein tödlicher Gegner. Spezielle Vorrichtungen, die in ungefähr 400 Yards Entfernung hinter dem Boot hergezogen werden, erzeugen simulierte Schraubengeräusche und lenken damit ankommende Torpedos ab.

Ist die Unterwasserbedrohung identifiziert, muß sie vollständig untersucht werden. Während die Haupteinheit der Einsatzgruppe nun abdreht, werden Anti-U-Boot-Schiffe und Flugzeuge versuchen, den Kontakt aufrechtzuerhalten. Taktiken, wie ein "geräuschvoller" Sprint, gefolgt von völlig lautlosem Treibenlassen sind auch bei den modernen Atom-U-Boot-Kommandanten noch in Gebrauch, um eine günstigere Angriffsposition zu erhalten.

Zusammenfassend muß gesagt werden, daß der Kommandant eines modernen atomgetriebenen U-Bootes eine der mächtigsten Waffen auf Erden befehligt. Eine Waffe, die schwer zu entdecken ist und blitzartig zuschlagen kann.

Entscheidungen, die unter großem Druck getroffen werden, sind hier an der Tagesordnung - eine Fehleinschätzung der Lage kann sehr wohl die letzte sein.

KOMMANDANTENBESPRECHUNG

Als erfahrenster sowjetischer U-Boot-Kommandant wird Ihnen die Aufgabe übertragen, das neueste Erzeugnis sowjetischer Marinetechnologie zu testen - ein Unterseeboot mit einem neuen, revolutionären Antriebssystem, so leise, daß es fast nicht aufgespürt werden kann.

Aber Sie haben beschlossen überzulaufen. All Ihre Offiziere sind sorgfältig ausgewählt und bereit ihr Leben für Sie einzusetzen. Die normale Besatzung vermutet nichts und Sie müssen dafür sorgen, daß das auch so bleibt. Die detailliert verfaßten Befehle des Oberkommandos (allesamt gefälscht), dienen nur dazu, Ihre wahren Absichten zu verschleiern.

Unglücklicherweise ist jedes Schiff der sowjetischen Marine mit einem vom KGB ernannten Politoffizier versehen, der im Ernstfall sogar die Befehlsgewalt übernehmen kann. Dieser Mann würde natürlich sofort erkennen, daß es sich um gefälschte Befehle handelt und die Besatzung informieren. Aus diesem Grunde sahen Sie sich gezwungen, den Politoffizier kurz nach der Abfahrt aus dem Wege zu schaffen. Da Sie die Sowjetunion jedoch aus persönlichen Motiven verlassen, verleitete Sie Ihr Stolz als bester U-Boot-Kommandant dazu, dem Oberkommando mit einem Brief Ihre wahren Absichten zu eröffnen. Durch den Postweg erhalten Sie den erforderlichen Vorsprung, da die sowjetische Marine erst mit Verzögerung reagieren kann. Sobald der Brief aber eingetroffen ist, können Sie sicher sein, daß das Oberkommando alle Hebel in Bewegung setzen und versuchen wird, Sie um jeden Preis zu stoppen. Andererseits können Sie sich jedoch nicht hundertprozentig auf die Amerikaner verlassen, da diese nicht sicher sind, ob es sich hier nicht um ein doppeltes Spiel handelt.

Diese Simulation hält sich genau an den Roman, um dessen atemberaubende Spannung weiterzuvermitteln. Wollen Sie erfolgreich sein und Ihren Ruf rechtfertigen, muß der minuziös erdachte Plan exakt durchgeführt werden.

Die Simulation beginnt in der Reykjanes-Kette. Das Hauptziel hier ist, einer Entdeckung im Schutze der zerklüfteten Felsformationen zu entgehen. Hauptakteure in diesem Gebiet werden sowjetische Schiffe, sowohl Überwasser- als auch Unterwasserfahrzeuge, amerikanische Jagd-U-Boote und ein komplettes Unterwasser-Abhörnetz sein, dessen einzige Aufgabe es ist, Schiffe wie *Roter Oktober* am Durchschlüpfen zu hindern.

Obwohl Vorsicht zu diesem Zeitpunkt lebensnotwendig ist, ist es auch erforderlich voranzukommen. Der Plan sieht bestimmte Vorfälle im Verlauf der Reise vor, unter anderem auch den Ausfall des Atomreaktors. Sie werden deshalb die Diesel-Notaggregate einsetzen müssen, um den fehlenden Atomantrieb zu ersetzen. Der längere Gebrauch dieser Maschinen macht es

aber erforderlich aufzutauchen, um die Batterien aufzuladen und erhöht so das Risiko entdeckt zu werden. Schaffen Sie es nicht, am Anfang des Spieles eine genügend große Strecke zurückzulegen, führt das später zu großen Schwierigkeiten.

Sind die gefälschten Befehle der Besatzung erst einmal verlesen worden, dürfen Sie kein unnötiges Mißtrauen herausfordern. Fahren Sie in die falsche Richtung, müssen Sie zum Beispiel mit besorgten Rückfragen Ihres Navigations-Offiziers rechnen. Das kann sogar soweit gehen, daß Sie von Ihren Mitverschwörern des Kommandos enthoben werden.

Der Plan selbst ist einfach. Ihre Befehle lauten, die Abwehr der amerikanischen Ostküste zu testen. Während Sie den Atlantik überqueren, täuscht Ihr technischer Offizier ein radioaktives Leck im Reaktor vor, wodurch es erforderlich wird, die Besatzung auf ein amerikanisches Schiff zu evakuieren. Anschließend versenken die heldenhaften Offiziere der *Roter Oktober* das Schiff, damit es nicht in die Hände der Kapitalisten fallen kann.

In Wahrheit jedoch haben die Amerikaner ein Rendezvous arrangiert, um ein ähnliches Unterseeboot zu versenken und die *Roter Oktober* zu übernehmen.

Der Plan sieht ein Rendezvous knapp vor der amerikanischen Küste außerhalb der Territorialgewässer vor. Sollten Sie in amerikanische Gewässer eindringen, ist dies kein Problem. Wenn Sie allerdings einen Hafen der USA anlaufen, hat das katastrophale Folgen, denn dann können die sowjetischen Behörden das Schiff unter Berufung auf das internationale Seerecht zurückfordern.

Diese Simulation gibt Ihnen die Chance Ihren Verstand und Ihre Fähigkeiten gegen die mächtigste Flotte der Welt einzusetzen.

Sind Sie dazu bereit?

SPIEL, STRATEGIE UND TAKTIK

Sämtliche Funktionen der *Roter Oktober* werden über Symbole aktiviert und ermöglichen sofortige Anweisungen. Wurde vom Kapitän ein Befehl erteilt, wird er vom zuständigen Offizier bestätigt und ausgeführt. Nach Beendigung der Aktion meldet der Offizier die Befehlsausführung über das Nachrichtenfenster.

Geschwindigkeit, Tiefe und Richtung sind die drei Faktoren, die über Leben oder Tod des Kommandanten und seines Schiffes entscheiden. Die entsprechenden Werte werden permanent auf dem linken Kontrollpult angezeigt und erlauben dem Kommandanten gleichzeitig den Hauptbildschirm auszuwerten.

Das Hauptfenster zeigt entweder die nähere Umgebung in Kontur-Darstellung oder eine umfassende Nordatlantikprojektion. Die letztere enthält die ungefähren Positionen aller bekannten Flottenverbände und die der *Roter Oktober.*

Die Kontur-Darstellung ist dem Kapitän in der Anfangsphase des Spieles von großem Nutzen, wenn er durch die komplexe Folge von Tälern und Bergen in der Reykjanes-Kette navigiert. Dieses Gebiet wird von den Mitgliedern der sowjetischen Nordflotte hochachtungsvoll nach Ihrem Flottenadmiral als "Gorschkovs Eisenbahn" benannt.

In diesem Areal liegen die Hauptrouten für die mit Atomraketen bestückten sowjetischen U-Boote. Gleichzeitig ist es auch das Gebiet, in dem sowjetische und amerikanische Jagd-U-Boote auf der Lauer liegen, um eventuelle Gefahren sofort zu beseitigen.

Die Kontur-Karte erlaubt dem Spieler Routen durch diese unterseeische Gebirgskette, wie auch durch andere seichte Meeresgebiete, zu planen. Zusätzlich kann die Sonarortung in eingeblendet werden, um andere Schiffe in diesem Gebiet zu zeigen.

Schließlich dient dieser Bildschirmteil noch zur Darstellung der Periskopansicht, welche Schiffe in diesem Gebiet mit allen Details zeigt. Das Angriffsperiskop fixiert Daten für den Feuerleitcomputer und bietet damit die größte Chance für einen Treffer.

Die Stärke eines U-Bootes liegt im Überraschungsmoment. In der Fähigkeit, ohne Warnung anzugreifen und lautlos in die Tiefe zu entkommen, liegt der Schlüssel zum Überleben.

Die *Roter Oktober* hat zudem noch einen einzigartigen Vorteil gegenüber allen Gegnern und Zeitgenossen. Sie ist mit einem Rückstoßantriebssystem, dem

sogenannten Tunnelantrieb, ausgestattet, der eine geräuschlose, nahezu unbemerkte Fahrt durch die Tiefen des Ozeans möglich macht. Die Entwicklungsingenieure gaben dem Antrieb den Spitznamen "Caterpillar", aber niemand weiß genau, warum dieser Name eigentlich entstand. Der Einsatz dieses Antriebes reduziert jedoch die Geschwindigkeit um fast zwei Drittel. Je länger sich die Ankunft beim geplanten Rendezvouspunkt mit der US-Marine verzögert, desto wahrscheinlicher wird eine Entdeckung durch die sowjetische Flotte. Vermeiden Sie unnötige Verzögerungen - denn das Netz wird immer enger!

Das Ziel Ihrer Mission ist, die *Roter Oktober* unbeschädigt und ohne Rückforderungsmöglichkeit abzuliefern. Ein Fehlschlag bedeutet das sofortige Ende des Unternehmens.

NAVIGATION

Zu Beginn des Spieles müssen Sie durch eine der gefährlichsten bekannten Unterwasserlandschaften navigieren. Benutzen Sie die von Spezialsensoren erzeugte Darstellung des Meeresbodenprofils, um eine sichere Route durch dieses Gebiet zu finden.

Die Hauptrouten durch diese Gebirgskette sind dokumentiert und allen U-Boot-Kommandanten bekannt. Sowjetische, amerikanische und auch NATO-Flottenverbände sind hier stationiert und sollten umgangen werden. Wenn Sie die Nerven besitzen, um massive Hindernisse herumzumanövrieren, verfälschen Sie so die Sonarortungen der anderen Schiffe und vertuschen Ihre Anwesenheit.

Die größte Gefahr besteht darin, daß die *Roter Oktober* auf Grund läuft oder beschädigt wird. Der ausgeklügelt konstruierte Rumpf minimiert Geräusche und Kavitation, und die empfindlichen Rumpfsensoren liefern viele der für die Navigation benötigten Daten. Trotzdem ist größte Vorsicht geboten.

Zusätzlich besteht in diesem Gebiet Minengefahr. "Kapernminen", wie sie von den USA eingesetzt werden, besitzen keine Freund/Feind-Identifizierung. Sie feuern akustische Torpedos auf U-Boote ab, die ihre druckempfindlichen Abschußmechanismen auslösen. Auch andere Minen können sich hier befinden. Der Hydrophon-Offizier wird Sie jedoch über solche Gefahren auf dem Laufenden halten.

Befinden sich andere Schiffe in der Nähe, ist die *Roter Oktober* in ihrem Element. Der Tunnelantrieb reduziert die Gefahr des Entdecktwerdens auf ein Minimum. Allerdings wird dieser Vorteil zunichte gemacht, falls irgendeines der aktiven Systeme eingesetzt wird.

Um eine Entdeckung zu vermeiden, ist es erforderlich Geschwindigkeit und

Geräuscherzeugung auf ein Minimum zu reduzieren und die Tauchtiefe entsprechend den örtlichen Gegebenheiten zu variieren. Durch Ausnutzen der technischen Vorteile der *Roter Oktober* und des umgebenden Terrains haben Sie eine gute Chance den Verfolgern zu entkommen.

VERTEIDIGUNG

Einmal lokalisiert, kann es passieren, daß ein U-Boot die *Roter Oktober* verfolgt, ohne daß diese es bemerkt. Es ist deshalb ungemein wichtig, daß der Kommandant regelmäßig überprüft, ob er sich nicht einen unliebsamen Verfolger eingefangen hat. Das Manöver, bekannt als "Irrer Ivan", bei dem eine plötzliche 360 Grad Drehung ausgeführt wird, um eine Sonarrundumsicht zu erhalten, kann hier sehr nützlich sein. Für das folgende U-Boot bedeutet dies, schnell und doch leise auf die Kursänderung reagieren zu müssen, um nicht entdeckt zu werden

Sollte die *Roter Oktober* angegriffen werden, gibt es verschiedene Taktiken.

Die einfachste ist, dem Torpedo einfach davonzufahren. Moderne Torpedos sind nicht so schnell wie ein U-Boot mit voller Kraft und je länger das Geschoß unterwegs ist, desto größer wird die Wahrscheinlichkeit, daß es abgelenkt wird. Diese Methode ist allerdings mit starker Geräuschentwicklung verbunden und schließt ein relativ langes "Katz und Maus" Spiel ein.

Die zweite Methode ist, einen elektronischen Köder auszulegen. Köder simulieren Propeller- und U-Boot-Geräusche im Wasser und werden in einer Entfernung von ca. 400 Yards hinter dem Boot hergeschleppt, also soweit entfernt, daß ein Torpedo gefahrlos für das Unterseeboot explodieren kann.

Die dritte und sehr riskante Methode ist, auf den Torpedo zuzuhalten. Um zu vermeiden, daß er explodiert, muß dieser abgefangen werden, bevor er die Sicherheitszone verläßt. Dabei handelt es sich um den Mindestabstand, den ein Torpedo zurücklegen muß, bevor er gefahrlos für das abfeuernde U-Boot explodieren kann.

ANGRIFF

Die Verteidigungsmöglichkeiten der *Roter Oktober* beschränken sich auf ihre vier Torpedorohre. Da dieses Schiff in erster Linie als schwimmende Atomraketenabschußbasis konzipiert ist, sind Torpedos die einzige Möglichkeit einen Verfolger zu versenken.

Ist das Ziel identifiziert, wird es erforderlich in Torpedoreichweite zu gelangen. Die größtmögliche Reichweite liegt ungefähr bei zehn bis zwölf Seemeilen. U-

Boot Kommandanten ziehen es aber vor, bis auf die Hälfte dieser Entfernung an das Ziel heranzukommen, da so die Trefferwahrscheinlichkeit erhöht wird. Zwar können akustische Torpedos eingesetzt werden, indem man einfach die Sonarpeildaten in den Feuerleitcomputer überträgt, aber viele Angriffe werden auch heute noch mit Hilfe von Periskopsichtungen durchgeführt, trotz des erhöhten Risikos einer Entdeckung.

Haben Sie manuelle Steuerung gewählt, müssen Sie Richtung und Steigung des Torpedos in Relation zum Zielschiff einstellen. Je früher das Geschoß die Wasseroberfläche erreicht, desto eher kann es visuell oder elektronisch ausgemacht werden. Das Geschoß sollte auch nicht zu tief abgesetzt werden, da eventuell ausgelegte Köder den Torpedo von seinem Ziel ablenken könnten.

AMERIKANISCHE TAKTIK

Während der gesamten Simulation hat die US-Marine nur ein Ziel: Die *Roter Oktober* zu finden und den kommandierenden Offizier zum plangemäßen Überlaufen zu überreden, damit sie dieses U-Boot für Forschungszwecke in die Hände bekommt.

Um dieses Ziel zu erreichen, wird die US-Flotte die suchenden sowjetischen Verbände beschatten und gleichzeitig versuchen, die *Roter Oktober* mit den Jagd-U-Booten aus der Reykjanes-Kette aufzuspüren.

Ist *Roter Oktober* lokalisiert, werden die Amerikaner sich bemühen, am Rendezvouspunkt an der Oberfläche Kontakt aufzunehmen. Dort wird dann das alte amerikanische Unterseeboot versenkt, damit die *Roter Oktober* ihre Identität wechseln kann.

Das einzige, was die amerikanische Taktik verändern kann ist, wenn die *Roter Oktober* einen Angriff auf amerikanische Einheiten ausführt. Dies würde dazu führen, daß die US-Marine gemeinsam mit den sowjetischen Verbänden zu einer Vernichtungsmission aufbricht, um zu verhindern, daß das "abtrünnige" Schiff einen Atomkrieg anzettelt.

SOWJETISCHE TAKTIK

Die sowjetische Taktik soll das Überlaufen um jeden Preis verhindern.

Alle mit Atomraketen ausgestatteten U-Boote werden zu Ihren Basen zurückgerufen, um jegliche Fehlinterpretation der Entsendung von drei Flottenverbänden in den Atlantik zu vermeiden. Jeder der drei Verbände wird nach einem organisierten und aufeinander abgestimmten Muster die Suche nach *Roter Oktober* in der Reykjanes-Kette und über den gesamten Atlantik hinweg

durchführen.

Sowjetische Marineflugzeuge unterstützen die Flotte mit großangelegten Suchflügen, um das verschwundene U-Boot ausfindig zu machen.

Zu Beginn der Simulation werden sowjetische Jagd-U-Boote ihre Position vor den wichtigsten Militär- und Handelshäfen der amerikanischen Ostküste beziehen, um ein Durchkommen der *Roter Oktober* unmöglich zu machen.

Alle Spionagetrawler erhalten den Auftrag die *Roter Oktober* unter Einsatz der modernsten Suchgeräte aufzuspüren. Informationen von diesen Schiffen können für die *Roter Oktober* und ihre Besatzung eine große Gefahr werden.

Die sowjetische Taktik variiert von Spiel zu Spiel! Die verschiedenen Möglichkeiten bei der Entscheidungsfindung und der Erfolgsdruck kann durchaus zu Überraschungsreaktionen seitens der verfolgenden Sowjetmarine führen.

Sollte *Roter Oktober* tatsächlich überlaufen, droht vielen sowjetischen Offizieren Bestrafung. Sie können ihre Position oder sogar ihr Leben verlieren. Deshalb kann es passieren, daß sie, um Erfolg zu haben, unnötige Risiken für Schiff und Mannschaft eingehen

Mit Fortschreiten des Spiels erhöhen die Spannung und die systematische Suche der sowjetischen Flotte die Gefahr einer Entdeckung. Jedoch ist die sowjetische Marine für die mangelnde Sicherheit beim Nachrichtenaustausch über strategische Positionen bekannt.

Der vorsichtige Einsatz von ESM - Elektronische Überwachungsmaßnahme - kann möglicherweise die Information liefern, daß Sie für Ihren Erfolg so dringend benötigen.

ANLEITUNG

Roter Oktober ist das neueste, mit Atomraketen bestückte, sowjetische Unterseeboot. Bewaffnet mit insgesamt 26 Raketen des Typs SS-N-20 Seahwak, jede davon mit acht lenkbaren 500 Kilotonnen-Sprengköpfen ausgestattet, stellt sie ein mächtige Waffe dar, die in der Lage ist, über zweihundert Einzelziele zu zerstören.

Die *Roter Oktober* ist auch das erste sowjetische Unterseeboot, daß mit dem einzigartigen Tunnelantrieb, dem "Caterpillar", versehen ist. Dieser neue Antrieb erzeugt keine Schraubengeräusche und sorgt dafür, daß das Unterseeboot praktisch unauffindbar bleibt.

In der Simulation der *Jagd auf Roter Oktober* übernehmen Sie die Rolle des Kapitäns Marko Ramius, des Kommandeurs der *Roter Oktober*. Ihre Mission ist, *Roter Oktober* zur Ostküste der Vereinigten Staaten zu bringen ... und *überzulaufen.*

DAS ÜBERLAUFEN

Der Plan zum Überlaufen wurde schon seit Monaten vorbereitet. Die Simulation setzt dort ein, wo *Roter Oktober* beginnt, durch die Reykjanes-Kette vor der isländischen Küste zu manövrieren. In diesem Gebiet liegt die Hauptroute für sowjetische U-Boote, die die nördlichen Häfen der sowjetischen Flotte in Richtung atlantischer Ozean und amerikanische Küste verlassen.

Hier zu navigieren erfordert großes Geschick, da sowohl die USA als auch die NATO ihr Unterseeboot-Suchsystem auf dieses Gebiet konzentriert haben. Die Aufgabe des Spielers besteht nun darin, in den Atlantik zu gelangen, sich weit entfernt von der sowjetischen Verbänden mit der US-Navy zu treffen und einen Austausch der Besatzung zu arrangieren. Dies ermöglicht der amerikanischen Marine eine passende Tarngeschichte für das Schicksal der *Roter Oktober* zu erfinden und das Schiff dann heimlich in einen Hafen zu schmuggeln. Würde die *Roter Oktober* offen in einen amerikanischen Seehafen einlaufen, könnten die sowjetischen Behörden das Schiff unter Berufung auf das internationale Seerecht zurückfordern.

Die einhundert Mann starke Besatzung ahnt nichts vom geplanten Überlaufen. Es ist deshalb wichtig, von den Befehlen, die der Crew am Anfang des Spieles gegeben wurden, obwohl sie gefälscht sind, nicht allzu sehr abzuweichen. Die Befehle lauten, daß die *Roter Oktober* die Verteidigungseinrichtungen an der Ostküste der USA auf die Probe stellen, und dann anschließend zu einem Freundschaftsbesuch nach Kuba fahren soll. Der Zweck ist, die wahre Absicht der Mission zu verschleiern und die Crew mit der Vorfreude auf den Kuba-

Besuch zu beschäftigen. Allerdings weichen diese Befehle sehr von den echten ab, die Ihnen von Ihrem jetzt toten Politoffizier übergeben wurden.

Bedenken Sie immer, daß das einzige Ziel der sowjetischen Flotte darin besteht zu verhindern, daß die *Roter Oktober* in amerikanische Hände fällt. Sollte es hierzu erforderlich werden, das Unterseeboot zu zerstören, wird dies auf jeden Fall geschehen.

LADEANWEISUNGEN

AMIGA	: Werden Sie nach der Workbench-Diskette gefragt, legen Sie die Spieldiskette ein und das Programm wird automatisch gestartet.
ST	: Klicken Sie zum Start auf das Symbol HFRO.PRG. Das Programm wird nun geladen und gestartet.
Schneider PC 512 (IBM PC und Kompatible)	: Laden Sie MS.DOS. Geben Sie HFRO < Return > ein und das Programm wird automatisch geladen und gestartet.

STEUERUNG DER *ROTER OKTOBER*

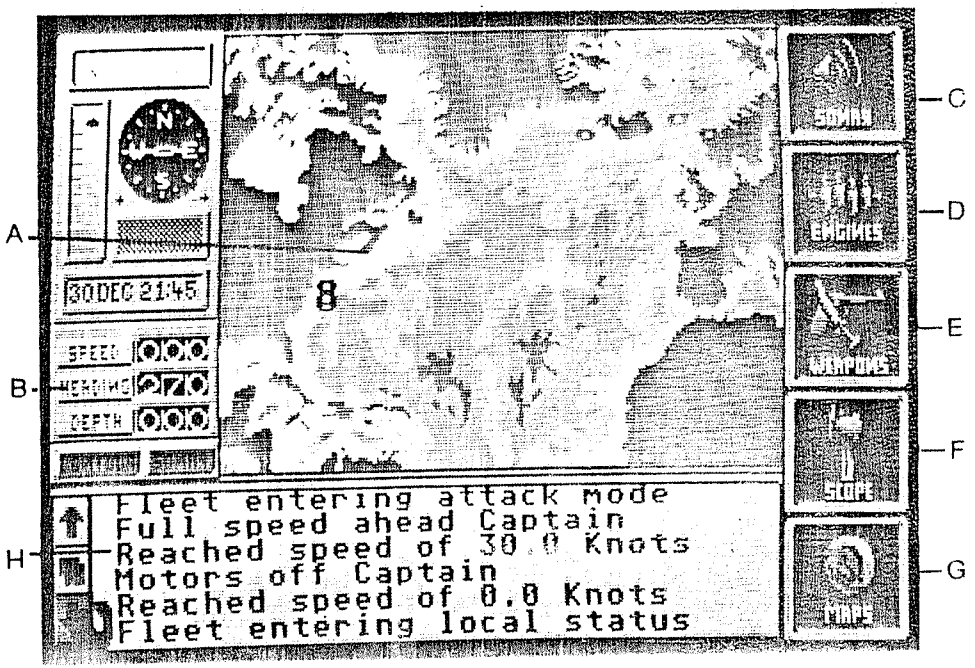
Ist das Programm geladen, erscheint der Hauptkontrollschirm (Abbildung 1). Auf der Landkarte befindet sich ein Cursor (in Form eines Pfeiles und einer Sichel). Bewegen Sie diesen Cursor auf den entsprechenden Teil des Bildschirms und drücken einmal auf den linken Mausknopf, wird die unter dem Cursor liegende Funktion angewählt.

Bei der PC-Version wird die Maus durch die Cursortasten ersetzt. Ein Druck auf die Leertaste hat die gleiche Wirkung wie der Druck auf die linke Maustaste, der Druck auf die Escape-Taste entspricht einem Druck auf die rechte Maustaste.

