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Personal Computer GAMES

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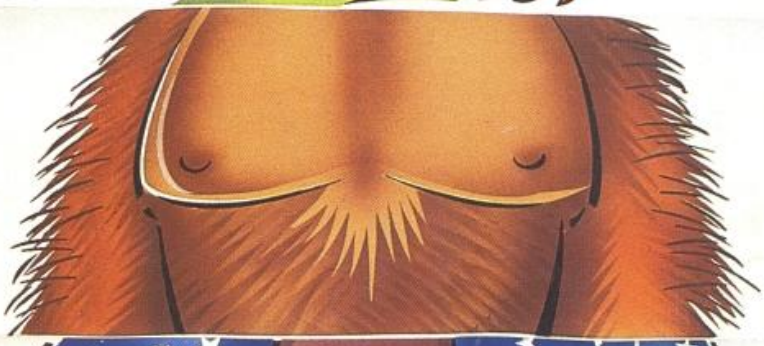
CREATE YOUR OWN MONSTERS

We compare new games designing aids

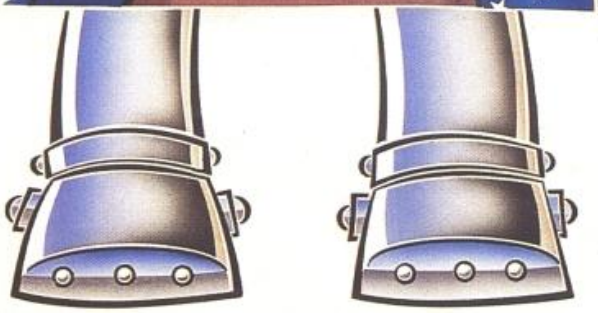


MEMOTECH- ULTIMATE GAMES MACHINE?

PAUL DANIEL'S COMPUTER MAGIC

HOW TO SUCCEED AT ADVENTURES

MORE THAN 70 GAMES REVIEWED



+PERSONAL COMPUTER GAMES

Oric hit...Commodore 64 Game-of-the-month...pull-out colour poster

fantasy SOFTWARE

THE PYRAMID is an arcade style game which has a very adventurous feel to it.

The Pyramid contains 120 chambers on 15 levels. In order to get from one chamber to another you must fight off the indigenous aliens to collect an energised crystal which will neutralize the force field guarding the two exits.

The Pyramid is inhabited by a total of 60 wierd and exotic alien types, all of which are beautifully animated. You will meet a whole variety of demons, droids, insects and monsters, with a sprinkling of the more unusual, the extra-terrestrial tweezers, galactic strawberry, cosmic claw, mutant eye, plus a whole host of entities that defy rational description. You will no doubt invent your own nicknames.

You proceed to explore the Pyramid from top to bottom with the difficulty generally increasing with the depth of level. Depending on the choice of exit from each chamber you are likely to have a different game every time you play.

Apart from the challenge of trying to achieve the highest score possible the pyramid contains a number puzzle to solve. The more chambers you successfully visit the more information is gathered to enable you to discover the secret numbers of the pyramid. The puzzle won't take you a few days to solve, it will probably take you a few months.

This is "ZIGGY". He is shown above in his exploratory capsule and is a true representation of the on screen graphics. You have total control over his movements as you explore the many chambers of "THE PYRAMID".

FANTASY SOFTWARE is available from W.H.Smiths, John Menzies and Computers For All

Compatible with all leading joysticks.

THE PYRAMID

For 48K Spectrum

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despatched by return first class post together with a membership number entitling you to discount on our forthcoming blockbusting software.
Trade Enquiries welcome – telephone 0242-583661

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We take a hard look at a range of new programs which let you invent your own graphics, monsters and action

102 MEMOTECH
The new MTX computers turn out to be impressive games machines

FIRST THE GOOD NEWS – THEN THE GOOD NEWS!

Yes, it's true! *Personal Computer Games* has gone monthly! Not only that, we've got bigger – take a look at our new *Good Buy* charts. Feast your eyes on the exciting *Game-of-the-Month* pull-out poster. And our mammoth 30 page *Screen Test* section.

All this *AND* we've actually *CUT* our cover price – to just 75p. So stand by your joysticks, folks. It's going to be a great year.

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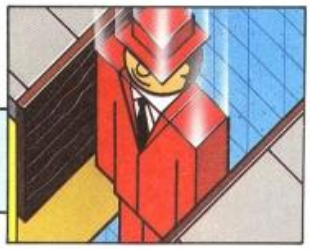
As if giving away programs on the cover wasn't enough, we're printing them inside as well!



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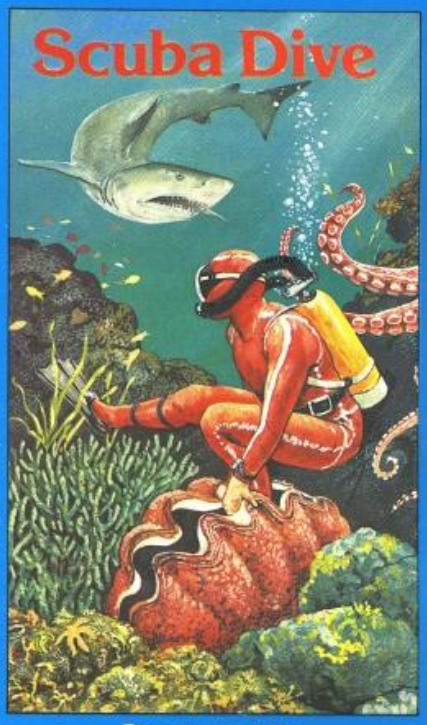
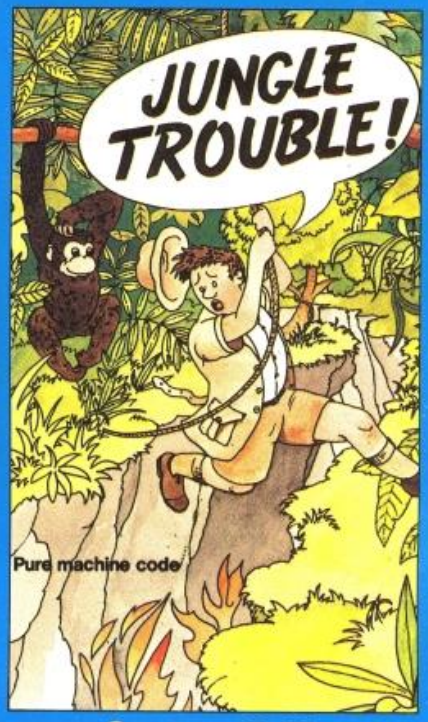


Spectrum 48k
Oric 16-48k
Commodore 64

Spectrum 16-48k
Oric 16-48k
Commodore 64, Atari



Spectrum 16-48k

Oric 48k

Oric 16-48k

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ALL THE LATEST NOISES IN THE HUMMING WORLD OF MICRO GAMES

CLIP-ON STICKS FOR SPECTRUM

Most Spectrum joysticks require electronic interfaces and a cash layout of around £30.

Now, two new mechanical joysticks are available, both clipping on to the keyboard directly above the cursor keys.

The sticks come from Grant Design and from EEC Ltd, and both cost £9.95.

These joysticks both work by mechanically depressing a cursor key when the joystick lever is pushed. Since they do not cover any other keys and clip on to the keyboard, the player is able to manoeuvre the stick with one hand while using keys with the other.

These sticks are, of course, only useful with programs having cursor key controls.

Grant Design's 'Spectrum-Stick' is robustly made and handles well, although you do have to push the stick quite far over to get the required effect.

The EEC stick is of similar design, but it broke before we were able to try it out.

'Spectrum-Stick' is available from: Grant Design Ltd, Bank House, Reepham, Norwich, Norfolk NR10 4JJ.

The EEC Stick is available from EEC Ltd, 1 Whitehouse Close, Chalfont St Peter, Bucks SC9 0DA.

SMITH LEAVES BUG-BYTE

Bug-Byte's top programmer Mathew Smith, author of best-seller *Manic Miner*, has left the company to form his own software house, Software Projects.

The new company is off to a flying start since Matthew has taken the rights to *Manic Miner* with him, and the game is now available from Software Projects in a slightly modified form.

Matthew Smith's co-founders, Alan and Soo Maton, are also Bug-Byte veterans. After Alan's rapid rise through the ranks at Bug-Byte – from despatch rider to marketing manager in a matter of months – it's not surprising that he now wants to run his own company.

Software Projects have been busy writing the follow-up escape of *Manic Miner's* hero, Willy. This is *Jet Set Willy*, with action in a cliff-top mansion bought with the loot from his mining activities.

Further programs include a version of *Manic Miner* for the Commodore 64 and a new program, *Crazy Balloons*, for the same machine.

New Spectrum programs will include *Push Off*, based on the arcade game *Pengo; McKensie*, a space adventure game, and *Thrusta*, a new shoot-'em-up.

COMMODORE 64 GAMES BONANZA

Games for the Commodore 64 are flooding on to the market in ever-growing numbers, reflecting the belief of program-writers that the Commodore 64 will be the machine of 1984.

More games are now being released or it than for any other computer except the Sinclair Spectrum, and some companies believe that even the Spectrum will eventually succumb to the rising Commodore tide.

Although the 64 is lumbered with a primitive version of Basic, this doesn't bother machine code programmers who can fully exploit its large memory, and state-of-the-art sound and graphics.

As a result, not only are new programs for the machine being released in large numbers, but they are also, in many cases, of outstanding quality.

A lot of the new games have been introduced from the United States where there are many more 64 owners.

Here's a sampling of the new games.

Taskset has two titles which, on first viewing, are extremely impressive. In *Jammin'* you have to stroll along to a catchy musical accompaniment and collect a series of musical instruments.

The beautiful touch here is that each instrument adds its own characteristic backing to the melody.

In *Pipeline* your aim is to build, yes, a pipeline, while being attacked by various evil nasties.

PSS is introducing five adventure games from America: *Metro Blitz, Cosmic Split, Krystals of Zong*, and *Neoclyps.*

Romik Software's new range for the 64 includes: *Dicky's Diamond*, in which you steal diamonds from a spider, and *Zappy Zooks*, a version of *Pacman.*

Meanwhile, Richard Shepherd Software has converted two of its Spectrum games: *Everest Ascent* and *Ship of the Line.*

Mondatta Ltd, a new entrant in the software scene, is to concentrate entirely on the 64. Its first two offerings are *Taxman*, yet another version of *Pacman*, and *Supercopter*, where you take part in a nine-level mission against an enemy base.

Another newcomer, Mogul Software, is releasing eight games (some of which are also available on the Vic 20): *Metamorphis, Kongo Kong, Zeus, Earthquake, Creator's Revenge, Super Trek, Pyramid*, and *Annihilator.*

And from Bubble Bus comes *Kick-off*, based on table football, and *Widow's Revenge*, a follow-up to its spider-destroying program, *Exterminator.*

There are also a large number of cartridge games being imported from America offering instant-loading, high quality games and prices to match. They include *Anteater* from Romox, *Neutral Zone* from Access, and *Miner 2049'er* from Reston Software.

MELBOURNE ADVENTURE

Melbourne House are due to launch their new adventure *Sherlock Holmes* in early February.

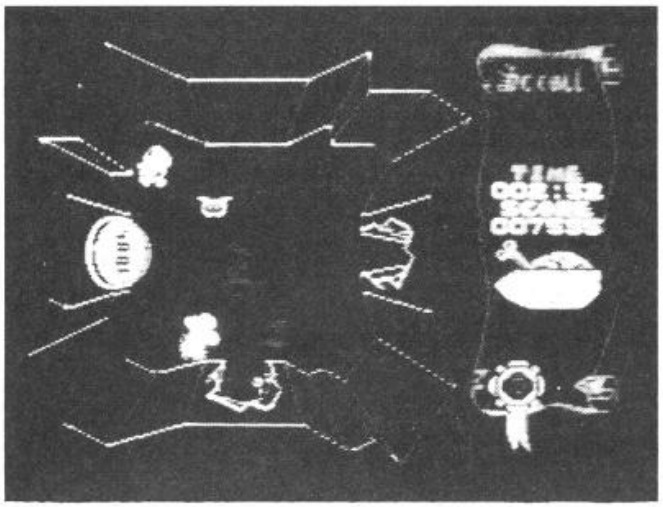
Following the huge success of *The Hobbit*, the company had hoped to produce a version of *The Lord of the Rings* but were frustrated by copyright laws.

Computer games rights are included with the film rights and these have already been sold to Warner Bros.

ATARI BREAKOUT

Ailing video giants Atari are hoping to make a financial recovery by converting their own and other companies' games for other big-selling home micros.

So Spectrum owners may soon be able to play a version of the original *Pacman* on 16K machines, Atari having bought the licence from world rights owners Namco.



VIDEO HORRORSHOW

Ultimate have now released another blockbuster game for the 48K Spectrum and the early signs are it's a winner.

Atic Atac is an adventure arcade game where the player is the unwelcome visitor to a castle packed with witches, ghouls, vampires, and other nasties. You have to escape by finding a golden key and enough food to keep yourself alive.

You can move through the castle's many rooms by means of doors, stairways, and magic trap doors. But everywhere you go the spooks materialise around you, and you have to destroy them with axe, spell, or sword – weapons which bounce around the room until they hit something.

The graphics in *Atic Atac* are quite superb – beyond even Ultimate's previous achievements, and the game itself is ingenious. It's likely to prove extremely challenging and addictive.

At £5.50, *Atic Atac* looks set to boost Ultimate's reputation even further.

HOBBIT RINGERS

The Hobbit, Melbourne House's top-selling Spectrum adventure, has now been converted for use on three other popular home micros the BBC Model B, the Commodore 64, and the Oric 48K. But let the buyer beware: only the Commodore 64 version is a faithful reproduction of the original program.

On the BBC, the game has lost all the graphic displays. The explanation given is that the text alone requires the whole of the BBC's available memory. So you still get one of the best adventures around, but no pretty pictures.

The Oric does have graphics, but the displays have only two colours, and not always the right ones at that. At the beginning of the game, the 'round green door' appears in shocking pink.

What is worse, the displays take so long to fill in that the player could find himself becoming a very frustrated little hobbit.

Despite these criticisms *The Hobbit* is still probably one of the best Oric games available.

The Commodore 64 version, though, is very similar to its Spectrum parent, having the same clear and colourful graphics, with the adventure following its usual weird pattern.

It will clearly be a great success in the booming 64 software market.

SOFTSEL 'HOT LIST' AWARDS

Major software distributors Softsel were in Las vegas recently to present their 'Hot List' awards to deserving members of the American computer industry.

Datasoft's *Zaxxon* took the prize for 'Hottest Product of the Year', but was kept on the hop in the recreational category by *Frogger* from Sierra-on-Line.

FIVE FROM THORN FOR SPECTRUM

Thorn EMI have released four titles for the 16K Spectrum: *Volcanic Planet, Gold Rush, Blockade Runner,* and *Road Racer.*

Also one for the 48K Spectrum, a version of *Frogger* – called *River Rescue.*

The programs cost about £7 each.

WHISPERING HORACE

Psst! Wanna hear the latest gossip?! Then keep your ears pointed in this direction...

Rabbit Software have been involved in a delicious tangle with the American company Fig-Tree who supplied them with a range of games including the popular *Annihilator.*

Only trouble was a lot of the games turned out to have bugs. And after an angry dispute between the two companies, Rabbit director Alan Savage loaded up his car with several thousand unwanted cassettes and dumped them in the office corridor of Fig-Tree's solicitor!

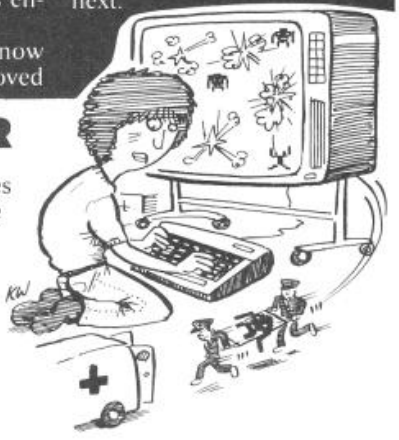
A spokesman for Rabbit told me: 'The matter has ended amicably.'

Incidentally, did you know that Rabbit have just moved into new offices themselves – at a place called The Warren! It's true!

I am **outraged** at the large number of companies who insist on advertising their wares and soliciting money from innocent people **ages** before the goods are actually available. I warn these companies: **stop** this dastardly practice – or Horace will start whispering...

My spies in West Germany tell me that the local pirates are even cheekier than we Brits are.

At the recent Commodore show there, I hear that a large queue of youngish persons formed at one particular stand, where they took it in turns to copy on to their private disks all the latest programs. Himmel! Whatever next.



TEN THOUSAND VISIT THE ZX MICROFAIR

The 9th ZX Microfair packed out the Alexandra Palace in December, with 140 exhibitors showing to over 10,000 Sinclair enthusiasts.

The show provided cast-iron proof of continued loyalty to Sinclair products, with major software houses eager to show off their latest games releases.

Among the stars of the show were *Krakatoa* from Abbex, a helicopter rescue game for the Spectrum, and *Android Two*, a 3D version of *Berserk* from Vortex.

Other exhibitions included Quicksilva, Mikro-gen, and Artic.

The next Microfair takes place at Alexandra Palace on 4 February, 1984 and organizer Mike Johnston expects it to be on an even larger scale than its predecessors.

... NOW PLAY THE GAME

Puffin Books are breaking into the software market with a group of adventure games in which you read the book and play the game at the same time.

The Korth Trilogy features three separate games, each accompanied by its own story, and set out in an illustrated paperback. Each pack costs £4.95.

Puffin have also produced a game based on *The Warlock of Firetop Mountain* – already a popular book for children. The game is available on its own for £5.50, or the game and the book together for £6.95.

RADOFIN HANDLE AQUARIUS

Distribution of the Aquarius home computer has been taken over by Radofin Electronics, following an agreement with Mattel.

Mattel are believed to have been disappointed with the machine's initial sales, and are now limiting their home electronics interests to the Intellivision range of products.

But Radofin believe there's still a bright future for the Aquarius, which remains the cheapest colour computer on the market.

An upgraded version of the micro-computer is due to be launched soon, with an Aquarius 3 coming mid-year.

MEAN STREETS

I've been playing a wonderful adventure called *Urban Upstart* from Richard Shepherd Software – featuring shops and pedestrian crossings instead of dwarfs and dragons.

The only trouble was when I attempted to TAKE SHELTER at a bus stop. The program replied that, not only couldn't I take shelter, I couldn't even lift it! Any of you who have met the astonishingly skinny Richard Shepherd will understand why he's sensitive about such matters of strength.

ISRAELITE ADVENTURE

The Rev. Peter Goodland, dubbed thev 'Video Vicar' by the *Daily Mirror* for his interest in computers, has just produced a new offering for Shards Software.

Called *Jericho Road*, it costs £5.75, and challenges you to survive the Roman occupation of Israel in the First Century BC.

The game is text-based, and if it all proves too much for you, Shards have set up a 'helpline' to get you out of the arena. A follow-up adventure, set in Galilee, is planned for next June.

New titles from **Alligata Software** include *Bugblaster* and *Lunar Rescue* for the Electron and three games for the BBC Model B: *Dambusters*, *Eagle Empire*, and *Contract Bridge*.

ORIC GAMES

Two new games for the Oric have recently hit the market. Tansoft's *Defence Force* is a space shoot-out game and features an error-checking mechanism designed to foil the Oric's infamous loading system.

House of Death, also from Tansoft, is a follow-up to their *Zodiac* adventure game and takes place on a disused film set, which you don't get to see since the program is in text only.

The two programs change hands for £7.95 and £9.99 respectively.

Further details from Tansoft, 645 Newmarket Road, Cambridge, CB5 8PB.

THIS MONTH'S TOP THIRTY

	GAME TITLE	PUBLISHER	SPECTRUM	VIC 20	CBM 64	BBC	ATARI	DRAGON	ORIC	OTHER
1	*ATIC ATAC*	ULTIMATE	●							
2	*VALHALLA*	LEGEND	●							
3	*LUNAR JET MAN*	ULTIMATE	●							
4	*SPLAT!*	INCENTIVE	●							
5	*HOBBIT*	MELBOURNE	●		●	●			●	
6	*MANIC MINER*	BUG BYTE	●							
7	*FLIGHT*	PSION	●							
8	*JET PAC*	ULTIMATE	●	●						
9	*3D ANT ATTACK*	QUICKSILVA	●							
10	*COMPUTER WAR*	THORN		●		●				TI
11	*GRIDRUNNER*	LLAMASOFT (SA, QS)	●	●	●		●	●		
12	*ARCADIA*	IMAGINE	●	●	●					
13	*METAGALACTIC LLAMAS*	LLMASOFT		●						
14	*CHUKKIE EGG*	A & F	●			●		●		
15	*HOVVER BOVVER*	LLAMASOFT			●					
16	*HORACE GOES SKIING*	PSION/MELBOURNE	●		●					
17	*KONG*	OCEAN	●							
18	*SIREN CITY*	INTERCEPTOR			●					
19	*SHEER PANIC*	VISIONS	●							
20	*ZOOM*	IMAGINE	●		●					
21	*HARRIER ATTACK*	MARTECH/DURRELL	●						●	
22	*HUNGRY HORACE*	PSION/MELBOURNE	●		●			●		
23	*BUGABOO*	QUICKSILVA	●							
24	*ORACLES CAVE*	DORIC	●							
25	*H-EXPERT*	ANIROG		●						
26	*H.A.T.C.*	HEWSON	●							
27	*CORRIDORS OF GENON*	NEW GENERATION	●							
28	*SKYHAWK*	QUICKSILVA		●						
29	*HUNTER KILLER*	PROTEK	●							
30	*PYRAMID*	FANTASY	●							

This chart is the most reliable you'll find in any micro magazine. It's based on sales from more than 100 shops plus figures from software wholesalers. Copyright MRIB computers, 1984.

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SPECTRUM

Game	Software House	RRP	Our Price
Manic Miner	Bug Byte	5.95	4.95
Hall of Things	Crystal	7.50	6.50
Dungeon Master		7.50	6.50
Invasion of Body Snatchas		7.50	6.50
Rommel's Revenge		7.50	6.50
Sea Harrier Attack	Durrell	5.50	4.50
Jungle Trouble		5.50	4.50
3 D Space Wars		5.95	5.50
Arcadia	Imagine	5.50	4.49
Ah Diddums		5.50	4.49
Zip Zap		5.50	4.49
Zzoom		5.50	4.49
Stonkers		5.50	4.49
Valhalla	Legend	14.95	12.95
Penetrator	Melbourne House	6.95	5.95
Terror Daktil 4 D		6.95	5.95
Kong	Ocean	5.90	5.90
Armageddon		5.90	5.20
Rescue		5.90	5.20
Hunchback	Ocean	5.90	5.20
Mr Wimpy	Ocean	5.90	5.20
Scrabble	Psion	15.99	13.99
Flight Simulation		7.95	7.50
Xadom	Quicksilva	6.95	5.95
Aquaplane		6.95	5.95
Bugaboo Flea	Quicksilva	6.95	5.95
3D Ant Attack		6.95	5.95
Gridrunner		4.95	5.95
Panic		5.95	5.25
Hopper		5.95	5.25
Krazy Kong		5.95	5.25
Light Cycle		5.95	5.25
Transylvanian Tower	Richard Shepherd	6.50	5.25
Super Spy		6.50	5.25
Devils of the Deep		6.50	5.25
Firebirds	Softek	5.95	4.99
Monsters in Hell		5.95	4.99
Jet Pac	Ultimate	5.50	4.50
Atic Atac		5.50	4.50
Pssst		5.50	4.50
Cookie		5.50	4.50
Tranz Am		5.50	4.50
Lunar Jet Man		5.50	4.50
Pool	CDS	5.95	4.95

VIC 20

Game	Software House	RRP	Our Price
Frog Run	Anirog	5.95	4.95
Krazy Kong		7.95	7.00
3 D Time Trek		5.95	4.95
Vic Asteroids	Bug Byte	7.00	5.99
Cosmiads		7.00	5.99
Vic Panic		7.00	5.99
Vic Scramble		7.00	5.99
Arcadia	Imagine	5.50	4.75
Wacky Waiters		5.50	4.75
Catcha Snatcha		5.50	4.75
Jupiter Defender		6.00	5.25
Vic Rescue		5.00	4.15
Jet Pac	Ultimate	5.50	4.75
Metagalactix Llamas	Llamasoft	6.00	4.99
Lazer Zone		6.00	4.99
Matrix		6.00	4.99
Gridrunner		5.00	4.50

DRAGON 32

Flight Simulator		7.95	6.95
Star Trek		7.95	6.95
Grand Prix	Salamander	7.95	6.95
Night Flight		7.95	6.95
Everest		7.95	6.95
Gridrunner		7.95	6.95
Monsters	Softek	7.99	6.95
Transylvanian Tower	Softek	6.50	5.50
Ugh	Richard Shepherd	6.95	6.00
Leggit	Imagine	5.50	4.50

COMMODORE 64

Game	Software House	RRP	Our Price
Frog Run	Anirog	5.95	4.95
3 D Time Trek		5.95	4.95
Skramble 64		7.95	6.99
Kong 64		7.95	6.99
Hexpert		7.95	6.99
Moon Buggy		7.95	6.99
Panic 64	Interceptor	7.00	5.99
Crazy Kong		6.95	5.95
Frogger		6.95	5.95
Sprite Man		6.95	5.95
Attack of Mutant Camels	Llamasoft	7.50	6.50
Matrix		7.50	6.50
Hovver Bovver		7.50	6.50
Grid Runner		5.00	4.50
The Hobbit 64	Melbourne House	14.95	12.95
Arcadia	Imagine	5.50	4.75
Purple Turtles	Quicksilva	7.95	7.00
Aquaplane		7.95	7.00

BBC/ACORN

The Music Processor	Quicksilva	14.95	13.25
Wizard		6.95	5.95
Mined Out		6.95	5.95
Games Compendium	Salamander	6.95	5.95
Graphics Package		24.95	19.95
The Hobbit	Melbourne House	14.95	12.95

ATARI

Game	Software House	RRP	Our Price
Krazy Kopter	English Software	14.95	10.99
Time Warp		14.95	10.99
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Competition puzzle

To solve the puzzle you must give the correct answer to each of the 13 clues listed below.