Die PC-Version unterstützt folgendes Zubehör:

- Schneider Maus
- Schneider Joystick
- IBM Spiele-Adapter Joystick
- Microsoft Maus

Bild 1: Hauptkontrollschirm



A - Hauptfenster
B - Hauptkontrollpult
C - Sonaroffizier
D - Technischer Offizier
E - Waffenoffizier
F - Periskop
G - Hauptfenstersteuerung
H - Nachrichtenfenster

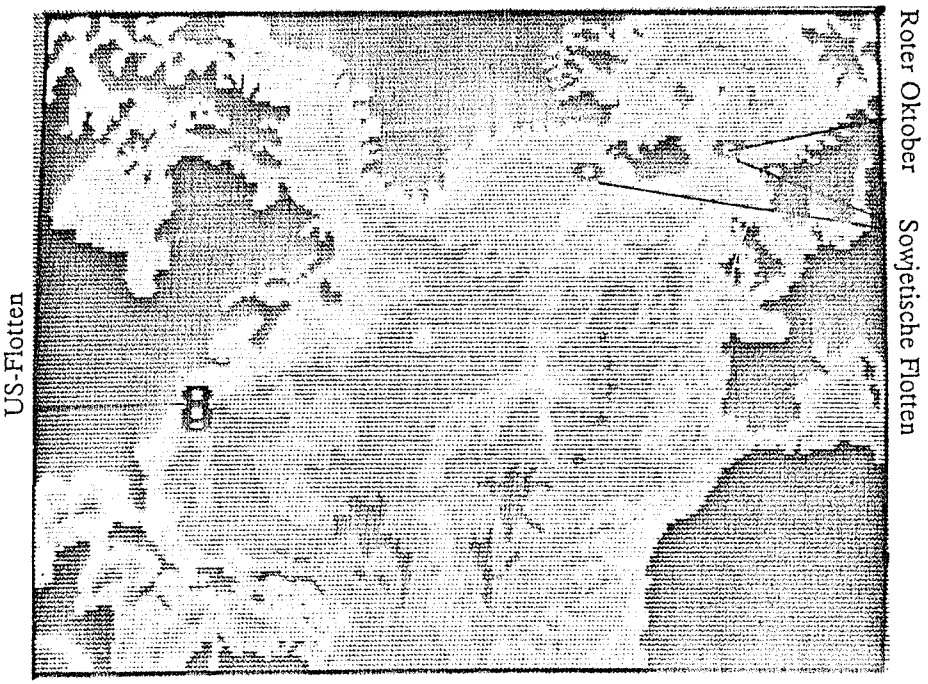


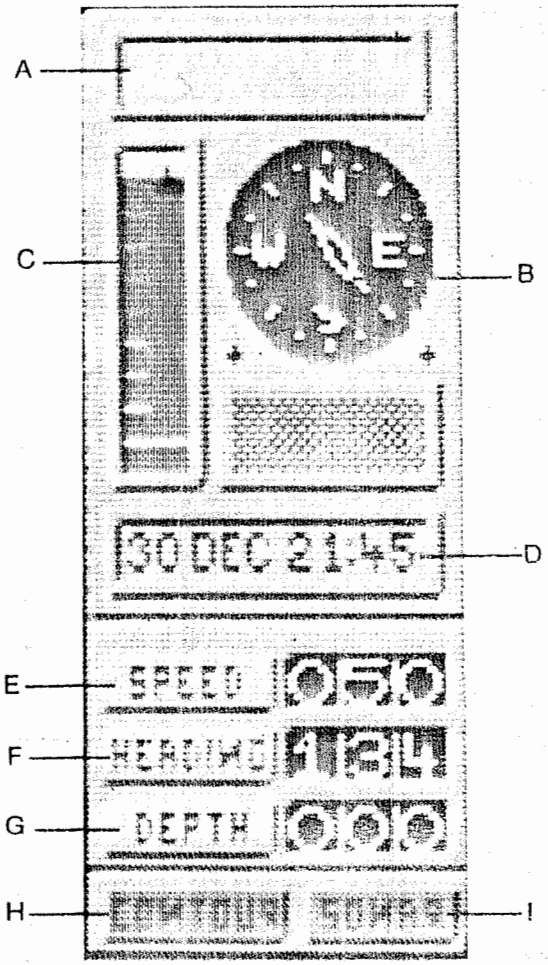
ABBILDUNG 2: ATLANTIKKARTE

Hierbei handelt es sich um eine Übersichtsdarstellung des Nordatlantik. Die Position der *Roter Oktober* wird als kleines rotes U-Boot dargestellt. Darüberhinaus werden hier auch die bekannten Position der größeren Flottenverbände wiedergegeben, die der Sowjets in Blau und die der NATO in Grün. Die Positionsangaben werden mit den modernen Geräten an Bord während des gesamten Spieles aktualisiert.

B. Hauptkontrollpult

Das Kontrollpult erlaubt dem Kapitän direkt auf alle navigatorischen Funktionen zuzugreifen. Die Symbole werden wie folgt mit einem einzelnen Mausklick aktiviert:

ABBILDUNG 3: HAUPTKONTROLLPULT



A - Geschwindigkeitsmesser
Auf diesem Gerät kann der Kapitän die Geschwindigkeit ändern, indem der auf die gewünschte Fahrtstufe und dann auf den "Execute"-Knopf klickt. Diese Methode wird dann eingesetzt, wenn der Kapitän die Geschwindigkeit sehr schnell ändern möchte.

B - Kompaß
Auf dem Kompaß kann der Kapitän die gewünschte Richtung wählen. Diese wird eingeschlagen, nachdem er den "Execute"-Knopf betätigt hat.

C - Tiefenmesser
Mit dem Tiefenmesser kann der Kapitän durch Klicken auf die gewünschte Tiefe schnelle Korrekturen vornehmen. Nach einem Klick auf den "Execute"-Knopf bewegt sich der Zeiger auf die angegebene Tauchtiefe.

D - Uhr
Diese "Spielzeit-Uhr" kann durch wiederholtes Drücken der Maustaste auf der rechten Seite des Uhrenfeldes beschleunigt werden. Um die Uhr wieder auf normale Spielzeit einzustellen, halten Sie die Maustaste auf der linken Seite des Uhrenfeldes gedrückt. Mit dieser Funktion kann der Kapitän die Zeit, bis ein neuer Befehl erforderlich wird oder eine weitere Funknachricht eintrifft, verkürzen. In Gebieten, wo die Navigation sehr kompliziert wird, ist es gefährlich diese Funktion anzuwenden, da die *Roter Oktober* so leicht auf Grund laufen und beschädigt werden kann.

E - Geschwindigkeitsanzeige
Die Geschwindigkeitsanzeige gibt die derzeitige Fahrt in Knoten an. Durch Klicken auf diesem Symbol kann der Kapitän die die Geschwindigkeit entweder erhöhen oder reduzieren. Wählt er 0 Knoten, erteilt er gleichzeitig den Befehl zur "Ruhe im Schiff", der angewandt wird, wenn man einer Entdeckung entgehen will.

F - Richtungsanzeige
Fahrtrichtung - Hierdurch hat der Kapitän die Kontrolle über die Fahrtrichtung der *Roter Oktober*. Stellt er den Kurs auf diese Weise ein, ist am ehesten gewährleistet, daß der gewählte Kurs exakt eingehalten wird. Möchte der Kapitän Ausweichmanöver durchführen, die schnelle Kurswechsel erfordern, sollte er hierzu die oben erwähnte schnellere Methode durch Aktivierung des Kompasses wählen.

G - Tiefenanzeige
Die Tiefe wird in Metern angegeben und der Kapitän sollte über diesen Wert aus zwei Gründen immer informiert sein. Erstens darf bei der Tauchtiefe nie die maximale Druckbelastbarkeit der *Roter Oktober* überschritten werden, und zweitens muß die Tiefe immer auf das Meeresgrundniveau und die Bodenformationen abgestimmt sein.

H - Kontrolle der Konturdarstellung
Hiermit wird die Konturkarte im Hauptfenster ein und ausgeschaltet.

I - Kontrolle der Sonardarstellung
Dieses Feld schaltet die Sonarkarte im Hauptfenster ein beziehungsweise aus.

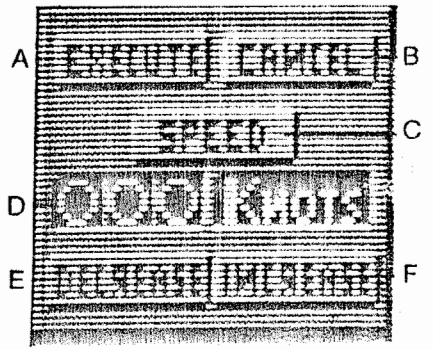


ABBILDUNG 3.1: KONTROLLPULT FÜR BEFEHLSAUSFÜHRUNG

Hat der Kapitän den zu ändernden Faktor ausgewählt - Geschwindigkeit, Richtung oder Tiefe - muß er seinen Offizieren den Befehl zur Ausführung erteilen.

A - Befehl erteilen
Klicken auf dieses Feld veranlaßt, daß der vom Kapitän gewählte Befehl erteilt wird. Dies muß geschehen, da sonst keine Funktion des Hauptkontrollpultes ausgeführt wird.

B - Befehl widerrufen
So wird der ursprünglich ausgewählte Befehl des Kapitäns widerrufen. Allerdings ist das nur vor Erteilung möglich. Ist der Befehl bereits erteilt worden, kann nur ein neuer, anderslautender Befehl die Ausführung verhindern.

C - Funktion
In diesem Feld wird der vom Kapitän geänderte Wert angezeigt, also Geschwindigkeit, Richtung oder Tiefe.

D - Funktionsanzeige
An dieser Stelle erscheint der Wert, der vor Erteilung des Befehles eingestellt ist. Mit Hilfe der Increase/Decrease-Knöpfe kann er nun auf den neuen Wert gebracht werden.

E - Decrease-Knopf
Er verringert den in D. angezeigten Wert solange, bis der vom Kapitän gewünschte neue Wert erreicht ist.

F - Increase-Knopf
Dieser erhöht den in *D.* angezeigte Wert, bis der gewünschte neue Wert erreicht ist. Zusammen mit *E.* ermöglicht diese Funktion die "Feinabstimmung" von Geschwindigkeit, Richtung und Tiefe des Unterseebootes im Gegensatz zu den eher groben Änderungen, die über das Hauptkontrollpult vorgenommen werden. Nach Erteilung des Befehles erscheint wieder das ursprüngliche Kontrollpult (Abbildung 3) und der Kapitän kann weitere Änderungen vornehmen, während die letzten Befehle ausgeführt werden.

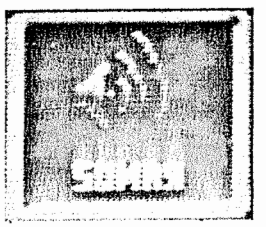
Jede Änderung muß befohlen werden und wird vom entsprechenden Offizier bestätigt. Dieser Offizier macht auch Meldung, wenn der Befehl ausgeführt wurde. Wurde ein Befehl einmal erteilt, kann sich der Kapitän auf andere, dringendere Angelegenheiten konzentrieren, wobei er sicher sein kann, daß seine sorgfältig ausgewählten Offiziere ordnungsgemäß reagieren.

Diese sehr flexible und einfache Befehlsstruktur bedeutet, daß eine Vielzahl von Befehlen erteilt werden kann, so daß auch komplizierte Manöver mit einem Minimum an Aufwand durchgeführt werden können.

ERTEILUNG VON BEFEHLEN AN DIE OFFIZIERE

Klicken auf das Symbol in Abbildung 4 ruft die Funktionen des Sonar-Offiziers auf.

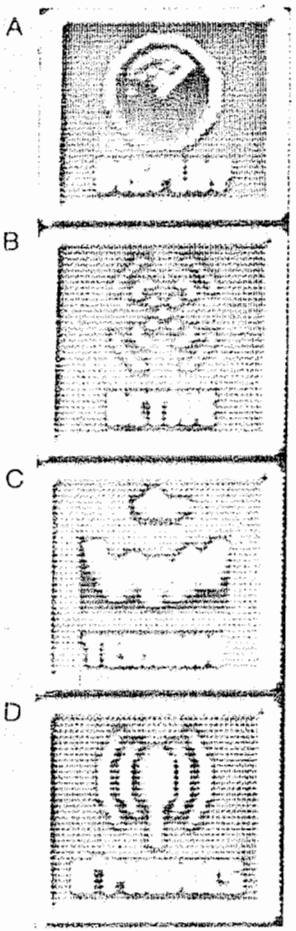
ABBILDUNG 4: SONAROFFIZIER



Hiermit werden die in Abbildung 4.1 gezeigten Sonar-Funktionssymbole aktiviert.

ABBILDUNG 4.1:
SONAR-FUNKTIONSSYMBOLE

Sonar stellt das Gehör eines modernen Unterseebootes dar. Die Sonartechnologie ist bereits so weit entwickelt, daß nur durch das Geräuschmuster, das ein Schiff bei seinen Bewegungen und Operationen hinterläßt, ein geschulter Sonarmann Schiffe mit bemerkenswerter Genauigkeit erkennen kann. Unterseeboote arbeiten mit dauerndem passiven Sonar, daß ihnen ungefähre Daten der Ziele, sowie deren Identität und Fahrtrichtung verrät. Diese Daten sind jedoch sehr subjektiv und erfordern eine gewisse Bestätigung, sei es durch Sichtkontakt, weiteres Anpeilen oder durch die Benutzung des sogenannten "aktiven" Sonars, um genauere Daten über das Zielobjekt zu erhalten. Außerdem hinterläßt das passive Sonar gefährliche blinde Flecken, den sogenannten "Kegel des Schweigens", im Kielwasser der von feindlichen Jagd-U-Booten ausgenutzt werden kann.



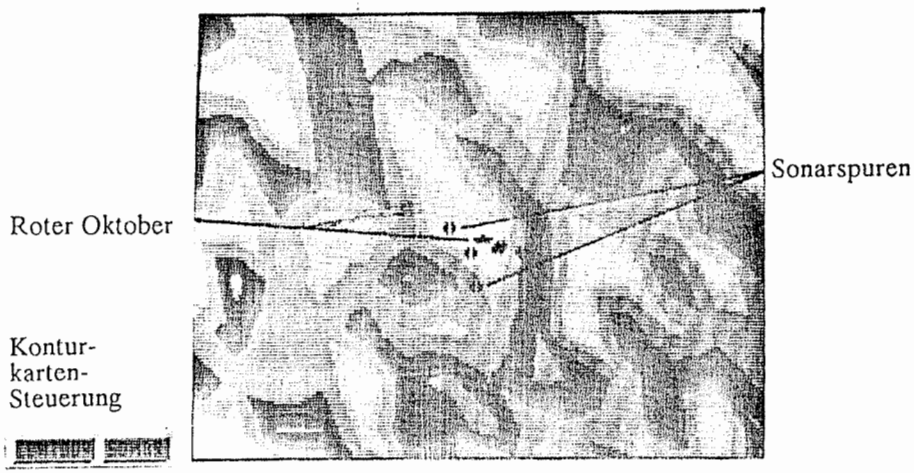
A - Sonar/Konturdarstellung



Auf diesem Bild erhalten Sie eine Konturdarstellung des Meeresbodens. Diese genaue Reliefkarte entsteht, ein Beispiel finden Sie in Abbildung 4.2, durch Spezialsensoren der *Roter Oktober*, die die Tiefe des Ozeans messen und das erfaßte Gebiet rund um das Schiff abbilden.

Die Höhenunterschiede werden durch Farben dargestellt, wobei Weiß für die Spitze unterseeischer Berge und das dunkelste Blau für den Meeresgrund steht (Bei der PC Version wird dieser Effekt durch Rasterung der Farben erzielt. Je dichter die Rasterung desto tiefer ist das Meer).

ABBILDUNG 4.2



Durch diese Information, zusammen mit den gelieferten Sonardaten, die auf der Karte eingeblendet werden, kann der Kapitän durch die gefährliche Reykjanes-Kette in die relative Sicherheit des mittleren Atlantiks steuern. Die Steuerung der Konturdarstellung, wie in Abbildung 4.2 gezeigt, schaltet diese Darstellungsform ein oder aus. Ist sie abgeschaltet, wird die Konturkarte zum Sonarschirm.

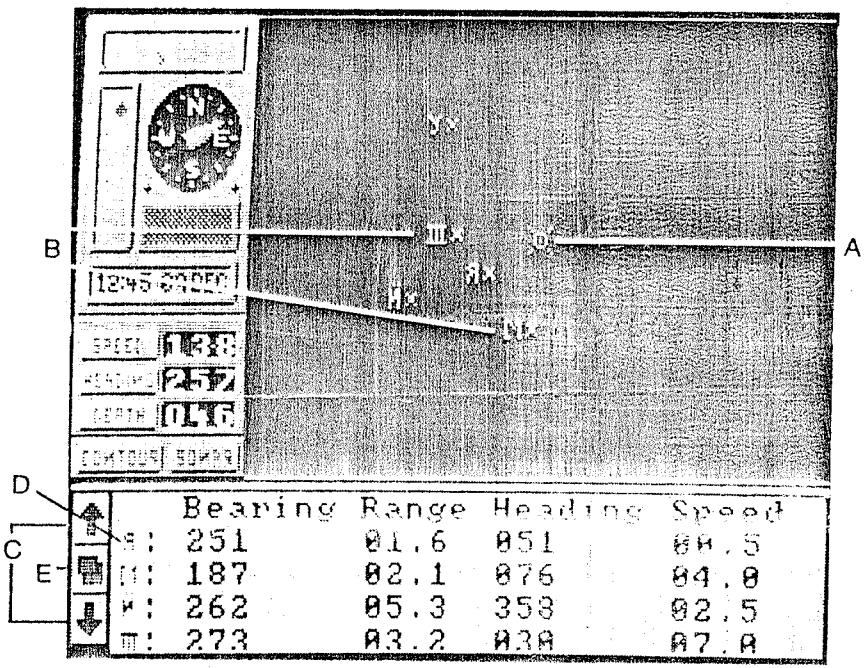
Auf dem Sonarschirm werden alle Kontakte angezeigt, sowohl vom passiven als auch vom aktiven Sonar. Jeder Kontakt erhält eine Referenz und Details des Sonarkontaktes werden im Nachrichtenfenster gezeigt.

Die Positionsangabe (Bearing) bezieht sich auf die Position relativ zur *Roter Oktober*. Die Entfernung (Range) wird in Seemeilen zusammen mit der

ungefähren Fahrtrichtung (Heading) des Schiffes angegeben. Zum Schluß wird noch die geschätzte Geschwindigkeit in Knoten angezeigt (Speed).

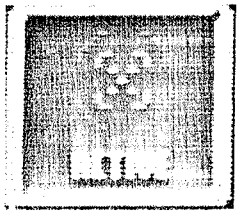
Die Daten werden mit dem passiven oder aktiven Sonar aktualisiert. Manche Kommandeure mögen es darüberhinaus als wichtig erachten, die Daten noch durch einen Sichtkontakt zu bestätigen. Daten im Nachrichtenfenster können entweder im Hydrophon-Fenster zur Analyse oder zur Fixierung des Feuerleitcomputers auf ein Ziel und zum Angriff weiterverwandt werden. Die Auswahl erfolgt durch Bewegen des Cursors auf das entsprechende Symbol, gefolgt von einmaligem Klicken. Ist auf dem Bildschirm eine größere Anzahl Sonarkontakte zu sehen, kann die Liste mit den nach oben und unten zeigenden Pfeilen, siehe Abbildung 4.3, durchgesehen werden. Das Sonar-Informationsfenster wird durch Klicken auf das Seitensymbol zwischen den Pfeilen in das normale Nachrichtenfenster zurückverwandelt.

ABBILDUNG 4.3



A - Roter Oktober
B - Sonarspuren und Referenzen
C - Rollpfeile
D - Sonar-Referenzen
E - Kontrolle der Sonarinformation

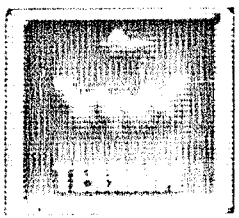
B - Aktives Sonar



Klicken auf dieses Symbol löst die Abstrahlung eines aktiven Sonarsignals aus, wobei das Ergebnis dieser Aktion zwei Seiten hat. Zum einen ergibt sich daraus ein weitaus genaueres Sonarbild, daß dem Kapitän die Einschätzung der Ziele, ihrer Geschwindigkeit und Richtung sowie die Feststellung ihrer Identität ermöglicht. Zum anderen aber zeigt sie den Schiffen auf der Empfangsseite des aktiven Sonars auch, falls diese es noch nicht bemerkt haben sollten, daß sich ein möglicherweise feindliches Unterseeboot im Gebiet befindet. Der Einsatz des aktiven Sonars gibt den Zielschiffen auch die Möglichkeit, sich auf die Position des Unterseebootes einzupeilen.

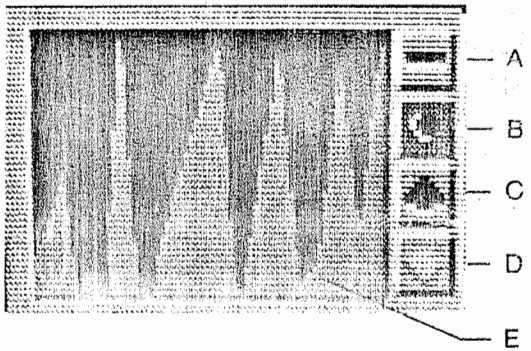
Der Gebrauch des aktiven Sonars stellt somit ein Risiko dar. Die Vorteile zur Vorbereitung eines Angriffes sind jedoch enorm, da so detaillierte Informationen über die Zielschiffe ermittelt werden. Für das Gelingen eines Angriffes können diese Daten wesentlich sein.

C - Profilbild



Hiermit erhält der Kapitän im Nachrichtenfenster eine Profilanalyse des Meeresbodens (Abbildung 4.4). Der Schnitt verläuft quer oder parallel zum Schiff und zwischen beiden Darstellungen kann umgeschaltet werden. Die Ansicht kann vergrößert und verkleinert werden, um eine genaue Planung der Fahrtroute durch kompliziertere Meeresbodenzonen zu ermöglichen.

ABBILDUNG 4.4



A Mit dem 90 Grad-Schnitt (quer) erhält man eine Sicht aus dem U-Boot nach vorn zur Planung der Route in Fahrtrichtung des Schiffes.

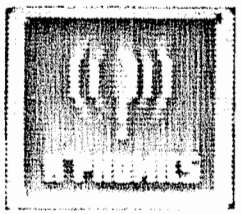
B Der 180 Grad-Schnitt (parallel) zeigt einen Ausblick zur Seite der *Roter Oktober* und ermöglicht einen Rundumblick auf alle verfügbaren Fahrtrouten.

C Der Vergrößerungsknopf dehnt die die Reichweite der Sensoren aus.

D Der Verkleinerungsknopf reduziert die Vergrößerung der Sensoren.

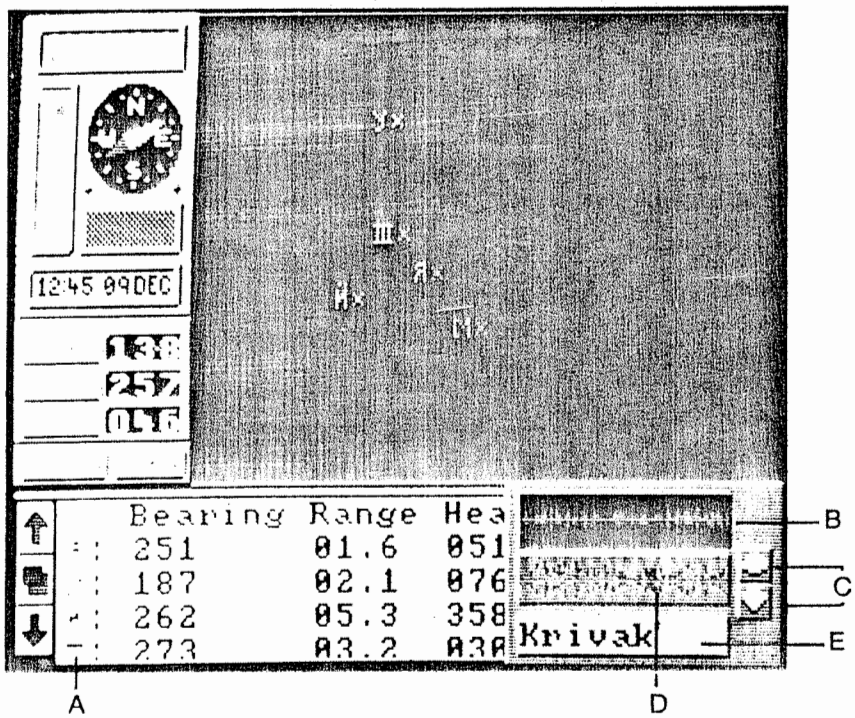
E Aktuelle Darstellung des Meeresbodenprofils (vergrößert)

D - Hydrophone



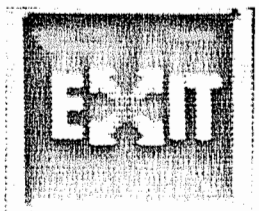
Diese Geräte ermöglichen eine Analyse im Profilbild, bei der das hydrophonische Signal des ausgewählten Zieles mit einer Sammlung bekannter Signale verglichen wird. So kann der Kapitän eine genaue Bestimmung der im Zielgebiet befindlichen Schiffe vornehmen.

ABBILDUNG 4.5



A - Sonarschirmspuren
B - akustische "Handschrift" der angewählten Spur
C - Rollpfeile für Datenbank
D - Aktuelle "Handschrift" aus der Datenbank
E - Aktuelle Identität aus der Datenbank

E - Ausgang zum Hauptkontrollpult



Dieses Symbol ermöglicht dem Kapitän die Rückkehr zum Hauptbildschirm und ist in allen Symboluntergruppen vorhanden.

ANTRIEBSKONTROLLE

ABBILDUNG 5: TECHNISCHER OFFIZIER



Dieses Symbol ruft den technischen Offizier auf und erlaubt, das Antriebssystem der *Roter Oktober* auszuwählen.

Der wichtigste Faktor bei der Kontrolle der *Roter Oktober* ist die Wahl der Kraftquelle und des Antriebes. Diese bestimmen die Kavitationsgeräusche und den allgemeinen Geräuschpegel, den das U-Boot ausstrahlt.

Der Vorteil des Tunnelantriebes beruht auf der Benutzung einer Turbine anstelle eines Propellers. Die Turbine saugt am Bug Wasser in einen Tunnel, stößt es am Heck wieder aus und treibt so das Schiff vorwärts. Dies verhindert Kavitationsgeräusche, wie sie von Propellern erzeugt werden.

Drehen sich konventionelle Propeller mit hoher Geschwindigkeit, erzeugen sie einen Bereich mit Unterdruck hinter der Leitkante des Propellerblattes, in dem sich Dampfblasen bilden. Brechen diese Dampfblasen nun unter dem Wasserdruck zusammen, schießt das Wasser vorwärts gegen das Blatt und erzeugt Geräusche und Vibrationen.

Der Geschwindigkeitsvorteil des Atomantriebes gegenüber der Dieselmaschine ist beträchtlich. Auch ist der Geräuschfaktor beim Einsatz der Dieselmaschine ein Problem, wenn man versucht nicht entdeckt zu werden. Allerdings wird der Atomreaktor nach 10 Tagen Spielzeit abgeschaltet (als Teil des überlauf-Planes) und der Kapitän wird sich gezwungen sehen entweder die Dieselmaschine oder den leisen, aber noch langsameren Tunnelantrieb zu benutzen. Die Wahl der Maschine liegt ausschließlich beim Kapitän und die Umschaltungen werden auf Anforderung vom Maschinenraum vorgenommen.

ABBILDUNG 5.1



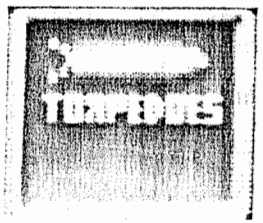
Die *Roter Oktober* hat nur Torpedos abzufeuern und der Kapitän muß lediglich entscheiden wann und worauf er schießen will.