The number of letters in each answer in shown on the entry form.

The last letter of each answer is the same as the first letter in the following answer, and the last letter of answer 13 is the same as the first letter of answer 1.

Good luck!

Competition clues

1. Does ski-ing make him hungry?
2. Go inside and execute a command
3. After LOADing your program you move quickly
4. A command to ring out the old
5. This kid can program fast!
6. Shoot an alien
7. Push into memory
8. Bug
9. Just reading, remember
10. Life in Willy's uranium mine
11. Don't let your spaceship run out of this
12. That's not the right key
13. Your type of typing?

Rules

(1) The competition is open to everyone except employees of K-Tel or VNU Business Publications and their families. (2) The answers to the clues must be written on the official entry form printed on this page – photocopies of the form are unacceptable. (3) Only one entry per person is allowed. (4) All entries must arrive at the *Personal Computer Games* office by first post on 29 February, 1984. (5) After the closing date, the entries will be studied and 60 prizes awarded – 30 for the first correct entries for the Spectrum games, and similarly 30 for the Vic 20. (6) The editor's decision is final.

Here's a fantastic chance to win free games for your micro! We're giving away exciting new programs from K-Tel worth a total of £1,000.

Sixty prizes must be won – 30 sets of games for the Spectrum and 30 for the Vic 20.

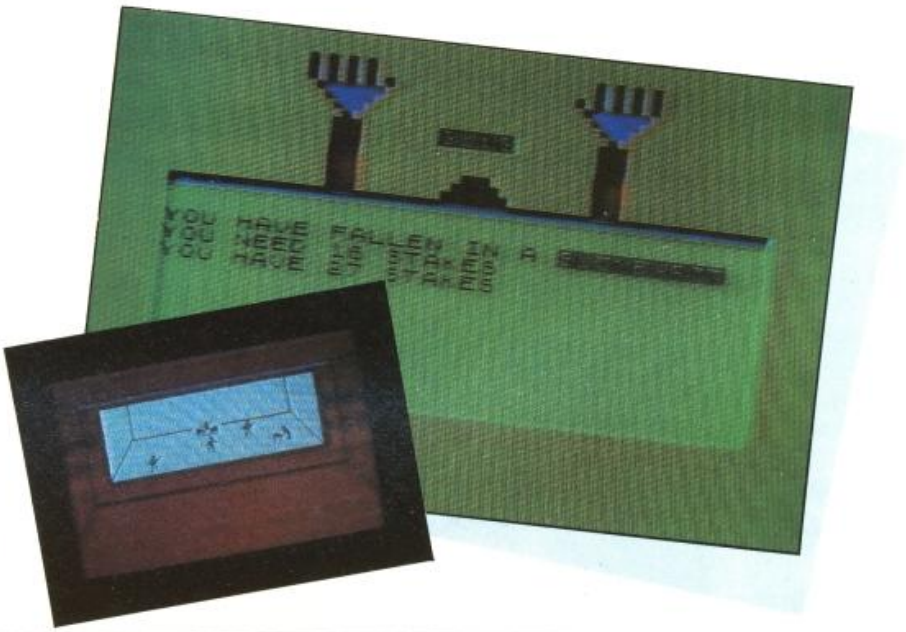
Each Spectrum set consists of three cassettes worth £6.95 each. They're K-Tel's newly released Double-siders featuring **two** games on each cassette. So each Spectrum prize-winner will get **six** games.

The games are: *It's Only Rock 'n' Roll, Tomb of Dracula, Battle of the Toothpaste Tubes, Castle Colditz, Alien Swarm* and *Arena*. The first four are for the 48K Spectrum, while the last two will also run on the 16K Spectrum.

Each Vic 20 prize consists of two cassettes with a total of **four** games. The games are: *Supavaders, Bomber Run, Plague* and *Alien Demon*. The last two need an 8K expansion.

To enter the competition, you must solve the puzzle below, complete the entry form, and send it to us before the closing date of 28 February, 1984.

The first 30 correct solutions we pull out of the hat for each machine will be judged winners.



COMPETITION ENTRY FORM

SEND TO: Competition, *Personal Computer Games*, Evelyn House, 62 Oxford Street, London W1A 2HG

Answers

1 _____ 2 _____ 3 _____ 4 _____

5 _____ 6 _____ 7 _____ 8 _____

9 _____ 10 _____ 11 _____ 12 _____ 13 _____

Name _____

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Which programs wanted (delete one) – Spectrum/Vic 20?

The following questions are not part of the competition, but if you answer them it will help us in planning future issues of the magazine.

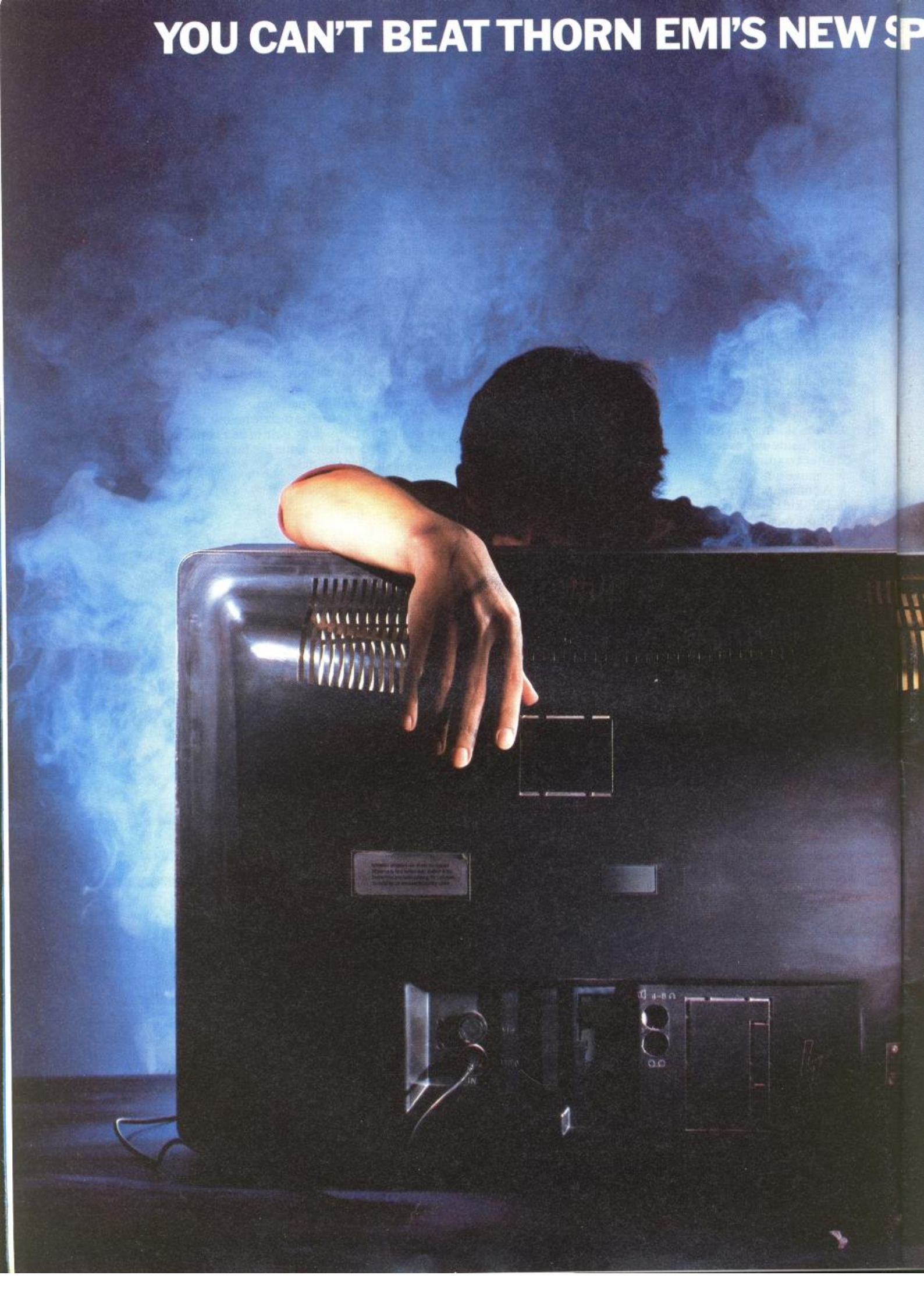
List of sections Buzz ● Byte-back ● Good Buy ● Screen Star ● Program Control Guardians ● Screen Test ● Game of the Month ● Paul Daniels interview ● Memotech review ● Spectrum graphics feature ● How to play adventures ● Program library ● Puzzles ● Competition.

Out of the list below of different sections in this edition of *Personal Computer Games*, which three did you like most?

(1) _____ (2) _____ (3) _____

which three did you like least?

(1) _____ (2) _____ (3) _____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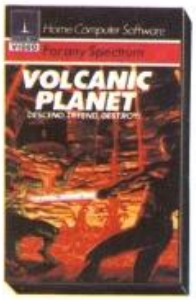
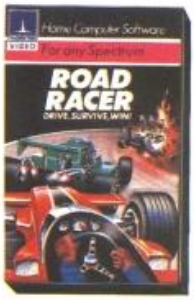


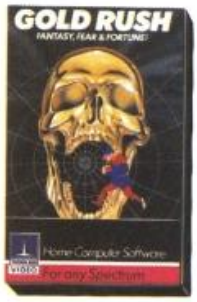
Unless you happen to be a genius, it could take forever to master them all.

So for around £6.95, you will really be getting your money's worth.

"Volcanic Planet" (on 16k) is a real scorcher. Plant a bomb on the volcanic plug in the evil Zeron underground Metropolis, and escape before red hot lava floods the city. Watch out for the Zeron's bone crushing slaves, they want to tear you apart. If your oxygen or power supplies run out, you're dead.



In "Road Racer" (on 16k) you'll find out if you're skilful enough to drive round a terrifying track at death defying speeds, and reach the black and white flag in one piece.



"Gold Rush" (on 16k) is no walk-over either. Underneath the eerie planet of Oron is a vast cavern full of gold and demons.

You have to get the gold and the deadly demons have to get you.

In "Blockade Runner" (on 16k) the earth is under siege and you must get life-saving supplies through.

When you've avoided the dense meteor shower, the moving laser barriers, the space mines, the tractor beam units and the alien warships, you'll be good enough to try the other 5 skill levels.

"River Rescue" (on 48k) is a runaway success on other formats. It's now available on Spectrum. You'll have to navigate the wildest and most dangerous river on earth in a powerful patrol-boat. But keep a sharp look-out for the killer crocodiles. They haven't eaten all day.

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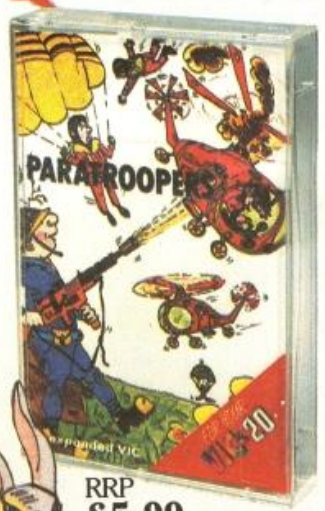

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BYTE-BACK

EAGLE EYE

Having now seen two issues of *Personal Computer Games*, I get the impression you are having difficulty in finding reviewers who can get their facts right.

Permit me to point out a few errors.

Issue 2, p.46: *3D Bomb Alley* – the score you get for each plane does not vary with its distance when you hit it; it depends on the size of your fleet.

Same issue, same page: in *3 Deep Space* you do not see the alien ships in perspective on account of the 3D glasses – you see them stereoscopically. There is a considerable difference.

Also, the game comes with full instructions contrary to the assertion made in the review. They are on the back of the printed cover sheet.

I hope your attitude is not that people will buy anything about computer games, and that therefore there is no point in maintaining standards of quality or accuracy.

Roger Musson, Edinburgh.

What an outrageous suggestion Mr Musson. We go to great lengths to ensure that our reviews are as accurate and authoritative as possible.

Of course, if something does slip through it's simply wonderful to get thoughtful readers like yourself putting us right. Keep it up!

Incidentally, I think you'll find the ratings system we've introduced this issue is the most informative and reliable anywhere.

HIGH-SCORING HORACE

I would like to bring to your attention a bug in the 16K game on the Spectrum *Hungry Horace*.

There are four levels and on the third and fourth levels when you go to ring the bell, if you only touch the clanger it will ring and keep ringing.

This then affects the score by 400 each time. When you get to 10,000, your score goes back to zero and when you get your high score, it doesn't include the 70,000.

Andrew Symes, Somerton, Somerset

A spokesman for Psion said: 'This bug was discovered almost as soon as the game was released. Our response is that if you want to score hundreds of thousands of points using this method you can – but it'll get pretty boring.'

No kidding.

If anyone else has come across bugs in programs or has any tips on how to run up huge scores, why not achieve instant fame by writing to us?

LISTING BUGS

I am writing to say how useful and interesting I found your magazine.

However, when I came to try to program my 16K Spectrum for the game *Blaster* by Alan Green I was very disappointed.

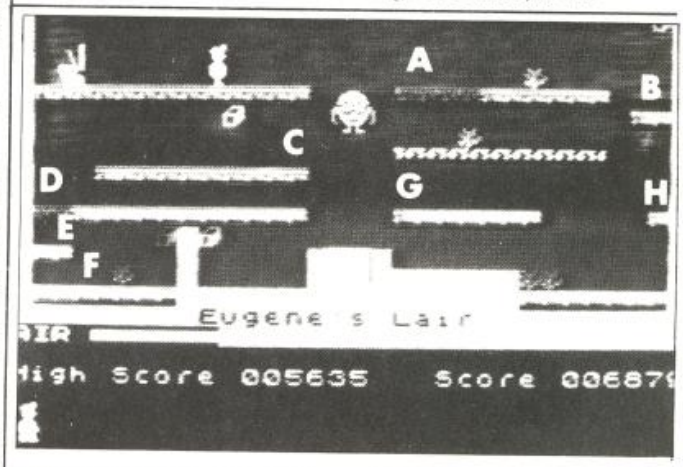
Firstly, the quality of the printing was very poor, especially punctuation marks and arithmetical signs, which proved difficult and on occasions impossible to decipher.

Secondly, there were a few actual printing errors, which surely should have been checked before the magazine was issued.

S M Short, Tamworth.

Too true. So from this issue onwards all our listings will be printed directly using a printout from a working version of a program.

This should squish the bugs once and for all.



Manic Miner *is one of the most challenging games for the Spectrum, and Stephen Ames of Norwich is one of the few people to have successfully advanced through all 20 levels.*

Here's his advice on getting through level 5 – **Eugene's lair**.

Walk right at the beginning and jump over the toilet, and then with Eugene to A. Keep going right and jump over the plant.

Walk along to the end and jump right to get the first box and land in position B. Then wait for a few seconds until Eugene is just above the conveyor belt, on his way down, and then drop on to the conveyor belt. Jump over the plant, and over to C.

Jump over the toilet when it is under the second box (minding your head on the top toilet) and walk left along and drop down to D.

Drop again to *E* and again to the bottom. Walk a little left to about F to get a run up to jump over the plant.

When you are over the plant and have got the box, press left and jump *at the same time* to get out again (this is not easy at first). Jump up again on to E and again back to D.

Walk right to the end, and when Eugene is out of the way, jump over to G. Next, walk to the end and at the very last moment (it mustn't be too early) jump over to H. When you have the box, jump back again (also at the last moment) and walk back to G.

When Eugene is clear, drop down on to the wall and into the 'cage' is it? Jump out left and wait until Eugene is right at the top and then get the last box and get quickly back into the 'cage'.

If Eugene gets there before you he stays at the bottom and you can't get in, so you must be quick! Now comes the *Processing Plant...*

This method works if you do it properly. By the way, my best score is about 310,000; that was going through the 20 stages six times in one game.

Stephen Ames

WHAT SHOULD I BUY

I've just bought a Spectrum, but I'm confused by the number of programs available. How can I decide which to buy? Help!

C Anderson, Highbury, London.

Congratulations, you've written to the right magazine!

We can help in two ways. Our **Good Buy** *charts on pages 27-28 contain a list of recommended games programs for each of the main machines.*

Buy any of these and you won't go wrong (though you should check that the type *of game is what you want – arcade, adventure or whatever).*

Secondly, you can keep up with the huge number of games being released each month by reading our review section **Screen Test**. *You'll find all the information you need.*

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When questioned about this epidemic, a representative of DIGITAL FANTASIA, a company who are actively involved in research and development work on Mysterious Adventures said, "There is probably no cure for TIS other than mains failure, faulty RAM chips etc. which can be at best only a Temporary solution". "In the absence of a more permanent cure, I would advise TIS sufferers to submit to the Syndrome and obtain Mysterious Adventures from any sources available to them". "TIS is highly contagious and in view of the current Worldwide Epidemic, I would say enjoy it while you can, resistance is futile".

If you have a BBC Computer or a 48K SPECTRUM, you can obtain Mysterious Adventures direct from DIGITAL FANTASIA in any of the following dosages:-

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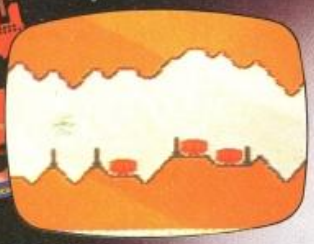
Personal Computer News (15-21 Sept '83) gave SUPER SKRAMBLE! an overall rating of NINETEEN OUT OF TWENTY and described it as: "Well implemented with beautifully smooth scrolling and very nice graphics."



SUPER GRIDDER
"... a compelling piece of frivolity that could give hours of fun." was the verdict of Personal Computer News (22-28 Sept '83).

SUPER SKRAMBLE!
"An excellent game" said Computer & Video Games magazine (Sept '83).

SUPER DOGFIGHT
The first 64 games cassette to have SIMULTANEOUS TWO-PLAYER ACTION – realistic sound effects too.

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A game of skill and anticipation in which you must dodge your way through asteroids to complete your mission.

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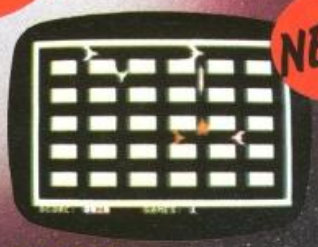

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Now available from leading computer stores.

A wave of new Spectrum programs allows you to design your own games and graphics. Stuart Cooke investigates

MAKING MONSTERS

The computer market is flooded with machines offering high resolution graphics, sound and joystick ports. It's therefore not surprising that a person who is learning a new computer language usually starts by trying to draw pictures on the screen or even attempting to program a game. This may be either one of their own design, or a copy of an arcade game.

Usually this results in disappointment because the game is too slow and objects jump around the screen; nothing like the smooth graphics in the arcades or even in the programs that come from the well-known software houses.

Software packages designed to aid graphic creation are now appearing on the market. These range from games designer programs to self-contained graphic languages which enable the owner of a home computer to produce games with something like arcade quality, including smooth graphics and good sound effects.

The Sinclair Spectrum, being one of the best selling micros in Britain at the moment, has perhaps the widest range of graphic software.

For the person who wants to design their own graphic games easily, Quicksilva have produced a menu-driven games designer program, unoriginally named *Games Designer.*

Quicksilva's claim that you get 'a lifetime of games in one package' is probably a little exaggerated. Nevertheless, for a person who wants to design his own games this package is an ideal introduction.

Games Designer is menu driven. This means that you need no programming knowledge at all to use it as you never have to write a single program statement.

When loaded, *Games Designer* automatically runs and the main menu is displayed on the screen, giving you a list of eight options. These are: *1* PLAY GAME, *2* SELECT NEW GAME, *3* ALTER SPRITES, *4* CONFIGURATION, *5* MOVEMENT, *6* ATTACK WAVES, *7* LOAD FROM TAPE, and *8* SAVE TO TAPE.

Option 1 allows you to play the 'current' game. The program automatically uses the cursor keys for movement, but it is possible to select other keys and even use a joystick.

The second option allows you to select one of the games included within *Games Designer.* There are eight of these, for example – *Attack of the Mutant Hamburgers* and *Halloween.*

Quicksilva claim that four of the games supplied with the program were designed by people with no programming expertise but, in fact, all were high quality.

The characters used in *Games Designer* are called sprites. Each sprite consists of a 12 x 12 square in which each dot can be either the foreground or background colour.

Option 3 lets you define your character on the 12 x 12 grid. There are 31 sprites in all and these are grouped as follows: 00–15 are the aliens; 16–23, player's ships or bases; 24, player's missile; 25, missile for the aliens; 26, spare (used for moving sprites around); 27, shield; and 28–31, explosion sequence.

All of the keys used to design a character are displayed on the screen making it very easy to design a character of your choice. Pictures overleaf and on page 17 show the 31 sprites from the *Halloween* game and one of these sprites being designed.

The configuration section allows you to choose the game format, screen colours, special effects and to define the sounds for the bombs and explosions.

Game format allows you to choose from *Invaders* type, *Asteroids* type, *Scramble* type and *Berserk* type of game.

The special effects select whether you have a blank screen or stars as the background (but no other choice is available). You can also select whether the aliens appear singly or in groups and whether a shield will protect your ship.

Defining a sound is simplicity itself. When you select the sound you want, the sound editor chart appears on the screen. This consists of five slide controls.

FREQ sets the pitch of the sound; RAMP 1 sets the speed at which the pitch increases; RAMP 2 sets the speed at which the pitch decreases; LEVEL sets the amount of pitch change caused by Ramps 1 and 2; and TIME sets the length of the sound.

Any change that you make to the controls can be heard by pressing the symbol shift key.

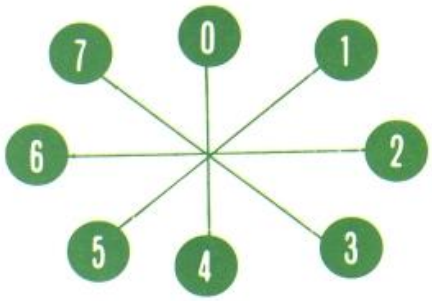
A wide range of sounds can be made by altering the slides and as much fun

MAKING MONSTERS

can be had defining the sounds as in playing the games themselves.

You can define the movement of the aliens or monsters by using the fifth option. This is a little limited as you can only move the character in any of eight directions following one of eight programmable movement patterns which can be linked to each other.

Basically the movement pattern consists of a series of numbers, each representing a certain direction as specified below.



So for example 0, 0, 0, 2, 2, 2 would move three units up then three right. As can be seen it's a little crude but nevertheless, some complex movement patterns can be designed.

When option 6 is selected the ATTACK WAVES chart will appear on the screen. This screen allows you to choose which aliens appear on the screen, whether or not the aliens are animated, the score value and speed of the aliens and which movement pattern they follow.