ABBILDUNG 6: WAFFENOFFIZIER



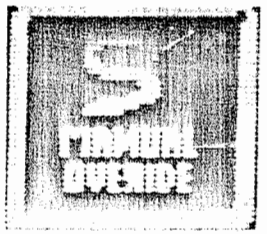
Hiermit wird der Waffenoffizier aufgerufen und der Kapitän erhält die Kontrolle über das Offensivpotential der *Roter Oktober*, die akustischen Torpedos. Die Zielauswahl erfolgt entweder manuell oder über das Sonar-Nachrichtenfenster, das gleichzeitig als Feuerleitcomputer fungiert. Die einzelnen Funktionen dieses Systems dienen zum Zielen der Torpedos.

ABBILDUNG 6.1: TORPEDOROHRSTATUS



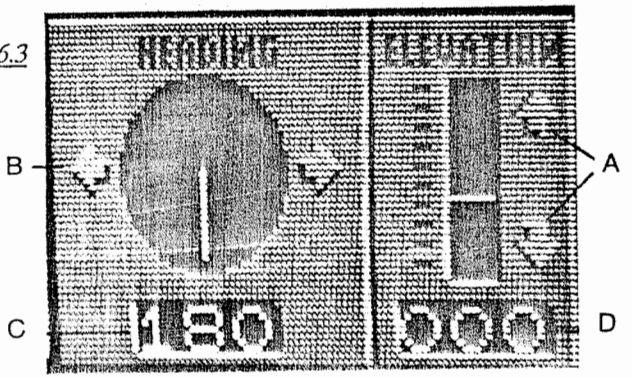
Dieses Symbol gibt den Status der vier Torpedorohre wieder und zeigt, wieviele Torpedos für jedes Abschußrohr noch vorhanden sind.

ABBILDUNG 6.2: MANUELLE STEUERUNG



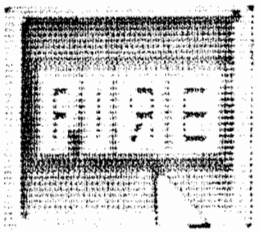
Ist sich der Kapitän über die Verläßlichkeit oder den Erfolg seiner akustischen Torpedos nicht sicher, kann er die manuelle Steuerung wählen. Daraufhin wird die Richtungs- und Steigungseinstellung aktiviert (Abbildung 6.3). Durch Klicken auf die Pfeile kann der Kapitän Richtung und Steigung des Torpedos festlegen. Wichtig ist, den Steigungswinkel nicht zu steil zu wählen, um eine mögliche Sichtung durch das Zielobjekt zu verhindern, da diesem sonst Zeit für Ausweichmanöver bleibt.

ABBILDUNG 6.3



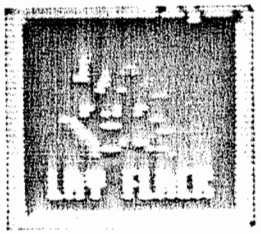
A - Pfeile zur Erhöhung/Verringerung des Steigungswinkels
B - Pfeile zur Einstellung der Richtung
C - Derzeitige Richtungseinstellung des Torpedos
D - Derzeitiger Steigungswinkel des Torpedos

ABBILDUNG 6.4: TORPEDO ABFEUERN



Mit diesem Symbol feuern Sie einen Torpedo ab. Die Geräusche und Effekte, die bei einem Torpedoabschuß auftreten, sind eine große Gefahr, da sie Ihre Position beim Zielschiff verraten.

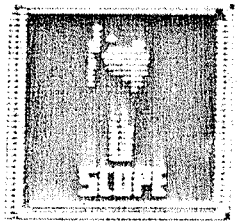
ABBILDUNG 6.5: KÖDER AUSLEGEN



Dieses Symbol ermöglicht es dem Kapitän elektronische Köder auszulegen, die herannahende Torpedos oder Raketen ablenken. Der Nachteil des Einsatzes solcher Köder liegt darin, daß sie einen weiteren Geräuschfaktor darstellen, der Ihre Gegenwart im entsprechenden Gebiet verrät.

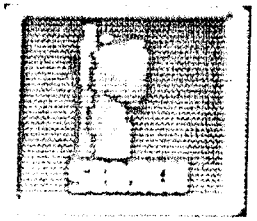
Zwar spielt die *Roter Oktober* in erster Linie die Rolle einer Raketenabschußbasis, jedoch gibt es keinen Zweifel, daß ihre offensive Schiff-Schiff Bewaffnung sie zu einem gefährlichen Gegner bei einer Auseinandersetzung mit einer Überwasserflotte macht.

ABBILDUNG 7: PERISKOPSYSTEME



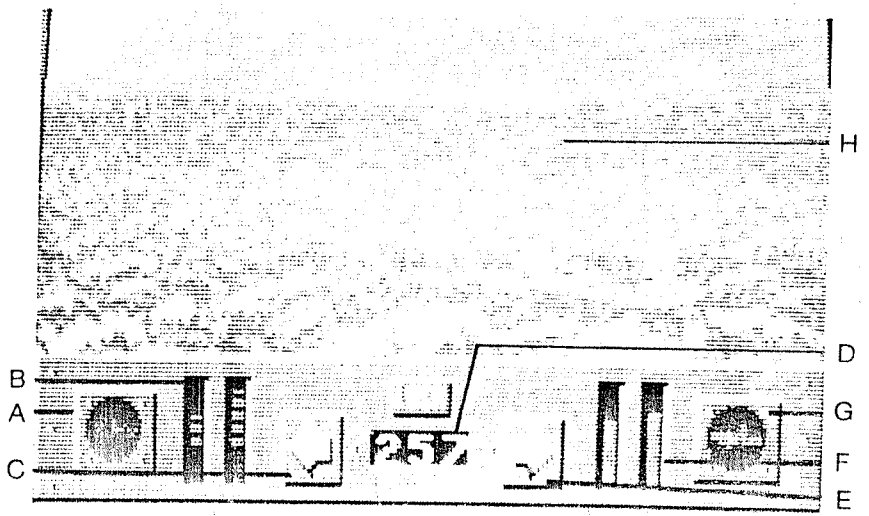
Diese Reihe von Symbolen kann vom Kapitän nur aufgerufen werden, wenn sich das Schiff auf Sehrohrtiefe befindet. Sind sie eingeschaltet, kann der Kapitän seine Periskopsicht wählen und den Horizont absuchen.

ABBILDUNG 7.1: SUCHPERISKOP



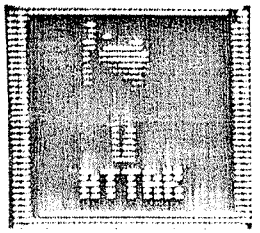
Hiermit erscheint eine Horizontansicht, mit der festgestellt wird, ob gefahrlos aufgetaucht werden kann. Außerdem werden so auch Ziele visuell identifiziert. Um das Blickfeld zu drehen, klicken Sie einfach auf die Richtungspfeile.

ABBILDUNG 7.2



A - Sonaraktivität
B - Battericladung
C - Periskop links
D - Periskoprichtung
E - Periskop rechts
F - Druckluftvorrat
G - ESM-Aktivität
H - Periskopansicht

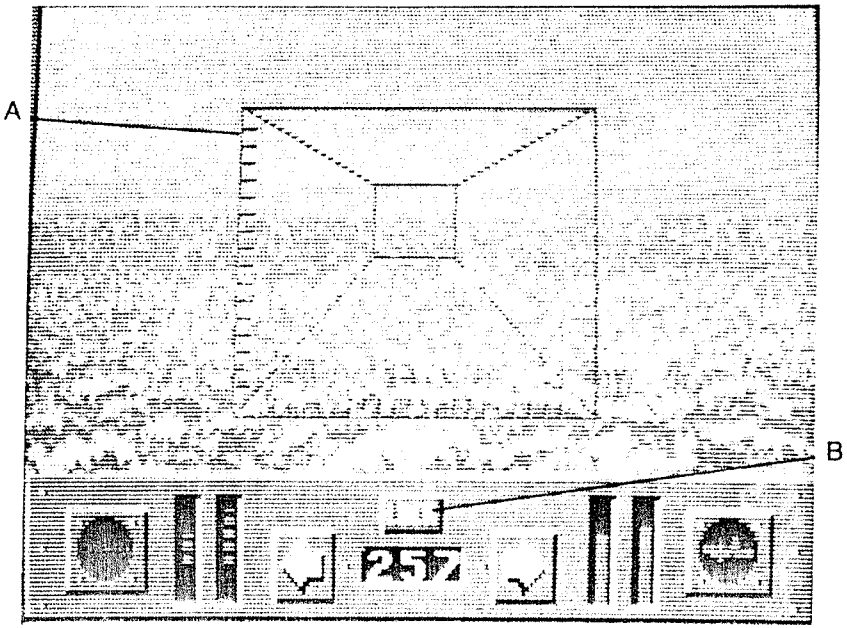
ABBILDUNG 7.3: ANGRIFFSPERISKOP



Mit dieser Funktion kann der Kapitän Daten vom Kontrollpult direkt in das Feuerleitsystem einspeisen und die Chancen für einen erfolgreichen Angriff verbessern.

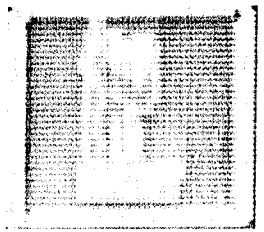
Das Pult verfügt über einen Visier- und Verriegelungsknopf, zur Übertragung der Daten in den Feuerleitcomputer. Fahren Sie mit dem Cursor über den Knopf und drücken Sie die linke Taste, um die erforderlichen Werte zu übergeben.

ABBILDUNG 7.4



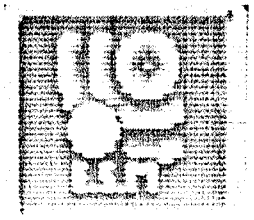
A - Angriffsvisier
B - Zielverriegelung

ABBILDUNG 7.5: NACHTPERISKOP



Hier wird die neueste Technologie zur Restlichtverstärkung eingesetzt, um sicherzustellen, daß der Kapitän seine optischen Hilfsmittel in der Nacht genauso wie am Tage benutzen kann.

ABBILDUNG 7.6:
ELEKTRONISCHES ÜBERWACHUNGSSYSTEM (ESM)



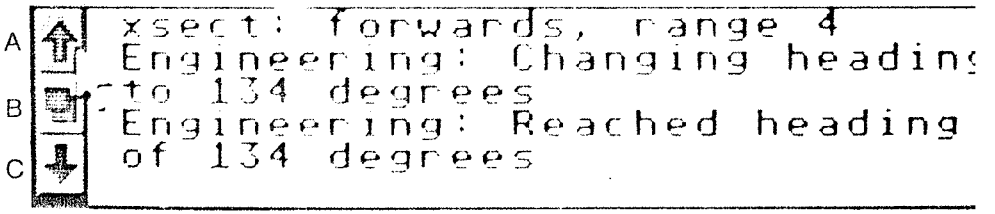
Mit der ESM Antenne können Nachrichten zwischen den Schiffen abgehört und über das Nachrichtenfenster an den Kapitän weitergeleitet werden. So ergibt sich eine Gesamtübersicht der Flottenbewegung zur Aktualisierung der Atlantikkarte und es kann sein, daß nützliche Informationen über die feindlichen Absichten während Suche und des Rendezvous aufgefangen werden.

Jede Benutzung des Periskops birgt die Gefahr durch Radar oder Sichtkontakt entdeckt zu werden. Auf das Periskop ganz zu verzichten ist allerdings noch riskanter. Auch moderne U-Boot-Kapitäne ziehen immer noch eine visuelle Sichtung und Identifizierung vor, wenn es um die Vorbereitung eines Angriffes geht.

DAS NACHRICHTENFENSTER

Erteilt der Kapitän Befehle oder ändert sich die Situation, werden schriftliche Informationen im Nachrichtenfenster ausgegeben.

ABBILDUNG 8: NACHRICHTENFENSTER



A - Schiebt Nachrichten nach oben
B - Schiebt Nachrichten nach unten
C - Schaltet zwischen Sonar- und Nachrichtenfenster um.

Hier werden alle Antworten auf Befehle und andere Informationen, wie Sonarkontakte, mit dem ESM aufgefangene Nachrichten, Schadensberichte und vieles mehr angezeigt.

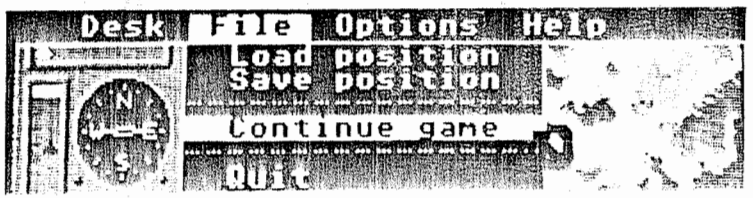
Die Nachrichten können nach oben und unten verschoben werden, so daß jederzeit auf alte Mitteilungen zurückgegriffen werden kann. Gleichzeitig fungiert das Nachrichtenfenster durch Klicken auf das zentrale Symbol als Sonar- und Feuerleitfenster. Es kann auch zum Teil von Hydrophondaten- und vom Profilfenster verdeckt werden.

Immer informiert zu sein, ist unbedingtes Muß für einen U-Boot-Kommandanten. Die genaue Beobachtung der Daten, die durch dieses Fenster laufen ist von höchster Wichtigkeit für das Gelingen Ihrer Mission.

ZUSÄTZLICHE MÖGLICHKEITEN

Durch Drücken der rechten Maustaste, kann der Spieler eine Anzahl verschiedener Möglichkeiten in Form eines Desktops aufrufen. Die Menüpunkte werden durch Auswahl mit dem Cursor und Drücken der linken Maustaste aktiviert.

ABBILDUNG 9: ZUSÄTZLICHE MÖGLICHKEITEN



ÜBER *ROTER OKTOBER*
Hier erhält der Spieler allgemeine Hintergrundinformationen über *Roter Oktober.*

SPIEL SICHERN
Der Spieler kann mit dieser Möglichkeit seine derzeitige Spielsituation auf eine formatierte Leerdiskette sichern, indem er die entsprechenden Abfragen beantwortet

SPIEL LADEN
Hiermit kann eine früher gesicherte Spielsituation wieder von Diskette geladen werden. Auf diese Weise kann man ein Spiel über mehrere Tage oder Wochen verteilen.

KENNKARTEN
Diese Menüpunkt erlaubt dem Spieler Kennkarten verschiedener Schiffe aufzurufen, die Ihm bei der Auswertung der Periskopinformationen helfen.

STRATEGIEHINWEISE
Hinter diesem Menüpunkt verbergen sich strategische Hinweise auf U-Boot-Kriegsführung und Taktiken, wie man eine Entdeckung oder einen Angriff vermeidet.

STEUERUNG DER *ROTER OKTOBER*
Hier erhält der Spieler Einzelheiten, wie die *Roter Oktober* zu steuern ist, sowie detaillierte Informationen über die verfügbaren Systeme.

SHIP RECOGNI



CLASS: KRIVAK (USSR)
CATEGORY: FRIGATE
DISPLACEMENT: 3,900 tons
SPEED: 32 knots
ARMOURMENTS:
4 x SS-N-14 ASW Missiles
4 x SA-N-4 SAM Missiles
4 x 76mm Guns
2 x 12 barrelled RBU 6000
8 x 21" Torpedo Tubes



CLASS: KASHIN (USSR)
CATEGORY: DESTROYER
DISPLACEMENT: 4,900 tons
SPEED: 36 knots
ARMOURMENTS:
4 x SS-N-2C SSM Missiles
4 x SA-N-1 SAM Missiles
4 x 76mm Guns
4 x 30mm Gatling Guns
2 x 12 barrelled RBU 6000 (forward)
2 x 6 barrelled RBU 1000 (aft)
5 x 21" Torpedo Tubes



CLASS: UDALOY (USSR)
CATEGORY: DESTROYER
DISPLACEMENT: 8,000 tons
SPEED: 32 knots
ARMOURMENTS:
2 x Helix A Helicopters
2 x SS-N-14 ASW Missiles
1 x SA-N-8 SAM Missiles
2 x 100mm Guns
4 x 30mm Gatling Guns
2 x RBU 6000
8 x 21" Torpedo Tubes



CLASS: SLAVA (USSR)
CATEGORY: CRUISER
DISPLACEMENT: 12,500 tons
SPEED: 34 knots
ARMOURMENTS:
16 x SS-N-12 SSM Missiles
8 x SA-N-6 SAM Missiles
2 x SA-N-4 SAM Missiles
2 x 130mm Twin Guns
6 x 30mm Gatling Guns
2 x RBU 6000 Launchers
1 x Hormone B ASW Helicopter



CLASS: MOSKVA (USSR)
CATEGORY: HELICOPTER CARRIER
DISPLACEMENT: 17,500 tons
SPEED: 30 knots
ARMOURMENTS:
14 x Hormone A ASW Helicopters
2 x Twin SA-N-3 Missiles
4 x 57mm/70 Twin Guns
1 x Twin A/S Missile Launcher
2 x 12 barrelled RBU 6000



CLASS: KIROV (USSR)
CATEGORY: BATTLE CRUISER
DISPLACEMENT: 28,000 tons
SPEED: 33 knots
ARMOURMENTS:
20 x SS-N-19 SSM / 12 x SA-N-6 SAM
2 x SA-N-4 SAM / 2 x SS-N-14 Twin ASW
2 x 100mm Single Guns
8 x 21" Torpedo Tubes
1 x 12 barrelled RBU 6000 (forward)
2 x 6 barelled RBU 6000 (aft)



CLASS: ENTERPRISE (USA)
CATEGORY: AIRCRAFT CARRIER
DISPLACEMENT: 91,000 tons
SPEED: 35 knots
ARMOURMENTS:
90 Aircraft
3 x Phalanx Mk 15 CIWS Systems
2 x 40mm Mk II Saluting Guns
3 x 20mm Mk 68 Guns



CLASS: FORRESTAL (USA)
CATEGORY: AIRCRAFT CARRIER
DISPLACEMENT: 81,000 tons
SPEED: 34 knots
ARMOURMENTS:
90 Aircraft
3 x Basic Point Missile Defence Systems armed with Sea Sparrow Missiles
3 x 20mm Mk 16 Phalanx CIWS
4 x 40mm Saluting Guns



CLASS: INVINCIBLE (UK)
CATEGORY: AIRCRAFT CARRIER
DISPLACEMENT: 19,500 tons
SPEED: 28 knots
ARMOURMENTS:
Sea Dart Ship to Ship Missiles
Sea Eagle (for use with Sea Harriers)
2 x 20mm Phalanx



CLASS: TICONDEROGA (USA)
CATEGORY: CRUISER
DISPLACEMENT: 9,600 tons
SPEED: 30 knots
ARMOURMENTS:
8 x Harpoon SSM
38 x Standard ER (SM-2)/ASROC
2 x 5"/54 Mk 45 Guns
2 x 20mm/76 Mk 16 CIWS Guns
2 x 40mm Saluting Guns
2 x Triple Torpedo Tubes



CLASS: VIRGINIA (USA)
CATEGORY: CRUISER
DISPLACEMENT: 11,000 tons
SPEED: 30 knots
ARMOURMENTS:
8 x Harpoon SSM
8 x Tomahawk SAM/ASW
Standard MR/ASROC
2 x 5"/54 Guns
2 x 20mm/76 Mk 16 CIWS
2 x 40mm Mk II Saluting Guns
2 x Triple Torpedo Tubes



CLASS: CHARLES F. ADAMS (USA)
CATEGORY: DESTROYER
DISPLACEMENT: 4,500 tons
SPEED: 30 knots
ARMOURMENTS:
Harpoon SSM
Tartar SAM
2 x 5"/54 Guns
1 x ASROC 8 Tube Launcher
2 x Triple Torpedo Tubes

ABBREVIATIONS

AA	Anti-aircraft	**DCT**	Depth charge thrower
A/S, ASW	Anti-submarine warfare	**Displacement**	The weight of water displaced by a ship's hull when flo
DC	Depth charge		All displacements shown are fully laden with stores an

NITION CHART



CLASS: SVERDLOV (USSR)
CATEGORY: CRUISER
DISPLACEMENT: 17,000 tons
SPEED: 32 knots
ARMOURMENTS:
2 x SA-N-2 SAM Missiles
12 x 152mm Guns
12 x 100mm Guns
32 x 37mm Guns
16 x 30mm Guns



CLASS: KYNDA (USSR)
CATEGORY: CRUISER
DISPLACEMENT: 5,500 tons
SPEED: 34 knots
ARMOURMENTS:
8 x SS-N-3B SSM Missiles
2 x SA-N-1 SAM Missiles
4 x 76mm Twin Guns
4 x 30mm Gatling Guns
2 x 12 barrelled RBU 6000
6 x 21" Torpedo Tubes



CLASS: KARA (USSR)
CATEGORY: CRUISER
DISPLACEMENT: 9,700 tons
SPEED: 34 knots
ARMOURMENTS:
1 x Hormone A Helicopter ASW
8 x SS-N-14 ASW / 2 x SA-N-3 SAM
2 x SA-N-4 SAM / 4 x 76mm/59 Guns
4 x 30mm Gatling Guns
2 x 12 barrelled RBU 6000 (forward)
2 x 6 barrelled RBU 6000 (aft)
10 x 21" Torpedo Tubes



CLASS: KIEV (USSR)
CATEGORY: AIRCRAFT CARRIER
DISPLACEMENT: 37,000 tons
SPEED: 32 knots
ARMOURMENTS:
32 Aircraft
4 x Twin SS-N-12 SSM / 2 x Twin SA-N-3 SAM
2 x Twin SA-N-4 SAM / 4 x 76mm Guns
8 x 30mm Gatling Guns
1 x Twin SUW-N-1 ASM
2 x 12 barrelled RBU 6000 Launchers
10 x 21" Torpedo Tubes



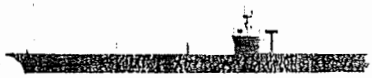
CLASS: KANIN (USSR)
CATEGORY: DESTROYER
DISPLACEMENT: 4,700 tons
SPEED: 35 knots
ARMOURMENTS:
2 x SA-N-1 SAM Missiles
8 x 57mm Guns
8 x 30mm Guns
3 x 12 barrelled RBU
10 x 21" Torpedo Tubes



CLASS: GRISHA (USSR)
CATEGORY: FRIGATE
DISPLACEMENT: 1,200 tons
SPEED: 27 knots
ARMOURMENTS:
2 x SA-N-4 SAM Missiles
2 x 57mm Guns
2 x 12 barrelled RBU 6000
4 x 21" Torpedo Tubes



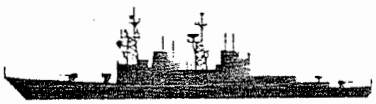
CLASS: ARK ROYAL (UK)
CATEGORY: AIRCRAFT CARRIER
DISPLACEMENT: 19,500 tons
SPEED: 28 knots
ARMOURMENTS:
Sea Dart Ship to Ship Missiles
Sea Eagle (for use with Sea Harriers)
3 x 20mm Phalanx



CLASS: NIMITZ (USA)
CATEGORY: AIRCRAFT CARRIER
DISPLACEMENT: 91,500 tons
SPEED: 30 knots
ARMOURMENTS:
90+ Aircraft
3 x Phalanx 20mm Mk 16 CIWS Systems



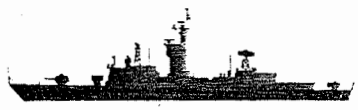
CLASS: LEAHY (USA)
CATEGORY: CRUISER
DISPLACEMENT: 8,200 tons
SPEED: 33 knots
ARMOURMENTS:
8 x Harpoon Surface to Air Missiles
80 x Standard ER (SM-2)
2 x Phalanx 20mm Mk 16 CIWS Systems
1 x ASROC 8 Tube Launcher
2 x Triple Torpedo Tubes



CLASS: SPRUANCE (USA)
CATEGORY: DESTROYER
DISPLACEMENT: 7,800 tons
SPEED: 33 knots
ARMOURMENTS:
8 x Harpoon SSM
Tomahawk ABL'S
1 x Sea Sparrow SAM
2 x 5"/54 Guns
2 x 20mm/ Mk 16 CIWS Phalanx
1 x ASROC 8 Tube Launcher
2 x Triple Torpedo Tubes (Mk 32)



CLASS: BROADSWORD (UK)
CATEGORY: FRIGATE (Type 22)
DISPLACEMENT: 4,900 tons
SPEED: 30 knots
ARMOURMENTS:
4 x Exocet SSM
Sea Wolf SAM
2 x 40mm Guns
2 x 20mm Guns
6 x Stubs Torpedo Tubes (Mk 46)
Helicopter A/S Torpedoes



CLASS: KNOX (USA)
CATEGORY: FRIGATE
DISPLACEMENT: 4,200 tons
SPEED: 27 knots
ARMOURMENTS:
8 x Harpoon SSM
4 x Tomahawk SAM
1 x 5" Mk 42 Gun
1 x 20mm Phalanx Mk 16
1 x ASROC 8 Tube Launcher
4 x Fixed Torpedo Tubes (Mk 32)

ll when floating.
stores and ammunition.

RBU Anti-submarine rocket launcher (Soviet)
SAM Surface to air missile
SSM Surface to surface missile

SHIPS NOT TO SCALE

AMSTRAD ARTIST

SPRITE DESIGNER

by

Matthew Bradshaw

CRL Group PLC,
CRL House, 9 Kings Yard,
Carpenters Road, London E15 2HD.

Amstrad Artist

by Matthew Bradshaw

Side 1	Side 2
Amstrad Artist	Sprite Designer
Demo Screen 1	Sprite Data — M/Code Conversion
Demo Screen 2	
Demo Screen 3	

To Load both sides, press CTRL and small ENTER key.

Side 1 Amstrad Artist

1 Superplotter

1.1 Summary of commands

Cursor Keys	—	slow movement
Cursor Keys + SHIFT	—	faster movement
Cursor Keys + CTRL	—	fastest movement
Cursor Keys + TAB	—	Scroll screen in given direction.

in all sections a joystick can be used in place of the cursor keys.

A	:	Alter graphics characters for printing.
B	:	Box
C	:	Circle
D	:	Draw
E	:	Erase
F	:	Fill
F + SHIFT	:	Stipple Fill
G	:	Move block of screen
H	:	No function
I	:	Ink Change
J	:	Resets default inks
K	:	Elipse of Spokes
L	:	Elipse
M	:	Move
N	:	Change to first UDG Cursor
N + SHIFT	:	Change to second UDG Cursor
O	:	Set an ink to flash
P	:	Plot
Q	:	Alter border colour
R	:	Return to main menu
S	:	No function
T	:	Make row double height
U	:	Mirror screen vertically
V	:	Solid box
W	:	Special functions
X	:	Circle of spokes
Y	:	Mirror Screen horizontally
Z	:	Wash
SPACE	:	Alter Pen colour
CLR	:	Clear Screen
Del	:	Erase (Delete) last operation
. (Dec point)	:	Load screen from tape
. + SHIFT	:	Load UDGs from tape
. + CTRL	:	Catalogue from tape
Small ENTER	:	Save Screen
Small ENTER + SHIFT	:	Save UDGs
Large ENTER + SHIFT	:	Save screen with machine code for instant recall in programs

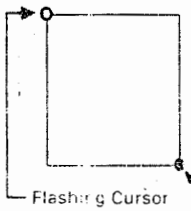
1.2 Details of commands

Notations used

The flashing cursor is the cursor which flashes between red and yellow and the background colour.

The green cursor flickers between the background colour and bright green.

There are numerous references to boxes with the two cursors as opposite corners. This is shown as follows:-



The dotted line is assumed by the computer (but not drawn unless told to), to be the outline of the box.

Note: All drawing (box, circle, plot etc) is done in the current pen colour.

Commands:-

Cursor Keys + TAB: Scrolls screen in given direction. Horizontal scrolls are by 4 pixels with wrap and vertical scrolls are by 8 pixels without wrap.

A Alters the graphics characters for printing with the UDG cursors (see section 4).

B Draws a box with the two cursors as opposite diagonals (see also "V").

C Draws a circle of a given radius with the centre being the flashing cursor (see also "W").

D Draws a line from the green cursor to the flashing one and moves the green cursor as with "M".

E Erases last operation (as with "DEL").

F Fills an enclosed shape, if the flashing cursor is inside it. This may not fill the entire shape if it is irregular, and many "fills" may be required.

F + SHIFT As with "F", except two colours are specified (separated by a comma), and the shape is filled alternately with these colours, giving the impression of many more colours available. The colours should be input in the form: 3, 11 (numbers must be between 0 and 15).

G Moves a block of the screen to another position, leaving the original block intact. The block of screen moved is a box between the two cursors. Two new co-ordinates should be entered to tell the computer where to put the block in the form x, y, e.g. 100 80. If the new co-ordinates are to be the top left corner of the new block, then the flashing cursor must be the top left hand corner of the block to be moved.

H No function.

I Sets an ink to the user's choice. First input the pen to be changed (0-15), then the replacement ink (0-26). This may affect screen colours. (see also "O").

J Resets all inks to their default colours which are as in section 5.

K Draws an elipse of Spokes. Input the number of spokes, then the width (x) and the height (y). (Centre flashing cursor).

L Draws an elipse with width (x), and height (y).
M Moves the green cursor to the flashing one.
N Change to first UDG cursor (see section 4).
N + SHIFT Change to second UDG cursor (see section 4).
O Sets an ink to be flashing. Input the pen (0-15), the first ink (0-26) and the second ink (0-26), all separated by a comma, e.g. 3, 11, 24 (Screen colours may be affected see also "I").
P Plots a point at the flashing cursor position.
Q Alters border colour.
R Return to main menu (picture stored in memory).
S No function.
T Makes a given row double height. Input the row (1-23) and press ENTER.
U Mirrors the whole screen vertically (slow). Pressing ESC will escape the operation, then "DEL" will restore picture.
V Draws a solid box with the two cursors as opposite corners.
W Special functions: Input the radius and the operation separated by a comma, e.g. 80,60.

Table of certain operation numbers:

Operation No	Shape Drawn
1-10	Circle drawn at speeds (1-10)
30	12 sided figure
45	Octagon (8 sides)
60	Hexagon (6 sides)
72	Pentagon (5 sides)
90	Diamond (4 sides)
123	Triangle (Equilateral)
120-179	Various triangles
180	Straight line (vertical)

This function can be used for drawing fast circles, if the operation number is the speed (1-10).

X Draws a circle of spokes (centre flashing cursor). Input the number of spokes and the radius.
Y Mirrors screen horizontally (slow). Pressing ESC escapes operation. Then pressing "DEL" will restore screen.
Z Washes away one pen colour and replaces it with another in a given box (two cursors opposite diagonals). Input the pen to swap (0-15) and the pen to replace it with (0-15).

SPACE Alters current pen colour (shown by * at foot of screen).
CLR Clear screen.
DEL Delete last operation, as with "E".

1.3 Loading and Saving (All at 2000 baud)

When you attempt to load or save a screen you must enter a filename. If you are loading something, pressing ENTER will load the first screen found on tape. If you accidentally press load or save then enter a question mark "?" to escape. Under no circumstances press ESC!

Sometimes after entering a filename the program will return to the main menu. This is NOT a fault, the computer simply has to re-arrange its current memory status. Press "1" (for superplotter) and try to save or load again.

1.4 Controls for loading or saving:-

· (Decimal Point)	:	Load screen from tape.
· + SHIFT	:	Load UDGs from tape.
· + CTRL	:	Catalogue from tape.
Small Enter	:	Save screen.
Small Enter + Shift	:	Save UDGs
Large Enter + Shift	:	Save screen with machine code for use in your own programs (see section 6)

2 UDG Designer

Note: UDG = User Defined Graphic

Controls:-

Cursor keys	:	Move cursor around grid.
Copy	:	Fill or delete block in grid.
!	:	invert character
M	:	Mirror character horizontally.
C	:	Clear grid.
A	:	Alter UDG. Input the UDG code to alter (32-255) and press ENTER. This can then be altered and resaved (perhaps as a different character if required).
ENTER	:	Finish Graphic.

3 View UDGs

Simply shows the current UDGs (124-255).

4 UDG Cursors and Graphics

Pressing 'A' while in the superplotter mode will give you a display of the current UDGs. Any one of these (or characters 32— = onwards), can be set up to one of the numeric keys on the numeric keypad (0-9). Input the required code for each key or press ENTER to leave it as it was.

4.1 The first and second UDG Cursor

4.2 Pressing 'N' while using the superplotter presents you with the UDG cursor. You move with the cursor keys (or joystick) and by pressing one of the keys on the numeric keyboard, a graphic corresponding to the number will be printed at the current cursor position. (These graphics may have been set up using the superplotter's 'A' command). Finer movement can be obtained by pressing SHIFT and the cursor keys.
Pressing SPACE alters the current pen colour.

NOTE: All printing here is Transparent and so the colours actually printed may vary, depending on the background colour.

4.3 Pressing SHIFT and 'N' gives you the second UDG cursor. This is similar to the first, except printing is not transparent, and the background colour for each graphic can be changed by pressing SHIFT and SPACE. It should be noted that finer cursor movement is not available here.

To return to the superplotter from these cursors, press 'R'.

5 Default Colours (See also page IV 6 of User Guide)

Pen Colour	Corr Ink Colour	Actual Colour	Pen Colour	Corr Ink Colour	Actual Colour
0	0	Black	8	8	Bright Magenta
1	26	Bright White	9	20	Bright Cyan
2	18	Bright Green	10	21	Lime Green
3	6	Bright Red	11	24	Bright Yellow
4	2	Bright Blue	12	22	Pastel Green
5	13	White (Grey)	13	3	Red (Brown)
6	15	Orange	14	9	Green (Dark)
7	16	Pink	15	6,24	Red/Yellow flashing

6 Using Screens and UDGs in your own programs

First save Screen (using large ENTER + SHIFT) and/or Udgs onto a tape.

In the BASIC Program enter:- MEMORY 25100

TO LOAD SCREEN, TYPE LOAD""
TO BE ABLE TO USE SCREEN, TYPE CALL 25101 and press ENTER.

To recall the screen type | Recall, making sure that you are in MODE 0.

| is obtained by pressing SHIFT and @.

If the screen is altered it can be stored in memory again by | Store.

To load UDGs simply type LOAD"" and they will load into the current memory location.

The new commands + screen can be saved from BASIC using:- Save "(program)",b,25100,16485 and the graphics by:-
Save "(graphics)",b,42976,1056

7 Possible Errors

You should not press ESC at any time, except to escape from "CAT", or from mirroring the screen.

If you do press ESC at an input then the program will be lost.

However the screen can still be saved with the commands:-
CLS : SAVE "! screen",b,&c000,&4000

but start the tape before you do this.

Also the graphics can be salvaged with:-
CLS : SAVE" Graphics",b,42976,1056

7.1 While the progam is in use, it may occasionally return to the main menu. This is usually because you have made an error. Press "1,2 or 3" to return to the section of your choice.

8 Loading the Demo Screens

The three demonstration screens are situated on side one of the cassette, directly after the main "Artist" program.

To LOAD them, go into the superplotter mode (Press "1" at main menu), and then press the decimal point key on the numeric keypad.

The computer will ask you for a filename. Simply press ENTER and press PLAY on the cassette player (Datacorder). Repeat this process to load the other screens.

Side 2 Sprite Designer

1 Designing the sprite

Controls

Cursor keys to move the cursor about the grid. Copy to fill a block.

C : Clears Grid

A : Alter Sprite: Alters a sprite (already in the memory). This displays the sprite on the main grid and allows the sprite to be altered and resaved, even as another sprite for animation etc. Sprite numbers are in the range (1-12).

M Mirror: Mirrors the current sprite horizontally.

P Pen Swap: Allows any colour (pen) on the current sprite to be altered to another, e.g. makes a red car into a blue one. Input the two colours, separated by a comma, i.e.:-
col 1 (in range 0-15), col 2 (0-15),
e.g. 3,4 and press ENTER.

ENTER. FINISHES current sprite.

This can then be saved in memory by inputting a sprite number between (1-12), or by pressing ENTER,-(or entering 0, will simply not save the sprite).

SPACE. Alters the current PEN colour

2 Print Sprites

Using this option, sprites can be printed on a background created by Amstrad Artist (Side 1). It should be noted that these sprites are static.

This mode has a number of control keys, most of which are duplicated from the superplotter in Amstrad Artist.

The duplicated controls are:-

CLR,	· + CTRL,
DEL,	· (Dec point),
R,	Small ENTER
cursor keys	
cursor keys + SHIFT	
cursor keys + CTRL	

pressing SHIFT and zero (main keyboard), has the same effect as pressing SHIFT + Large Enter while using the Superplotter on side 1.

Other controls are:-

S. : prints a sprite (1-12) with the cursor being the top left hand corner.

S + SHIFT : As for "S" except printing is transparent i.e. background is not destroyed.

3 View Sprites.

This simply displays all the current sprites (1-12), in memory.

4 **Save Sprites**

This option saves the sprites as blocks of DATA, and therefore they cannot directly be used in your own programs. However, the data must be stored for use with the DATA — M/CODE program which is next on the tape.

5 **Load Sprites**

This option loads previously defined sprites into memory from tape. These must have been saved as DATA, i.e. using option 4, above.

* The same things apply for saving and loading as those mentioned in section 1.3 of the superplotter instructions.

7 **Sprite DATA -- M/CODE Conversion**

This program is situated on the tape after the Sprite designer program, and again is loaded by pressing the CTRL and small ENTER keys.

Once loaded, the computer will give you on-screen instructions.

7.1 Enter the filename of the Data which you have saved using option 4 of the sprite designer. (Simply press ENTER to load the first Data found on the tape).

7.2 Once the data has loaded, the screen will flash between red and yellow colours, while the machine code is compiled. DO NOT TOUCH the KEYBOARD!

When the data has been compiled, you have the option of saving the machine code. Entering a question mark (?) skips this option.

The machine will then clear, and you will be presented with a new screen logo. The sprites are now ready for use.

Using the Sprites in your own programs

If you want to ensure that the colours of the Sprites are the same as in the sprite designer section, you should refer to the section in this manual about Default Colours. When you leave the Data-M/Code conversion program, this is so, with the exception that PEN 1 is INK 24 and not INK 26.

To load Sprites into your program type:-

MEMORY 37999 : LOAD "" and press ENTER

To make them active type:-

CALL 38000

You now have access to the Sprites through a new command, |SPRITE. (| is obtained by pressing SHIFT and @).

This has three parameters in the form:-

|SPRITE,no,x,y
Note: everything separated by a comma. There are 3 commas.

where no. is the Sprite number (1-17)

"x" and "y" are the co-ordinates of the top left-hand corner of the Sprite.

A new co-ordinate system has been used for the Sprites only, with 0,0 being the TOP LEFT HAND CORNER of the screen.

"X" can be in the range 0-143 and
"Y" can be in the range 0-184.

8.1 *NOTE: Sprites can only be used in MODE 0.

One other command is also supplied: This takes the form:-

```
| PAUSE,dur
```

where "dur" is the duration, (1-255). This suspends program operation for the given period of time.

8.2 To save the Sprites from BASIC, you should type:-

```
SAVE "Spritecode",b,38000,4000
```

*NOTE: You should not try to combine, the Sprite routine with any screen saved using the "SHIFT + Large ENTER" option of the Superplotter on Side 1.

NAME	DATE	HI-SCORE/LEVEL

CENTURIONS

BY TONY CROWTHER AND ROSS GOODLEY

ENGLISH

INSTRUCTIONS

C64/128 DISK: RK 72810
C64/128 CASSETTE: RK 52810 AMSTRAD 464/664/6128 CASSETTE: RK 54810
AMSTRAD 464/664/6128 DISK: KK 74810
SPECTRUM 48/128 RK 56810

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CREDITS

Game design	:–	Tony Crowther and Ross Goodley
Commodore	:–	Tony Crowther
Amstrad	:–	Ross Goodley
Spectrum	:–	A.N. Other
Storyline	:–	James Poole
Music	:–	We M.U.S.I.C.

The Centurions ... The Final Conflict

In the relaxation centre of SKYBOLT the CENTURIONS were enjoying a relaxing game of 4-dimensional chess. (A strange 3 player game where one player plays yesterday, one today and one tomorrow). Their minds were not really on the game, all three were looking forward to the excitement of Zad Hunter's visit. Zad, a strange scientist from the Quazor University, had informed our heroes of some new weapon systems for their Exoframes as well as S.C.O.U.T.

Just as Jake was discussing the implications of check-mating Ace 3 O'Clock yesterday, Max bellowed; "Look, Zad's Ship! Come on guys, let's see what the Profs got for us today". Ace and Jake decided to agree on a draw and leapt to their feet knocking over the delicate playing boards and wiring at the same time.

"Oh well, silly game anyway."

Zad's craft was hovering outside when his familiar face appeared on the monitor screen in the control room.

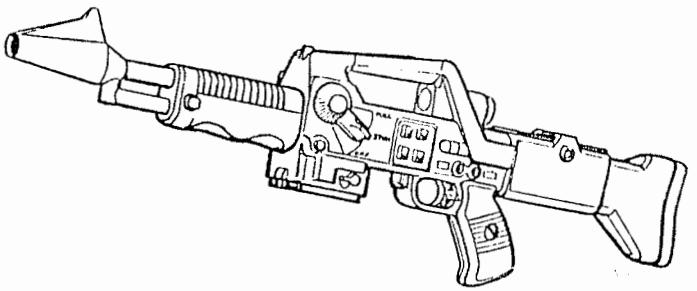
"Hi guys, you're going to have to beam me over. Since I've attached the new laboratory to this baby I've not been able to dock anywhere"!

Crystal's fingers flashed over the keyboard and soon the scatter-brained techno-wizard was on board Skybolt with a whole host of new equipment. After greeting each other,

the Centurions and their guest moved to the on-board firing range to test out the new weapon systems.

"Hey Doc, what happened to your leg?" exclaimed Ace as he noticed that Zad's left leg had been replaced by a rather odd blend of artificial limb and robotics.

"It's a long story, I'll tell you in due course. Meet S.C.O.U.T." chuckled Zad. "The most perfect surveillance droid ever created". He removed the casing on a small robot about a metre tall but was lifted about another 30cms by it's uncanny knack of hovering. The rather odd contraption rotated on its own axis whilst numerous sensors and indicators performed their tasks.



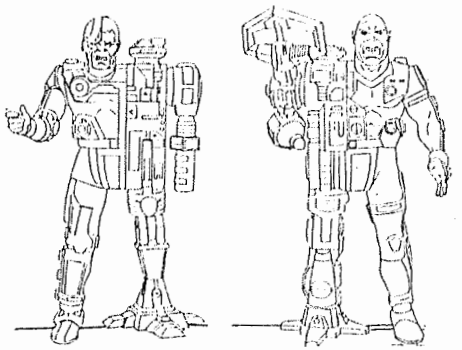
"If we plug this little gizmo into your computer you can not only control it via the camera but it sends back all the data to you". Zad ran excitedly to the terminal and connected the unit into the VDU. After typing in a few commands the screen showed the view from the droids camera. At the push of a button the printer churned out an analysis from S.C.O.U.T.

"So"! Zad spun round, ripping the paper from the printer. "All you need to do in future is send our little pal into a danger zone and you can find out all you need to know about the area before you guys zoom in with your weapons".

"Is it armed?" queried Max.

"Yes, but lightly. It has a single shot laser bolt, it's unlikely that the droid can stay in battle for long. Fighting is for you guys".

With that he opened up the next parcel. "I have devised a number of new weapon systems for you, they are not complete outfits in themselves, they are designed to fit onto your existing systems and so any of you may use any of them". Zad held up a cylindrical device a bit like a bazooka. "This is the 'Doubler', it fires a slug of energy which splits into two and then four and so on. it's power is awesome so make sure you know where the other two are before you fire". Max stepped forward to try the device.



Zad fastened it to the arm of his exoframe and with a wry grin Max turned to face the targets. He triggered the device and with a thunderous roar a bolt of light shot from the weapon.

"Good shot" shouted the scientist as he leapt in the air clapping his hands excitedly.

Max, Jake and Ray stood in amazement as they looked at the remains of all eight targets at the bottom of the range. Zad went on to demonstrate more of his arsenal as Crystal entered the new assault pack configurations into the Skybolts computer. After some time and many targets later, they came to the last new weapon. Zad took two packs from his case and fixed them to Jake. One at the front and one at the back.

"Jake, this is the most deadly weapon I have to offer but it is important you use it carefully". He pointed to his leg, "this happened with a trial model which was a lot less powerful than the one you have". He paused for a moment as Jake looked nervously at the pack on the front of his exoframe. "It works like this, as you run, fly or swim". He looked at each Centurion in turn. "It sends out a ring of plasma completely surrounding you. The ultimate weapon that if used incorrectly could literally turn against you", he smiled to himself happy with the pun he had just made but as yet the others would not understand. "If you stop moving then the plasma ring catches up with you from behind with disastrous consequences".

"Well for a risk like that it better be worth it". Jake laughed covering up his obvious nerves. The team set up targets down the range and Jake prepared himself for the test. He started to run down the range and triggered the weapon. A shell formed around Jake as Ace and Ray looked on nervously. Zad stood nodding his head as if to signify that all was going to plan. Jake was nearing the end of the range. He powered down the weapon and stopped at the end. As he looked back up the range to his friends he shouted;

"Not bad eh, let's hope it can't get jammed on"! As with all the tests that day all the targets had been annihilated.

Zad bid the heroes good bye and entered the transporter.

"See you next month and let's hope you don't have to use any of those in the near future".

As Zad's figure disappeared from sight Ace walked over to the main computer. He punched a few keys, put his feet on the desk and started to read a resumee of the new weapons.

Suddenly the emergency warning sounded and all three Centurions leapt to their feet.

"There has been a break-in at the Weapons Development Centre, we are sure it's Doc Terror and we know what he's after". A plan of the centre flashed onto the screen. Ace stood up to take a closer look. "Are these what I think they are?", he said gazing at a row of cases marked on the plan.

"Yes, I'm afraid they're cases of Tyron-Dichromate, if Doc gets hold of these we're in trouble".

"I guess this is where we try out our new weapons, but what do we do about this Tyron stuff"? Max seemed pleased about the prospect of using the new weapon systems but worried about the cases. Tyron-Dichromate is a new chemical devised to allow the process of Nuclear Fusion. It is not available on the open market as it has not been fully tested.

"Don't forget the lock system. Most of the rooms are locked and you need to get all six parts of the master keys to open the exit to the next building" added Crystal.

How to play the Game.

Centurions is a one or two player game. What follows is a description of the one player version. Additional features for two players is described after.

To Load:–	C-64	Disk	LOAD "AS"8,1
		Tape	Shift Run/Stop
	Ams	Disc	RUN "AS
		Tape	CTRL/Small ENTER
	Spc	Tape	LOAD " "

There are three different rooms and you can start in any of them. Though it is best to start at the first room. (C-64 owners can change the difficulty with the Q key).

To complete a level you must find all six keys. These are shown on the map and displayed in the centre of your console. When you have done this you may move to one of the exits.

When you start the game you are the droid, simply move onto the Air, Sea or Land section to become Ace, Max or Jake. You may use the droid to play but its weapons are weak. You may change characters at any stage in the game by moving onto another pad.

Before you can summon an assault pack from Skybolt

you have to hit enough baddies. If a 'Quant' is left behind and you move onto it then you may choose an assault pack. Press the fire button when the appropriate letter is highlighted. A Quant is displayed as a white cross.

In order to enter many of the rooms you require a key, these keys are in the shape of blocks. You will notice that these are surrounded by an area of air, sea or land. Only the Centurion specialising in that area will be able to reach it.

Details on some of the weapons

A. Gives you an energy boost as well as a random weapon.

B. This is the ring weapon as described in the story. Use it carefully.

C.–H. Various weapons of different fire powers.

I. Grenade. Press fire to release grenade and let go to explode it.

All the weapons wear out after a while.

The Tyron-Dichromate

Bonus points for destroying these cases, simply walk into them in order to eliminate them. Some take longer to break than others.

Doc Terror

If the image of Doc Terror hits you then you are recalled to Skybolt and replaced by a droid. You must go back to

the Air, Sea, Land pads to change back.

Second Player

The second player may join in at any stage by simply pressing the fire button on his joystick.

Remember, the Centurions are a team!

You cannot change into the character which the other player already is and you will loose energy if you try to do so.

Two players destroy the Tyron blocks very quickly.

Controls

C-64 must use Joysticks (Port 2 for player one).

Amstrad may use the keyboard or Joystick.

Spectrum may use the keyboard or Joystick.

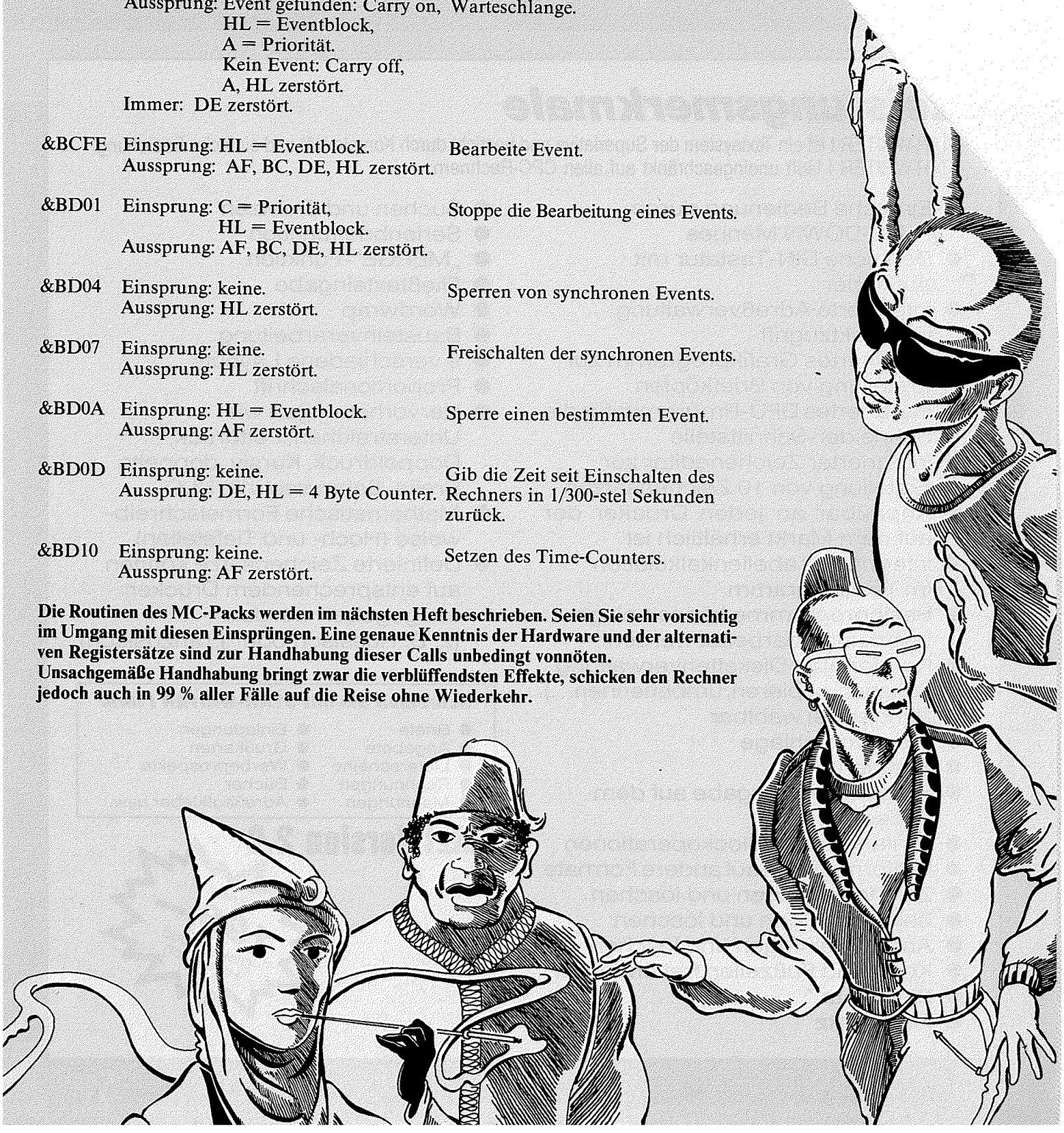
Q	Change difficulty on the C-64 only.	
Fire	Fire, pick up key, selects assault pack.	
Run/Stop	(64)	Pause
TAB	(Amstrad)	Pause
Delete	(Spectrum)	Pause
RESTORE	(64) End game	
CTRL/SFT/ESC 1	(Ams) End player 1 game	
CTRL/SFT/ESC 2	(Ams) End player 2 game	
SS/CS 1	(Spc) End player 1 game	
SS/CS 2	(Spc) End player 2 game	

Referenzkarte: Calls

Weiter geht es in unserer Referenzkarte mit der Verwaltung des Kern. In diesem Teil geht es hauptsächlich um Tickerblöcke und synchrone und a. nisse. Wie ein solcher Tickerblock aufgebaut sein muß, und mit welchen Prio. Events ausgestattet sein müssen, wird in den Anhängen unserer Firmwarerefere ben sein. Sie wollen diese Karten ja später einmal als eine Art Nachschlagewerk können.