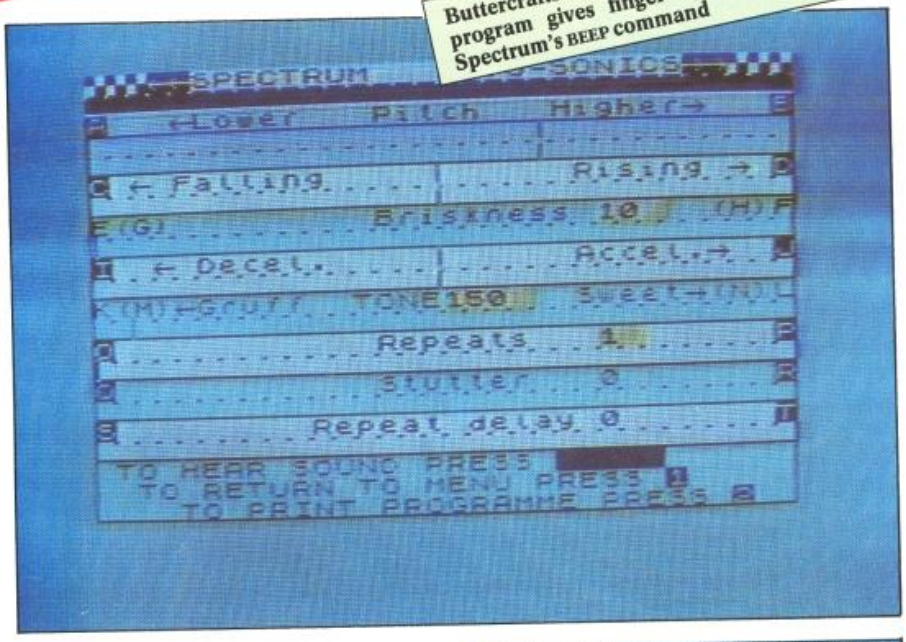
As previously mentioned this option is used to animate the sprites and it is possible to 'chain' together either two or four slightly different sprites, this enables you to make wings flap or eyes move, for example.

The main problem with *Games Designer* is that even though you can redefine the graphics and the movement patterns, the games designed are all basically the same. If you choose the *Invaders* format what you get is essentially a game like *Space Invaders* with graphics that you have designed.

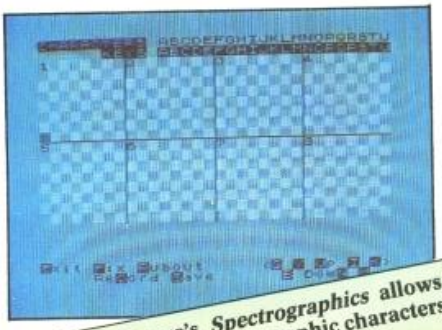
Another disappointment is that you can't define your own background. The only thing you can do is select the colour and whether you wish to have stars or not.

Despite these limitations *Games Designer* is simple and fun to use. It is possible to produce fast games with smooth graphics and good sound without having to know a thing about programming.

For the programmer who doesn't want the limitations of a menu driven games designer, such as the Quicksilva program, and who is willing to put a little more effort into his programming, two new 'graphic languages' have appeared for the Spectrum. *Fifth* from Computer Rentals Ltd (CRL) and *Scope* from ISP Marketing Ltd.



Buttercrafts' on screen 'sound synthesizer' program gives finger tip control of the Spectrum's BEEP command



Bridge Software's *Spectrographics* allows you to define up to eight graphic characters on the screen at the same time

The first of these packages, *Fifth*, is not so much a new language but rather an extension of Basic, giving the Spectrum owner another 25 commands. These new commands are placed within REM statements so that the Spectrum will accept the words and not reply with a syntax error.

Compared with some of its (dearer) rivals, one of the main disadvantages of the Spectrum is that it lacks sprites. A

The sprite table for the game *Halloween* supplied with Quicksilva's game designer program

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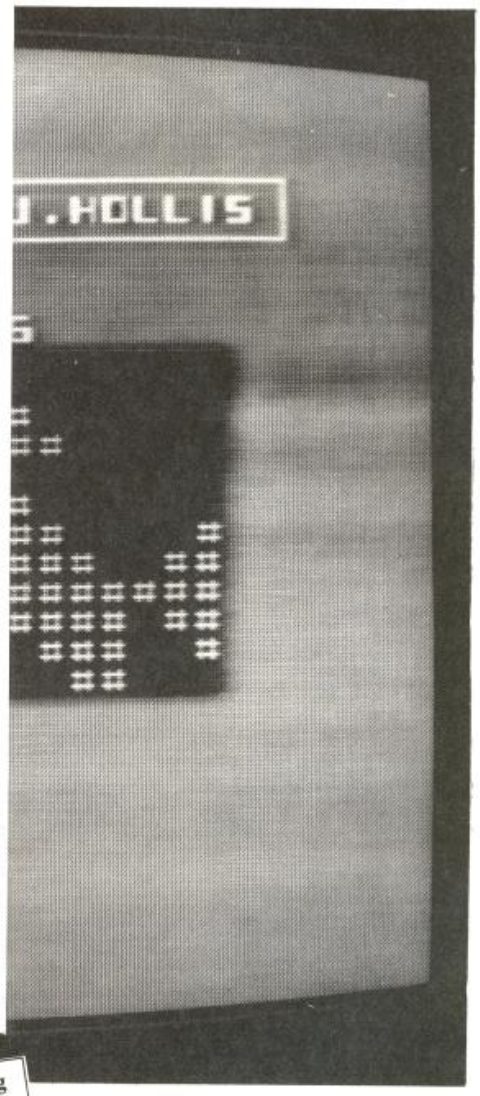

Sprite number 0 from *Halloween* being designed with the 'alter sprites' option

'sprite' is a user-defined graphic, that once set moving on the screen, will continue independently while the Basic program performs some other function.

It will only return to the Basic program if the sprite collides with another object or goes off the screen. With *Fifth* the Spectrum user now has access to sprites or rather to 'objects', the name given to sprites in this program.

An object can be defined as any of the Spectrum characters, both alpha-numeric and user-definable graphics. Once an object has been defined it's possible to set it moving in any of 16 directions using the VECTOR command to set the direction and then MOVE to start the object in motion.

Once it's moving the program can 'go away' and perform another function while the object 'glides' across the screen pixel by pixel on its own – an effect which is really amazing to watch! The SPEED command allows you to change the speed at which an object moves on the screen.

As well as commands to move 'objects' around the screen there are other graphic commands. For example FILL changes the ink and paper colours of the whole screen without clearing it, a function that is not possible in Basic.

REPLACE is similar in effect to FILL but is only changes a colour to another specified one. For example:

```
10 INK 0: PAPER 7
20 PRINT INK 0: PAPER 1
30 REM REPLACE
```

This will change all occurancies of black ink on blue paper to black ink on white paper.

Fifth also provides a new sound command, having no fewer than four parameters rather than the usual two. The effects that can be produced are simply amazing and are as good, if not better than the sound in commercial games programs.

The second of the two, *Scope*, unlike *Fifth* is a self-contained graphics language. A 'SCOPE' (Simple Compilation of Plain English) program is written within Basic in REM statements and is then COMPILED by the *Scope* program.

The *Scope* manual states that, 'SCOPE is primarily intended for high speed handling of graphics, colour, sound and animation', and fast it certainly is.

Scope offers 31 commands, nearly all of which have an equivalent Basic instruction, the difference being that *Scope* is much faster.

However, most of the commands only handle integer numbers in the range 0 to 255 and it is possible to set up variables (A to Z and a to z) with the VAR command.

Because there will be occasions when you need a larger number, for example to hold a score in a game, *Scope* also provides a BVAR (Big Variable) command which allows you to calculate and print numbers between 0 and 65535. A possible limitation of *Scope* is that variables can only be increased or decreased. There are no commands for multiplication, division or any scientific functions.

Scope is a structured language, which means that a program can be written in small separate sections, then tested as you write the program in. Later routines can then call up those which you have previously tested.

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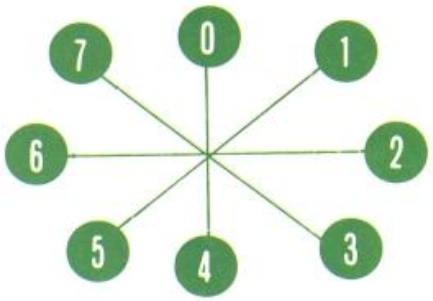
MAKI MONS

can be had defining the sounds as in playing the games themselves.

You can define the movement of the aliens or monsters by using the fifth option. This is a little limited as you can only move the character in any of eight directions following one of eight programmable movement patterns which can be linked to each other.

Basically the movement pattern consists of a series of numbers, each representing a certain direction as specified below.



So for example 0, 0, 0, 2, 2, 2 would move three units up then three right. As can be seen it's a little crude but nevertheless, some complex movement patterns can be designed.

When option 6 is selected the ATTACK WAVES chart will appear on the screen. This screen allows you to choose which aliens appear on the screen, whether or not the aliens are animated, the score value and speed of the aliens and which movement pattern they follow.

As previously mentioned this option is used to animate the sprites and it is possible to 'chain' together either two or four slightly different sprites, this enables you to make wings flap or eyes move, for example.

The main problem with *Games Designer* is that even though you can redefine the graphics and the movement patterns, the games designed are all basically the same. If you choose the *Invaders* format what you get is essentially a game like *Space Invaders* with graphics that you have designed.

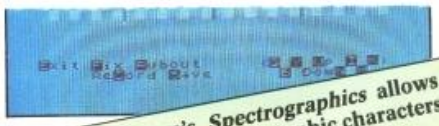
Another disappointment is that you can't define your own background. The only thing you can do is select the colour and whether you wish to have stars or not.

Despite these limitations *Games Designer* is simple and fun to use. It is possible to produce fast games with smooth graphics and good sound without having to know a thing about programming.

For the programmer who doesn't want the limitations of a menu driven games designer, such as the Quicksilva

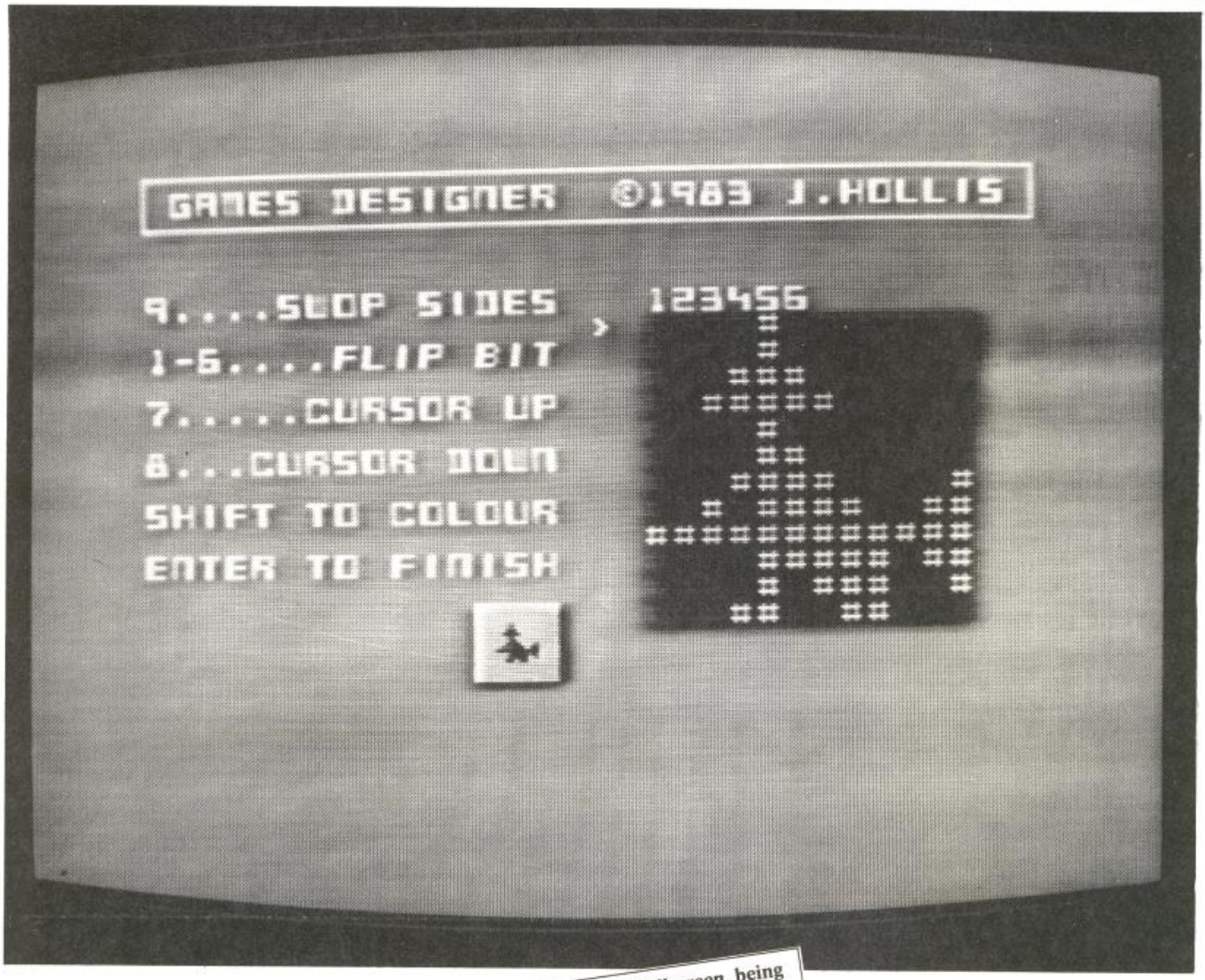
not so much a new language but rather an extension of Basic, giving the Spectrum owner another 25 commands. These new commands are placed within REM statements so that the Spectrum will accept the words and not reply with a syntax error.

Compared with some of its (dearer) rivals, one of the main disadvantages of the Spectrum is that it lacks sprites. A



Bridge Software's Spectrographics allows you to define up to eight graphic characters on the screen at the same time

The sprite table for the game Halloween supplied with Quicksilva's game designer program



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MAKING MONSTERS

For the serious programmer who wants to write fast games programs, (or any program which includes graphics) both *Scope* and *Fifth* deserve to be looked at. Both packages have their good and bad points but *Fifth* appears to be more flexible allowing you to use Basic as well as *Fifth* commands and to pass variables between the two.

As well as programs that enable you to write faster and smoother games programs, there are those that are invaluable to anyone wishing to produce a graphics display, be it for a games program or some other purpose. Two such programs are *Melbourne Draw*, produced by Melbourne House and *Spectrographics*, by Bridge Software.

Both these programs are 'sketch pads' which enable you to draw more objects on the screen. They each have their good and bad points, but one failing of both programs is that it is difficult to draw curves. It is only possible to move the 'pen' in eight directions.

Spectrographics has a built-in user definable graphic producer, making it easy to define your graphics characters, while *Melbourne Draw* allows you to save an area of the screen for graphic characters.

Another good feature of *Melbourne Draw* is its ability to enlarge sections of the screen, thus making it much easier to see exactly what you're drawing.

Both packages enable you to fill in an area of the screen with the current ink colour. If there are any holes in the object, the ink will leak out of the shape and spread all over the screen.

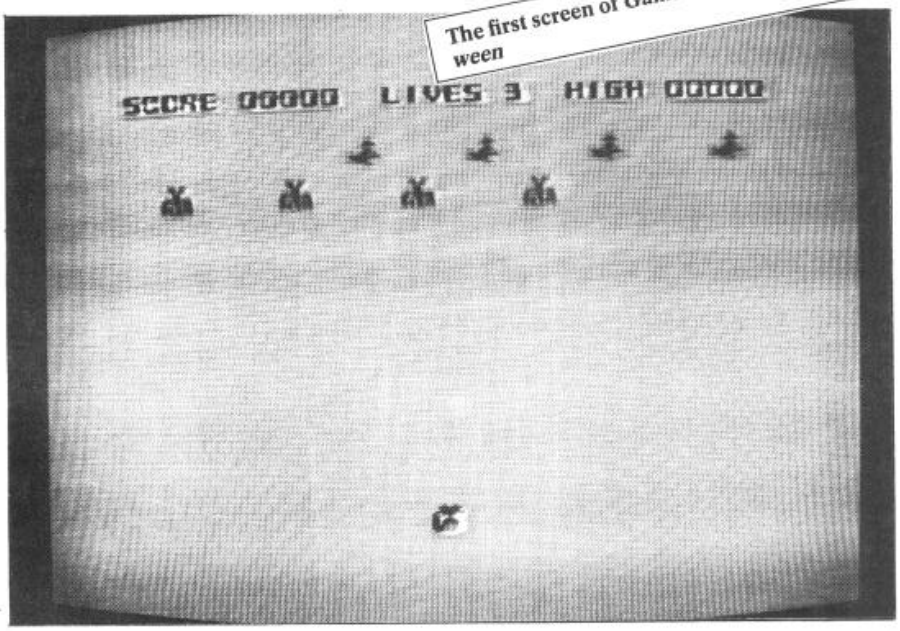
Melbourne House's program has a facility that allows you to stop the fill command, and return the screen to its original condition before the fill was started. However, with *Spectrographics* you will have lost your picture.

Melbourne Draw only has facilities to draw lines while *Spectrographics* allows you to draw boxes, triangles, and circles, automatically.

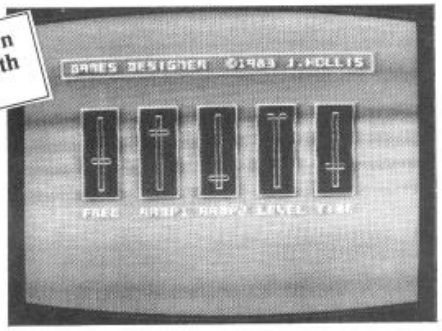
Both programs save time when designing any playing areas or other graphics for use in a program, though it would have been nice to draw curves easily.

Paintbox, a graphics program from Print 'n' Plotter Products offers similar facilities to *Melbourne Draw* and Spectrographics.

Paintbox allows you to define 84 user-definable graphics and is the only package seen that allows you to draw curves easily. All you need to do is specify the two ends of the curve and then enter a positive or negative number depending on the direction and strength of the curve.



The first screen of Games Designer's Halloween



Just move the sliders to create your own sounds for your latest game created with Games Designer

Unfortunately this program was received too late for this review to cover it in depth. First impressions are that it is a very comprehensive drawing/graphic design program offering some of the facilities that other graphics packages are missing.

Sound is a very important feature in any games program. With the Spectrum using the BEEP command in Basic, it's very difficult to get the sound you require. But with packages like *Scope* and *Fifth* it's possible to produce excellent arcade-type sounds.

Auto-Sonics from Buttercraft Software allows you to create the sound effect of your choice and then the program gives you the Basic statement to produce your sound. Auto-Sonics has 26 pre-programmed sound effects, including sounds such as a frog, pig and telephone.

An on-screen 'synthesizer' control panel allows you to modify any of the supplied sounds, or you can create your own. You can instantly hear the effect this has on any sound.

The control panel allows you to control such settings as pitch – whether the sound rises or falls – and the speed at which it does so. All alterations can be made by one key press, and all the necessary keys are shown on the screen.

It must be remembered that the sounds produced by this program are all from the Basic BEEP function, and therefore are not as good as a machine code program such as *Fifth*. Nevertheless, the sounds that *Auto-Sonics* produces are reasonable, and the Basic statement produced can be put into any program.

Auto-Sonics is an excellent program that allows you to create the sounds you want very easily.

The above programs are only a small sample of the aids that a games programmer can buy. All of them have their good points and their rough edges. Before buying any package, consider the cost, and check that it will perform the functions you're after.

You might find you need to use two programs, each offering similar facilities before you end up with the game that you require.

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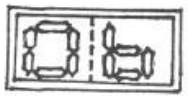

CABLE

THIS MONTH'S STAR INTERVIEW

Fast-dealing Paul Daniels proves quite a whizz with a joystick too. Now Britain's most popular TV magician is turning his talents to computer games designing, as Chris Anderson finds out

MEET THE MAN WHO EXCELS... AT ZAPPING ALIENS

Walk into Paul Daniels' London home and you'll notice pretty quickly that he likes computers. Not a lot, but he likes them.

For a start, there's a 48K Atari 800 with disk drives stacked on his desk along with piles of books, papers and junk.

Then there's his games controller, which he made himself by adding a base and an extra handle to an Atari joystick.

'It means you can play for four hours without getting uncomfortable,' he said. 'World manufacturing rights reserved.'

Finally – and this'll make you green – he has a TV projection system which

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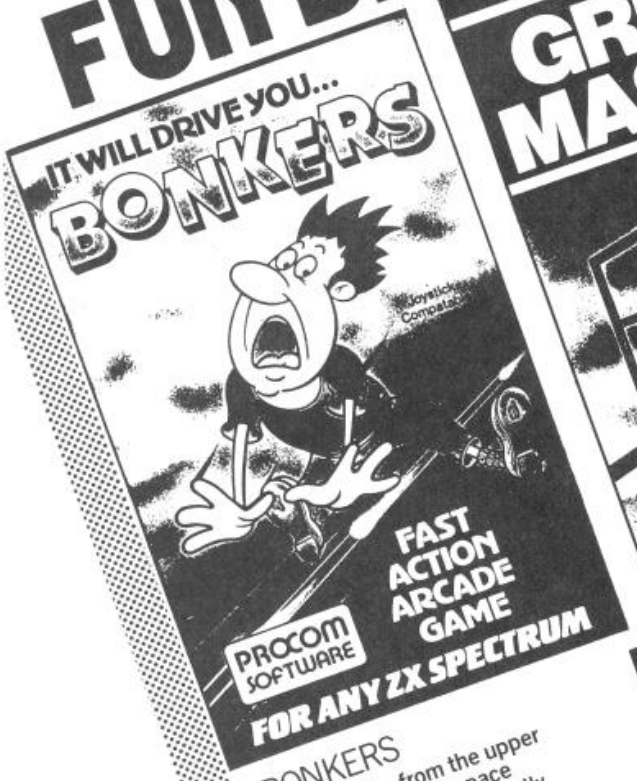

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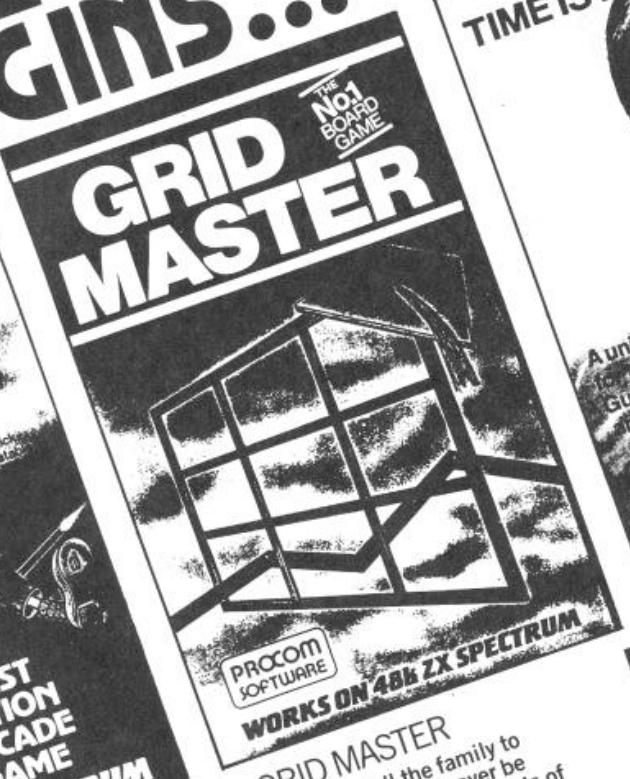

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PAUL DANIELS

allows him to battle alien forces across a five foot screen.

'What you do is pull the curtains to black-out the room, and then when you sit here, all you can see is what's on the screen.'

To prove the point, Daniels gave me a virtuoso performance on an undersea arcade shoot-out featuring a 12 inch submarine, and frighteningly large, explosive mines.

So how did Paul Daniels, Britain's best-known magician, get into computers?

It all stemmed, he says, from his love of making jokes about the people who help him out in his magic shows.

'A few years ago I started to get a lot of people on stage who were computer programmers.

'I pride myself at knowing a lot about most jobs. But suddenly this new job was appearing which I didn't know about.'

'I bought all the computer magazines, but none of them could tell me. They're not understandable those magazines.'

Paul's solution was expensive.

'I was in Guernsey, and I just walked into a computer shop and said to the man, "There's a thousand pounds. Sell me a computer".'

Daniels came away with an Atari disk system and a few add ons, and reckons he was incredibly lucky. Within a few months the light of computer comprehension began to dawn.

In the two years since then Paul has built up an enviably large library of games. His favourites are adventures, and early last year he came up with the idea of releasing one of his own.