Adresse:	Syntax:	Bemerkung:
&BCF8	Einsprung: HL = Eventblock. Aussprung: AF, BC, DE, HL zerstört.	Lösche ein synchrones Ereignis aus der Warteschlange für synchrone Ereignisse.
&BCFB	Einsprung: keine. Aussprung: Event gefunden: Carry on, HL = Eventblock, A = Priorität. Kein Event: Carry off, A, HL zerstört. Immer: DE zerstört.	Hole den nächsten Event aus der Warteschlange.
&BCFE	Einsprung: HL = Eventblock. Aussprung: AF, BC, DE, HL zerstört.	Bearbeite Event.
&BD01	Einsprung: C = Priorität, HL = Eventblock. Aussprung: AF, BC, DE, HL zerstört.	Stoppe die Bearbeitung eines Events.
&BD04	Einsprung: keine. Aussprung: HL zerstört.	Sperren von synchronen Events.
&BD07	Einsprung: keine. Aussprung: HL zerstört.	Freischalten der synchronen Events.
&BD0A	Einsprung: HL = Eventblock. Aussprung: AF zerstört.	Sperre einen bestimmten Event.
&BD0D	Einsprung: keine. Aussprung: DE, HL = 4 Byte Counter.	Gib die Zeit seit Einschalten des Rechners in 1/300-stel Sekunden zurück.
&BD10	Einsprung: keine. Aussprung: AF zerstört.	Setzen des Time-Counters.

Die Routinen des MC-Packs werden im nächsten Heft beschrieben. Seien Sie sehr vorsichtig im Umgang mit diesen Einsprüngen. Eine genaue Kenntnis der Hardware und der alternativen Registersätze sind zur Handhabung dieser Calls unbedingt vonnöten.
Unsachgemäße Handhabung bringt zwar die verblüffendsten Effekte, schicken den Rechner jedoch auch in 99 % aller Fälle auf die Reise ohne Wiederkehr.



Referenzkarte: Calls & Pokes

Die Einsprünge in den Kassettenmanager erfordern eine große Zahl an Parametern. Hier finden Sie nun Teil 2 dieser komplexen Referenz.

Adresse **Syntax**

BC71 Einsprung: Keine Bedingungen.
Aussprung: Motor aus: carry = on
Fehler: carry = off
Immer: A = Last State, Flags zerstört.

Kassettenmotor aus.

BC74 Einsprung: A = Last State
Aussprung: Motor ein/aus: carry = on
Fehler: carry = off
Immer: A, Flags zerstört

Kassettenmotor auf Last State schalten.

BC77 Einsprung: B = Länge Name.
HL = Adresse Name
DE = 2K Buffer
Aussprung: Eröffnet: carry = on,
Zero-Flag = off
HL = Buffer (Header)
DE =Header
BL =Länge
A =Dateiart
nicht eröffnet: carry = off
Zero-Flag = off
A, BC, DE, HL zerstört
Abbruch: carry = off, Zero-Flag = on
A, BC, DE, HL zerstört
Immer: IX und Flags zerstört.

Datei zur Eingabe eröffnen.

BC7A Einsprung: Keine Bedingungen.
Aussprung: geschlossen: carry = on
Fehler: carry = off
Immer: A, BC, DE, HL zerstört.

Eingabedatei korrekt schließen.

BC7D Einsprung: Keine Bedingungen
Aussprung: AF, BC, DE, HL zerstört.

Abbrechen des Lesens und schließen der Eingabedatei.

Adresse **Syntax**

BC80 Einsprung: Keine Bedingungen.
Aussprung: Richtig gelesen: carry = on
Zero-Flag = off, A = Zeichen,
EOFMET:carry = off
Zero-Flag = off, A zerstört
Unterbrochen: carry = off, Zero-Flag = on
A zerstört.
Immer: IX und Flags zerstört.

Zeichen oder Block von Eingabedatei lesen.

BC83 Einsprung: HL = Startadresse.
Aussprung: Richtig gelesen: carry = on
Zero-Flag = off,
A Executionadresse.
Nicht korrekt eröffnet:
carry = off, Zero-Flag = off
HL zerstört.
Unterbrochen: carry = off,
Zero-Flag = on,
HL zerstört.
Immer: A, BC, DE, IX, Flags zerstört.

Lesen der ganzen Eingabedatei.

BC86 Einsprung: Keine Bedingungen.
Aussprung: Register und Flags zerstört.

Letztes gelesenes Zeichen in den Eingabebuffer zurückstellen.

BC89 Einsprung: Keine Bedingungen.
Aussprung: Laufend:
carry = on
Zero-Flag =off
Erreicht:
carry = off, Zero-Flag = off
Abbruch: carry = off, Zero-Flag = on.
Immer: A,IX, Flags zerstört.

Test auf Dateiende.

Wie Sie sehen, werden die Einsprünge in diesem Teil der Firmware immer von zahlreichen Ubergaben begleitet. Im nächsten Heft folgen die Calls zum Lesen von Tape oder Disk.



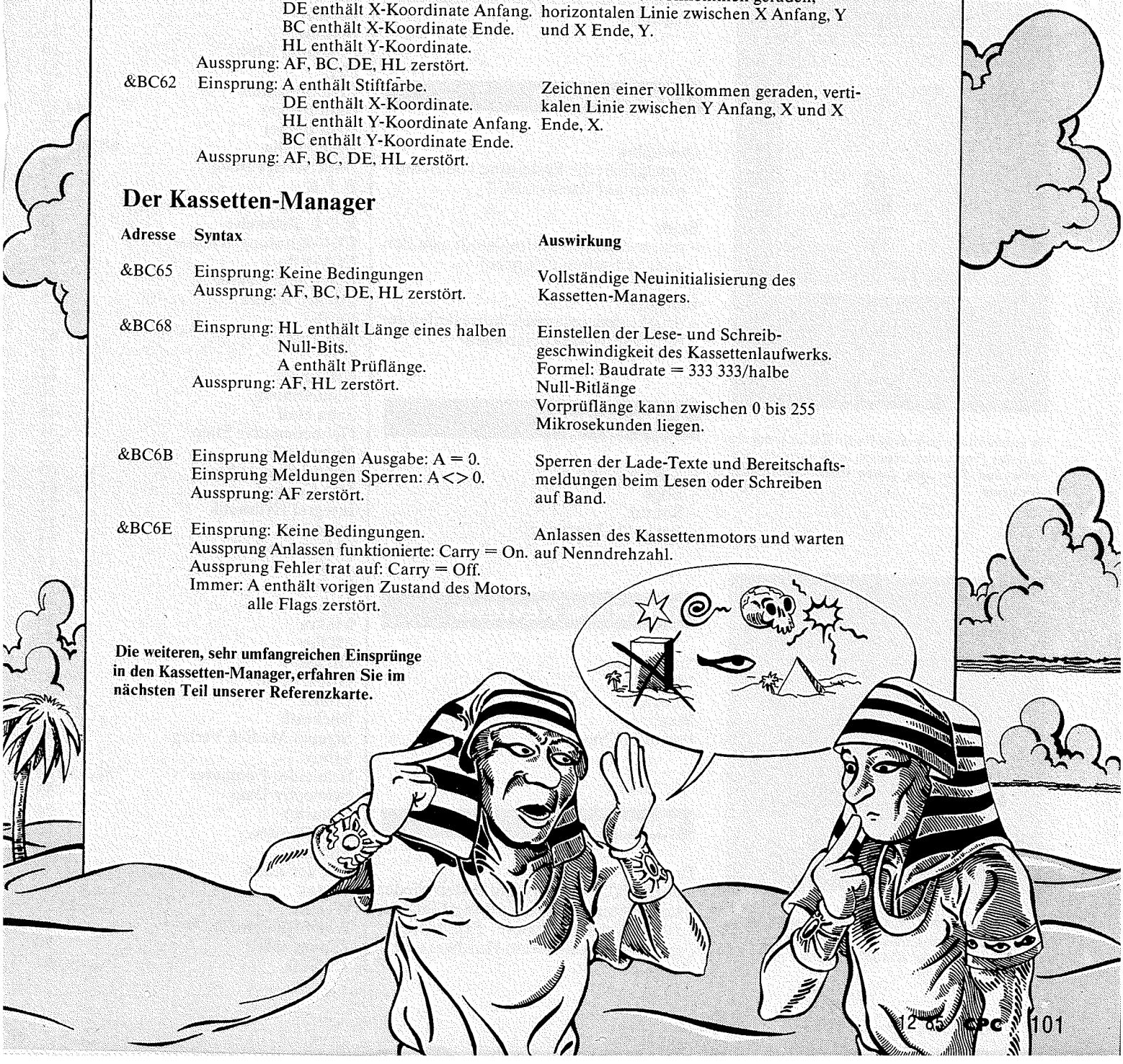
Referenzkarte: Calls & Pokes

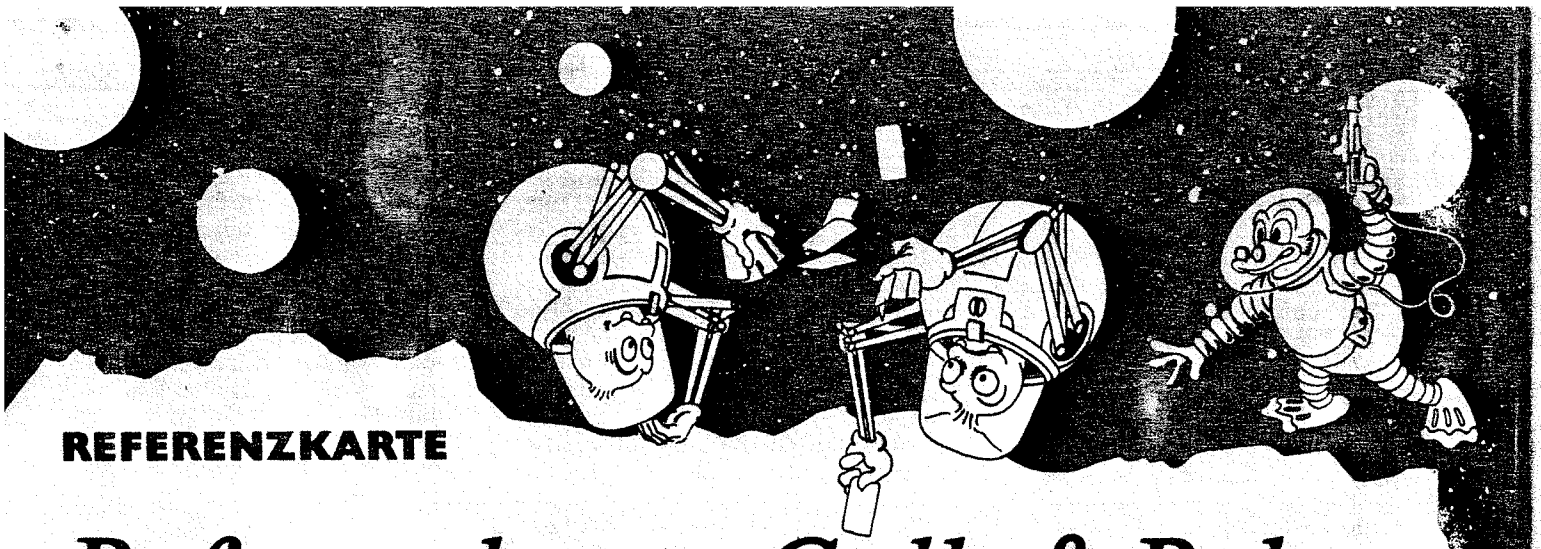
Adresse	Syntax	Auswirkung
&BC3E	Einsprung: H enthält Zeitspanne für INK 1. L enthält Zeitspanne für INK 2. Aussprung: AF, HL zerstört.	Setzen der Blinkperioden der Inks.
&BC41	Einsprung: Keine Bedingungen. Aussprung: H enthält Zeitspanne von INK 1. L enthält Zeitspanne von INK 2. AF zerstört.	Abfrage der Blinkperioden der Inks.
&BC4D	Einsprung Hochrollen: B enthält 0. Einsprung Abrollen: B ist ungleich 0. Immer: A enthält Paperfarbe der neuen Zeile. Aussprung: AF, BC, DE, HL zerstört.	Scrollen des Bildschirms nach oben oder unten um eine Zeile.
&BC59	Einsprung: A enthält gewünschten Mode. Aussprung: AF, BC, DE, HL zerstört.	Setzen des Grafik-Modus. 0 = Force Mode 1 = Xor Mode 2 = And Mode 3 = Or Mode
&BC5F	Einsprung: A enthält Stiftfarbe. DE enthält X-Koordinate Anfang. BC enthält X-Koordinate Ende. HL enthält Y-Koordinate. Aussprung: AF, BC, DE, HL zerstört.	Zeichnen einer vollkommen geraden, horizontalen Linie zwischen X Anfang, Y und X Ende, Y.
&BC62	Einsprung: A enthält Stiftfarbe. DE enthält X-Koordinate. HL enthält Y-Koordinate Anfang. BC enthält Y-Koordinate Ende. Aussprung: AF, BC, DE, HL zerstört.	Zeichnen einer vollkommen geraden, vertikalen Linie zwischen Y Anfang, X und X Ende, X.

Der Kassetten-Manager

Adresse	Syntax	Auswirkung
&BC65	Einsprung: Keine Bedingungen Aussprung: AF, BC, DE, HL zerstört.	Vollständige Neuinitialisierung des Kassetten-Managers.
&BC68	Einsprung: HL enthält Länge eines halben Null-Bits. A enthält Prüflänge. Aussprung: AF, HL zerstört.	Einstellen der Lese- und Schreibgeschwindigkeit des Kassettenlaufwerks. Formel: Baudrate = 333 333/halbe Null-Bitlänge Vorprüflänge kann zwischen 0 bis 255 Mikrosekunden liegen.
&BC6B	Einsprung Meldungen Ausgabe: A = 0. Einsprung Meldungen Sperren: A <> 0. Aussprung: AF zerstört.	Sperren der Lade-Texte und Bereitschaftsmeldungen beim Lesen oder Schreiben auf Band.
&BC6E	Einsprung: Keine Bedingungen. Aussprung Anlassen funktionierte: Carry = On. Aussprung Fehler trat auf: Carry = Off. Immer: A enthält vorigen Zustand des Motors, alle Flags zerstört.	Anlassen des Kassettenmotors und warten auf Nenndrehzahl.

Die weiteren, sehr umfangreichen Einsprünge in den Kassetten-Manager, erfahren Sie im nächsten Teil unserer Referenzkarte.





Referenzkarte: Calls & Pokes

Der vierte Teil unserer Firmware-Referenz beschäftigt sich mit den wichtigsten Einsprüngen und Parameterübergaben für den Screen-Manager.

Adresse	Syntax	Auswirkung
&BC02	Einsprung: Keine Bedingungen. Aussprung: AF, BC, DE, HL zerstört.	Neu-Initialisierung des Screen-Pakets
&BC08	Einsprung: A enthält das MSB der Basisadresse. Aussprung: AF, HL zerstört.	Angabe der Basisadresse der Screen-Memory.
&BC0B	Einsprung: Keine Bedingungen. Aussprung: A enthält das MSB der Basisadresse.	Abfrage der Basisadresse der Screen-Memory.
&BC0E	Einsprung: A enthält Modus. Aussprung: AF, BC,DE, HL zerstört.	Setzen des Bildschirmmodus (20, 40, 80 Zeichen).
&BC11	Einsprung: Keine Bedingungen. Aussprung: Modus 0: carry=on, zero=off, A=0 Modus 1: carry=off, zero=on, A=1 Modus 2: carry=off, zero=off, A=2 Immer: Alle Flags zerstört.	Abfrage des momentanen Bildschirm-Modus.
&BC14	Einsprung: Keine Bedingungen. Aussprung: AF,BC, DE, HL zerstört.	Löschen der Screen-Memory.
&BC32	Einsprung: A enthält Ink, B enthält Farbe 1, C enthält Farbe 2. Aussprung: AF, BC, DE, HL zerstört.	Farbzuweisung für Ink.
&BC35	Einsprung: A enthält Ink. Aussprung: B enthält Farbe 1 C enthält Farbe 2 AF, DE, HL zerstört.	Abfrage der Farben einer Ink.
&BC38	Einsprung: B enthält Farbe 1. C enthält Farbe 2. Aussprung: AF, BC, DF, HL zerstört.	Setzen der Border-Farben.
&BC3B	Einsprung: Keine Bedingungen. Aussprung: B enthält Farbe 1. C enthält Farbe 2. AF, DE, HL zerstört.	Abfrage der Border-Farben.

Der zweite Teil der Screen-Referenz folgt in Heft 12/85.

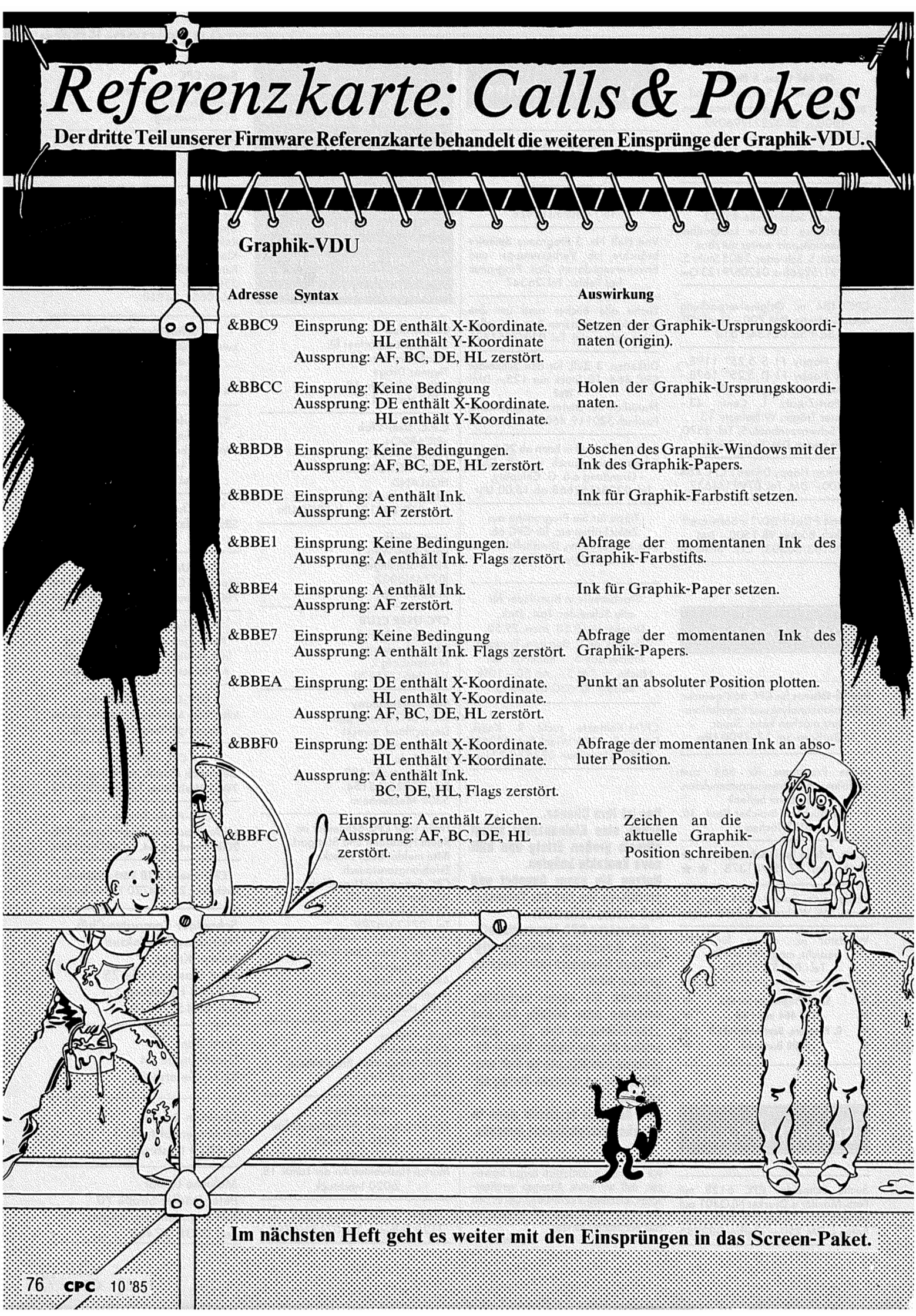


Referenzkarte: Calls & Pokes

Der dritte Teil unserer Firmware Referenzkarte behandelt die weiteren Einsprünge der Graphik-VDU.

Graphik-VDU

Adresse	Syntax	Auswirkung
&BBC9	Einsprung: DE enthält X-Koordinate. HL enthält Y-Koordinate Aussprung: AF, BC, DE, HL zerstört.	Setzen der Graphik-Ursprungskoordinaten (origin).
&BBCC	Einsprung: Keine Bedingung Aussprung: DE enthält X-Koordinate. HL enthält Y-Koordinate.	Holen der Graphik-Ursprungskoordinaten.
&BBDB	Einsprung: Keine Bedingungen. Aussprung: AF, BC, DE, HL zerstört.	Löschen des Graphik-Windows mit der Ink des Graphik-Papers.
&BBDE	Einsprung: A enthält Ink. Aussprung: AF zerstört.	Ink für Graphik-Farbstift setzen.
&BBE1	Einsprung: Keine Bedingungen. Aussprung: A enthält Ink. Flags zerstört.	Abfrage der momentanen Ink des Graphik-Farbstifts.
&BBE4	Einsprung: A enthält Ink. Aussprung: AF zerstört.	Ink für Graphik-Paper setzen.
&BBE7	Einsprung: Keine Bedingung Aussprung: A enthält Ink. Flags zerstört.	Abfrage der momentanen Ink des Graphik-Papers.
&BBEA	Einsprung: DE enthält X-Koordinate. HL enthält Y-Koordinate. Aussprung: AF, BC, DE, HL zerstört.	Punkt an absoluter Position plotten.
&BBF0	Einsprung: DE enthält X-Koordinate. HL enthält Y-Koordinate. Aussprung: A enthält Ink. BC, DE, HL, Flags zerstört.	Abfrage der momentanen Ink an absoluter Position.
&BBFC	Einsprung: A enthält Zeichen. Aussprung: AF, BC, DE, HL zerstört.	Zeichen an die aktuelle Graphik-Position schreiben.

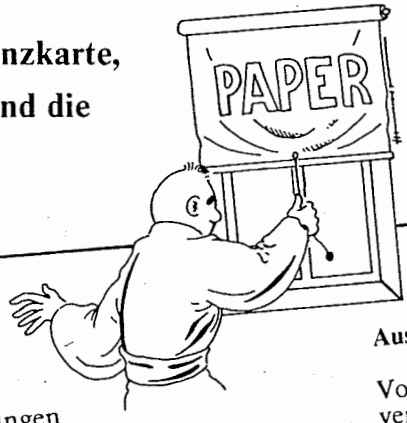


Im nächsten Heft geht es weiter mit den Einsprüngen in das Screen-Paket.

Referenzkarte: Calls & Pokes

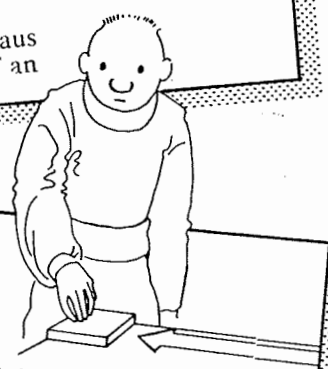
Zum Ausschneiden und Sammeln

Im ersten Teil unserer Firmware Referenzkarte, beschäftigen wir uns mit Einsprüngen in den Key- Board-Manager und die Text-VDU.



Key-Board-Manager

Adresse	Syntax	Auswirkung
&BB00	Einsprung: Keine Bedingungen Aussprung: AF, BC, DE, HL zerstört	Vollständiges Rücksetzen der Tastaturverwaltung wie bei Einschaltvorgang Warten auf Tastendruck
&BB06	Einsprung: Keine Bedingungen Aussprung: CARRY ON, alle anderen Flags zerstört. A enthält Zeichen	
&BB21	Einsprung: Keine Bedingungen Aussprung: AF zerstört, L enthält Zustand von Shift-Lock, H enthält Zustand von Caps-Lock.	Ausgabe des Zustands der Caps-Lock- und Shift-Lock-Taste. &00 aus &FF an
&BB27	Einsprung: A enthält Tastennummer, B enthält Erweiterung. Aussprung: AF, HL zerstört.	Umschaltung einzelner Tasten in jeweilige Erweiterung. Mögliche Erweiterungen sind: &80-&97 Funktionszeichen &FD Caps-Lock &FE Shift-Lock &FF ausgeschaltet
&BB39	Einsprung: A enthält Tastennummer, B enthält Zustand. Aussprung: AF, BC, HL zerstört.	REPEAT für einzelne Tasten ein- oder ausschalten. Zustände: &00 REPEAT aus &FF REPEAT an



Text-VDU

Adresse	Syntax	Auswirkung
&BB4E	Einsprung: Keine Bedingungen Aussprung: AF, BC, DE, Hl zerstört.	Vollständiges Rücksetzen der Text-VDU wie bei Einschaltvorgang.
&BB6C	Einsprung: Keine Bedingungen Aussprung: AF, BC, DE, Hl zerstört.	Das aktuelle Textfenster des selektierten Streams wird gelöscht und mit der aktuellen Paper-Farbe gefüllt.
&BB75	Einsprung: H enthält X-Koordinate. L enthält Y-Koordinate.	Positionierung des Cursors an vorgewählter Koordinate.
&BB78	Einsprung: Keine Bedingungen. Aussprung: H enthält Z-Koordinate, L enthält Y-Koordinate, A enthält Anzahl der Scroll-Vorgänge. Alle Flags zerstört.	Ausgabe der aktuellen Cursorposition und wie oft das momentan selektierte Window gescrollt wurde.

Referenzkarte:

Zum Ausschneiden und Sammeln

Mit dieser kompletten Grafik-Referenzkarte ersparen Sie sich das umständliche ... Handbuch!

Wer hat sich nicht schon einmal mit folgendem Programm den Zeichensatz des Schneid... CPC angeschaut?