He developed the idea with Beryl and Gil Williamson otherwise known as Amazon Systems. Thus it was that just before Christmas, that *Paul Daniels Magic Adventure* was released.

Paul demonstrated the game to me at some length. And it must be said that in

'I just walked into a computer shop and said to the man, "There's a thousand pounds. Sell me a computer".'

terms of other programs available these days, his game is no great shakes.

For a start, much of the program has been written in Basic, which means that despite the great length and loading time, the actual adventure is pretty simple. And those parts of the game featuring moving graphics are somewhat primitive.

But, as you might expect there are some delightful touches of humour in this adventure. For example, at the airport where you start off, you can pick up a leaflet, and if you have the imagination to OPEN LEAFLET and READ LEAFLET, you're rewarded, not with a clue, but an advertisement for Amazon Systems.

'The people I've watched playing the game keep bursting into laughter,' said Paul. 'That's the way it should be.'

After you've adventured for a bit, you should end up in a casino, whereupon the game switches into a simulation of roulette.

Then you begin a 'Magic Show', which in fact consists of a couple of pretty non-puzzling tricks with numbers. Paul's real magic shows are a good deal more entertaining – and cheaper to get into!

At the end of it all, Paul's son, Martin, is whisked away on a flying carpet and then kidnapped, in a bold attempt to persuade you to buy part two of the game.

Paul himself is planning to do more games in the future.

'I think that the next one will be a lot more puzzling – and funnier. But I don't have much time to spend on it at the moment – I'm a busy man, silly people keep coming to interview me.'

What about the future of computer games in general. Where does Daniels think it will all end?

'I think it's inevitable that eventually the computer games will be interfaced with holographic disks, to give real 3D. This means you'll be able to play space invaders with all the little aliens running round your sitting room.

'You can get the same effect today,' he added quickly, 'with a bottle of whisky.'

Paul Daniels Magic Adventure is available from Amazon Systems, 29 Hillersdon Avenue, Barnes, London SW13, priced £19.95 for cassette or disk. A joystick is required.

AGF PROGRAMMABLE JOYSTICK INTERFACE for Spectrum or ZX81

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ABOUT OUR INTERFACE

The AGF Programmable Joystick Interface is a unique design offering the use of any Atari-compatible joystick with absolutely all software, whether it is cassette or ROM cartridge, with the Sinclair Spectrum or ZX81.

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The key replication principle pioneered by AGF means that your own programs can use eight directional joystick movement by utilising simple key reading BASIC.

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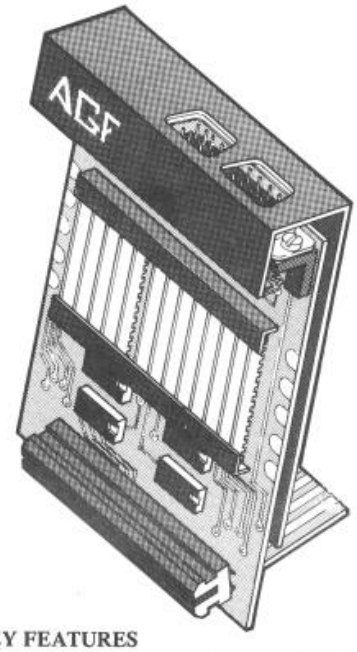

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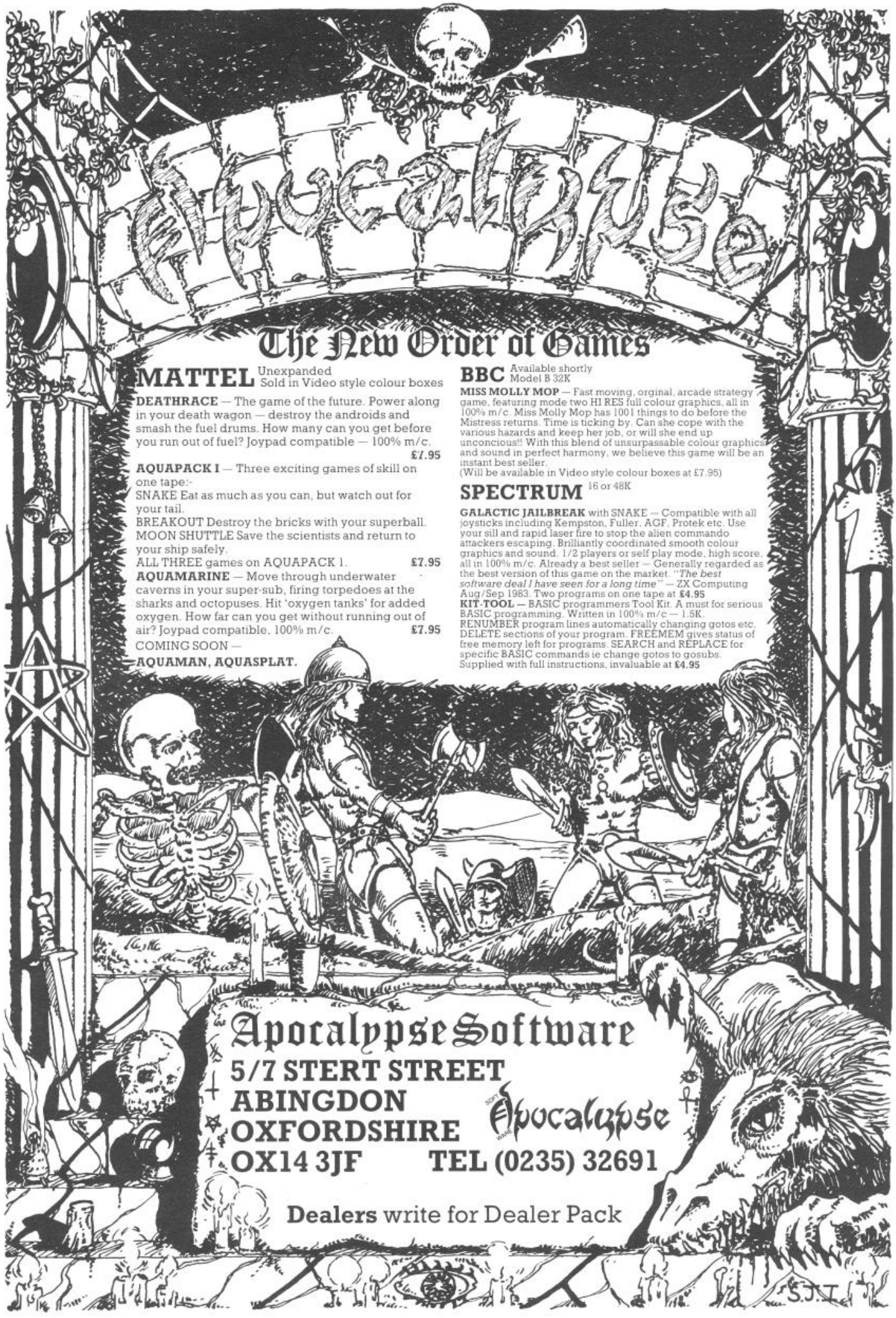
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TITLE	PRICE	SUPPLIER	COMMENT*
The Ultra	6.95	PSS	Multi-screen space game
Xenon	8.50	IJK	Exciting space shoot-'em-up
Zorgon's Revenge	8.50	IJK	Follow up to *Xenon* 1 with the flavour of the Spectrum classic *Manic Miner*
The Hobbit	14.95	Melbourne	Innovative graphics adventure based on Tolkein novel
Colossal Adventure	9.90	Level 9	First of a series of hugely complex text adventures
Mushroom Mania	5.50	Arcadia	Nice version of *Centipede*

SPECTRUM GAMES

TITLE	MEM REQD	PRICE	SUPPLIER	COMMENT
Wild West Hero	48K	5.90	Timescape	Arguably the best of nine versions of *Robotron*
Jet Pac	16K	5.50	Ultimate	Use your jet-powered man to assemble a rocket and avoid aliens. Many levels of difficulty
Jet Man	48K	5.50	Ultimate	The follow-up to *Jet Pac*. Superb – if you can find out what to do
Psst!	16K	5.50	Ashby de la Zouch	Use insect sprays to protect your plant from nasty bugs
Pheenix	16K	5.50	Megadodo	The closest version of *Phoenix/Pleiades* from the arcades, multi-screen space action
Manic Miner	48K	6.00	Bug-Byte	A Spectrum classic, with 20 different screens to guide your miner through
Missile Defence	16K	5.95	Anirog	The best of six versions of *Missile Command*
Firebirds	16K	5.95	Softek	A Galaxian derivative. Exciting space action
Zoom	48K	5.50	Imagine	3D view from a cockpit. Save refugees from attacking planes, tanks etc
Galaxians	16K	5.50	Artic Ltd	The best version of the space game *Galaxians*
Penetrator	48K	6.00	Melbourne House	The most sophisticated version of *Scramble* with 5 level action
Timegate	48K	7.00	Quicksilva	A superlative version of 3D *Star Trek* with a good measure of arcade action
Jumpin Jack	16K	5.50	Imagine	One of the simplest games written for the Spectrum, yet incredibly addictive
Scrabble	48K	15.95	Sinclair	A brilliant simulation with an 11,00 word vocabulary
The Hobbit	48K	14.95	Melbourne House	A wondrous graphics adventure, which takes you through the Tolkien book
Valhalla	48K	14.95	Legend	An innovative attempt at an animated, multi-character adventure
Cyrus Chess	48K	9.95	Sinclair	Arguably the best chess game on the Spectrum
Apocalypse	48K	9.95	Red Shift	Complex strategy war game
Maziacs		6.95	DK' tronics	Exciting maze game with nasty monsters
Colossal Adventure	48K	9.90	Level 9 Computing	First of a series of highly complex adventures with 200 locations

DRAGON GAMES

TITLE	PRICE	SUPPLIER	COMMENT
Wizard War	6.50	Salamander	Two player game of battling wizards
Franklin's Tomb	7.50	Salamander	An eventful text adventure
The King	8.00	Microdeal	Good version of Donkey Kong
Frogger	8.00	Microdeal	Nice version of the arcade classic
Crusader		J B Morrison Micros	Rescue the damsel in distress
Empire	6.95	Shards	Computer version of the board game *Risk*
Cuthbert goes Walkabout	8.00	Microdeal	Fill in the squares to get points
Nightflight	6.50	Salamander	
Storm Arrows	7.95	Dragon Data	

COMMODORE 64 GAMES

TITLE	PRICE	SUPPLIER	COMMENT
Matrix	5.50	Llamasoft	High speed grid game, *Centipede* derivative with unique features
Lazerzone	5.50	Llamasoft	Alien invader game with games on x, y axes
Gridrunner	5.50	Llamasoft	Predecessor of *Matrix*; fast and furious grid game
Attack of the Mutant Camels	7.50	Llamasoft	*Defender* type action with a jet fighter engaging deadly camels
Revenge of the Mutant Camels	8.00	Llamasoft	Follow-up to *Attack*, with camels fighting back and 42 screens
Cosmic Convoy	6.00	Taskset	Space game protecting your convoy from alien attack
Motor Mania	8.00	Audiogenic	A good road race game
Falcon Patrol	8.00	Virgin	An excellent fighter simulation with a scrolling 3D landscape
Quintic Warrior	8.00	Quicksilva	Grid game where guns on three sides try to trap you in crossfire
Hovver Bovver	8.00	Llamasoft	Suburban gardeners run riot with their mowers in a fast and witty game

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ATARI GAMES

TITLE	PRICE	SUPPLIER	COMMENT
Star Raiders	30.00	Silica Shop	A 3D space arcade-quality game
Defender	30.00	Silica Shop	The licensed version from Williams of the Arcade classic
Caverns of War	30.00	Silica Shop	A vertical version of *Scramble*
Missile Command	30.00	Silica Shop	This is the best and meanest version of the original
Zaxxon	28.00	Silica Shop	Space-fighter multi-stage game with asteroids and space fortresses
Donkey Kong	30.00	Silica Shop	An arcade copy, superbly done
Qix	30.00	Silica Shop	An intriguing territorial possession game with clear graphics
Preppie	22.00	Silica Shop	Multi-screen arcade adventure featuring a lawn mower and vicious opponents
Choplifter	30.00	Silica Shop	Exciting helicopter game, rescuing hostages
Miner 2049'er	30.00	Silica Shop	A *Donkey Kong* derivative with novel elements
Shamus	30.00	Silica Shop	Multi-screen arcade adventure game
Necromancer	30.00	Silica Shop	Wizard battles through several levels of mystic monsters

VIC 20 GAMES

TITLE	MEM REQD	PRICE	SUPPLIER	COMMENT
Lazerone	8K	6.50	Llamasoft	Alien invader game with guns on x, y axes
Matrix	8K	6.50	Llamasoft	High-speed grid game, *Centipede* derivative with unique features
Omega Race	Std	10.00	Vicsoft	*Asteroids* development featuring bouncing force-fields
Gorf	Std	10.00	Vicsoft	Four-screen arcade game with elements of many popular games
Spiders of Mars	Std	20.00	Audiogenic	*Defender* derivative with insect aliens
Satellites and Meteors	Std	20.00	Audiogenic	The definitive version of *Asteroids*
Choplifter	Std	25.00	Audiogenic	Exciting helicopter game, rescuing hostages
Serpentine	Std	25.00	Audiogenic	Variation of the *Pacman* theme, with gobbling serpents
Outworld	Std	25.00	Audiogenic	'State of the art' graphics for this *Missile Command* derivative
Space Fortress	Std	6.00	Romik	One of the best 3.5K shoot-'em-ups with multi-screen *Invader* type action
Gridrunner	Std	5.00	Llamasoft	Predecessor of *Matrix*; fast and furious grid game
Jet Pack	8K	5.50	Ultimate	Use your jet-powered man to assemble a rocket and avoid aliens
Myriad	6K	6.00	Vicsoft	Colourful, action packed shoot-up with 99 levels

BBC GAMES

TITLE	PRICE	SUPPLIER	COMMENT
Planetoid	10.00	Acornsoft	The definitive version of Defender
Arcadians	10.00	Acornsoft	An excellent version of *Galaxians*
Meteors	10.00	Acornsoft	Probably the best version of *Asteroids* for any micro
Snapper	10.00	Acornsoft	A fine version of *Pacman*
Rocket Raid	10.00	Acornsoft	A fine version of *Scramble*
Starship Command	10.00	Acornsoft	Space game with revolving ship and fragmenting aliens
Hopper	10.00	Acornsoft	Superb version of *Frogger*
Monsters	10.00	Acornsoft	The best version of *Space Panic*
Zalaga	7.00	Aardvark	The follow-up to *Arcadians* offering great gameplay
Road Runner	8.00	Superior	Car chase maze game
Cylon Attack	9.00	A and F	One of the best 3D space type games available
Colossal Adventure	9.90	Level 9	First of a series of huge text adventures with 200 locations

MICRO CLASSICS

*For games newcomers, here's a run-down of the most popular game types.

Scramble Pilot your ship over mountains, through caverns and around skyscrapers, avoiding missiles and meteors. *Defender* Fast-moving space game in which your ship does battle with all manner of aliens. *Asteroids* Destroy asteroids and alien craft using a highly manoeuvrable ship *Frogger* Guide the frog across busy roads and crocodile-infested rivers. *Galaxians* Development of *Invaders*, with the descending aliens cloning and wheeling off to the sides. *Donkey Kong* Climb ladders and jump over obstacles as you attempt to rescue the damsel from the clutches of the nasty gorilla. *Pac-man* Exciting maze game; eat the monsters or be eaten. *Missile Command* Protect your cities from the invaders by laying a protective covering of missile fire. *Space Panic* Defeat the monsters by bonking them on the head and knocking them through the different levels. *Centipede* Blast the centipede, which splits up as it drops down on you.

WHERE TO GET YOUR GAMES

Aardvark, 100 Ardleigh Green Road, Hornchurch, Essex
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Artic Ltd, Main Street, Brandesburton, Driffield YO25 8RG
Audiogenic, PO Box 88, Reading
Bug-Byte, Mulberry House, Canning Place, Liverpool L1 8JB
DK'tronics, Unit 2, Shire Hill Industrial Estate, Saffron Waldon, Essex CB11 3AX
Dragon Data, Kensig Industrial Estate, Hargan, Port Talbot, West Glamorgan SA13 2PE
LJK Software Ltd, 9 King Street, Blackpool, Lancashire
Imagine, Masons Buildings, Exchange Street East, Liverpool L2 3PN
J B Morrison Micros, 2 Glensdale Street, Leeds LS9 9JJ
Level 9 Computing, 229 Hughenden Road, High Wycombe, Bucks HP13 5PG
Legend, 1 Milton, Cambridge CB4 1UY
Llamasoft, Awesome Games Software, 49 Mount Pleasant, Tadley, Hants
Megadodo, 16 While Road, Sutton Coldfield, West Midlands B72 1ND
Melbourne House, 224 Stanley Road, Teddington, Middlesex TW11 8UE
Microdeal, 41 Truro Road, St Austell, Cornwall PL25 5JE
PSS, 452 Stoney Stanton Road, Coventry CV6 5DG
Quicksilva, 13 Palmerston Road, Southampton, Hampshire SO1 1LL.
Red Shift, 12C Manor Road, Stoke Newington, London N16
Romik, 272 Argyll Avenue, Slough SL1 4HE.
Salamander, 17 Norfolk Road, Brighton, East Sussex BN1 3AA
Shards, 189 Eton Road, Ilford, Essex 1GU 2UQ
Silica Shop, 1–4 The Mews, Matherley Road, Sidcup, Kent
Sinclair, Willis Road, Cambridge CB1 2AQ
Softek, 12/13 Henrietta Street, Covent Garden, London WC2E 8LH
Superior, 69 Leeds Road, Bromhope, Leeds
Taskset, 13 High Street, Bridlington YO16 4PR
Timescape, 1 Virginia Gardens, Fairways, Milngave, Glasgow G62 6LG
Ultimate, The Green, Ashby de la Zouch, Leicestershire LE6 5JU
Vicsoft, 675 Ajax Avenue, Slough, Berks SL1 4BC
Virgin, 61–63 Portobello Road, London W11 3DD

SCREEN STAR ★ SCREEN STAR

This month's selection from the *Good Buy* tables is a brilliantly original adventure with graphics, advanced language and real characters

THE HOBBIT

Your name is Bilbo Baggins, the hobbit, and you're about to embark on a fabulous quest to recover treasure from a dragon's lair.

To do it you'll be using one of the most remarkable programs yet produced on a home computer.

The Hobbit, now available on four different micros (see *Buzz*, page 6), is an improvement on the traditional computer adventure game in three different ways.

First there's the graphics. Instead of just text descriptions, many of the 30 adventure locations are depicted in beautiful high-resolution colour drawings.

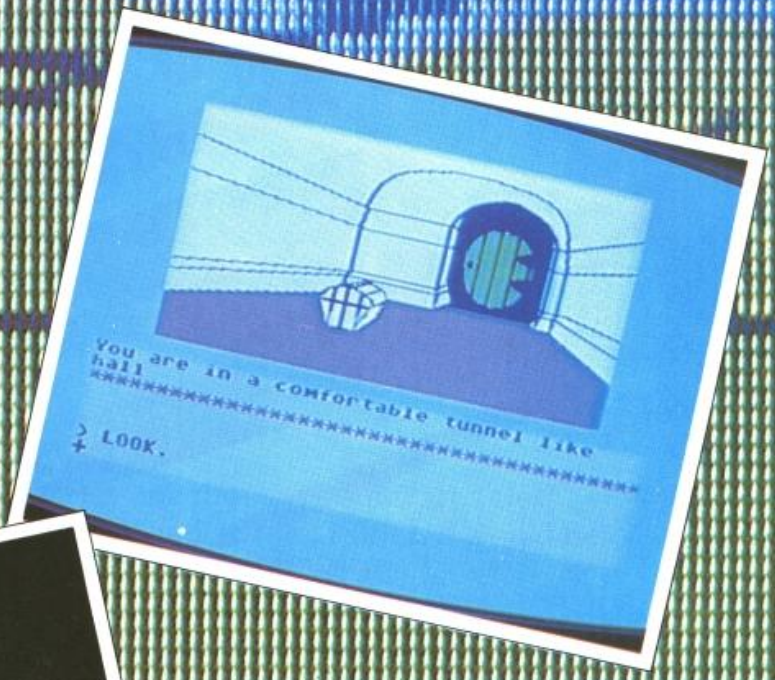
They're completely successful in capturing the atmosphere of Tolkien's book on which the adventure is based.

Then there's the introduction of different characters. In traditional adventures characters are usually tied down to a single location and are capable of doing only a single thing – which they do every time the game is played.

In *The Hobbit* an attempt has been made to give each character his own personality and he's free to move through different locations, interacting with Bilbo in many different ways. These vary from game to game.

If Bilbo isn't doing anything, the other characters probably are. To that extent the game is played in real time.

The third innovative feature of the game is its language-handling ability.



Whereas the usual mode of communication in adventures is in two word sentences, the authors of *The Hobbit* have developed a language called Inglish which is remarkably sophisticated.

Verbs can be modified by adverbs and nouns by adjectives instead of the command 'KILL ORC' you can say 'STRONGLY ATTACK ORC' or even 'ATTACK THE LARGE ORC VICIOUSLY WITH THE SWORD'.

You can also add indirect objects as in 'ATTACK THE LARGE ORC VICIOUSLY WITH THE SWORD'.

Finally, Bilbo can talk to the other characters, seeking advice or help. For example you can enter 'SAY TO GANDALF "WHERE IS THE CUPBOARD WITH THE SMALL KEY"'.

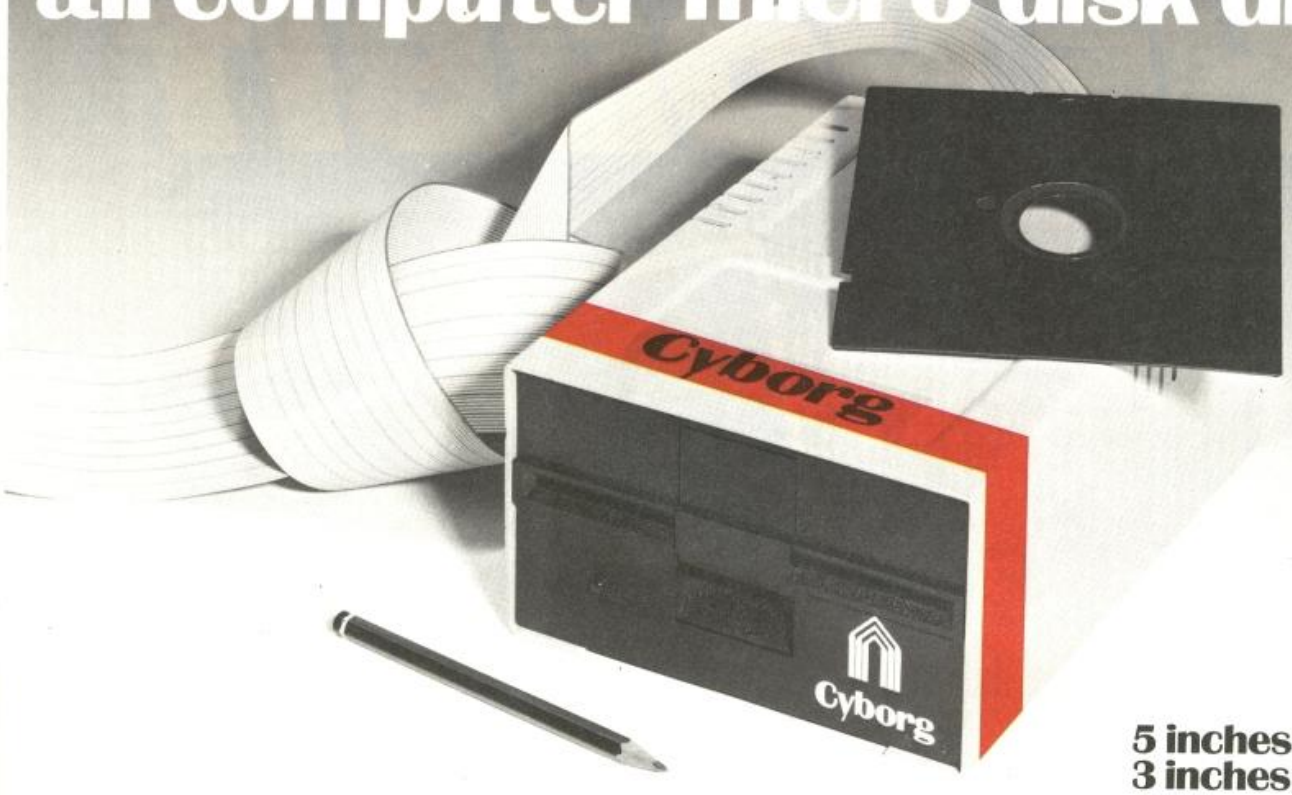
Other helpful program features are a score which tells you how much of the adventure you've completed, the ability to save and verify your current position on tape, and a very nicely produced instruction booklet.