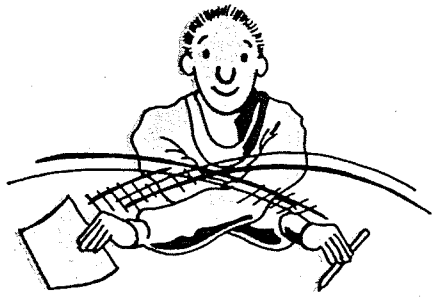
```
10 For a = 32 to 255
20 Print chr$(a);
30 Next a
```

Spätestens hier fällt auf, daß die von CPC belegten chr$ 0 – 31 nicht ausgegeben werden. Diese Zeichen sind sogenannte Steuerzeichen, die mit einer Print-Anweisung zur Ausführung gelangen. Nachfolgend finden Sie die Steuercodes und ihre Bedeutung:

Steuercode	Bedeutung
chr$(0)	keine Definition
chr$(1)	das nächste Steuerzeichen wird grafisch ausgegeben (Beisp.: Print chr$(0); chr$(1) ergibt einen geschwungenen Pfeil nach links)
chr$(2)	schaltet Textcursor aus
chr$(3)	schaltet Textcursor ein
chr$(4)	die nachfolgende Print-Chr$-Anweisung bestimmt die Betriebsart des CPC. Print Chr$(4); Chr$(2) setzt den CPC in Mode 2
Chr$(5)	gleiche Funktion wie chr$(2), doch wird das Zeichen an der Position des Grafikcursors ausgegeben
chr$(6)	schaltet Textbildschirm ein
chr$(7)	erzeugt kurzen Piepston und leert die Tonwarteschlangen
chr$(8)	läßt den Cursor um ein Zeichen zurückgehen
chr$(9)	läßt den Cursor um ein Zeichen vorgehen
chr$(10)	läßt den Cursor um eine Zeile tiefer gehen
chr$(11)	läßt den Cursor um eine Zeile höher gehen
chr$(12)	löscht den Bildschirm (CLS)
chr$(13)	=Carriage Return, entspricht dem Drücken von ENTER



chr$(14)	der nachfolgende Wert wird als Paper-Anweisung interpretiert
chr$(15)	der nachfolgende Wert wird als Pen-Anweisung interpretiert
chr$(16)	löscht Zeichen unter Cursor
chr$(17)	löscht aktuelle Zeile bis zum Cursor
chr$(18)	löscht aktuelle Zeile von Cursor bis Zeilenende
chr$(19)	löscht Bildschirm bis Cursorposition
chr$(20)	löscht Bildschirm ab Cursorposition
chr$(21)	schaltet Textbildschirm ab
chr$(22)	Print chr$(22); chr$(0) schaltet Transparentmodus aus Print chr$(22); chr$(1) schaltet Transparentmodus ein
chr$(23)	der nachfolgende Wert bestimmt den Grafikschreibmodus
chr$(24)	tauscht die Pen- und Paperfarben



chr$(25)	entspricht dem Symbol-Befehl. Es sind ebenfalls neun Parameter anzugeben
chr$(26)	entspricht dem Window-Befehl. Es sind vier Parameter anzugeben. Beisp.: Print chr$(26); chr$(20) chr$(10) chr$(20) chr$(10)
chr$(27)	entspricht ESCAPE
chr$(28)	entspricht dem Ink-Befehl. Es sind drei Parameter anzugeben
chr$(29)	entspricht dem Border-Befehl. Es sind zwei Parameter anzugeben
chr$(30)	bringt den Cursor in die linke, obere Ecke des angesprochenen Fensters
chr$(31)	entspricht dem Locate-Befehl. Es sind Parameter für Zeile und Spalte anzugeben.

Referenzkarte: Grafik

Zum Ausschneiden und Sammeln

ASCII steht für „Amerikanischer Standard-Code für Informationsaustausch". Der CPC 464 kann, wie jeder Computer, ausschließlich Zahlen verarbeiten. So werden Zeichen und Symbole im Speicher als Zahlen abgelegt. Der ASCII-Code wird von den meisten Mikrocomputern benutzt. Tabelle I zeigt Ihnen die ASCII-Werte und die entsprechenden Zeichen.

Mit dieser kompletten Grafik-Referenzkarte ersparen Sie sich das umständliche Blättern im Handbuch!

Ascii	numerische Anzeige eines Zeichens
CHR$	gibt das Zeichen eines ASCII-Codes
ASC	gibt den ASCII-Code eines Zeichens

```
10 PRINT" Code";" ";"Zeichen"
20 FOR Schleife=33 TO 99
30 PRINT " ";Schleife;"   "CHR$ (Schleife)
40 NEXT Schleife
50 FOR Schleife=100 TO 126
60 PRINT Schleife;"   "CHR$(Schleife)
70 NEXT Schleife
```

Programm I

```
10 LET Variable=68
20 PRINT CHR$(Variable)
```

Programm II

```
10 LET a=63
20 LET b=6
30 PRINT CHR$(a+b)
```

Programm III

CHR$
Der Befehl CHR$ bringt das Zeichen eines ASCII-Codes.

Beispiel:
CHR$(Integer)

PRINT CHR$ (67)

gibt den Buchstaben mit dem ASCII-Code 67 – also ein „C". CHR$ kann auch eine Variable enthalten.
Siehe Programm II.

ASC
Der ASC-Befehl bringt den ASCII-Code des ersten Zeichens eines Strings.

Beispiel:
ASC(string)

Der ASCII-Code des Zeichens „C" wird wie folgt abgefragt:

PRINT ASC("C")

Auf die Hochkommas achten! ASC gibt nur den Code des 1. Zeichens eines Strings!

PRINT ASC("CD")

erscheint 67. Der Code für C. ASC akzeptiert aber Stringvariablen zur Verarbeitung.

```
10 LET a$="CD"
20 PRINT ASC(a$)
```

Die Hochkommas sind bei Stringvariablen nicht notwendig.

Code	Zeichen	Code	Zeichen	Code	Zeichen	Code	Zeichen	Code	Zeichen	Code	Zeichen
33	!	49	1	65	A	81	Q	97	a	113	q
34	"	50	2	66	B	82	R	98	b	114	r
35	#	51	3	67	C	83	S	99	c	115	s
36	$	52	4	68	D	84	T	100	d	116	t
37	%	53	5	69	E	85	U	101	e	117	u
38	&	54	6	70	F	86	V	102	f	118	v
39	'	55	7	71	G	87	W	103	g	119	w
40	(	56	8	72	H	88	X	104	h	120	x
41	)	57	9	73	I	89	Y	105	i	121	y
42	*	58	:	74	J	90	Z	106	j	122	z
43	+	59	;	75	K	91	[	107	k	123	{
44	,	60	<	76	L	92	\	108	l	124	|
45	-	61	=	77	M	93	]	109	m	125	}
46	.	62	>	78	N	94	^	110	n	126	~
47	/	63	?	79	O	95	_	111	o		
48	0	64	@	80	P	96	`	112	p		

Referenzkarte: Calls & Pokes

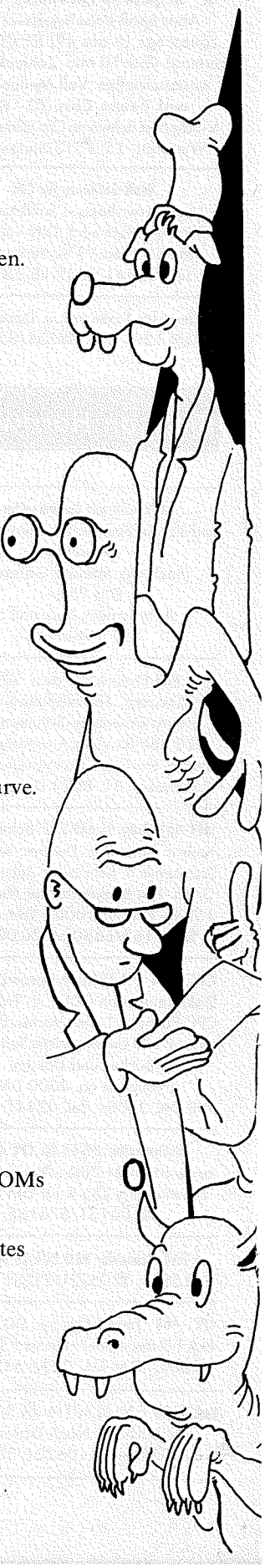
In diesem Teil der Referenzkarte werden wir die letzten Einsprünge des Sound-Managers behandeln.
Danach kommt ein Bereich, der für Profis sehr interessant ist und eine große Zahl von Manipulationen erlaubt – der Betriebssystemkern.



Adresse:	Syntax:	Auswirkung:
&BCB3	Einsprung: A enthält Bitmap für freizugebende Kanäle. Aussprung: AF, BC, DE, HL, IX zerstört.	Gesperrte Kanäle freigeben.
&BCB6	Einsprung: Keine Bedingungen. Aussprung: Ton gesperrt: Carry on. Ton frei: Carry off. Immer: A, BC, HL, Flags zerstört.	Sperre alle Töne sofort.
&BCB9	Einsprung: Keine Bedingungen. Aussprung: AF, BC, DE, IX zerstört.	Alle gesperrten Töne freigeben.
&BCBC	Einsprung: A = Hüllkurve. HL = Adresse Amplitude. Aussprung: Richtig: Carry on, HL = Amplitude + 16, A, BC zerstört. Fehler: Carry off. Immer: DE, Flags zerstört.	Amplituden für Hüllkurve setzen.
&BCBF	Einsprung: A = Hüllkurve. HL = Adressen Töne. Aussprung: Richtig: Carry on, HL = Amplitude + 16, A, BC zerstört. Fehler: Carry off. Immer: DE, Flags zerstört.	Tonhüllkurve setzen.
&BCC2	Einsprung: A = Hüllkurve. Aussprung: Richtig: Carry on, HL = Adresse Amplitude, BC = Länge Datenblock. Fehler: Carry off, HL zerstört. Immer: A, Flags zerstört.	Hole Adresse einer Amplituden-Hüllkurve.
&BCC5	Einsprung: A = Hüllkurve. Aussprung: Richtig: Carry on, HL = Adresse Amplitude, BC = Länge Datenblock. Fehler: Carry off, HL zerstört. Immer: A, Flags zerstört.	Hole Adresse einer Ton-Hüllkurve.

Hier endet der Sound-Manager und es geht weiter mit den Einträgen des Kernal:

Adresse:	Syntax:	Auswirkung:
&BCC8	Einsprung: Keine Bedingungen. Aussprung: B = ROM-Select, DE = Adresse Vordergrund-ROM, C = ROM-Select, AF, HL zerstört.	Reset-Kernal.
&BCCB	Einsprung: DE = Low-Adress, HL = High-Adress. Aussprung: AF, BC zerstört.	Initialisiere alle Hintergrund-ROMs während eines Suchlaufes.
&BCCE	Einsprung: C = ROM-Select, DE = Low-Adress, HL = High-Adress. Aussprung: DE = Low-Adress, HL = High-Adress, AF, BC zerstört.	Suche und initialisiere selektiertes ROM.
&BCD1	Einsprung: BC = RSX-Tabelle, HL = 4-Byte-Kernal-Buffer. Aussprung: DE zerstört.	Basicerweiterung per RSX einbinden.



Referenzkarte: Grafik

4679

Zum Ausschneiden und Sammeln

Mit dieser kompletten Grafik-Referenzkarte ersparen Sie sich das umständliche Blättern im Handbuch!

pen/paper	ink	Farbe
0	1	Hellblau
1	24	Hellgelb
2	20	Hellcyan
3	6	Hellrot
4	26	Hellweiß
5	0	Schwarz
6	2	Hellblau
7	8	Hellmagenta
8	10	Cyan
9	12	Gelb
10	14	Pastelblau
11	16	Rosa
12	18	Hellgrün
13	22	Pastelgrün
14	1,24	Blinkend Blau/Hellgelb
15	16,11	Blinkend Rosa/Himmelblau

Mode 0

Ink	Farbe	Ink	Farbe
0	Schwarz	14	Pastelblau
1	Blau	15	Orange
2	Hellblau	16	Rosa
3	Rot	17	Pastelmagenta
4	Magenta	18	Hellgrün
5	Hellviolett	19	Seegrün
6	Hellrot	20	Hellcyan
7	Purpur	21	Limonengrün
8	Hellmagenta	22	Pastelgrün
9	Grün	23	Pastelcyan
10	Cyan	24	Hellgelb
11	Himmelblau	25	Pastelgelb
12	Gelb	26	Hellweiß
13	Weiß		

Ink Farben

pen/paper	ink	Farbe
0	1	Hellblau
1	24	Hellgelb
2	20	Hellcyan
3	6	Hellrot

Mode 1

pen/paper	ink	Farbe
0	1	Hellblau
1	24	Hellgelb

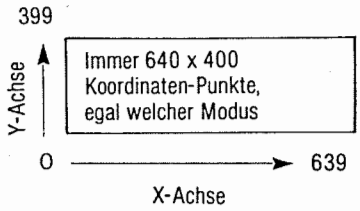
Mode 2

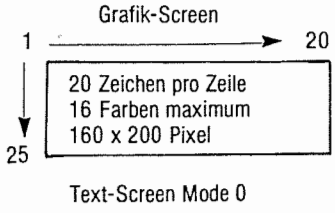
Mode	Anzahl Zeichen	Anzahl Farben
0	20	16
1	40	4
2	80	2

Mode charakteristisch

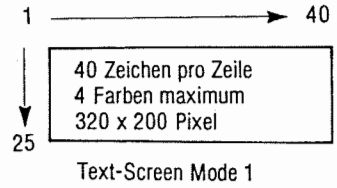
Mode	Grafik-Koordinaten		Pixels	
	x Achse	y Achse	x Achse	y Achse
0	640	400	160	200
1	640	400	320	200
2	640	400	640	200

Grafik-Koordinaten und Pixel

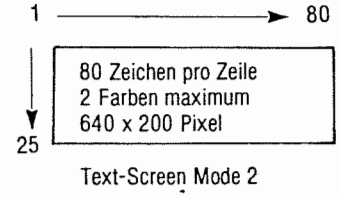




Text-Screen Mode 0



Text-Screen Mode 1



Text-Screen Mode 2

Mode	Character		Pixel	
0	16	32	2	4
1	16	16	2	2
2	16	8	2	1

Charakter und Pixel in Screen-Koordinaten gemessen

Referenzkarte: Calls & Pokes

Weiter geht es auf der Referenzkarte mit den Einsprüngen in den Kassettenmanager sowie den ersten Calls für die Soundprogrammierung.

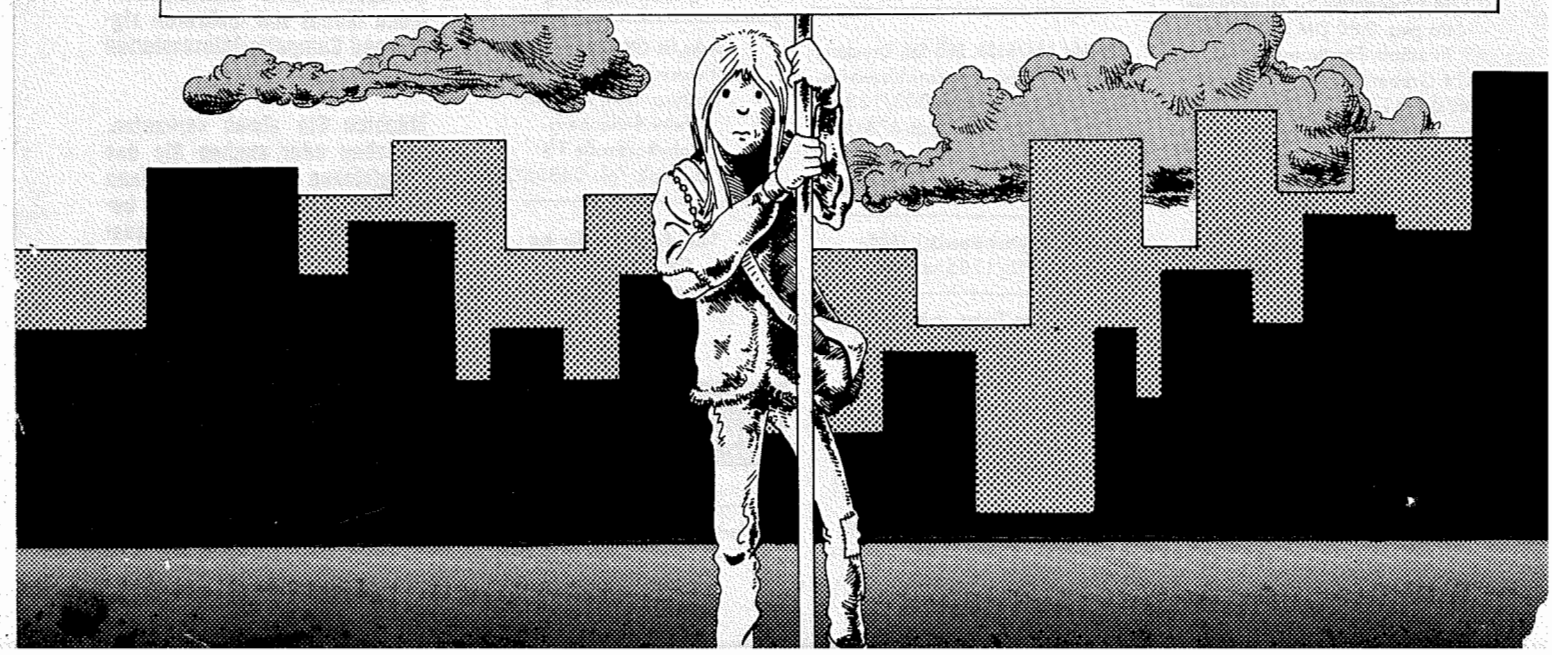
Adresse	Syntax	Auswirkung
&BC9B	Einsprung: HL = Adresse Ausgabedaten DE = Länge Ausgabedaten A = Satzkennzeichen. Aussprung: Richtig geschrieben: Carry on, A zerstört. Error: Carry off, A = Fehlercode. Immer: BC, DE, HL, IX, Flags zerstört.	Schreibe einen Satz auf das Band.
&BCA1	Einsprung: HL = Adresse der Daten DE = Länge der Daten A = Satzkennzeichen. Aussprung: Richtig gelesen: Carry on, A zerstört. Error: Carry off, A = Fehlercode. Immer: BC, DE, HL, IX, Flags zerstört.	Lies einen Satz vom Band.
	Soundmanager:	
&BCA7	Einsprung: keine Bedingungen. Aussprung: AF, BC, DE, HL zerstört.	Soundmanager zurücksetzen.
&BCAA	Einsprung: HL = Adresse Tonprogramm. Aussprung: Ton bereitgestellt: Carry on, HL zerstört. Warteschlange voll: Carry off. Immer: A, BC, DE, IX, Flags zerstört.	Ton in Warteschlange stellen.
&BCAD	Einsprung: A enthält Bit für Kanalwahl. Aussprung: A enthält Kanalstatus. BC, DE, HL, Flags zerstört.	Abfrage des Kanalstatus.
&BCB0	Einsprung: A enthält Bit für Kanalwahl. HL = Adresse Eventblock. Aussprung: BC, DE, HL, Flags zerstört.	Erzeuge einen EVENT wenn Warteschlange leer.



Referenzkarte: Calls & Pokes

**Weiter geht es mit den sehr wichtigen Einsprüngen in den Kassettenmanager.
Da diese Adressen immer sehr viele Parameter benötigen oder Informationen ausgegeben werden, haben Sie bitte Verständnis dafür, daß wir immer nur ein paar dieser Einsprünge abdrucken können.**

Adresse	Syntax	Auswirkung
&BC8C	Einsprung: B = Länge Dateinamen. HL = Adresse Dateinamen DE = Bufferadresse. Aussprung: Fehler: Carry off, HL zerstört Richtig eröffnet: Carry on, HL = Headerbuffer. Immer: Zero off. A, BC, DE, IX, Flags zerstört.	Eröffnet eine Datei zur Ausgabe.
&BC8F	Einsprung: Keine Bedingungen. Aussprung: Richtig geschlossen: Carry on, Zero off. Nicht geöffnet: Carry off, Zero off. Fehler: Carry off, Zero on. Immer: A, BC, DE, HL, IX, Flags zerstört.	Schließen der Ausgabedatei.
&BC92	Einsprung: Keine Bedingungen. Aussprung: AF, BC, DE, HL zerstört.	Sofortiges Schließen der Ausgabedatei.
&BC95	Einsprung: A enthält Zeichen Aussprung: Richtig ausgegeben: Carry on, Zero off. Datei nicht eröffnet: Carry off, Zero off. Fehler: Carry off, Zero on. Immer: A, IX, Flags zerstört.	Zeichen in Ausgabedatei schreiben.
&BC98	Einsprung: HL = Adress-Datensatz DE = Länge Datensatz BC = Einsprungadresse A = Dateiart. Aussprung: Richtig geschrieben: Carry on, Zero off. Nicht eröffnet: Carry off, Zero off. Fehler: Carry off, Zero on. Immer: A, BC, DE, HL, IX, Flags zerstört.	Schreibe Ausgabedatei aus Speicher.
&BC9B	Einsprung: DE = Buffer Aussprung: Richtig erstellt: Carry on. Device busy: Carry off. Immer: A, BC, DE, HL, Flags zerstört.	Erstellen des Bandkatalogs.



Referenzkarte: Sound

Zum Ausschneiden und Sammeln

Mit dieser kompletten Sound-Referenzkarte ersparen Sie sich das umständliche Blättern im Handbuch!

Struktur des Sound-Befehls

Sound Kanal, Tonperiode, Dauer, Lautstärke, Lautstärken-Hüllkurve

Ton-Hüllkurve, Geräusch

Bereich	Kanal	Tonperiode	Dauer	Lautstärke
	1 = A 2 = B 4 = C	0 bis 4095	1 bis 32767	0 bis 7
Standard			20	4

Abbildung I

Synchronisation der Kanäle

Im ersten Parameter des Sound-Kommandos können verschiedene Kanäle zur Tonerzeugung angesprochen werden. Mit Hilfe der Rendezvous-Technik lassen sich mehrere Kanäle zur gleichen Zeit mit Tönen belegen.

Dezimal	Auswirkung
1	sende SOUND nach Kanal 1
2	sende SOUND nach Kanal B
4	sende SOUND nach Kanal C
8	Rendezvous mit Kanal A
16	Rendezvous mit Kanal B
32	Rendezvous mit Kanal C
64	halten
128	rauschen

Lautstärken-Hüllkurve Struktur

ENV, Nummer, Schrittanzahl, Änderung der Lautstärke pro Schritt, Schrittzeit

Wertebereich	Nummer N	Anzahl der Schritte P	Änderung der Lautstärke pro Schritt Q	Schrittzeit R
Bereich	0 bis 15	0 bis 127	−128 bis 127	0 bis 255

Abbildung II: Parameter der Lautstärken-Hüllkurve

Ton-Hüllkurve Struktur

ENT, Nummer, Schrittanzahl, Änderung der Tonhöhe pro Schritt, Schrittzeit

Nummer	Nummer S	Schrittanzahl T	Änderung der Tonhöhe pro Schritt V	Pausenzeit W
Standardwert	0 bis 5	0 bis 239	−128 bis 127	0 bis 255

Abbildung III

Notenparameter für die Tonhöhe

Note	Tonhöhe	Note	Tonhöhe
C	239	F$	84
C$	225	G	80
D	213	G$	75
D$	201	A	71
E	198	A$	67
F	179	B	63
F$	169	C	60
G	159	C$	56
G$	158	D	53
A	142	D$	50
A$	134	E	47
B	127	F	45
C	119	F$	42
C$	113	G	40
D	106	G$	38
D$	100	A	36
E	95	A$	34
F	89	B	32

Abbildung V

Die Sound-Parameter auf einen Blick

	Kanal	Tonhöhe	Dauer	Lautstärke		Lautstärken-Hüllkurve	Ton-Hüllkurve	Geräusch
				ohne Hüllkurve	mit Hüllkurve			
Bereich	1=A 2=B 4=C	0 bis 4095	1 bis 32767	0 bis 7	0 bis 15	0 bis 15	0 bis 15	0 bis 31
Standardwert			20	4	12	0	0	0

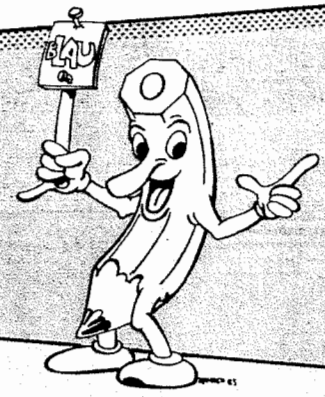
Abbildung IV

Referenzkarte: Calls & Pokes

Im zweiten Teil unserer Firmware Referenzkarte geht es weiter mit Einsprüngen in die Text-VDU und die Graphik-VDU.

Text-VDU

Adresse	Syntax	Auswirkung
&BB87	Einsprung: H enthält X-Koordinate. L enthält Y-Koordinate Aussprung: Kein Scroll: CARRY ON, B zerstört. Scroll hoch: CARRY OFF, B enthält &FF. Scroll tief: CARRY OFF, B enthält &00. IMMER: H= X-Koordinate. L= Y-Koordinate. Flags zerstört.	Überprüfen, ob beim Schreibversuch im Window ein Scroll vorgenommen wird.
&BB90	Einsprung: A enthält Ink Aussprung: AF, HL zerstört.	Angabe der Ink des Textstiftes
&BB93	Einsprung: Keine Bedingungen. Aussprung: A enthält Ink, Flags zerstört.	Ausgabe der Ink des Textstiftes.
&BB96	Einsprung: A enthält Farbe. Aussprung: AF, HL zerstört.	Paperfarbe setzen.
&BB99	Einsprung: Keine Bedingungen. Aussprung: A enthält Farbe. Flags zerstört.	Ausgabe der aktuellen Paperfarbe.
&BB9C	Einsprung: Keine Bedingungen. Aussprung: AF, HL zerstört.	Austausch der Ink- und Paper-Farbe (INVERSMODE).
&BB9F	Einsprung: Normal: A enthält &00. Transparent: A ist ungleich &00. Aussprung: AF, HL zerstört.	Umschaltung in Transparent-Mode.
&BBA2	Einsprung: Keine Bedingungen. Aussprung: Normal: A enthält &00. Transparent: A ist ungleich &00. Immer: DE, HL zerstört. Flags zerstört.	Ausgabe des aktuellen Cursor-Modes.
&BBB4	Einsprung: A enthält Stream-Nummer. Aussprung: A enthält vorher selektierten Stream. HL zerstört. Flags zerstört.	Bestimmen des Ein/Ausgabe-Kanals (Stream).



Graphik-VDU

Adresse	Syntax	Auswirkung
&BBBA	Einsprung: Keine Bedingungen. Aussprung: AF, BC, DE, Hl zerstört.	Vollständiges Rücksetzen der Graphik-VDU wie bei Einschaltvorgang.
&BBC0	Einsprung: DE enthält X-Koordinate. HL enthält Y-Koordinate. Aussprung: AF, BC, DE, HL zerstört.	Origin des Grafik-Cursors.
&BBC6	Einsprung: Keine Bedingungen. Aussprung: DE enthält X-Koordinate. HL enthält Y-Koordinate. AF zerstört.	Ausgabe der aktuellen Grafik-Cursor-Position.