The adventure is also faithful to the Tolkein story, and your only hope of solving it is to read this carefully – an act which should in itself give you considerable pleasure.

A copy of the book is included with the program, which costs £14.95 and is worth every penny.

Cyborg

I'm the first all computer micro disk drive



5 inches/720 k*
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3) Transportability: that incredible disk drive will hook up to any machine. Your text files can be read by any micro-computer. Just buy the personality module plus the system nucleus of the new brand, and there it goes! (personality modules available now: ZX81, SPECTRUM, and ORIC; others to come shortly) (ZX81, SPECTRUM trade marks of SINCLAIR RESEARCH Ltd ORIC trade mark of ORIC INTERNATIONAL

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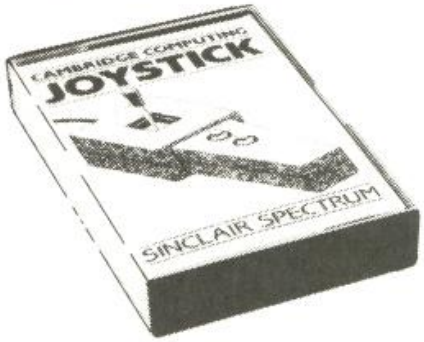

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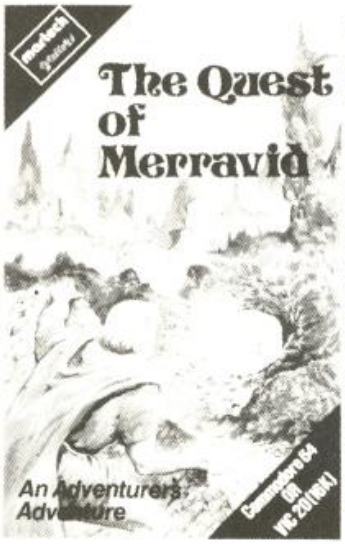

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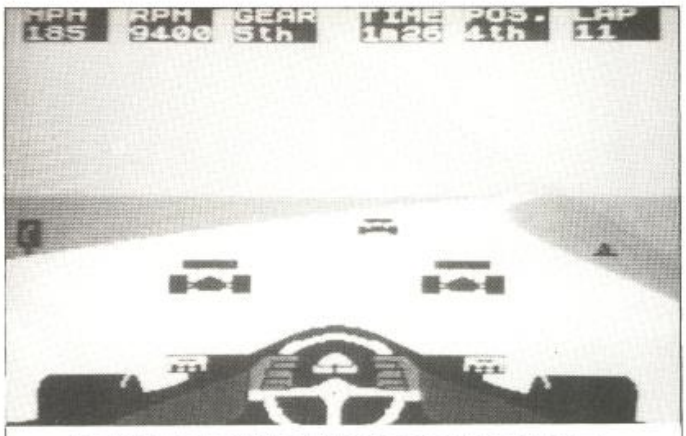

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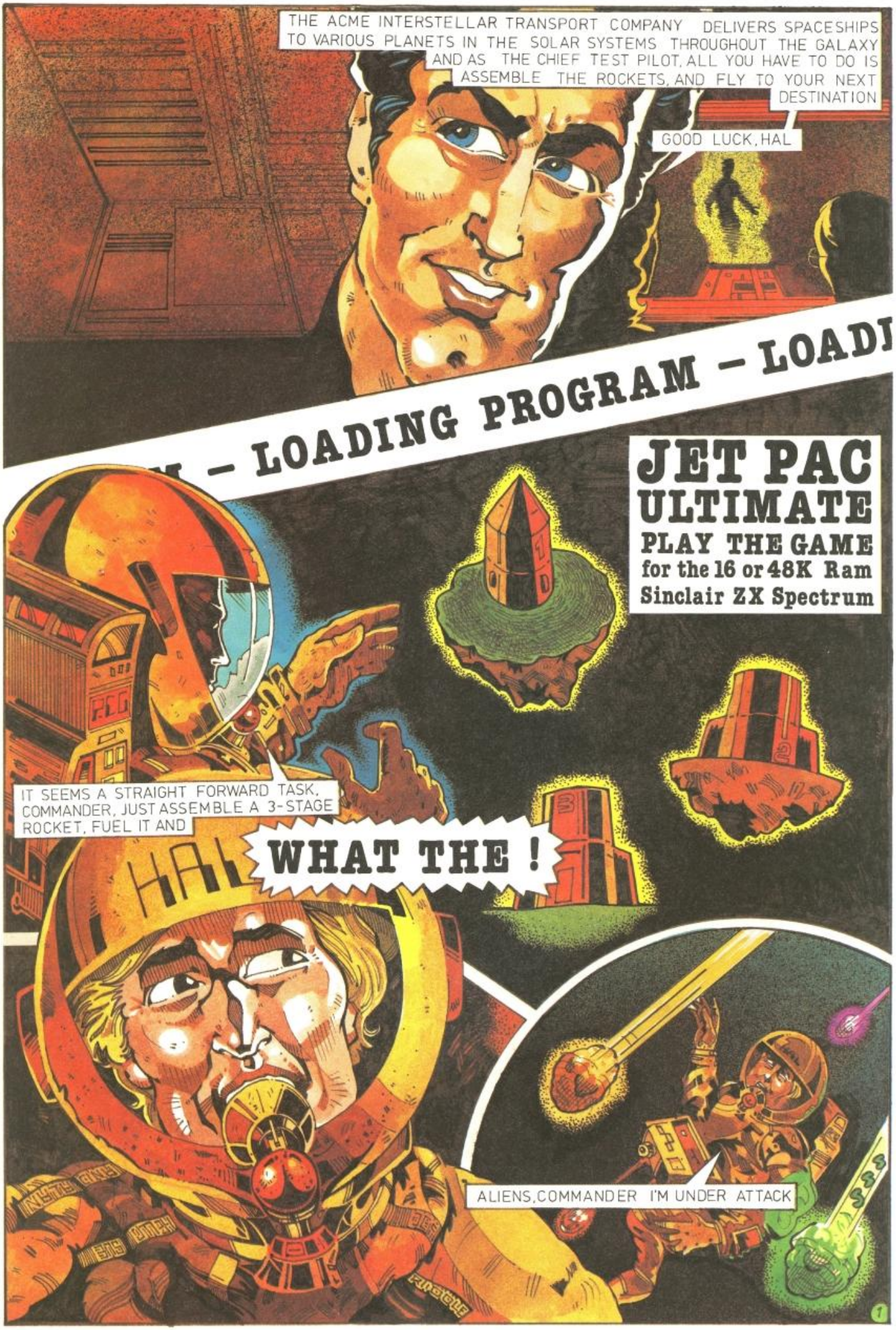
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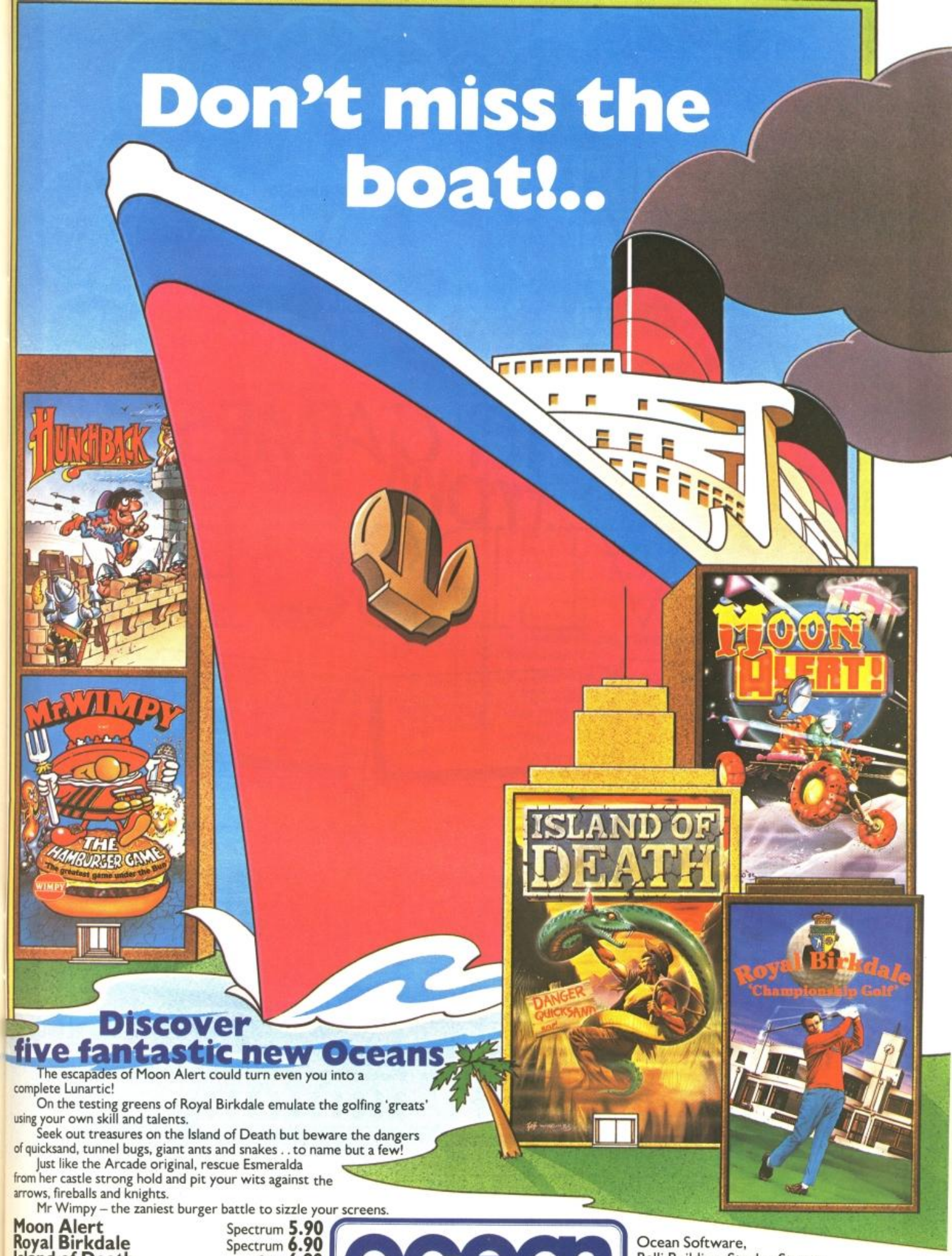

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SCREEN TEST

Each game in this section is carefully rated on six different points. Each rating is out of a maximum of 10.

Graphics and Sound are a measure of the extent to which that particular computer's capabilities have been exploited by the program.

Ease of Use covers the quality of the instructions and how easy it is to use the game's control keys. In an adventure game the helpfulness of the program's responses are taken into account.

To get a high *Originality* rating, a game must have a unique theme or unique features. In games like computer chess, this rating may be replaced by *Strength of Play*.

Lasting Interest is a measure of the game's addictive quality or its ability to provide a continuing challenge.

Overall takes into account all the above and also the price of the game.

SCREEN TEST PANEL

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Peter Connor
Kevin Jacobs
Wensley Dale
Steve Mann
Tony Harrington
David Janda
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GAME OF THE MONTH

Revenge of the Mutant Camels	p.82	Commodore 64

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The Pyramid	p.54	Spectrum
Zorgon's Revenge	p.58	Oric
International Soccer	p.70	Commodore 64

VIDEO NASTY

Owzat	p.79	BBC

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Killer Caverns	p.58	Oric

GAME: QUETZALCOATL
MACHINE: SPECTRUM 48K
JOYSTICK: NO
CATEGORY: MAZE GAME
SUPPLIER: VIRGIN GAMES
PRICE: £5.95

Aztec christening services must have been somewhat on the long side – this program is full of names like Huitzilopochtli, Tezcatlipoca, and the Quetzalcoatl of the title. These characters are the gods, some good, some bad, that populate this maze game, written by Gareth Briggs.

The story goes like this: captured by bandits and with your companions foully murdered, you are cast into Quetzalcoatl's temple, where Huitzilopochtli will give you a map and compass.

You must descend through the various levels, collecting beads on the way, in search of a way out. You may descend safely only in the blue lifts (the black ones are unpredictably dangerous), and various bods will appear to help or kill you.

You must hang on to the beads because you will need to deal with the

GAME: HOPPER
MACHINE: SPECTRUM 16K
JOYSTICK: KEMPSTON OPTIONAL
CATEGORY: ARCADE
SUPPLIER: PSS
PRICE: £5.95

Hopping is what frogs do, so it's no surprise that *Hopper* is another version of *Frogger*. The object of all *Frogger* games is to manoeuvre frogs across busy roads and dangerous rivers, without getting run over, eaten by crocodiles, or otherwise terminally squelched.

In this version, you have 10 frogs, and the highway has six lanes. Traffic moves at different speeds in each lane, so that any gaps in the traffic are transient.

On the other side of the highway, there's a railway, where trains sit around until, generally at the most inconvenient time, they are shunted away.

Then there's the river, where drifting logs and turtles can be hopped upon, and crocodiles and drowning avoided.

If you manage all these, there are five safe lily-pads to reach. When they're full, the hazards gently escalate.

The frog can be moved with a Kempston joystick or with the keyboard, and the latter is actually easier since it

GAME: BARRELDROP
MACHINE: 48K SPECTRUM
JOYSTICK: NO
CATEGORY: ARCADE
SUPPLIER: GAMES MACHINE LTD
PRICE: £5.95

Barreldrop is, presumably, an arcade game with educational overtones – the cassette inlay shows a teacher and blackboard, and I suppose the game is designed to give very young children an idea of numbers and words. As such, it is not altogether successful.

Barreldrop features a character called Gordon and his dog, Flash (geddit?). Gordon stands on a ledge at the top of the screen and rolls barrels down the roof of his house.

Pressing SPACE at the right moment allows the barrels to drop into a set of drainpipes, numbered one to five.

At various times during the game, it is possible to discern Gordon's dog peeping out from the right-hand corner. If you realise that you are about to miss your target, pressing 'D' will send Flash scampering across the screen to retrieve the errant barrel and bring it back up the ladder for another go.

Filling all the drainpipes brings a

GAME: DIMENSION DESTRUCTORS
MACHINE: SPECTRUM 48K
JOYSTICK: OPTIONAL
CATEGORY: ARCADE
SUPPLIER: ARTIC
PRICE: £5.95

This one has an amazingly unoriginal theme. You control a space ship and your aim is to destroy attacking alien craft before they hit you.

But don't switch off just yet. The novelty here is that you're presented with a view from the cockpit and you actually see the alien ships getting bigger as they zoom towards you.

Now that 3D is all the rage, *Dimension Destructors* isn't a bad effort. It takes a while to get used to, but you do eventually start to feel you're inside a space-craft.

I found myself ducking once or twice when the attackers flew a bit close

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GAME: VALHALLA
TYPE: ANIMATED ADVENTURE
MACHINE: SPECTRUM 48K
JOYSTICK: NO
SUPPLIER: LEGEND
PRICE: £14.95

Valhalla is perhaps the most ambitious games program yet released for the Spectrum.

Once upon a time we had ordinary text adventures. Then programmers began including graphics to illustrate the various locations. Next, they began improving the traditional two-word mode of communication.

The Hobbit took things a stage further with the introduction of characters which adopted a slightly different role each time the game was played.

Valhalla has all these features, but also shows the various characters on the screen doing the things described in the text.

If you enter the command GET HELMET, you will see the little stick character (which is you) walk across to the helmet.

Similarly, fights between different characters are shown, albeit in somewhat repetitive form.

Although this is extremely impressive, it has meant a sharp reduction in the number of different actions a character can perform.

There's little more than moving, getting and dropping objects, eating and drinking, opening chests or cupboards, and attacking.

There isn't any climbing, listening, running, shouting, or tapping.

This doesn't mean to say *Valhalla* is simple. It's extremely complex, mainly because there are 36 different characters involved, each with a different personality.

The world is that of the Nordic legends, and your task is to locate six special objects – a key, a ring, a shield, a sword, an axe, and a helmet.

There are a number of different locations, each of them shown in colour. Unfortunately, many of the pictures look similar, and I preferred the beautiful line drawings featured in *The Hobbit*.

I think *The Hobbit* also scores over

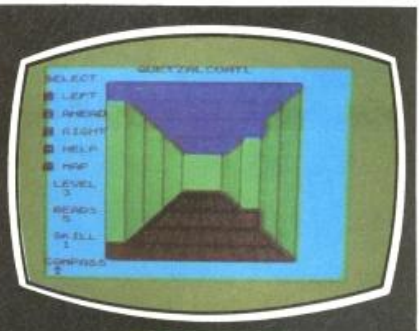
M • SPECTRUM • SPECTR

natives that you'll meet if you are lucky enough to escape.

Pressing 'M' gives a map, but this disintegrates each time it is used, so it must be consulted sparingly, and the 'Book of Ancient Lore' will detail the characteristics of the various gods you meet on the way.

Graphics are good and colourful, and I enjoyed playing this game, without ever managing to reach the exit. I certainly intend going back to it for another try. **SM**

Graphics	8
Sound	6
Ease of Use	7
Originality	7
Lasting Interest	7
Overall	7



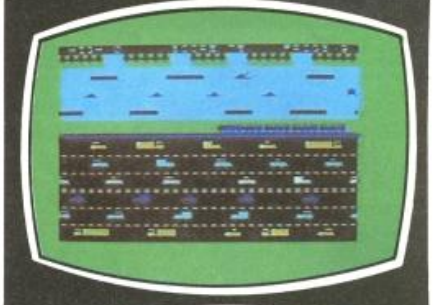
reduces the rather high incidence of hopping two lanes when you only wanted to hop one.

Unlike real life, it's easy to get run over by the back of a receding car, and once you've hit the road, you can't hop back to the starting side again.

As for sound effects, there's frog croaks as well as some irritating musical themes – for some reason, 'Rule Britannia' is played if you drown in the water.

But this is unfair – *Hopper* offers much in the way of obstacles, it runs smoothly, and it has clear graphics. *Frogger* has spawned many versions, and this one leapfrogs others. Hop out and buy it. **WD**

Graphics	7
Sound	6
Ease of Use	7
Originality	3
Lasting Interest	6
Overall	7

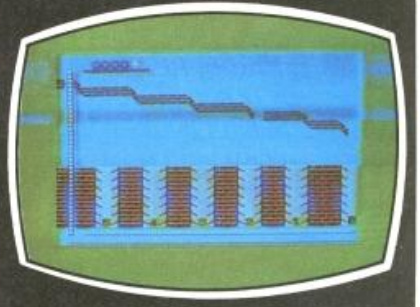


bonus, and there are various riddles and other games included. The riddles are of the 'What has four legs in the morning, two at noon, and three at night?' variety, but there is no acknowledgement as to whether they have been answered correctly or not.

Attention to detail is not all that it should be, either. Writer Russell Vincent has included a routine to speed up the auto-repeat while playing the game, but this remains in operation even when the user is invited to type in his/her name, which means that a very light touch is needed to avoid letters repeating.

For very young children only. **DJ**

Graphics	6
Sound	6
Ease of Use	4
Originality	4
Lasting Interest	4
Overall	4



overhead.

However, the amount of memory needed to simulate 3D imposes considerable constraints. The attacking craft are simple line drawings and you don't get anything like the variety of attack waves possible in 2D games.

Verdict? It's different, but I think you could get bored with it fairly quickly. **CA**

Graphics	6
Sound	3
Ease of Use	6
Originality	8
Lasting Interest	4
Overall	5

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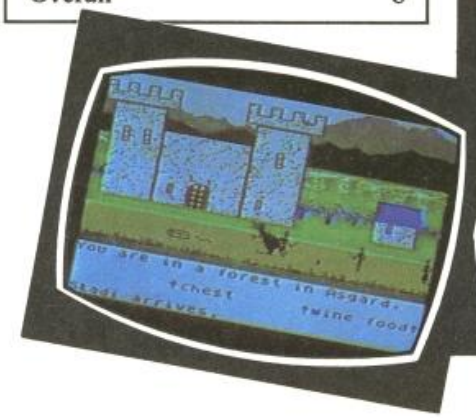
Valhalla in the former's handling of language. Certainly *Valhalla* will accept some reasonably complex sentences such as: SELL HELMET TO MISTRA FOR 20 CROWNS or THROW LIGHTNINGS AT KLEPTO. But *The Hobbit* was even more impressive in this respect.

However, *Valhalla* gives more of the impression that it's being played in real time. If you don't do anything, other characters will – right before your eyes. So you can't afford to wait around for too long.

One word of warning. *Valhalla* is a difficult, daunting game – perhaps more so than other adventures. But if you're an experienced adventurer (and if you can afford the money) *Valhalla* will offer you many hours of novel and intriguing challenge. **CA**

Graphics	7
Sound	0
Ease of Use	8
Originality	10
Lasting Interest	9
Overall	8



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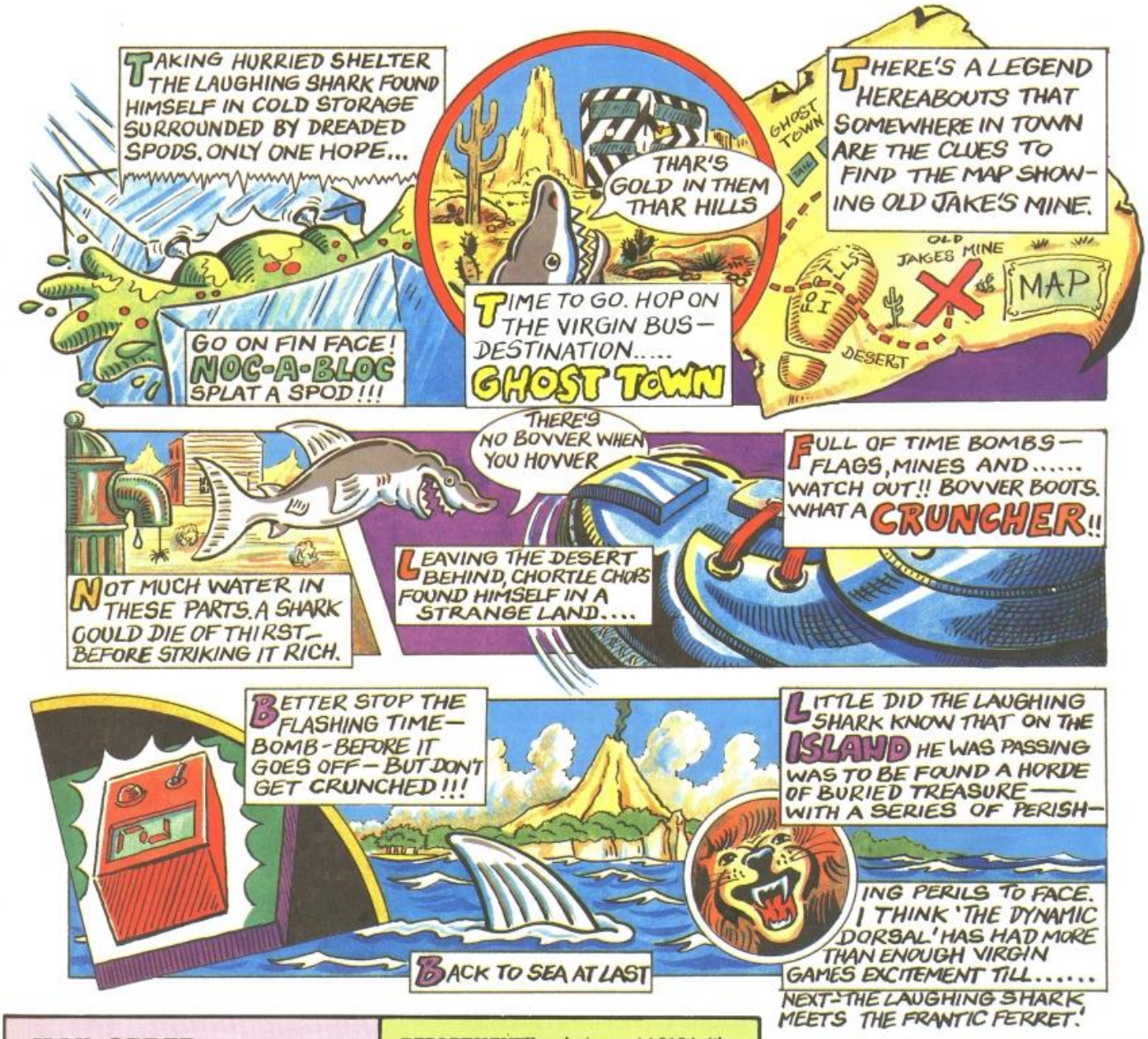

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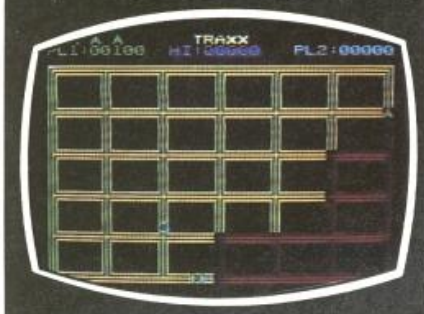
GAME: GRIDRUNNER
TYPE: ARCADE
MACHINE: SPECTRUM 16/48K
JOYSTICK: AGF OPTIONAL
SUPPLIER: SALAMANDER
PRICE: £6.95

You can get some idea of how far games programs have moved in the last couple of years when you realise that this game was regarded as a Vic 20 classic.

Salamander acquired the rights from Jeff Minter to convert it to the Spectrum, but frankly they needn't have bothered.

It's basically a simple shoot-'em-up, similar to *Centipede* except that it's



GAME: TRAXX
TYPE: ARCADE
MACHINE: SPECTRUM 48K
JOYSTICK: AGF OPTIONAL
SUPPLIER: SALAMANDER
PRICE: £6.95

On the screen is a grid of rectangles, and your aim is to move a space-ship around it.

Every time you complete four sides of a rectangle, it changes colour, and you have to change the whole of the grid.

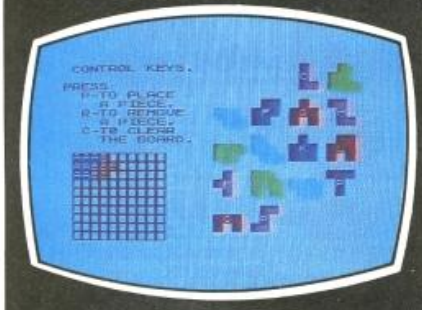
Two things make this difficult. One is that it's quite hard to get the space-ship to stop exactly at an intersection – and if

GAME: WILD WEST HERO
MACHINE: SPECTRUM 48K
JOYSTICK: KEMPSTON OPTIONAL
CATEGORY: ARCADE
SUPPLIER: TIMESCAPE SOFTWARE
PRICE: £5.90

Wild West Hero has one of the best cover illustrations on any current game. It shows a freshly-laundered cowboy blasting away with two six-shooters while a bandit lurks behind a cactus in the sun-drenched desert.

It's a smooth picture, and it's a smooth game inside.

Machine code graphics techniques beam you into the centre of the screen, where you find yourself amidst randomly placed killer cacti and bandits.



GAME: LOJIX
MACHINE: SPECTRUM 48K
JOYSTICK: NO
GAME CATEGORY: PUZZLE
SUPPLIER: VIRGIN GAMES
PRICE: £5.95

Fleet Street isn't the only place giving big money away these days. Virgin are putting aside 50p per game sold for the first person to solve *Lojix*, a cerebral puzle requiring nothing but logic.

On a grid of 10 x 10, you must place 18 different shapes so that the grid is full, with no overlaps or gaps left.

The shapes are each marked with a

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GAME: LUNAR JETMAN
MACHINE: SPECTRUM 48K
JOYSTICK: OPTIONAL
CATEGORY: ARCADE
SUPPLIER: ULTIMATE
PRICE: £5.50

Lunar Jetman is the follow-up to Ultimate's hugely successful *Jetpac*, and the good news is that it's even better.

The game features smooth scrolling graphics, ingenious games design and a challenge that will last for months. As in the earlier game, you control an animated spaceman who can fire at aliens, walk left or right, and fly, using his jetpack.

The spaceman can also pick up objects, such as bombs, and get into objects, such as his moon buggy – which means you need no less than six keys to control him.

This is no mean feat unless you're already a *Jetpac* expert, or a joystick owner.

The game opens with jetman stranded on the surface of an unfriendly moon with the remains of his rocket spinning and bouncing at him from all directions.

His only place of safety is inside his moon buggy – but even that isn't safe for long because an alien base is preparing to launch a missile which will destroy the buggy and end the game.

The most controversial thing about *Jetman* is that the game's instructions give no idea of how to avoid this fate.

Certainly, there's some interesting looking equipment lying around, but all you're told is that you've lost your operation manual.

Ultimate obviously decided that you

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played on a grid with spacecraft instead of bugs.

Certainly there's no shortage of fast action – if you stop hammering the fire button for more than a few seconds, you've had it. But compared to today's state-of-the-art, multi-screen micro thrillers with fully animated creatures and intricate strategies, *Gridrunner* has very little to offer.

What's more, Salamander have slipped up badly by failing to supply the games with instructions. You have to find the operating keys by trial and error, and unless you already understand the game, you'll have trouble making sense of what's happening.

Frankly, at £6.95, I think I'd have to call it a rip-off. **CA**

Graphics	4
Sound	4
Ease of Use	0
Originality	2
Lasting Interest	3
Overall	2

you overshoot you have to start again. The other is, you're being chased by bugs.

Although the idea is extremely simple, this game – like *Demon Decorator* – is surprisingly addictive. As you complete more and more of the grid, it becomes progressively easier to complete new boxes.

Luring you on is the knowledge that if you reach the four corners of the grid you can turn tables on the bugs and eat them.

Your progress is marked by a red trace, which infuriatingly disappears every time you overshoot an intersection and have to reverse.

In all, a thoroughly enjoyable game – but for one that's so simple, I think it's overpriced. **CA**

Graphics	5
Sound	4
Ease of Use	6
Originality	7
Lasting Interest	7
Overall	5

A killer cactus is pricklier than a normal cactus, killing you on contact, and bandits do the same.

The difference is that the cacti stay still while the bandits home in on you. Luckily the bandits don't shoot, while you can shoot in the direction of motion, including diagonally, and you carry on shooting even when you stop.

Movement is by keyboard or Kempston joystick. You have three lives and an extra one every 10,000 points after 20,000 which is moderately difficult to reach.

The game is similar to *Spectron*, reviewed in this issue, both being variations on the arcade game *Robotron.*

Wild West Hero offers no variation in the waves of bandits it pits against you, unlike *Spectron*'s mixed waves of robots, and the scoring system is less exotic.

However, the graphics are good, the game plays fast, and it's easy to play. It probably boils down to a matter of taste – is it robots or bandits that you want to cut down? **WD**

Graphics	7
Sound	5
Ease of Use	8
Originality	3
Lasting Interest	7
Overall	7

letter, and can be rotated before being placed. They can also be removed from the grid again if necessary.

The concept is so simple, it's a wonder the program needs a 48K machine.

The instructions make it easy to understand and execute. Naturally, the solution soon seems impossible. It's probably easier to write another program to solve it, or else cut the shapes out of paper and do it on the floor.

Someone's going to solve *Lojix* sooner or later, and they'll probably wonder whether to claim the money straight away, or to risk holding out till more have been sold and the money goes up.

Even when the money's gone, the elegance and simplicity of *Lojix* will absorb puzzle fans, despite catering for a minority taste. **WD**

Graphics	3
Sound	3
Ease of Use	8
Originality	8
Lasting Interest	5
Overall	6

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would get more satisfaction working out for yourself what you're supposed to do, but I think they may have miscalculated.

So, for the sake of the many people who would otherwise be extremely frustrated by this game, I will reveal what I think the operation manual would have said. IF YOU DON'T WANT TO KNOW, STOP READING.

The bomb is pretty obvious. If you can drop it on to an alien base, you'll destroy it. Only trouble is, you usually don't have enough time or fuel to simply fly to an alien base carrying it.

That's where the teleporters come in. There are two of these, and if you enter one of them, you automatically teleport to the other.

The idea is to place them a long way apart, and then there's a good chance that one of them will be reasonably near the base.

The moon buggy offers safety and can be used for transporting bombs or teleporters – just drop them on to it. Unfortunately, the buggy can't cross craters in the moon's surface, unless you bridge them.

You can get a seemingly infinite supply of bridging units and fuel top-ups from the moon buggy.

The detachable weapons system looks like a roast turkey, but is actually something of a red herring. You can drop it on to the moon buggy, and then score a few points by shooting aliens and rocket parts in safety.

But the weapons system can't help you to actually destroy alien bases, so your time is better spent on other things.

One sensible strategy to adopt is this: put the bomb on the moon buggy, and drive it to the nearest teleporter. Teleport, and then move the second teleporter as far as you can – without running out of fuel.

If you find an alien base, teleport *back* to collect the bomb, and you're in business.

Of course, if you do manage to destroy an alien base, your troubles have only started. Your action will have released a wave of aliens to attack you, and a new alien base will be created.

I'm told that aliens in the later stages of the game do nasty things like steal your teleporters. That's a joy/frustration I look forward to experiencing. Sometime next year, perhaps? **CA**

Graphics	10
Sound	7
Ease of Use	1
Originality	10
Lasting Interest	9
Overall	9

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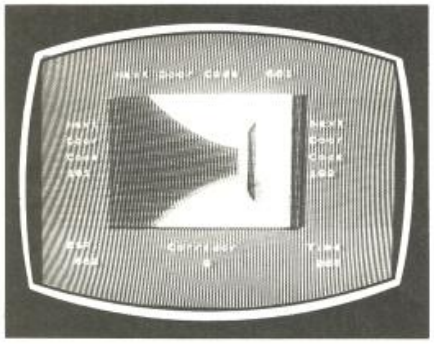


GAME: CORRIDORS OF GENON
MACHINE: 48K SPECTRUM
JOYSTICK: OPTIONAL
CATEGORY: STRATEGY
SUPPLIER: NEW GENERATION SOFTWARE
PRICE: £5.95

The object of the game is to penetrate a 30-corridor circular maze, break the code of the Genon computer – also known as the Brain – and escape from the maze with your life.

You are presented with a 3D view of the maze, with doors to your left and right, and a perspective view of the circular corridor ahead.

Progress through the maze is hindered by two things.

First, the Brain opens and closes doors to slow you down, and second, a 'bogul' roams the maze looking for you. A bogul is a Pacman-like creature with a big nose who is there to protect the Brain.

Your only aid is your ESP, which allows you to find the door codes. But your ESP power fades as you approach the core, and each time you are caught and bogulized.

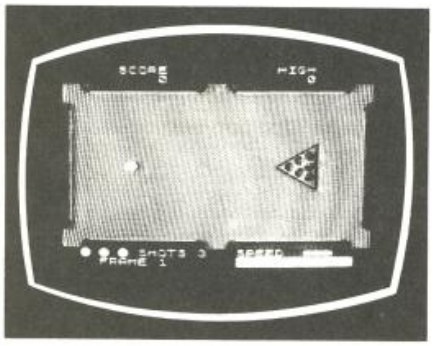
If you manage to reach corridor 31, you are confronted with the Genon computer and must break the code as practised. Time is critical, and while you are frantically tapping out numbers, the bogul is cloning itself to make your escape harder.

On your breaking the code, the computer is destroyed, but not before it revitalizes your ESP by giving you the knowledge of the universe.

The 3D graphics are up to New Generation's usual, high standard and the sound is also very well used.

But I would say that the game lacks the sort of variation which has made games like *Arcadia* and *Manic Miner* such big hits. **KJ**

Graphics	9
Sound	6
Ease of Use	5
Originality	7
Lasting Interest	3
Overall	5



GAME: POOL
MACHINE: 16/48K SPECTRUM
JOYSTICK: NO
CATEGORY: SIMULATION
SUPPLIER: CDS MICRO SYSTEMS
PRICE:£5.95

At first glance, *Pool* may not be the most likely candidate for a Spectrum implementation, but this package survives the transition from smoke-filled bar-room to home computer in fine style.

Sensibly, CDS has not attempted a full duplication of the game's rules. In this version there are but three red, and three blue, balls to be potted – but then, picking out all those stripes and spots on the Spectrum screen would hardly have been an easy task.

In fact, the rules are considerably simplified. The object of the exercise is simply to pot each of the six balls in as few shots as possible.

At each 'visit to the table' the display shows the number of shots remaining to you. This starts at three, and decreases by one, each time you fail to pot a ball.

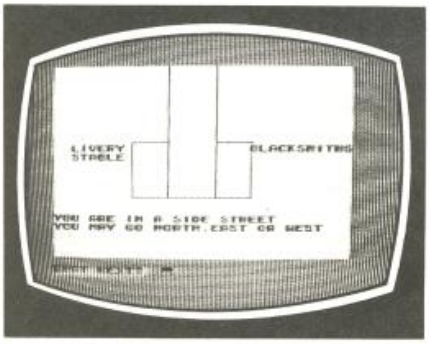
If the 'shots remaining' indicator reaches zero, or if you sink the cue ball, or if you miss one of the object balls entirely, a foul shot is called, and you lose one of your four lives.

Pocket all six balls, and you move on to the next frame – but from the third frame onwards you get only two shots per ball.

You may vary the speed of each shot from a gentle nudge to a full-blooded whack, which will send the ball cannoning off all the cushions.

I was extremely impressed with CDS *Pool*. It is obvious that a lot of thought went into the planning of the game, the graphics are very realistic, and, most important of all, it's totally compelling to play. **SM**

Graphics	8
Sound	6
Ease of Use	8
Originality	7
Lasting Interest	9
Overall	8



GAME: GHOST TOWN
MACHINE: SPECTRUM 48K
JOYSTICK: NO
CATEGORY: ADVENTURE
SUPPLIER: VIRGIN GAMES
PRICE: £5.95

Set in an American town that was abandoned after the Californian gold rush, *Ghost Town* is an adventure in which your task is to find a deserted gold mine, and return to town with the contents.

But before you set off, you will need various items of equipment that are scattered about the town. Commands are entered in one of three formats: two-word sentences (OPEN DOOR, GET GUN, and so on), single words (QUIT, INVENTORY), or letters (N,S).

If the cassette inlay had not included a screen picture, I would probably not have known that this was a graphic adventure.

There's a short machine code routine that enables drawings to be done in the background colour and displayed instantly on completion. This didn't seem to work too well in my review copy, and most of the locations were represented by a blank screen.

It's a mainly Basic program and although some simple protection devices are used it's quite easy to break into it to see how it works – despite the warning in the listing that 'CHEATING DOESN'T HELP'. **SM**

Graphics	3
Sound	2
Ease of Use	5
Originality	6
Lasting Interest	5
Overall	5

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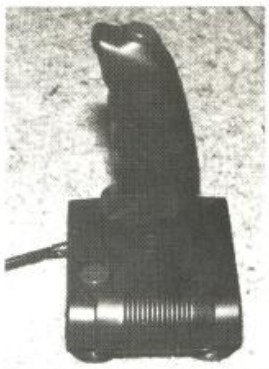

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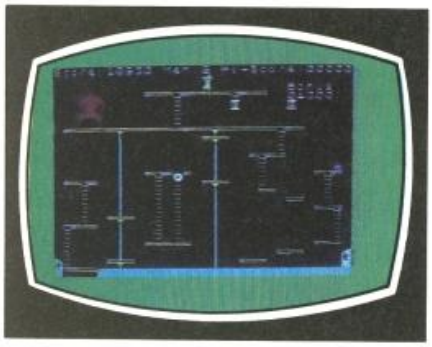


GAME: KRAZY KONG
MACHINE: SPECTRUM 48K
JOYSTICK: KEMPSTON
OPTIONAL
CATEGORY: ARCADE
SUPPLIER: PPS
PRICE: £5.95

King Kong is alive and well and living in at least two versions of *Donkey Kong* for the Spectrum. Always one with a taste for a certain sort of woman, Kong has trapped one called Jane and it's your mission to topple him and rescue her.

Jane herself doesn't help much, standing at the top of each of three screens waiting for you to cover the obstacle courses which begin at the bottom.

The first screen is one involving ladders connecting girders. Red barrels roll out and drop from one level to the next when they feel like it, and can be avoided (if they're coming your way) by jumping.

This is done with the fire button on the Kempston. The same goes for similarly lethal fireballs.

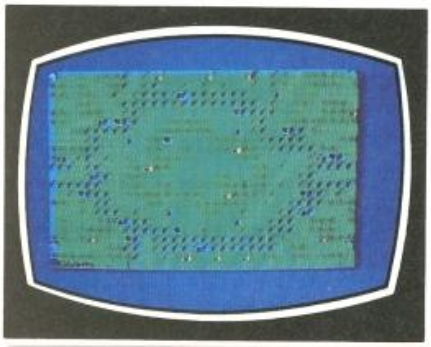
If you make it to Jane, there's a second screen involving conveyor belts with pies on them. The pies are probably well past the date stamp, and are also deadly.

The third and final screen involves lifts, tricky to catch and likely to make you fall, but if it's completed, it's Kong who takes the tumble.

With three lives, it's not impossible to complete the game and still win a time bonus, and it's fun trying. Obstacle courses are interesting, but games such as *Manic Miner* offer far more screens and ideas.

Krazy Kong does have irritating aspects – the incessant playing of the funeral march every time a life is lost, for example, or the difficulty in positioning your man at the right spot beneath a ladder to climb it. **WD**

Graphics	4
Sound	2
Ease of Use	7
Originality	6
Lasting Interest	5
Overall	4



GAME: LOST
MACHINE: SPECTRUM 48K
JOYSTICK: NO
CATEGORY: STRATEGY
SUPPLIER: VIRGIN GAMES
PRICE: £5.95

After the colourful loading screen, the first thing you notice on loading *Lost* is the redefined 'computer-style' character set, complete with the obligatory spelling mistake.

You have a choice of five levels, and must decide between playing the easy version and the main game. Do this and a map appears, showing your position in a clearing surrounded by forest. Needless to say, you're lost, and with food and water for only five days, you must set off in search of a settlement and rescue.

You may add to your stock of food and water by drinking from the rivers, by stoning any of the local fauna that you can get near, or by using a club to convert any passing snake into calories.

It'll snow soon, so it's as well to find a cave in which to shelter until the blizzard passes. You'll die of exposure otherwise.

The screen shows a map of your movements, and you control these via the cursor keys.

'Average' is the word that springs to mind with this offering – it's competently done but just not exciting. Virgin neglects to mention that the CODE instruction is needed for loading – why not include a short Basic loader? **SM**

Graphics	7
Sound	3
Ease of Use	5
Originality	3
Lasting Interest	5
Overall	5

GAME: ANT ATTACK
MACHINE: 48K SPECTRUM
JOYSTICK: NO
CATEGORY: ARCADE
SUPPLIER: QUICKSILVA
PRICE: £6.95

The most impressive thing about *Ant Attack* is the scrolling 3D depiction of the city in which all the action takes place.

For example, if you move your man behind a building, he disappears from view, and to see what's going on you have to select a different scanner. You have a total of four scanners, all of which depict the same part of the city, but from different angles.

It's not advisable to leave your man out of sight, because the city is inhabited by vicious ants who love nothing better than munching flesh.

Your mission is to rescue a number of trapped damsels in distress, although to protect themselves from the accusation of sexual typecasting, Quicksilva offer you the option of rescuing boys instead.

You find the trapped persons by using a direction indicator, which turns green when you're moving in the right direction, and red when you're not.

To avoid being devoured, you must either stay above ground level where the ants can't reach you, or use grenades to destroy them.

Trouble is, to throw a grenade you must choose from four different buttons, one each for four different distances. If you add to these four buttons the four direction control buttons, and the four scan buttons, you need the skills of a touch-typist just to stay alive.

Another thing that greatly annoyed me was the tunes that are played whenever you find a damsel, or are bitten to death. They really are tedious.

Still, if you're prepared to put in the work necessary to master the controls, *Ant Attack* offers you an original and challenging entertainment. **CA**

Graphics	9
Sound	3
Ease of Use	3
Originality	10
Lasting Interest	6
Overall	7

Not all home computers stay at home.

The BBC Micro is the ideal family computer–simple to operate, yet fast, powerful, with enormous potential.

But it's nice to know, when you buy one for your home, that the business, educational and scientific worlds agree with your choice.

Here are a few stories to illustrate how the BBC Micro gets out and about. And one to remind you how helpful it can be when it stays at home.

A practical lesson in business admin.

The contribution of the BBC Micro in the classroom has long been recognised at Perins Community School in Hampshire.

The School has 12 BBC Micros used extensively across the syllabus: in fact some pupils are using them to study for their GCE O Levels in computing.

One of the programs available to Perins teachers such as David Beck, pictured below with his class, is "Newsagent."

This program contains all the necessary information for the class to run a newsagent's shop; allowing them to organise daily deliveries, make up bills and keep an eye on stock control and ordering.

It's a nice example of how the BBC Micro can be used not only to acquaint a class with the language of computers, but also with some of the realities of the community in which they live.

Correcting Jodrell Bank.

The BBC Micro is a familiar worker around Jodrell Bank.

You'll find it in the reception area explaining the workings of a radio telescope to visitors, for example.

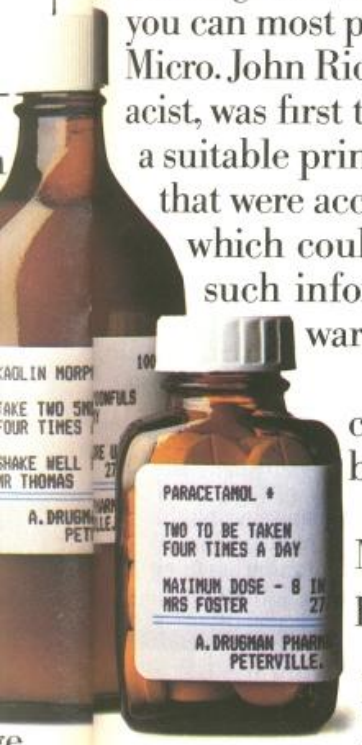
But it's also been helping in a more testing task: to improve the performance of the Defford telescope.

In this application it has been used to make calculations necessary to determine the precise parabolic shape of the dish.

Theodolites are used to do the measuring–then the BBC Micro works out the necessary corrections.

The end of the scrawl.

If any of you have noticed how much easier it is to read and understand labels on drugs and medicines these days, then you can most probably thank the BBC Micro. John Richardson, a Preston pharmacist, was first to realise how a micro with a suitable printer could produce labels that were accurate and legible and which could include, automatically, such information as drug reaction warnings.



At the same time it could record drug usage for better stock control.

He chose the BBC Micro for its versatility and potential for expansion.

John Richardson believes that this system will be recognised as standard in the profession and be used in hospitals, health centres and pharmacies throughout the UK.

Meanwhile back at home.

Dr. & Mrs. Yarwood bought a BBC Micro as a birthday present for their 12 year old daughter.

However, it quite quickly became common property.

All three can now write their own programs. Mrs. Yarwood is particularly proud of one program she has compiled to help teach her daughter French vocabulary.

They all agree that although the Micro is fast and powerful enough to be at home in Jodrell Bank, it is also the ideal computer at the Yarwood home: simple to set up (virtually any TV set and cassette player is all you need) and simple to use.

All this for only £399.

The BBC Micro comes with a comprehensive, step-by-step User Guide which introduces you to your micro and shows you how to construct useful programs of your own.

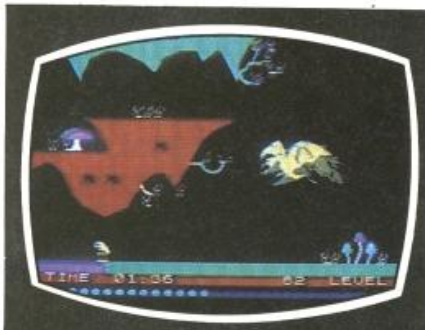
You will also receive a free "Welcome" cassette which contains 15 different programs for you to experiment with, ranging from music and graphics to games like Kingdom and Bat 'n' Ball.

The BBC Micro is available from W H Smith Computer Shops, Boots, John Lewis and local Acorn stockists.

Alternatively if you would like to order one with your credit card or if you want the address of your nearest supplier just phone 01-200 0200 or 0933-79300.

The BBC Microcomputer System.

Designed, produced and distributed by Acorn Computers Limited.



GAME: BUGABOO
MACHINE: SPECTRUM 48K
JOYSTICK: NO
CATEGORY: ARCADE
SUPPLIER: QUICKSILVA
PRICE: £6.95

Bugaboo has fallen from space on to the surface of a very strange planet which is covered with coloured rocks, mushrooms, and vegetation. He discovers that he can almost fly, and while jumping about the surface, falls into a deep cavern and lands on the bottom, unharmed.