Computer-Kurzweil

Vorsicht vor dem 4-D-Wahn!
Ein Programm, das vierdimensionale Hyperwürfel dreht, als Auslöser einer schweren Form von Geistesgestörtheit.

Von A. K. Dewdney

Mein Mann hat sich in Luft aufgelöst, und ich glaube, Sie haben etwas damit zu tun!" Cheryl, die Frau am Telephon, war ganz verstört. Ihr Mann Magi, mein Mikrocomputer-Assistent an der Universität von West-Ontario, war anscheinend verschwunden, während er ein Computerprogramm laufen ließ, das er auf meine Anregung hin geschrieben hatte. Das Programm dreht das vierdimensionale Gegenstück eines Würfels, einen Hyperwürfel, und projiziert ihn auf den Bildschirm.

Cheryl fuhr aufgeregt fort: „Auf dem Bildschirm ist ein komisches Linienmuster, und seine Kleider liegen auf einem Haufen neben dem Stuhl. Er muß diese Brille aus Pappe mit den gefärbten Gläsern getragen haben. Und – schauen Sie sich das an – seine Socken stecken noch in den Schuhen!"

Hier, so schien es mir, handelte es sich um einen klaren Fall von 4-D-Wahn. Seine Opfer sind überzeugt davon, daß sie den gewöhnlichen Raum verlassen haben und in eine höherdimensionale Welt vorgestoßen sind, in der niemand sie mehr sieht. Diese Wahnidee kann so mächtig werden, daß sie auch andere verblendet. Das Opfer betritt dann einen Raum voller Menschen und bleibt doch scheinbar für alle unsichtbar.

Glücklicherweise nahm Magis Fall ein gutes Ende. Ich werde am Schluß darüber berichten.

Die vierte Dimension in Physik und Mathematik

Zunächst aber will ich das Hyperwürfel-Programm einer breiteren Öffentlichkeit vorstellen und Ihnen eine gutgemeinte Warnung mit auf den Weg geben: Leser, die anfällig für Magis Wahn sein könnten, sollten die Finger von dem Programm lassen und sich vor allem davor hüten, seine Ausgabe auf dem Bildschirm anzuschauen. Anfällig ist jeder, der jemals besessen war von dem Gedanken an höhere Dimensionen oder auch nur gelegentlich von unsichtbaren, unbekannten Welten träumt.

Spätestens seit dem 19. Jahrhundert ist die vierte Dimension oft Gegenstand physikalischer und metaphysischer Spekulationen gewesen. Die Idee einer vierten physikalischen Dimension kulminierte in Albert Einsteins spezieller und allgemeiner Relativitätstheorie. Dort bilden Raum und Zeit ein vierdimensionales Kontinuum, in dem alle Ereignisse zeitlos eingefroren sind.

Vielleicht enthält das Universum sogar noch mehr Dimensionen: Die sogenannten Kaluza-Klein-Theorien führen sieben oder mehr zusätzliche Dimensionen in Form winziger Hyperblasen ein, die an jedem Raumpunkt angeheftet sind (siehe „Die verborgenen Dimensionen der Raumzeit" von Daniel Z. Freedman und Peter van Nieuwenhuizen in Spektrum der Wissenschaft, Mai 1985; dort sind auch die Beiträge von Theodor Kaluza und Oskar Klein beschrieben).

Die vierte Dimension, die *ich* kennen und lieben gelernt habe, ist ein reines Kind der Mathematik. Leser, die in gewöhnlichen Zimmern sitzen, haben ein dreidimensionales Koordinatensystem gleichsam über ihren Köpfen aufgespannt. In jeder oberen Ecke des Zimmers treffen nämlich zwei Wände und die Decke aufeinander, und von jeder Ecke gehen drei Linien aus, an denen jeweils zwei Wände oder eine Wand und die Decke aneinanderstoßen. Jede der Linien steht senkrecht auf den beiden anderen.

Können Sie sich eine vierte Linie vorstellen, die zu allen dreien senkrecht verläuft? Wahrscheinlich nicht, aber genau das ist es, was Mathematiker tun, wenn sie den rein gedanklichen Raum konstruieren, den man als vierdimensionalen Raum bezeichnet. Nun aber bietet sich auch Ihnen die Möglichkeit, diesen Raum persönlich – und ohne jede Gefahr für Ihre Person – zu untersuchen. Sie müssen dazu nur ein Programm schreiben, das ich HYPERKUBUS nennen will.

HYPERKUBUS geht auf einen Film zurück, den A. Michael Noll, damals bei den Bell-Laboratorien, Mitte der sechziger Jahre gedreht hat. Er zeigt die zweidimensionalen Schattenrisse vierdimensionaler Objekte, die sich im vierdimensionalen Raum bewegen. So wie das Programm jetzt aussieht, wurde es allerdings von Thomas Banchoff und seinen Kollegen am Laboratorium für Computer-Graphik der Brown-Universität in Providence (Rhode Island) entwickelt. Mich haben die faszinierenden Bilder, die es erzeugt (Bilder 1, 4 und 5), zu diesem Artikel angeregt.

Banchoff ist Professor für Mathematik und betreibt seine visuellen Untersuchungen höherdimensionaler Flächen und Räume als Ergänzung seiner Schriften und Forschungen als Geometer. Im Jahre 1978 produzierte er zusammen mit Charles Strauss einen neuneinhalb Minuten langen computererzeugten Farbfilm, der seitdem ein Klassiker in der mathematischen Subkultur geworden ist. Er trägt den Titel „The Hypercube: Projections and Slicing" („Der Hyperwürfel: Projektionen und Schnitte") und ist zu erhalten beim International Film Bureau, Inc., 332 South Michigan Avenue, Chicago, Ill. 60604, USA. Banchoff ist wahrscheinlich auch der führende Experte für Leben und Werk von Edwin A. Abott, dem englischen Lehrer und Geistlichen, der 1884 „Flatland" (in der deutschen Übersetzung „Flächenland" betitelt) geschrieben hat, eine Geschichte über das Leben in zwei Dimensionen (vergleiche Buchbesprechungen, Spektrum der Wissenschaft, April 1983).

Schattenrisse vierdimensionaler Körper

Banchoff und seine Mitarbeiter haben eindrucksvolle Bilder entworfen, die Eigenschaften vierdimensionaler Objekte illustrieren. In Bild 1 ist beispielsweise die Drehung eines vierdimensionalen Hyperwürfels im vierdimensionalen Raum gezeigt. Um diese Bilder zu verstehen, sollten Sie die Schatten betrachten, die ein gewöhnlicher Würfel auf eine Ebene wirft (Bild 3). Besteht der Würfel aus durchsichtigem Material und sind nur die vier seitlichen Flächen getrübt, dann entsteht als Schatten ein Quadrat mit einem quadratischen Loch in der Mitte.

Entsprechend kann der dreidimensionale „Schatten" eines Hyperwürfels, der von einem Punkt „oberhalb" des gewöhnlichen Raumes in der vierten Dimension beleuchtet wird, wie ein

Würfel in einem Würfel aussehen. Der innere Würfel ist dann von sechs sechsseitigen Polyedern umgeben, die man als verzerrte Würfel oder Pyramidenstümpfe ansehen kann. Jene vier verzerrten Würfel, die an den seitlichen Flächen des inneren Würfels anliegen, bilden zusammen einen kastenförmigen Torus (Reifen), dessen Oberfläche in Banchoffs Bildern zu sehen ist. Die beiden Pyramidenstümpfe oben und unten wurden weggelassen. Wenn der Hyperwürfel gedreht wird, scheint sich das quadratische Loch im Innern des Torus zum Betrachter hin zu bewegen. Wer das Programm HYPERKUBUS schreibt, wird ähnliche Veränderungen sehen, wenn auch nicht so realistisch oder plastisch.

Die Bilder 4 und 5 stammen aus einem demnächst herauskommenden Film von Banchoff und seinen Kollegen Hüseyin Koak, David Laidlaw und David Margolis mit dem Titel „The Hypersphere: Foliation and Projections" („Die Hyperkugel: Bänderung und Projektionen"). Die Hyperkugel ist noch viel komplexer als der Hyperwürfel, und ich will sie hier nicht im Detail beschreiben. Trotzdem kann man sich in diese Bilder hineindenken, indem man eine gewöhnliche Kugel betrachtet. Die Kugel liege mit dem Südpol auf einer Ebene und werde von einer punktförmigen Lichtquelle an ihrem Nordpol angestrahlt. Die Schatten der Breitenkreise bilden dann auf der Ebene konzentrische Kreise (Bild 3). Wird die Kugel nun gedreht, die Lichtquelle aber an Ort und Stelle belassen, so kommt man zu Anordnungen, bei denen die Kreise nicht mehr konzentrisch sind. Ferner entartet der Schatten eines jeden Breitenkreises, der durch die Lichtquelle selbst verläuft, zu einer Geraden.

Ähnlich kann man den dreidimensionalen „Schatten" der Hyperkugel als eine Folge konzentrischer Tori ansehen (Bild 4). Soll bei zwei konzentrischen Tori der innere noch sichtbar sein, muß der äußere freilich zumindest teilweise durchsichtig gemacht werden. In Banchoffs Bildern sind aus den äußeren Tori daher Streifen herausgeschnitten, so daß von der Oberfläche dieser Objekte nur noch gewundene Bänder übrig sind. Wenn die Hyperkugel gedreht wird, scheinen sich die Tori aufzublähen und aneinander vorbei zu schieben. Jeder Torus, der durch die Lichtquelle geht, wird unendlich groß (Bild 5).

Vom Würfel zum Hyperwürfel

Niederdimensionale Analogien können eine wertvolle Hilfe sein, wenn es um Konstruktion oder Verständnis vier-

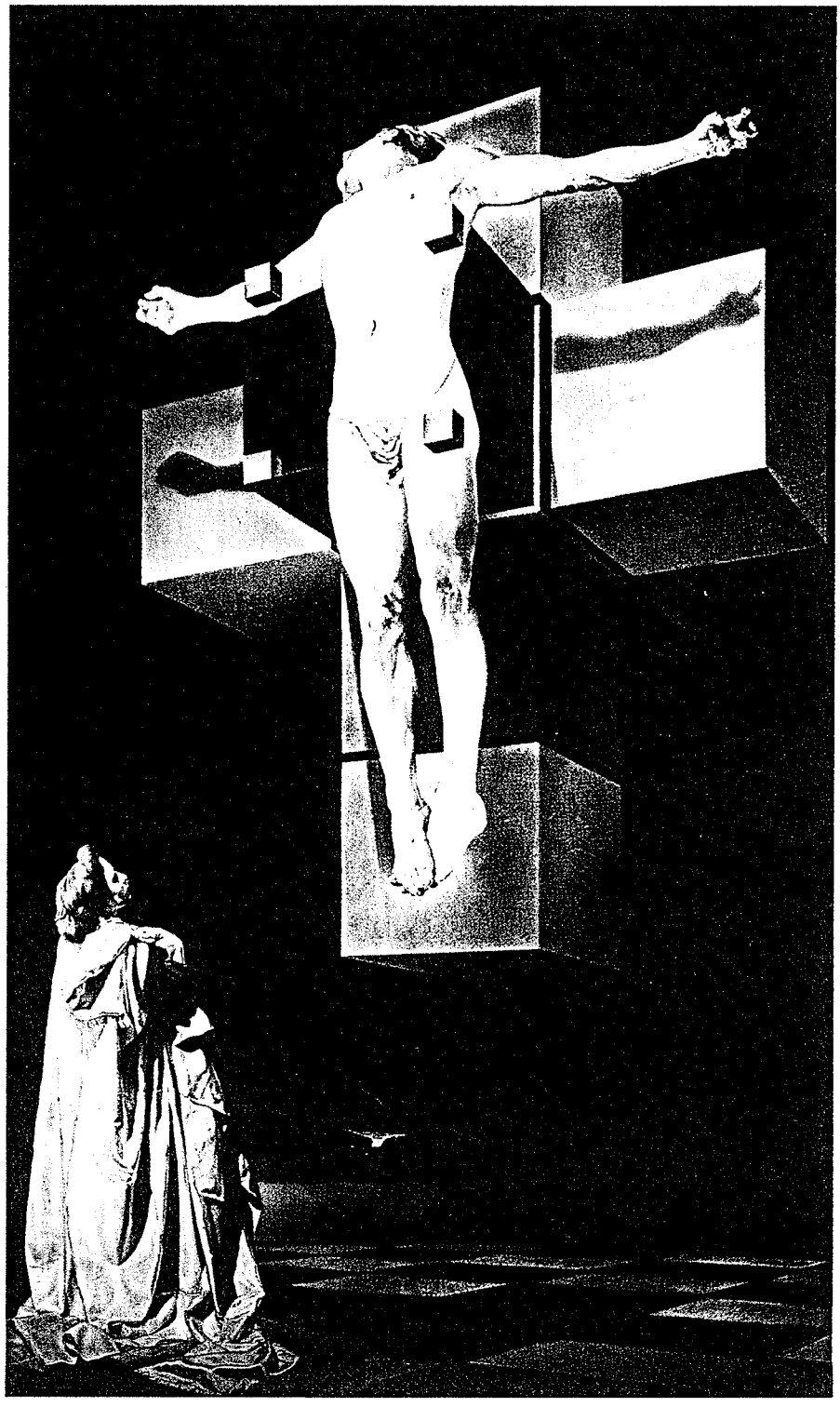


Bild 1: In seinem Gemälde „Kreuzigung (Corpus Hypercubus)" verwendet der spanische Surrealist Salvador Dali einen in den dreidimensionalen Raum aufgeklappten Hyperwürfel als Kreuz. Schneidet man einen dreidimensionalen Würfel an sieben Kanten auf und klappt die Seitenflächen in die Ebene, so erhält man ein kreuzförmiges Gebilde aus sechs zusammenhängenden Quadraten. (Wer aus einem Blatt Papier einen Würfel herstellen möchte, geht meist umgekehrt vor, schneidet also zunächst das kreuzförmige Muster aus und faltet es dann zum Würfel zusammen.) Analog kann man einen vierdimensionalen Hyperwürfel längs bestimmter Flächen aufschneiden und die einzelnen Hyperflächen (sie entsprechen gewöhnlichen dreidimensionalen Würfeln) in den dreidimensionalen Raum hineinklappen. Das Ergebnis ist das von Dali dargestellte sternförmige Kreuz aus acht Würfeln. Dali begann das Ölgemälde im Frühjahr 1953 in seinem Wohnort Port Lligat an der Costa Brava, vollendete es jedoch erst im folgenden Jahr. Im Dezember 1954 wurde es dann in der Castairs Gallery in New York ausgestellt; heute befindet es sich im Metropolitan Museum of Art in New York. Vorne ist Dalis Ehefrau Gala als trauernde Mutter Maria, im Hintergrund die Bucht von Lligat dargestellt. „Kreuzigung (Corpus Hypercubus)" ist neben der „Madonna von Port Lligat", dem „Christ vom heiligen Johannes vom Kreuz" und dem „Letzten Abendmahl" aus der National Gallery in Washington eines der bedeutendsten religiösen Werke Dalis.

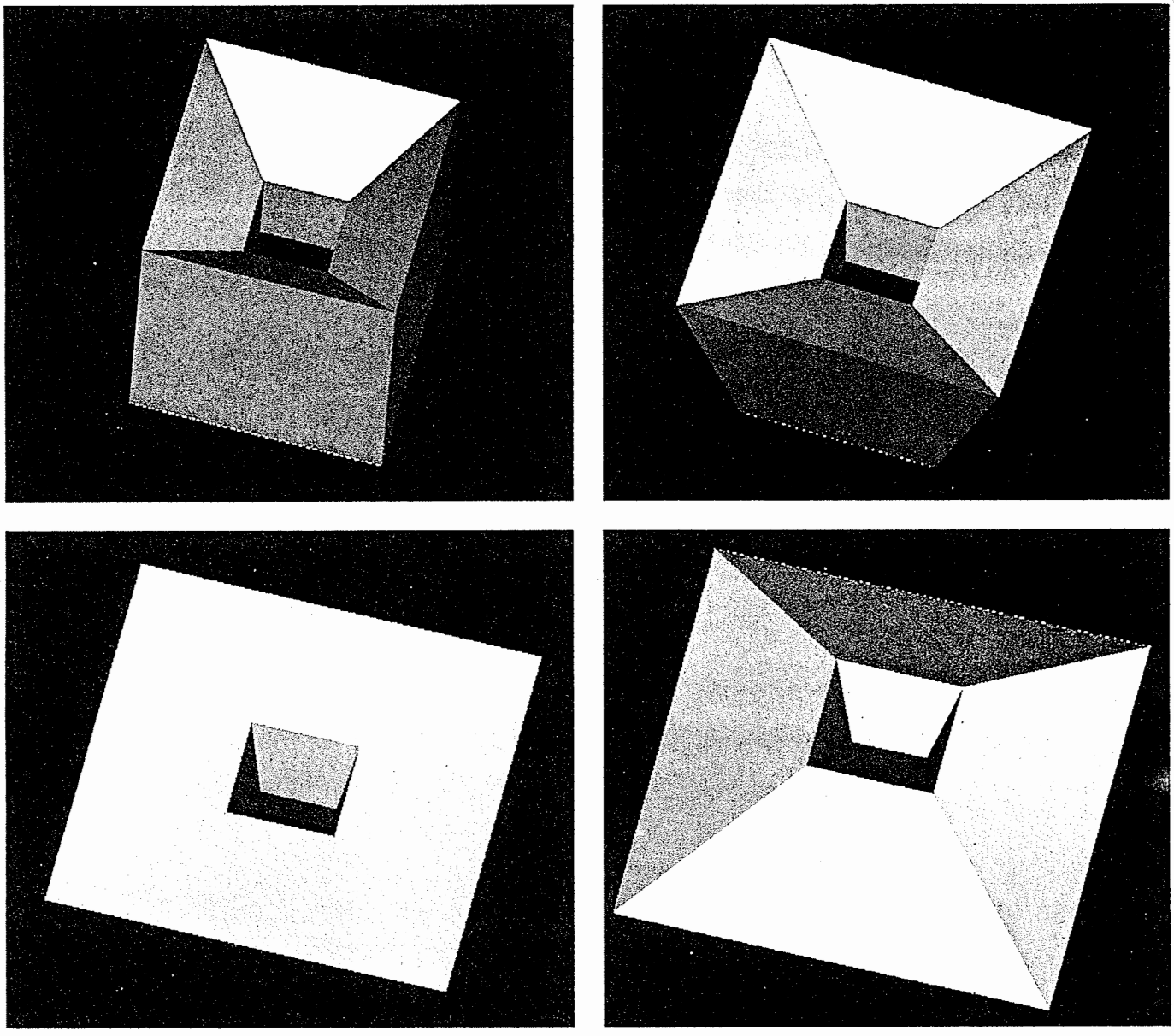


Bild 2: Dreidimensionale Projektionen eines Hyperwürfels, der in der von den Dimensionen 2 und 4 gebildeten Ebene gedreht wird.

dimensionaler Objekte geht. Beispielsweise entsteht der Hyperwürfel auf die gleiche Weise aus dem gewöhnlichen Würfel wie dieser aus dem Quadrat. Um aus einem Quadrat einen Würfel zu erhalten, hebt man es um die Länge seiner Seite in einer zur Quadratfläche senkrechten Richtung an (Bild 2). Der so gebildete Würfel hat acht Ecken, doppelt so viele wie das Quadrat, und zwölf Kanten, nämlich die vier des Ausgangsquadrats, die vier des angehobenen Quadrats und vier, die die Ecken von beiden verbinden. Weiter besitzt der Würfel sechs Flächen; eine besteht aus dem Ausgangs- und eine aus dem angehobenen Quadrat, während vier weitere jeweils zwischen einer Kante des Ausgangs- und der entsprechenden Kante des angehobenen Quadrats liegen.

Angenommen, wir hätten eine zusätzliche Dimension zur Verfügung, dann könnten wir dasselbe wie mit dem Quadrat auch mit dem Würfel machen: Wir „heben" ihn um eine Strecke, die gleich seiner Kantenlänge ist, aus dem gewöhnlichen Raum in Richtung der neuen Dimension heraus (Bild 2). Aber in welcher Richtung liegt die neue Dimension? Das kann ich Ihnen leider nicht erklären. Selbst ein Photo, auf dem mein Arm in die neue Richtung wiese, gäbe keinen Aufschluß: Der Arm wäre darauf nicht zu sehen.

Nichtsdestoweniger läßt sich die Anzahl der Ecken, Kanten, Flächen und Hyperflächen (gewöhnlichen Würfel) des Hyperwürfels leicht ermitteln. Die Anzahl der Ecken ist gleich der für den Ausgangs- plus der für den angehobenen Würfel, also 16. Jede der acht Ekken des Ausgangswürfels ist durch eine Kante mit einer der acht Ecken des neuen Würfels verbunden, und außerdem hat jeder der beiden Würfel selbst zwölf Kanten. Folglich besitzt der Hyperwürfel 8 + 12 + 12 = 32 Kanten. Analog kann man zeigen, daß der Hyperwürfel 24 gewöhnliche Flächen und acht Hyperflächen enthält.

So wie sich ein normaler Würfel in die Ebene aufklappen läßt, kann man auch einen Hyperwürfel in den dreidimensionalen Raum hineinklappen. Das resultierende sternförmige Kreuz hat Salvador Dali in seinem Gemälde „Kreuzigung (Corpus Hypercubus)" dargestellt (Bild 1).

Der Hyperwürfel im Computer

David Laidlaw verdanke ich die folgende Erklärung von HYPERKUBUS. In der hier beschriebenen Version des Programms wird ein Hyperwürfel nur

durch seine Ecken und Kanten dargestellt. Außerdem zeigt das Programm nicht unbedingt einen Würfel, der in einem weiteren Würfel enthalten ist. Die erzeugten Bilder hängen vielmehr davon ab, wie HYPERKUBUS implementiert und gestartet wird.

Sooft das Programm den Hyperwürfel dreht, gelangen die Ecken in neue Positionen, und es entsteht eine neue, höchst verwirrende Ansicht des Objekts. Mit zunehmender Erfahrung aber ergeben die wechselnden Ansichten einen merkwürdigen Sinn, und man hat das Gefühl, an der Schwelle eines geheimnisvoll verlockenden neuen Raumgefühls zu stehen.

Die 16 Ecken des Hyperwürfels werden nach einem simplen Schema von 0 bis 15 numeriert. Schreibt man jede dieser Zahlen im Binärsystem auf und nimmt jede der vier erhaltenen Binärziffern (bei Zahlen unter 8 ergänzt man einfach links mit Nullen) als eine der vier Koordinaten der jeweiligen Ecke, so hat man eine Koordinatendarstellung der Ecken in einem vierdimensionalen kartesischen Koordinatensystem gewonnen. Die binären Ziffern von 13 sind beispielsweise von links nach rechts 1 (das heißt eine 8), 1 (also eine 4), 0 (keine 2) und 1 (eine 1). Die Koordinatendarstellung der Ecke Nummer 13 wäre also (1, 1, 0, 1).

Für die spätere Abbildung der Hyperwürfelprojektion auf dem Bildschirm ist diese Koordinatendarstellung jedoch noch etwas unpraktisch. Günstigere Koordinaten erhält man, wenn man alle Nullen in -1 verwandelt und jede Koordinate mit einer Zahl multipliziert, die so gewählt ist, daß die Projektion auf dem Bildschirm eine vernünftige Größe hat. Multipliziert man zum Beispiel mit 10, ergeben sich für Ecke 13 die Koordinaten (10, 10, -10, 10).

Die Ausgangskoordinaten der Ecken des Hyperwürfels werden in einem zweidimensionalen Feld (mathematisch einer Matrix) namens *Ecke* gespeichert. Da es 16 Ecken mit jeweils vier Koordinaten gibt, ist *Ecke* eine 16×4-Matrix aus 64 Zahlen. *Ecke (i, j)* enthält die j-te Koordinate der i-ten Ecke. HYPERKUBUS verändert diese Matrix nie. Sie wird am Beginn des Programms festgelegt und ihr Inhalt dann in eine zweite 16×4-Matrix namens *Kubus* übertragen. *Kubus* ist eine Arbeitsmatrix. Ihr Inhalt wird durch die Drehungen, die das Programm vornimmt, unablässig geändert.

HYPERKUBUS besteht aus drei Hauptsegmenten, die auf die Initialisierung von *Ecke* folgen: der Auswahl der gewünschten Drehung des Hyperwürfels, der Berechnung der Ecken-Koordinaten des gedrehten Würfels und schließlich der graphischen Darstellung des Ergebnisses auf dem Bildschirm.

Wäre das zu drehende Objekt dreidimensional, könnte man die Drehung durch Angabe einer Drehachse und eines Drehwinkels spezifizieren. Bei einem vierdimensionalen Objekt dagegen legt eine Drehachse noch keine Drehebene fest; denn schließlich gibt es zu jeder Ebene zwei verschiedene Richtungen, die auf ihr senkrecht stehen. Andererseits ist es im vier- wie im dreidimensionalen Raum richtig, daß eine Drehung nur jeweils zwei Dimensionen beeinflußt. Wird ein dreidimensionales Objekt gedreht, so bewegen sich zwei seiner Dimensionen, während die dritte fest bleibt. Ähnlich verändern sich bei der Rotation eines vierdimensionalen Objekts zwei seiner Dimensionen, wogegen die beiden anderen nicht betroffen sind.

Drehung des Hyperwürfels

Es gibt viele Möglichkeiten, ein vierdimensionales Objekt zu drehen. Jedwede Drehung in einer beliebigen Ebene läßt sich jedoch durch eine Folge von Drehungen in den Koordinatenebenen darstellen. Jeweils zwei Koordinatenachsen bestimmen eine Koordinatenebene, und da der vierdimensionale Raum vier kartesische Koordinatenachsen enthält – wir wollen sie mit 1 bis 4 numerieren –, gibt es genau sechs Möglichkeiten, zwei von ihnen zu kombinieren. Der vierdimensionale Raum besitzt also 6 Koordinatenebenen: die Ebenen 1–2, 1–3, 1–4, 2–3, 2–4 und 3–4.

Für jede der sechs Koordinatenebenen läßt sich durch eine quadratische 4×4-Matrix aus 16 Zahlen eine Drehung spezifizieren. Die sechs möglichen Drehmatrizen nennen wir *Rot* 12, *Rot* 13, *Rot* 14, *Rot* 23, *Rot* 24, und *Rot* 34. Der Benutzer des Programms muß den Namen der Matrix und den Drehwinkel eingeben, den die Matrix erzeugen soll. Beispielsweise bewirkt die Eingabe von „Rot 23“, gefolgt von „60“, eine Drehung um 60 Grad in der durch die Achsen 2 und 3 definierten Koordinatenebene.