It's your job to see that Bugaboo gets

GAME: ANGLER
MACHINE: SPECTRUM 48K
JOYSTICK: NO
CATEGORY: ARCADE
SUPPLIER: VIRGIN GAMES
PRICE: £5.95

Virgin has had a somewhat unenthusiastic reception for its offerings so far, and *Angler* is unlikely to improve on this. The fisherman of the title sits in a small boat at the top of the screen and casts his line into a sea swarming with fish of various sizes.

The object of the game is simply to catch as many fish as possible while trying to avoid crabs, which will eat the catch given half a chance. Controls are simple – keys 5 and 8 move the boat from side to side, and any other key will cast the line.

Fish are caught by manoeuvring the line so that the hook appears just in front of the target, but catching anything often seems to be more luck than judge-

GAME: RIDER
MACHINE: SPECTRUM 48K
JOYSTICK: NO
GAME CATEGORY: ARCADE
SUPPLIER: VIRGIN GAMES
PRICE: £5.95

Players of *Rider* will be taken for a ride in more ways than one. It is based on the premise that, as a British agent, your mission is to find the location of mines on the roads of a country the UK is about to invade.

The first ride is a parachute one. You're dropped into the country above a line of motorbikes provided by the Resistance.

By manoeuvring left and right as you descend, you must land on a bike, different coloured bikes being worth different points. Once on a bike, it's off down the mined road, avoiding the mines as long as possible.

The game ends when you either ex-

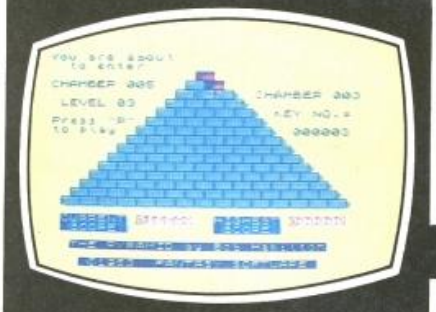
GAME: SPECTRON
MACHINE: SPECTRUM 48K
JOYSTICK: NO
GAME CATEGORY: ARCADE
SUPPLIER: VIRGIN GAMES
PRICE: £5.95

If machines had emotions, the robot in *Spectron* would have a persecution complex. 'Spectron' is actually the name of the robot that you control in this fast-moving descendant of the arcade game *Berserk*.

The screen shows the arena where the action takes place, lightly peppered with electric blocks that can sizzle you on contact. 'Spectron' can be moved only by the keyboard, but the keys are well chosen, and movement produces fire in the direction of motion, including diagonally.

There are four sorts of enemy androids after you, starting with the red swarmers, whose one object is to head for you and destroy one of your three lives on contact.

The first wave has 10 of these, and more appear on each successive level. A few waves on, green speeders appear,



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GAME: THE PYRAMID
TYPE: ARCADE
MACHINE: SPECTRUM 48K
JOYSTICK: OPTIONAL
SUPPLIER: FANTASY
PRICE: £5.50

This is one of a growing number of games which offers you remarkable value for money. Your task is to move a manned space-capsule down through a pyramid, which has 15 different levels.

At each level you come under attack from a different type of alien – so it's 15 games in one.

Actually it's more than that. The authors have arranged that each time you descend a level you have a choice of two rooms to enter, each containing a different species of nasty.

So you can come across different creatures every time you play – up to a total of 60 types. Quite enough to maintain your interest for a month or two. Or six.

back to the top of by making him jump from ledge to ledge, and if that isn't enough, there is a yellow flying monster which is determined to eat Bugaboo at the first opportunity.

To guide Bugaboo, you have control over which way he jumps, left or right, and the strength with which he does so. The method of scoring is by getting the fellow out of the cavern in the shortest possible time.

You can scroll the picture in four directions to see where you are going to jump to. It was funny to see Bugaboo stop in mid-air as the screen was being updated, although this was very fast and didn't make the game look bad.

If you like a challenge, then this is it. Be patient though. It's not that easy to get back to the top! **DJ**

Graphics	8
Sound	4
Ease of Use	5
Originality	8
Lasting Interest	6
Overall	7

ment (which is fairly true to life, I guess).

The line will reach the bottom only if there are no fish underneath it at the moment of casting.

If a crab is caught, it will immediately begin eating any fish in the boat. This may be rectified only by catching one of the much larger, tube-shaped bottom-dwelling fish – but care must be taken to avoid landing one of the largest creatures. Do this and the game ends in disaster.

All in all, it's a bit like the nursery rhyme about the old woman who swallowed a fly – catch the wrong thing and you have to continue fishing until you catch a fish that can deal with the problem.

You have 100 casts in which to catch as many fish – and hence score as many points – as possible. Presentation of the game, in keeping with Virgin's packaging policy, is good, with a Hall of Fame that may be printed out on the ZX printer, but the graphics and sound can only be described as adequate.

There are various levels of difficulty to determine how close a fish must be to the hook before it is caught, but even at the highest level I can't imagine that this game will hold the attention for too long. **SM**

Graphics	5
Sound	4
Ease of Use	8
Originality	7
Lasting Interest	3
Overall	5

plode on a mine, or crash into a bollard.

There's a lot of bollards to this game, starting with a ridiculous scoring system.

Landing on a bike gets anywhere from 19 to 900-odd points. Landing on a red bike when red bikes are worth only 19 points means a brilliant ride score far less than crashing a good bike immediately.

Another thing is that the location of mines and bollards is the same every time, and soon becomes familiar. In programming terms, the RANDOMISE function is screamed for.

Rider is brought to you by the same programming team that did *Yomp*. Like that game, *Rider* has a military flavour, and one of its two stages is remarkably like *Horace Goes Skiing* – swinging left and right to avoid obstacles.

This is a widely used theme, so it's probably coincidental that the best parts of *Yomp* and *Rider* are available with more charm and smoothness on *Horace's Holiday*.

However, to be fair, *Rider* offers seven speed levels and a scoretable for up to five players, which *Horace* doesn't.

Perhaps these will go down well at the barracks. **WD**

Graphics	4
Sound	4
Ease of Use	7
Originality	7
Lasting Interest	3
Overall	3

who are like swarmers but quicker.

Both have a habit of queuing up behind you as you flee, making convenient massacres possible when you turn back.

On higher levels, you'll meet launchers, cunning devils who launch missiles shaped like Iron Crosses, which home in on you.

Finally, electrons build lines of electric fences, sizzling and almost impassable. Imagine if Acorn got their Electrons to do the same at Sinclair Research.

All four types appear by wave 8.

There are 9 skill levels all in all, each starting 10 waves above the last. Getting through early waves intact is soon mastered, but by wave 10, sheer weight of numbers takes its toll.

Theoretically, you could blast your way right through to wave 99, but that's a pretty tall order. The waves come on thick and fast, the enemy androids multiplying like babies in a Bombay slum.

After each wave, you score is calculated on-screen. Apart from points per kill, there's a big potential time bonus as well as an efficiency bonus.

The calculation of the bonuses is accompanied by sounds like a crazed electronic cash register during a Harrods sale. Then the next wave is itemized before being let loose on you.

Spectron is as addictive and challenging as games come, and is of true arcade quality. **WD**

Graphics	5
Sound	8
Ease of Use	8
Originality	4
Lasting Interest	8
Overall	7

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The game works like this: in each chamber you shoot up as many aliens as you can. When you've zapped a certain number, a crystal appears which you have to collect, and drop through a force-field.

After you've done this a few times, the force-field is neutralised and you can pass through it into the next level. The faster you manage to complete a room the more points you get.

The game plays very well. It features smooth graphics and all the aliens are nicely animated. For example, the first wave consists of dustbins with banging lids.

Fantasy Software have tried to add to the game's attraction by including a numerical puzzle to be solved. At each level you may be given a number.

If you put these clues together you're supposed to be able to work out what number is at the bottom level and hence discover the Meaning of Life.

Fantasy have also built codes into the program to enable them to verify high-score claims. Every six months they plan to publish a list of the top thousand highest scores.

So it all adds up to a game you could spend a great deal of time playing. I thoroughly recommend it. **CA**

Graphics	8
Sound	6
Ease of Use	7
Originality	8
Lasting Interest	10
Overall	9

CONGRATULATIONS!

MARK LUCAS

Winner of the 1983
Cambridge Award
a highly original
WAR GAME

BATTLE 1917

The game is played by two players on a board 21 × 32 showing a map which changes with every game. Each player has 29 pieces including infantry, cavalry, tanks, artillery and a King. The object of the game, like chess, is to kill the enemy King. The game will appeal equally to all ages and all skills. This is the computer age's answer to Chess. Available from all good computer shops at £6.

Cambridge Award

Cases Computer Simulations Ltd, 14 Langton Way, London SE3 7TL.

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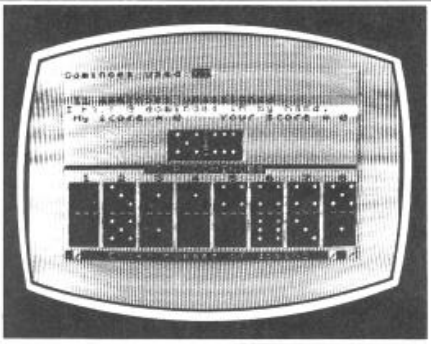


GAME: DOMINOES
MACHINE: SPECTRUM 16/48K
JOYSTICK: NO
CATEGORY: PUB FAVOURITE
SUPPLIER: PHIPPS ASSOCIATES
PRICE: £4.95

This cassette contains two versions of the old pub game – the 48K side allows the computer to play a longer game. Player and computer are each dealt eight dominoes, and simply take it in turns to lay one down, joining up with any tiles that have already been played.

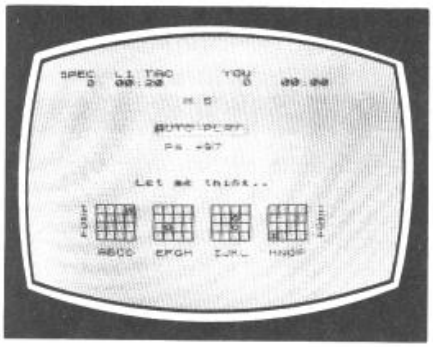
The colours are a bit garish – all flashing yellows and blacks on a green background – and space restrictions mean that you don't get to see all the dominoes, simply the ones at each end of the line with the rest depicted as a magenta rectangle.

The score is calculated by adding together the values of the dominoes at each end, then dividing by five and three. Thus playing a five when there is a four at the other end will score three (nine divided by three).

Totals that are not divisible by either five or three do not score at all, and 72 is taken as the winning total, which means that several complete sets must be played. Strategy consists of trying to play all your dominoes while restricting your opponent to low scoring pieces.

It must be said that the computer does not play a very good game – in fact, I could lose to it only by deliberately playing low-scoring pieces – but, even so, it's fun to play and a change from the usual arcade games. **SM**

Graphics	5
Sound	5
Ease of Use	6
Strength of Play	3
Lasting Interest	4
Overall	5



GAME: 3D STRATEGY
MACHINE: SPECTRUM 16/48K
JOYSTICK: NO
GAME CATEGORY: STRATEGY
SUPPLIER: QUICKSILVA
PRICE: £6.95

Described as 'a multi-dimensional mind game', *3D Strategy* is really noughts and crosses, but noughts and crosses played on a 4 x 4 x 4 grid, with a line of four instead of three needed to win.

The instructions do their best to make you feel that, as a mere human, you have absolutely no chance of winning, and, indeed, I found it almost impossible to concentrate on all the possible moves.

It's easy enough to spot the winning lines on one level, but diagonal lines across four levels are another matter!

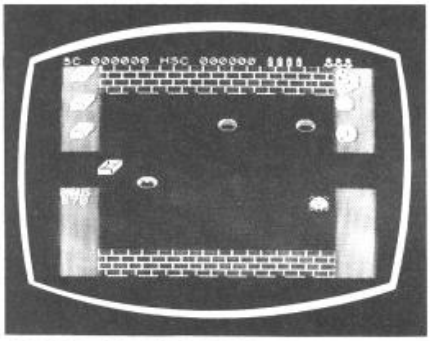
The board is displayed as four separate 4 x 4 matrices, and player and computer take it in turns to place a piece. There are two possible styles of play – TAC plays an active, risky game, while POS gives a deep strategic style.

There are two on-screen timeclocks, chess-style, and time limits may be set for each individual move or for the game as a whole. There are four skill levels, and an auto-play mode, in which you can watch the computer play itself.

The 'best move so far' is displayed at all times, and there is a 'RESIGN' key for when the going gets too tough and your ego will not stand to see the computer demolish you.

Instructions are good, the screen layout is clear enough, and response times are very fast. Not particularly original, but well implemented. **SM**

Graphics	5
Sound	2
Ease of Use	8
Strength of Play	7
Lasting Interest	3
Overall	4



GAME: MR WIMPY
MACHINE: SPECTRUM 48K
JOYSTICK: OPTIONAL
CATEGORY: ARCADE
SUPPLIER: OCEAN
PRICE: £5.90

A certain hamburger manufacturer may make 'the greatest burgers under the bun' but Ocean's game of *Mr Wimpy* is certainly one of the greatest games on the Spectrum.

As player, you take on the role of an animated Mr Wimpy whose only aim in life is to manufacture as many hamburgers as possible. You perform this task by collecting a tray from a serving hatch on the left hand side of the screen, and then moving to the right-hand hatch to collect the ingredients.

This is not as easy as it sounds since a character named Waldo is out to nick whatever you are carrying (perhaps Waldo is one of those teenage hooligans we read about in the papers).

To make it even harder, you have to avoid the moving manholes. Quite what moving manholes are doing in a hamburger store, I'm not quite sure, but they do get you rather annoyed when your last man has just fallen into one.

If you manage to complete a burger, *Mr Wimpy* moves on to screen two.

Now Mr Wimpy has to make the Wimpy burgers by walking over the top of the ingredients, and by making them fall into the trays at the base of the screen. Mr Wimpy's enemies on this level are the kitchen rebels: Sid Sos, Oggy Egg, Sam Spoon, and Pam Pickle.

If there is no way past the nasties, Mr Wimpy can use up one of his three pepper pots, which will enable him to get past the rebels. By picking up bonus gems, ice cream, or a cup of coffee, Mr Wimpy gets an extra pepper pot.

Ocean have got a winner with *Mr Wimpy*, with smooth graphics and excellent sound (including the 'Wimpy is the Home of the Hamburger' tune), and it will give many hours of fun. **SC**

Graphics	8
Sound	7
Ease of Use	8
Originality	9
Lasting Interest	8
Overall	8

GAME: INVADERS
MACHINE: ORIC 16/48K
JOYSTICK: NO
CATEGORY: ARCADE
SUPPLIER: ARCADIA
PRICE: £5.50

Invaders is now available on the Oric in a colourful but uninspired translation from the arcade original.

It has to be said that this, the simplest and most ancient of games, still holds a certain compulsive attraction for those with nothing better to do.

Although the action is not particularly fast (neither was the original), the game is made a lot harder by the size of your spaceship, which is almost as wide as the houses you hide behind, and by the fact that you can't move and fire at the same time.

When the invaders get really close, these restrictions assume fatal dimen-

GAME: ULTIMA ZONE
MACHINE: ORIC 48K
JOYSTICK: NO
CATEGORY: ARCADE
SUPPLIER: TANSOFT
PRICE: £8.50

Ultima Zone is basically a gamespack for the Oric, with three games on offer, and although each one is colourfully and musically presented, none will have you reaching for the keyboard with much enthusiasm.

First on to the screen is *Battlezone*, in which you blast away at the Walkons and avoid the bouncing Brunes. This game is the best of the three, but that isn't much of a recommendation.

The Walkons were presumably named for their speed, and are not only slow but also rather large. Shooting them is about as difficult and as interesting as treading on your own toe.

However, if you are truly inept, you can get yourself a shield by pressing the delete key which makes you invulnerable to everything the screen has to offer.

The second game is called *The Trap* and if you thought the Walkons were slow, in this game the targets don't move at all. Your task is to manoeuvre a second ship up and down the screen by

GAME: MUSHROOM MANIA
MACHINE: ORIC 16/48K
JOYSTICK: NO
CATEGORY: ARCADE
SUPPLIER: ARCADIA
PRICE: £5.50

Mushroom Mania is manic indeed and is one of the better adaptations of *Centipede* available for the home market.

Your task – just in case you didn't know – is to blast everything in sight, which in this version includes centipedes, spiders, and indestructible 'pac-people' as they dance up and down a screen filled with mushrooms.

If there's nothing around to kill, you can take it out on the fungi – provided you're busy destroying all known life forms, your score will continue to increase.

In this version you select a one or two player game and adjust the skill level (0 to 9) before you start – the higher the level the faster the action. Your bug-blaster prints up in the bottom centre of the screen and moving left, right, up and down is done by pressing the appropriate arrow keys, so there's no problem remembering which ones to use.

The firing system is unusual – there is no single shot option, you just press the

GAME: KILLER CAVERNS
MACHINE: ORIC 1 16/48K
JOYSTICK: NO
CATEGORY: ARCADE/ ADVENTURE
SUPPLIER: VIRGIN
PRICE: £6.99

Yuk! That's my reaction after playing *Killer Caverns* from Virgin Software.

The game is so bad in so many respects, it amazes me how Virgin could have released such rubbish! If this is what's called games software, then we all have a chance to make a fortune.

The scenario is this: helpless Harold is alone in a cave in search of treasure. To get it, he has to travel through the caverns collecting – one by one – 17 pieces of a ladder.

There are nasties such as a snake in a box, falling stalactites, a flying monster, the cavern of spiders, and a giant Thing which will randomly try to duff you as you travel through the caverns.

This sounds fine, but once the game is loaded and run, disappointment sets in. The 'caverns' are a green area for the floor and a blue area for the walls/ ceiling from which yellow stripes (for stalactites) hang.

Harold is a small character which you move left or right by using the arrow keys.

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GAME: ZORGON'S REVENGE
MACHINE: ORIC 48K
JOYSTICK: NO
CATEGORY: ARCADE
SUPPLIER: IJK SOFTWARE
PRICE: £8.50

The action of *Zorgon's Revenge* takes place alongside some of the best graphics available for the Oric. You are given four missions to accomplish, and on successful completion of all four, you can enter Zorgon's castle and rescue Princess Roz.

In three of these missions you control (as in *Manic Miner)* an animated figure who can walk about and jump on to moving platforms, or, in one mission, into the air to catch hold of some beautifully animated birds.

The said birds will then carry aloft the animated figure to help him complete his task.

The fourth mission is essentially a simple space shoot-out and is poor in comparison with the rest of the game.

At the beginning, you are invited to set the skill and volume levels on a scale of one to nine. The object of each mission is to retrieve one of four 'magic stones', and the one you start with is determined at random.

If you fail, you can have another go, or decide to try your luck elsewhere. You only have three lives, and with the exception of the space screen, none of these missions is at all easy to complete.

During your travels, you encounter various birds, spiders, and a couple of monsters – all excellently conceived and animated, and all attempting to put an end to one of your three lives.

sions, and you lose one of your three lives. As the blurb on the cassette points out, this is one game you just can't win.

But if I'm going to end up losing every time, I want to have fun while doing it.

This version is a little too awkward, and the firing a little too sedate, to be really enjoyable. **SC**

Graphics	**2**
Sound	**1**
Ease of Use	**4**
Originality	**0**
Lasting Interest	**3**
Overall	**2**

shooting at its control panels and then activating its lasers in the same way.

If you've managed to get it in the right place on the screen, it will then destroy the targets. If this sounds difficult, don't worry, it isn't.

The last game, *Orbit Runner*, is no better – just a scaled-down version of *Frogger* with a small space ship instead of a frog, and not enough obstacles to make it interesting.

As your score rises higher, the action of all three games speeds up, but by this time you will have started playing something else.

Ultima Zone is a possible buy for small children with no arcade experience, but at £8.50 it should be avoided by everyone else. **SC**

Graphics	**3**
Sound	**4**
Ease of Use	**3**
Originality	**1**
Lasting Interest	**1**
Overall	**2**

space bar and your gun will blast away continuously until you press the space bar again, whereupon it falls silent.

Continuous fire means you can spend your brief existence concentrating on the movement keys, which is something of an advantage, but the action is fast enough to stop the game getting too easy.

Each time you lose one of your six blasters you start again in the centre, which can be risky if the program decides a spider should start in the same place. But apart from this occasional annoyance *Mushroom Mania* remains one of the better games currently available for the Oric. **SC**

Graphics	**6**
Sound	**4**
Ease of Use	**7**
Originality	**1**
Lasting Interest	**7**
Overall	**7**

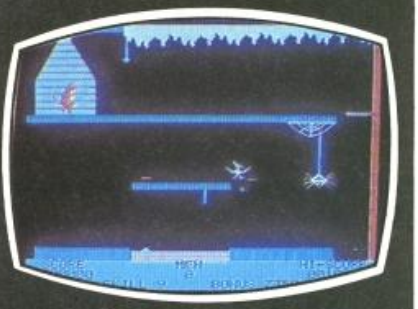
The graphics in this game are terrible – especially for those monsters, with no smooth movement whatsoever.

The package also has its number of bugs. Standing next to a falling stalactite would result in it not being displayed properly. Walking into a new cavern would sometimes lose a life for no apparent reason, and so on.

Even if the graphics were improved, and the bugs fixed, *Killer Caverns* would still not offer much. There is no fun in endlessly pressing an arrow key hoping you don't get randomly killed.

I can do a service to Oric owners by recommending that you avoid this game at all costs – especially your own! **DJ**

Graphics	**1**
Sound	**0**
Ease of Use	**2**
Originality	**4**
Lasting Interest	**0**
Overall	**1**



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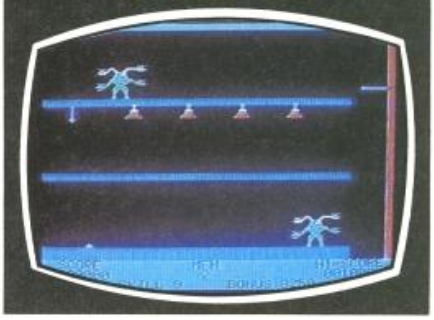
Success in *Zorgon's Revenge* is largely a matter of knowing when to jump and when to run. Unfortunately, once you have mastered this the game loses some of its appeal, but mastery does not come easy and developing it is a lot of fun. Recommended. **SC**

Graphics	**9**
Sound	**5**
Ease of Use	**4**
Originality	**8**
Lasting Interest	**7**
Overall	**8**



Ever bought a game that's not as good as its box?

Everybody has seen the home computer game packs that sparkle with imaginative colour and graphics, and lure buyers into the store.

Sadly, some who have bought have found that the game sparkled less than the box. For, as more and more companies jump on the home computer bandwagon, it becomes ever more likely that most of the imagination and excitement is concentrated in the packaging. Instead of playing a fast game, you lose a fast buck. Or, more likely, several.

Yet games have become increasingly sophisticated. Scenarios are more varied, levels of play have been increased, and high resolution colour graphics capabilities are being used together with dramatically improved sound effects. The trick is to know which games are as good on screen as they are on the box.

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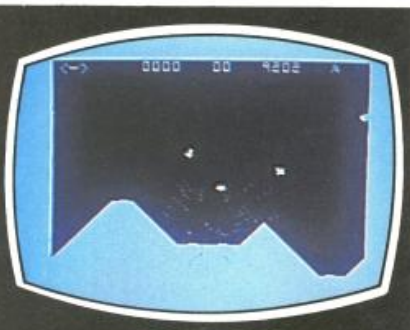


GAME: DEATH MINES OF SIRIUS
MACHINE: DRAGON 32
JOYSTICK: NECESSARY
CATEGORY: ARCADE & ADVENTURE
SUPPLIER: PHOENIX SOFTWARE
PRICE: £9.99

Action and adventure in a pack together is hardly a new idea, but Phoenix's latest issue is designed to appeal to fans of both camps. In this case, you must get through the action game before you can attempt the adventure.

Lunar Lander is the action, but it's an impressive version of it. You must res-

GAME: CUTHBERT GOES DIGGING
MACHINE: DRAGON 32
JOYSTICK: YES
CATEGORY: ARCADE
SUPPLIER: MICRODEAL
PRICE: £8.00

You don't need the deductive powers of Sherlock Holmes to guess that *Cuthbert Goes Digging* is one of those games where you have to climb ladders, and bash monsters on the head.