Angenommen, wir beschränken uns auf Drehungen des Hyperwürfels in der dritten und vierten Dimension, welches die geheimnisvollsten aller Drehungen sind. Dabei wird die Drehmatrix *Rot* 34 angewandt. Sie besteht aus Nullen, Einsen und drei weiteren Zahlen, gemäß folgendem Schema:

$$\begin{matrix} 1 & 0 & 0 & 0 \\ 0 & 1 & 0 & 0 \\ 0 & 0 & a & b \\ 0 & 0 & -b & a \end{matrix}$$

Der gewünschte Drehwinkel in Grad wird in der Variablen *Winkel* gespeichert. Die Zahlen a und b hängen von diesem Winkel ab: a ist sein Cosinus und b sein Sinus.

Die Regel zum Aufstellen der anderen fünf Drehmatrizen ist einfach. Die *a*s stehen jeweils auf der Hauptdiagonalen an Stellen, die den Dimensionen entsprechen, welche von der Drehung beeinflußt werden. Die *b*s befinden sich an den anderen Schnittpunkten der Zeilen und Spalten, die zu den rotierten Dimensionen gehören. Alle übrigen Ein-

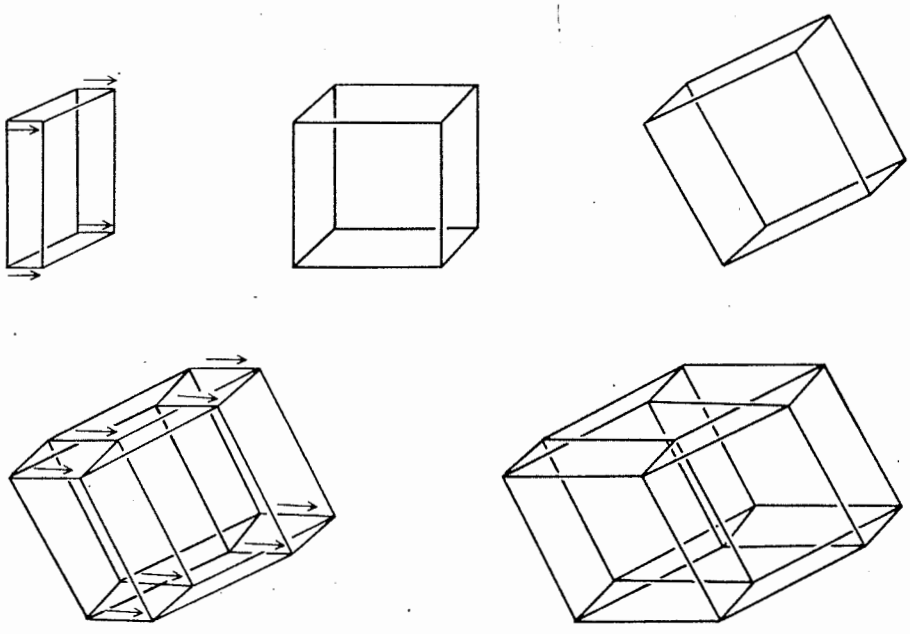


Bild 3: Übergang vom Quadrat zum Würfel und vom Würfel zum Hyperwürfel.

träge auf der Hauptdiagonalen sind gleich 1, und der Rest der Matrix besteht aus Nullen. *Rot* 13 sieht also zum Beispiel folgendermaßen aus:

$$\begin{matrix} a & 0 & b & 0 \\ 0 & 1 & 0 & 0 \\ -b & 0 & a & 0 \\ 0 & 0 & 0 & 1 \end{matrix}$$

Die gewünschte Drehmatrix wird von HYPERKUBUS in einem besonderen Feld namens *Dreh* angelegt. Das geschieht am besten mittels einer doppelten Schleife. Die innere Schleife berechnet dabei die Folge der Zahlen in einer Zeile der Matrix, während die äußere Schleife die Zeilen zählt.

Wie ändern sich bei der Drehung die Ecken-Koordinaten?

Zur Berechnung der Koordinaten des gedrehten Würfels wird die Matrix *Kubus* mit der gewählten Drehmatrix *Dreh* „multipliziert". Das Matrizenprodukt wird gemäß den Regeln der Matrizenmultiplikation berechnet, einer Standardoperation auf Zahlenmatrizen. Es besteht aus einer wahren Multiplikationsorgie, eingebettet in drei ineinander geschachtelte Schleifen, die ich weiter unten genauer beschreiben werde.

Das Produkt der beiden Matrizen wird temporär in einer Matrix *temp* gespeichert. Dieses Feld enthält nun die Koordinaten der Ecken des gedrehten Hyperwürfels.

Temp ist, wie *Ecke* und *Kubus*, eine 16×4-Matrix, bestehend aus 64 Zahlen. Es enthält die vier Koordinaten jeder der 16 Ecken des gedrehten Hyperwürfels. Jede Zahl *temp (i, j)* in der Matrix wird durch ein Paar von Indizes, i und j, bezeichnet. *Temp* (13, 3) ist beispielsweise die dritte Koordinate der 13. Ecke des gedrehten Hyperwürfels. Ihr Wert ergibt sich aus der Summe von vier Produkten von je zwei Zahlen, die auf genau definierte Weise aus den Matrizen *Kubus* und *Dreh* entnommen werden (Bild 6). Die innerste Schleife des Programms kann man also über einen Index k laufen lassen, der nacheinander die Werte von 1 bis 4 annimmt. Diese Schleife berechnet den Wert eines Eintrags von *temp*, das heißt, sie ermittelt eine neue Koordinate für eine Ecke des rotierten Hyperwürfels.

Diese k-Schleife bettet man in die mittlere Schleife ein, die über den Index j läuft. Die j-Schleife sorgt dafür, daß für Koordinaten der i-ten Ecke des gedrehten Hyperwürfels nacheinander die k-Schleife durchlaufen wird und dabei nach dem gerade beschriebenen Verfahren die neuen Koordinaten dieser Ecke

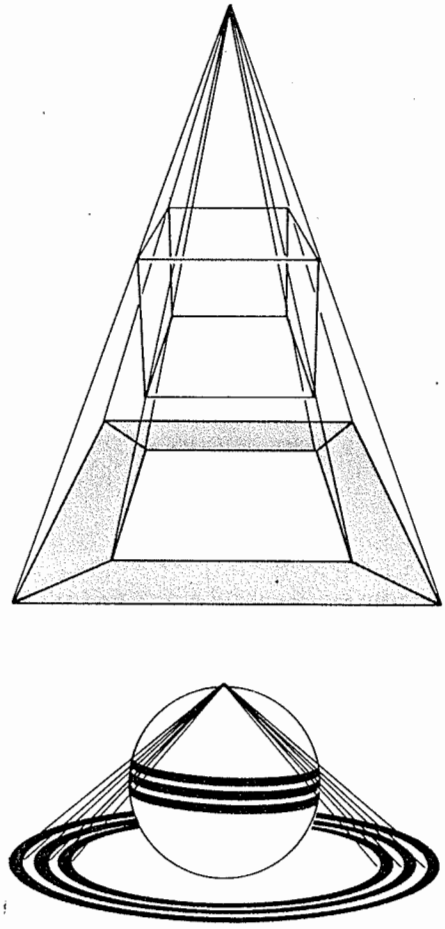


Bild 4: Projektionen von Würfel und Kugel.

berechnet werden. Sie füllt also alle vier Einträge in der i-ten Zeile von *temp*. Schließlich bettet man die j-Schleife in eine weitere – die äußerste – Schleife ein, die über i läuft. Die i-Schleife geht alle 16 Ecken des Hyperwürfels durch und läßt über die j- und k-Schleifen deren Koordinaten berechnen. Wenn sie abgearbeitet ist, enthält *temp* die Koordinaten aller Ecken des gedrehten Hyperwürfels in ihren neuen Positionen.

Um das Ergebnis auf dem Bildschirm darzustellen, brauchen wir eine weitere doppelte Schleife, die die alten Ortskoordinaten des Hyperwürfels in *Kubus* durch die neu berechneten Koordinaten aus *temp* ersetzt.

Projektionen des Hyperwürfels auf den Bildschirm

Ein Hyperwürfel hat vier Dimensionen, ein Bildschirm jedoch nur zwei. Es ist daher bequem, die ersten beiden Dimensionen oder Koordinaten des vierdimensionalen Raumes als Bildschirmkoordinaten zu verwenden und die beiden anderen einfach zu ignorieren. Ich werde zunächst diese Darstellungsart beschreiben und dann eine etwas raffiniertere skizzieren, bei der die dritte und vierte Dimension zumindest angedeutet werden und der Hyperwürfel in beinahe teuflischer Komplexität erscheint.

Um ein simples Gerippe des Hyperwürfels darzustellen, braucht das Programm nur die Kanten zu zeichnen. Da ein Hyperwürfel 32 Kanten hat, sind also lediglich die richtigen 32 Eckenpaare durch Linien zu verbinden. Aber in welcher Reihenfolge?

Es gibt fast unendlich viele Möglichkeiten (nämlich genau 32! = 263 130-836 933 693 530 167 218 012 160 000-000), und so ist die Antwort vielleicht eine Frage der Ästhetik und der persönlichen Vorliebe. Besonders elegant finde ich, die Kanten in der Reihenfolge eines Eulerpfades – so benannt nach dem deutschen Mathematiker Leonhard Euler – zu durchlaufen. Es handelt sich um Wege in einem Graphen, die man mit einem Bleistift zeichnen kann, ohne zwischendurch absetzen oder einen Abschnitt mehrmals durchfahren zu müssen. Aufeinanderfolgende Kanten eines als Eulerpfad gezeichneten Hyperwürfels haben jeweils eine Ecke gemeinsam.

Hoch und runter, hinüber und herüber jagt der Eulerpfad auf seinem Weg durch die Ecken. Hier ist einer, den ich besonders hübsch finde: Verbinden Sie die Ecken des Hyperwürfels in der folgenden Reihenfolge: 0, 1, 3, 2, 6, 14, 10, 8, 9, 11, 3, 7, 15, 14, 12, 13, 9, 1, 5, 7, 6, 4, 12, 8, 0, 4, 5, 13, 15, 11, 10, 2, 0. Diese Reihenfolge der Ecken wird in einer mit i indizierten Matrix namens *Pfad* gespeichert. Die i-te Ecke in der Folge von 33 Ecken ist also *Pfad (i)*. Zu jedem Wert von i muß das Programm die ersten beiden Koordinaten von *Pfad (i)* und *Pfad* $(i + 1)$ heraussuchen. Dann gilt es, mit dem auf Ihrem Rechner zur Verfügung stehenden Zeichenkommando die beiden Punkte durch eine Linie zu verbinden. Das Heraussuchen der Koordinaten und das Zeichnen werden in einer Schleife mit dem Index i erledigt, die dann von der entsprechenden Ecke einen Strich zur nächsten Station auf dem Eulerpfad zieht.

Nun zu dem visuell (und psychologisch) raffinierteren Darstellungsverfahren. Eine Standardmethode, die dritte Dimension des Hyperwürfels wiederzugeben, ist die Ein-Punkt-Perspektive. Dabei werden die Ecken so auf den Bildschirm projiziert, als wären sie die Schatten einer punktförmigen Lichtquelle, die in Bildschirmmitte in einiger Entfernung hinter dem Hyperwürfel sitzt. Die Schatten auf dem Schirm bieten dann praktisch eine Ansicht des Hyperwürfels von hinten, die sich aber

rein optisch nicht von der Vorderansicht unterscheidet.

Um den Effekt der Ein-Punkt-Perspektive in HYPERKUBUS zu erreichen, deutet man die dritte Koordinate einer Ecke als Entfernung zwischen dieser Ecke und dem Bildschirm. Je nach dem (positiven oder negativen) Wert dieser Koordinate liegt die jeweilige Ecke um den entsprechenden Betrag hinter oder vor dem Bildschirm. Ihre Position auf dem Bildschirm ist dann der Punkt, an dem die Verbindungslinie zwischen der Ecke und der imaginären Lichtquelle auf den Bildschirm trifft. In der Ein-Punkt-Projektion erscheint eine hinter dem Bildschirm gelegene Ecke also zum Rand hin und eine davor gelegene zur Bildschirmmitte hin verschoben.

Für diese Darstellung nutzt das Programm die Tatsache, daß in ähnlichen Dreiecken die Seitenlängen im gleichen Verhältnis zueinander stehen, um die ersten beiden Koordinaten einer Ecke in die zugehörigen Bildschirmkoordinaten umzurechnen. Befindet sich die imaginäre Lichtquelle zum Beispiel 20 Einheiten hinter dem Schirm, dann multipliziert es bei einer Ecke mit den Koordinaten (5, −7, 11, 8) die beiden ersten Koordinaten jeweils mit 20 und teilt das Ergebnis durch 20 − 11, also 9. Die Bildschirmkoordinaten sind somit (11.11, −15.56).

Wiedergabe der vierten Dimension

Ich hatte befürchtet, auf dem wenigen noch verbleibenden Platz ausführlich beschreiben zu müssen, wie man stereoskopische Bilder erstellt, um damit auch noch die vierte Dimension des Hyperwürfels sichtbar zu machen. Das allgemeine Verfahren zum Erzeugen solcher stereoskopischen Bilder ist nämlich recht kompliziert, und ich hoffe, später einmal einen ganzen Artikel auf seine Beschreibung verwenden zu können. Für das HYPERKUBUS-Programm aber haben Banchoff und seine Mitarbeiter glücklicherweise eine viel einfachere Methode angewandt.

Dazu erzeugt man zu jeder Position des Hyperwürfels ein neues Paar von Bildern, indem man den Hyperwürfel mittels *Rot*14 einmal um 3 Grad in der einen und dann ebensoweit in der anderen Richtung dreht. Die Dimension 1 verläuft parallel zur Verbindungslinie der Augen des Betrachters, und Dimension 4 ist das Ziel der Übung. Diese zwei kleinen Drehungen liefern eine nette Näherung dafür, wie das linke und

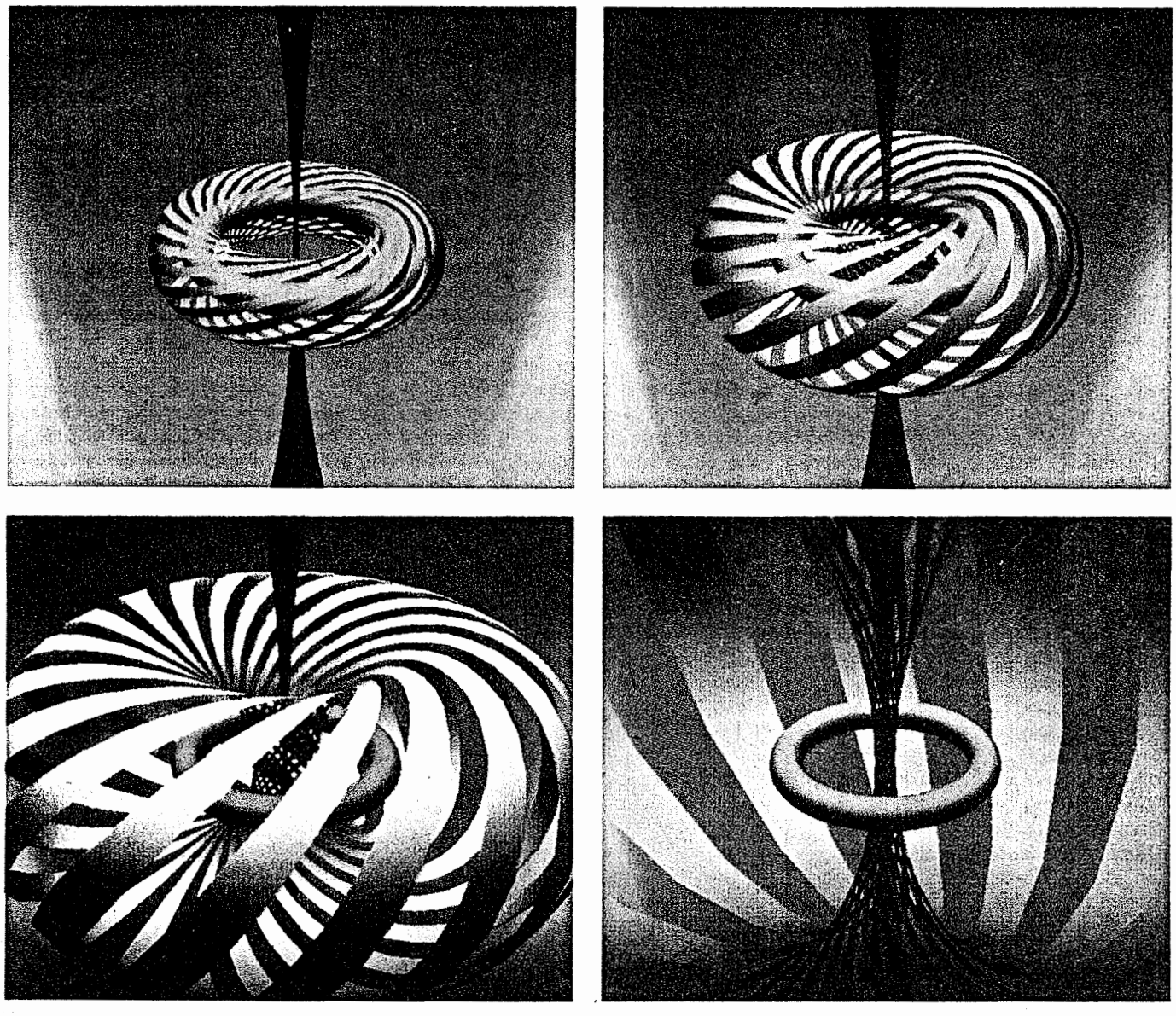


Bild 5: Dreidimensionale Projektionen einer vierdimensionalen Hyperkugel haben die Form ineinandergeschachtelter Tori, die den Breitenkreisen auf einer normalen Kugel entsprechen.

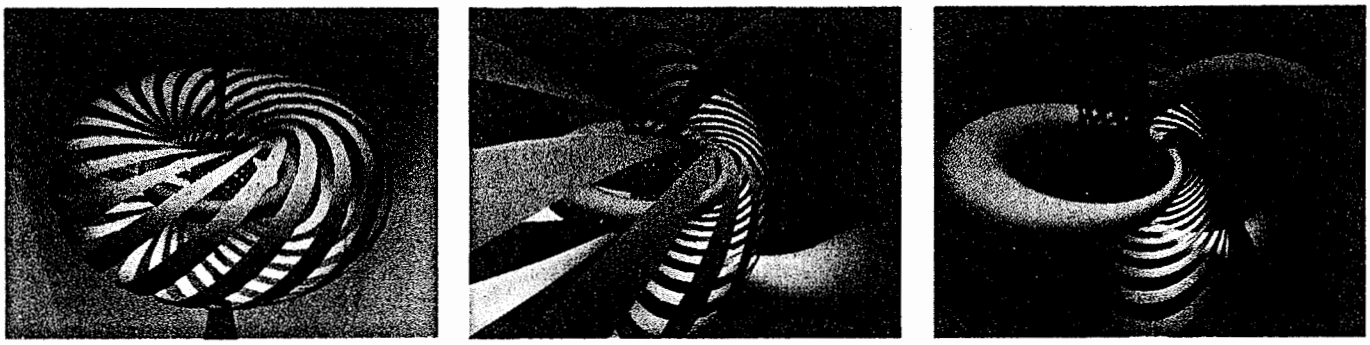


Bild 6: Ähnlich wie sich die ebenen Projektionen der Breitenkreise einer normalen Kugel bewegen, wenn diese gedreht wird, verschieben sich auch die ins Dreidimensionale projizierten Tori bei der Drehung einer Hyperkugel.

rechte Auge den räumlichen Hyperwürfel sehen würden: Stellen Sie sich einfach vor, daß sich die beiden Sichtlinien in der Nähe des Hyperwürfel-Mittelpunktes unter einem Winkel von 6 Grad treffen.

Wer die Faszination von 3-D-Filmen heraufbeschwören will, kann sich aus rotem und blauem Cellophan eine stereoskopische Brille basteln. In diesem Fall läßt man HYPERKUBUS zweimal laufen, für jede der beiden kleinen Drehungen einmal. Das Ergebnis der ersten Drehung zeichnet man in blau, das der zweiten in rot. Welche Farbe vor welches Auge gehört, braucht man sich nicht groß vorher zu überlegen, wenn man die Brille umkehrbar macht.

Ich persönlich schlage mich allerdings nicht gern mit Cellophan herum. Statt dessen habe ich gelernt, die stereoskopischen Bildpaare durch reine Willensanstrengung miteinander zu verschmelzen. Dazu muß man die beiden verdrehten Bilder etwas kleiner zeichnen und nebeneinander auf den Bildschirm bringen. Beide Bilder sollten dieselbe Farbe haben und nicht weiter auseinander liegen als die Augen des Betrachters. Starren Sie die Bilder nicht an. Schauen Sie statt dessen durch sie hindurch auf einen unendlich weit entfernten Punkt zwischen ihnen. Die beiden Hyperwürfel scheinen dann herumzutänzeln und sich wie ein schüchternes Liebespaar einander zu nähern, bis sie schließlich ganz eins werden.

Selbst wenn man die dritte und vierte Dimension bei der Projektion ignoriert, lassen sich mit HYPERKUBUS jedoch Bilder erzeugen, die denen in Banchoffs Graphik-Serie recht ähnlich sind. Durch aufeinanderfolgende Drehungen um kleine Winkel in der dritten und vierten Dimension kann man mit etwas Phantasie fast ebensogut sehen, wie sich die beiden eckigen Strich-Tori aufblähen, ablösen und neu bilden, wie das Banchoffs Bilder der sich drehenden Hyperkugel für runde, naturgetreu dargestellte Tori zeigen.

Erfahrungen und Erkenntnisse eines 4-D-Reisenden

Offenbar war HYPERKUBUS schuld am Verschwinden meines Freundes Magi. Vom glücklichen Ende seines 4-D-Wahns erfuhr ich ebenso wie von dessen Ausbruch per Telephon.

Diesmal war Magi selbst am Apparat und erzählte mir – kaum überraschend für mich – die tollsten Geschichten. „Wahrscheinlich hältst Du mich für verrückt", sagte er (diese Wendung ist immer eine verläßliche Warnung vor übertriebener Glaubensseligkeit). „Ich bin eben in der vierten Dimension herumgeschwebt. Ich sah einen Querschnitt meines Hauses vorbeiziehen. Dann bin ich näher herangekommen und habe meine Katze an den Nieren gekitzelt . . ."

Ich will Ihnen weitere Einzelheiten ersparen. Nach langem Hin und Her jedenfalls konnte ich Magi schließlich überreden, HYPERKUBUS nicht mehr laufen zu lassen und weitere Untersuchungen auf die geistige Ebene zu beschränken. Er hat meinen Rat befolgt, wie er sagt, behauptet aber, bei seinem Ausflug in die vierte Dimension viele herrliche Entdeckungen gemacht zu haben. Beispielsweise warf er zwei Fragen auf, die ich hiermit an Sie weitergeben möchte.

Stellen Sie sich einen Augenblick folgende Reihe von Objekten vor: eine Einheitsstrecke, ein Einheitsquadrat, einen Einheitswürfel und so weiter. Das n-te Glied dieser Folge ist das n-dimensionale Analogon des Einheitswürfels. Nun führen Sie an diesen Objekten zwei Gedankenexperimente aus: Ziehen Sie in dem n-dimensionalen Würfel eine Diagonale, und beschreiben Sie dem n-dimensionalen Würfel eine n-dimensionale Hyperkugel ein. Die Diagonale erstreckt sich von einer Ecke zur gegenüberliegenden. Was passiert mit ihrer Länge, wenn n immer größer wird? Und was geschieht mit dem Volumen der Kugel für wachsendes n? Miteinander verglichen, scheinen Magis Antworten paradox. Ich werde sie im nächsten Monat verraten.

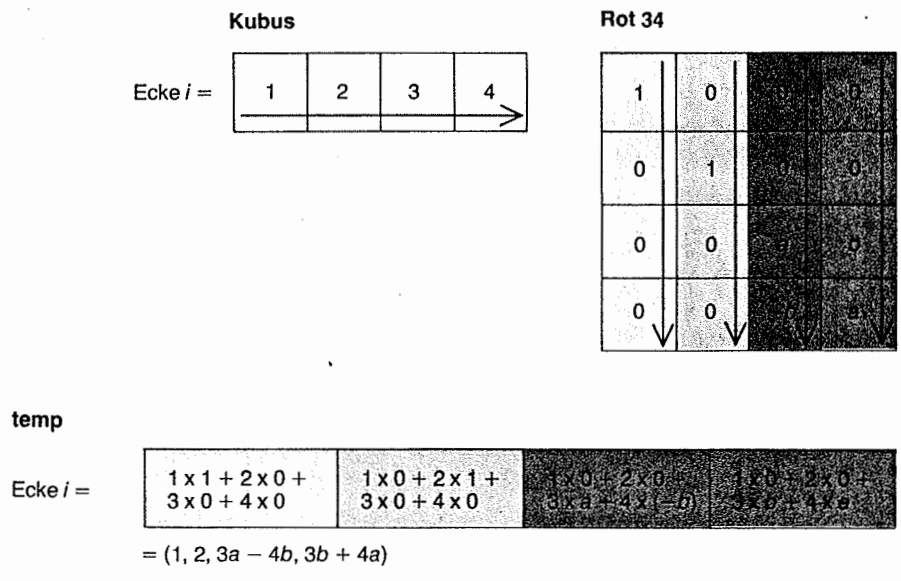


Bild 7: Drehung einer Hyperwürfel-Ecke in der von den Dimensionen 3 und 4 gebildeten Ebene.

Funktionen: Spitfire

Space	=	Blickrichtung (Fenster/Bockpit)
Z / X	=	Seitenruder links/rechts (Joystickregelung)
Q / W	=	Geschwindigkeit schneller/langsamer
F	=	Klappensteuerung
G	=	Fahrgestell ausfahren/einfahren
B	=	Bremsen ausfahren/einfahren
M	=	Kartenansicht
N	=	Kartenansicht des jeweiligen Standortes

Mit Joystick: Lenken und Feuern !

Anweisungen: Erst Bremsen 'B' lösen, dann 'K' drücken.
Mit 'Q' Geschwindigkeit erreichen, Warten !
Nach Abheben bis 800 Fuß Höhe gewinnen;
dann Angreifer abwehren und .....

RCD