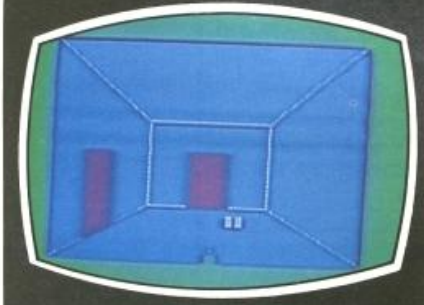
These familiar activities are, unfortunately, not very exciting in Microdeal's version.

The graphics are rudimentary, and the monsters are merely a collection of blue

GAME: KEYS OF THE WIZARD
MACHINE: DRAGON 32
JOYSTICK: NO
CATEGORY: ADVENTURE
SUPPLIER: MICRODEAL
PRICE: £8.00

Keys Of the Wizard is a superior adventure for the Dragon, with three levels of play ranging from beginner to expert. It would be advisable to leave level three until your annual holidays, since it can take up to 10 hours of puzzling.

The object of the game might seem familiar to adventure regulars. You must find a number of treasures and store



GAME: TRANSYLVANIAN TOWER
MACHINE: DRAGON 32
JOYSTICK: NO
CATEGORY: ADVENTURE
SUPPLIER: RICHARD SHEPHERD SOFTWARE
PRICE: £6.50

Count Dracula's castle is the setting for this ghoulish graphic adventure. In it, you must find your way through five floors of the castle, bump the Count off, and then steal the treasure.

You start at the dungeon – and move up floor by floor, and each floor has 100 rooms. Some rooms are dead ends, and the game is basically a maze.

The instructions are clear, and repeated on the cassette inlay in case you

GAME: EMPIRE
MACHINE: DRAGON 32
JOYSTICK: NO
CATEGORY: STRATEGY
SUPPLIER: SHARDS SOFTWARE
PRICE:£6.95

Based on the *Diplomacy* type of board game, *Empire* challenges you to dominate the world. The world it speaks of is divided into six continents and 39 countries – 13 going to neutral forces, 13 going to the Dragon, and 13 to you. Good, neat, clear graphics are used, and sound is used only where necessary.

Empire is an easy game to load, with a concise and logical set of instructions, and your objective is to beat the Dra-

GAME: UP PERISCOPE
MACHINE: DRAGON 32
JOYSTICK: OPTIONAL
CATEGORY: STRATEGY/ ARCADE
SUPPLIER: BEYOND SOFTWARE
PRICE: £6.95

At first sight this is a complicated version of *Battleships*. Your aim is to guide your convoy through the wolfpack of submarines, and so to safety.

The complex rules cover all eventualities, are easy to follow, and have been thoughtfully laid out on the inlay. You select one or two players, the number of submarines, and the numbers of the convoy that must get through within a time limit.

The game loaded without problems,

DRAGON • DRAGON • D

cue the miners before you run out of fuel or rockets. The graphics are very good, and the joystick works well.

The game must be played through to the bitter end, in order to pick up clues – such as 'IF YOU CAN'T SPEAK SIRAN, GET A TRANSLATOR' – and the running code for the adventure.

You then join Captain Phoenix for the adventure. The pair of you have to find the antidote for the fungus (deadly, of course), while your crippled spacecraft is repaired.

If you are looking for an easy adventure, forget it. You start with basically a series of choices, and the wrong one results in your death. **JB**

Graphics	7
Sound	4
Ease of Use	5
Originality	7
Lasting Interest	6
Overall	7

---

blocks. Cuthbert himself lacks character, his stetson hat being the only individual touch.

It is quite moving, though, to see him slow down and keel over as his oxygen supply runs out.

The game has eight levels, and at the higher ones the monsters, called Moronians, give Cuthbert a tough old time. At these stages you also encounter the Chief Moronians, who must be bonked through two levels before you can dispose of them.

Drawbacks to this program are that you must use two different keys for digging and filling holes, and that Cuthbert just will not stand still. You need to fiddle with the keys to make him.

In comparison to other Dragon software, this program does not suffer too badly, but when you look at *Space Panic* for other micros, you see that it is a dull and unimaginative version **PC**

Graphics	4
Sound	4
Ease of Use	5
Originality	1
Lasting Interest	4
Overall	4

---

them in a sanctuary.

Pitted against you are several unpleasant opponents such as orcs, trolls, wizards, and jesters. The unicorn though, might give some help if you stroke its horn.

The game's topography is varied and well-described. I particularly liked the 'elegant gazebo', but was not too happy about finding myself in the skeleton's tomb.

Commands are entered using the familiar verb-noun formula, and the game's vocabulary is reasonably large. Some Americanisms have remained in the program. When you want to quit you type 'UNCLE', followed by a dollar sign.

Despite this minor criticism, *Keys Of The Wizard* is an engrossing and well-constructed adventure. **PC**

Graphics	NA
Sound	NA
Ease of Use	7
Originality	6
Lasting Interest	8
Overall	7

---

miss the screen display.

The arrow keys move you from room to room, and at the start a floor plan is available. The dungeons floor is more a familiarisation session rather than the game proper.

Each room gives a 3D impression, but the graphics are average. Having mastered the dungeons, you move up to level two. Here bats appear, plus a variety of weapons to help you fend them off.

At first, I thought that being limited to three objects to carry at once was a bit mean, but objects do get used up consistantly as you go along.

One object – the magic apple – is supposed to get you on to the next floor, but whether my batch of apples had bugs or maggots, I don't know. They didn't work for me.

Once I struggled through the game to the end, I found little in it to make me want to play it again. A well-written program, but a disappointing one to play. **JB**

Graphics	5
Sound	2
Ease of Use	7
Originality	6
Lasting Interest	4
Overall	4

---

gon's armies – the neutral countries are there only as an obstruction.

Operation is keyboard only, and only one player can play at a time. Having chosen your 13 countries, you place your 26 armies on them, wherever you wish. The Dragon will then do the same, and start attacking.

There are eight skill levels, and depending on the skill level chosen, your chances of winning are good to minimal. At level four, your chances are fifty-fifty, but above level four, the bias is towards the Dragon. When the Dragon wins, it moves on until it loses.

When you eventually get control, you get extra armies to allocate, based on the number of countries you hold, plus one for each victory, and one for each continent.

Armies can only be moved on victory and then only through beaten countries.

Empire is a great game to play, demanding concentration and time. But a joystick version would help. **JB**

Graphics	7
Sound	6
Ease of Use	6
Strength of play	6
Lasting Interest	9
Overall	7

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but in common with many other Dragon graphic games, it uses POKE 65495,0 to double the processor's running speed. This can crash some machines, but editing and deleting the relevant line before running – in this case part of line 151 – will prevent this.

The two-player version lacked the appeal of the one-player option – you both use the same joystick and play is alternate rather than simultaneous.

To protect your convoy of six supply ships, you have six destroyers. All moves are based on a hexagonal plan, and a menu is displayed throughout.

If you play against the Dragon, you have the option of watching the moves it makes, thus making it easier to plan your attack. However, playing blind against the Dragon was very challenging.

The graphics are very good, as is the sound, which is used sparingly. Keyboard operation is available, but harder to master. Joysticks are ideal for this game.

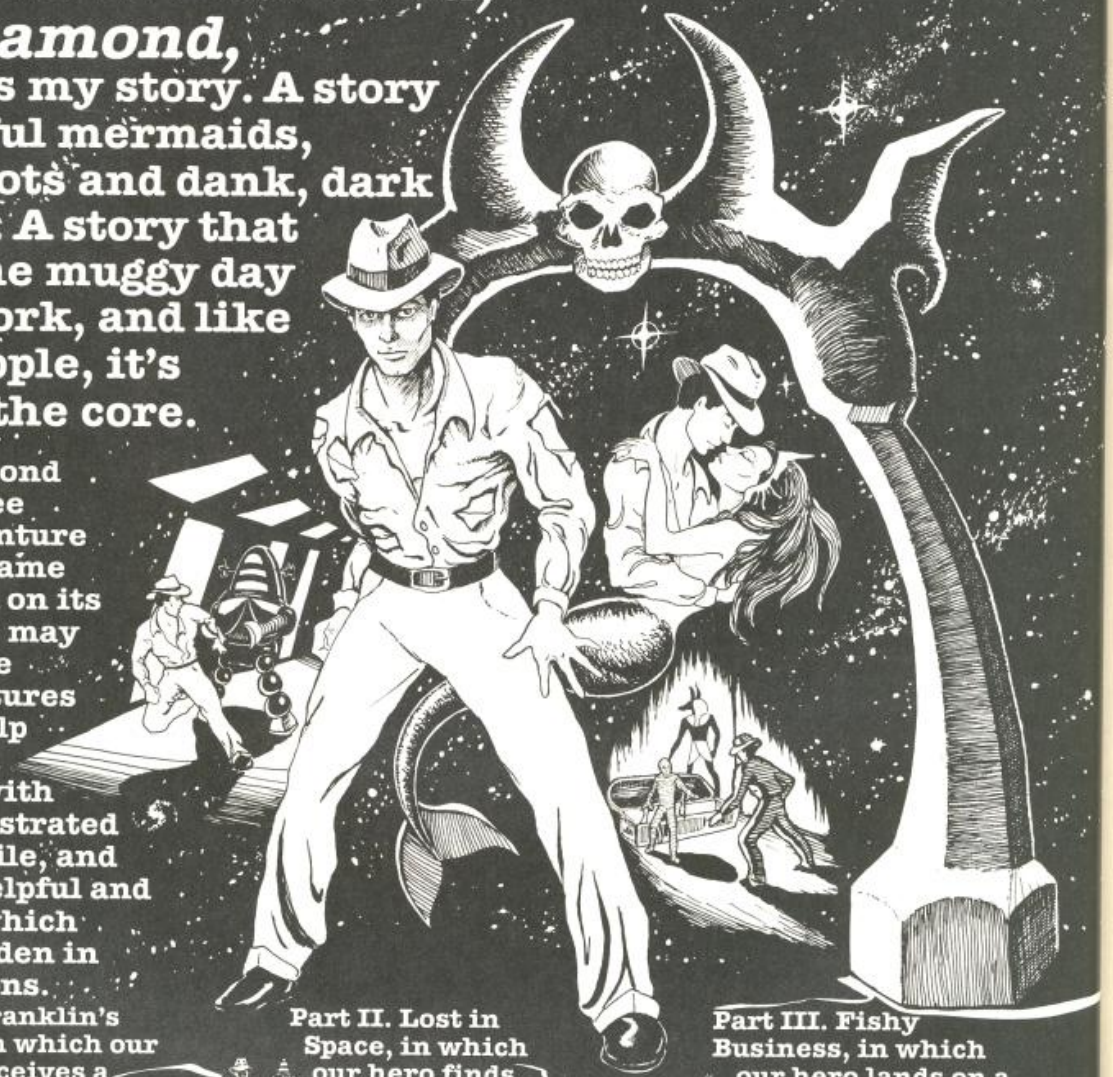
All in all, a very pleasing game to play requiring skill and some thought. **JB**

Graphics	8
Sound	7
Ease of Use	6
Originality	6
Lasting Interest	7
Overall	7

THE DAN DIAMOND TRILOGY

My name is Diamond, Dan Diamond,

and this is my story. A story of beautiful mermaids, bored robots and dank, dark dungeons. A story that started one muggy day in New York, and like the Big Apple, it's rotten to the core.



The Dan Diamond Trilogy is three separate adventure games. Each game may be played on its own, but clues may be found in the earlier adventures which may help later on. Each game comes with a lavishly illustrated 20-page case file, and hints (both helpful and misleading) which have been hidden in the illustrations.

Part I. Franklin's Tomb, in which our hero receives a mysterious plea for help which leads him to a hidden tomb and the mystery of the stargate.

Part II. Lost in Space, in which our hero finds himself stranded on a derelict spacecraft, doomed to travel endlessly through space, or find a way out.

Part III. Fishy Business, in which our hero lands on a watery planet, discovers the source of the plea for help and saves the day.

All three programs cost £9.95 each and are available for the DRAGON 32, BBC MODEL B and 48k ORIC-1 microcomputers. (note: Fishy Business for the BBC and ORIC will be available February 1984).

"It must be the most consistently enjoyable adventure game I've ever played"
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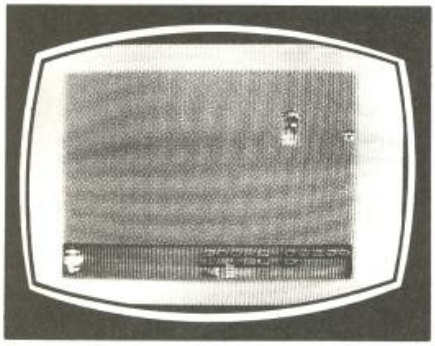


GAME: CRAZY PAINTER
MACHINE: DRAGON
JOYSTICK: OPTIONAL
CATEGORY: ARCADE
SUPPLIER: MICRODEAL
PRICE: £8.00

Imagine painting a floor and having the pet dog walk across it the moment you think you're almost done. Then picture that dog returning a few minutes later and bringing its mates in to stomp all over your handiwork.

Throw in a couple of Cheshire cats (heads only) who miraculously wipe out all traces of paint and 'eat' away at what you've accomplished. Add an assortment of other creatures, including circles that leave large ink splashes, and you begin to get the idea.

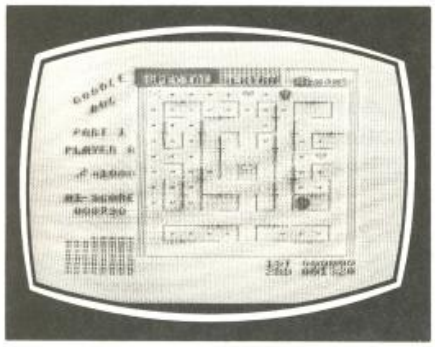
Crazy Painter provides you with a brush, four cans of quickly consumed paint, and unlimited screens to work through. This game is strictly for the workaholic, the sort of person who feels deprived when all the do-it-yourself jobs around the house are done.

There's something obsessive about painting large surfaces and this game captures that quality perfectly. It's not exactly a new conception in games, since every home computer manual has something similar.

One thing very much in favour of *Crazy Painter* is that it is dead simple to begin playing. It doesn't reveal all its secrets immediately. You have to learn by experience that certain animals or objects will nick your paint or your paintbrush, if you try painting over them.

There is the usual Hall of Fame, with the best scores, based on how economical a painter you are. **DJ**

Graphics	5
Sound	3
Ease of Use	8
Originality	6
Lasting Interest	5
Overall	5



GAME: DOODLE BUG
MACHINE: DRAGON
JOYSTICK: NECESSARY
CATEGORY: ARCADE
SUPPLIER: MICRODEAL
PRICE: £19.95 CARTRIDGE

'*Pacman* in a very thin disguise' is the fastest way of summing up this game. The graphics are rough, even for the Dragon. But there is one very nice transformation on the standard *Pacman* theme. Various sections of the maze are made up of swivelling gates.

You can trundle your little gobbler through them, as through a turnstile. Each time you pass through a gate it opens up a section of the maze and closes off the section behind you.

The nasties can't spin the gate to get at you, but that doesn't stop them finding another way around. It just slows them up a little.

To make things more interesting, there are a couple of skulls scattered randomly through the maze. Hitting these is fatal for both you and the monsters.

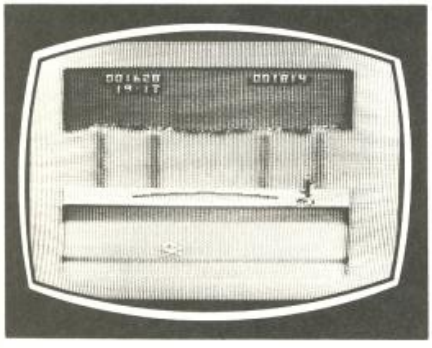
The sound is as good as you want from a *Pacman*-style game. Each time you spin a turnstile or munch a dot, the Dragon warbles and tweets.

The pace of the game is faster than the traditional version. Like the fellow who got caught in a revolving door and found himself back in the room he wanted to leave, it is easy to take an unwanted trip through a turnstile.

And when you hit several of them in a row the chances are you'll find yourself flung into the jaws of your pursuers.

At any rate, you'll probably open more routes for the monsters than you close. Fun if you liked the original. **DJ**

Graphics	4
Sound	6
Ease of Use	7
Originality	4
Lasting Interest	4
Overall	4



GAME: CUTHBERT IN THE JUNGLE
MACHINE: DRAGON 32
JOYSTICK: NEEDED
SUPPLIER: MICRODEAL
PRICE: £8.00

This little number is calculated to make you gnash your teeth in frustration. *Crazy Painter* aside, it is the ultimate in hard labour for slight rewards.

The scenario is as you see in the screen-shot. Cuthbert has to try and make some progress through this benign looking world of rolling heads, scorpions, snakes, underground tunnels, ladders, and pits.

Some of the obstacles are fatal, some just knock his legs out from under him – an event that can happen again and again without noticable effect.

You can jump the rolling heads and cross the large pit by swinging on the vine – always supposing, that is, that you can leap him up at the right moment, when the vine's at your end.

Leaping, as usual, is done at a touch of the fire button. One tip, once you get to the vine, don't spoil it all by letting go too soon. You can't survive the pit.

The joystick control in this game was decidedly dicey. I lost count of the number of times I walked or hopped Cuthbert up to the edge of the pit and meant to stop but didn't.

You have to be close to the edge to stand a chance of jumping up and grabbing the vine. What you have to do is clear enough, doing it is painfully difficult. **DJ**

Graphics	6
Sound	4
Ease of Use	3
Originality	6
Lasting Interest	2
Overall	3

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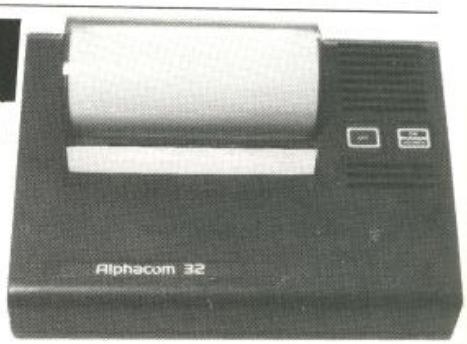

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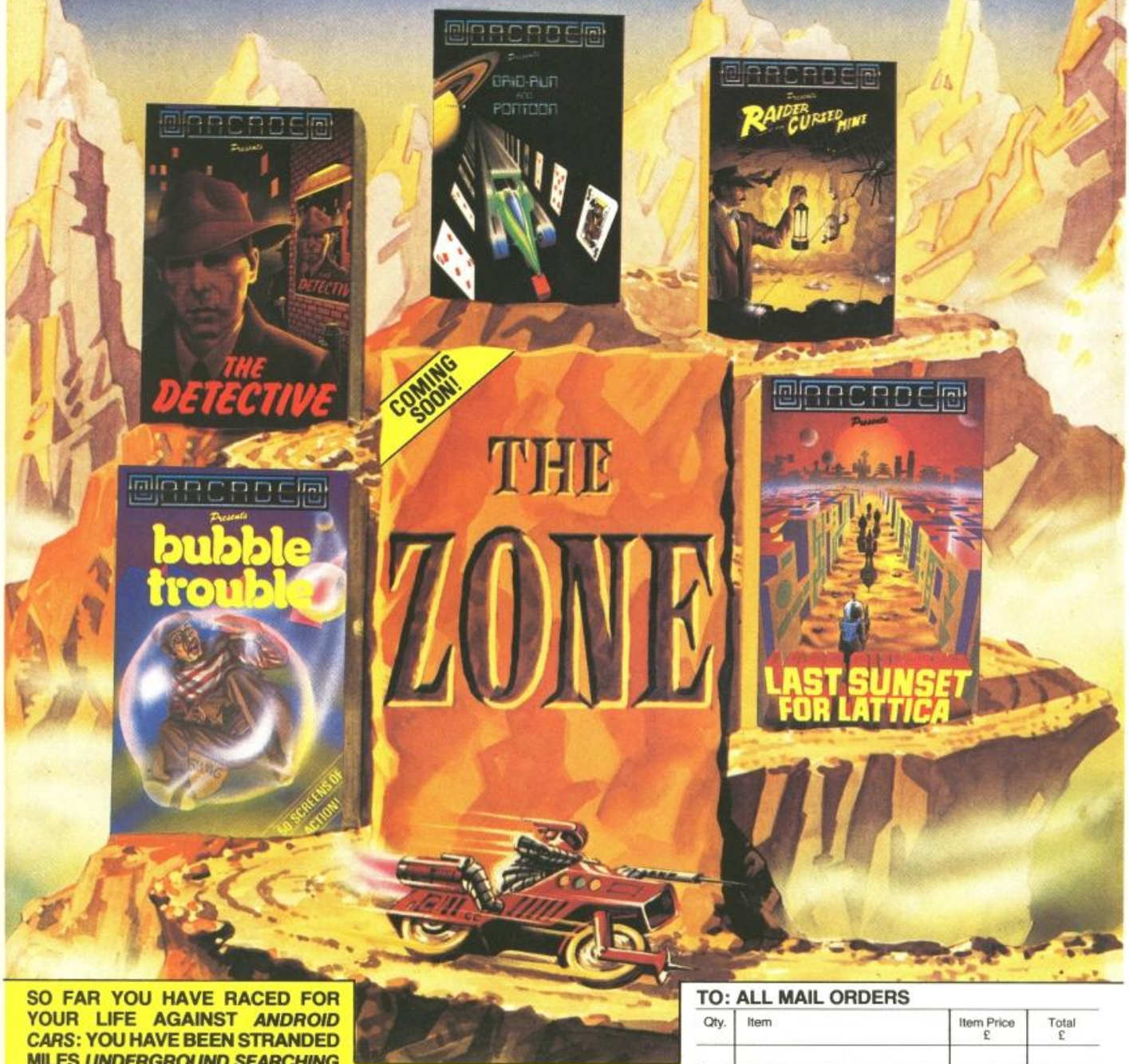

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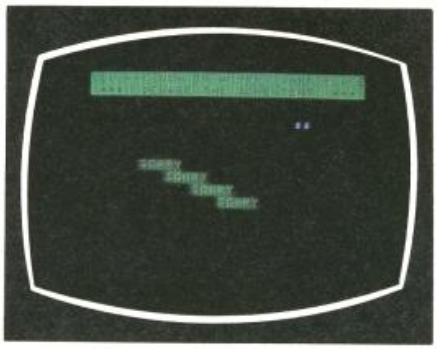
GAME: ADVENTURE CIRCUS
MACHINE: DRAGON 32
JOYSTICK: NO
CATEGORY: EDUCATIONAL
SUPPLIER: DRAGON DATA
PRICE: £7.95



This is a beginner's adventure game designed to be 'non-frustrating to children' – which means they shouldn't be tempted to boot the telly off the table after five minutes play.

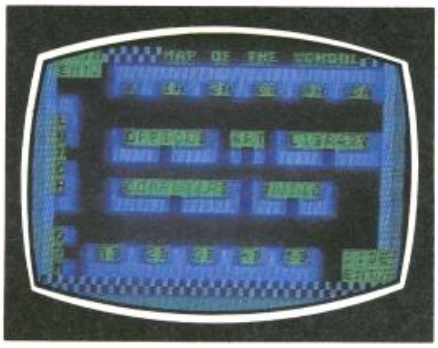
The aim is to find the popcorn stand, using the usual e, w, n, s directions, though in this simplified game, you are given a choice of only two alternatives at each point.

When you make a decision you are 'rewarded' with a tuneful little ditty and a cartoon picture in low-res graphics of something exciting, such as a trapeze.

The point of the game is simply to get young, primary school children used to punching the keyboard. **DJ**

Graphics	6
Sound	6
Ease of Use	7
Originality	5
Lasting Interest:	7
Overall	6

GAME: SCHOOL MAZE
MACHINE: DRAGON
JOYSTICK: NOT NEEDED
CATEGORY: EDUCATIONAL
SUPPLIER: DRAGON DATA
PRICE: £7.95

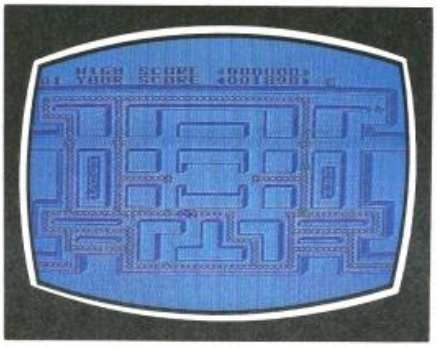


Again, an educational adventure program. But this one is probably for primary school children a year or two older than *Adventure Circus*.

The aim is to find a missing computer tape, hidden somewhere in the school. A map of the school is displayed at the start of the game and you find your way in and out of the various rooms sometimes by the traditional north, south, left, right style of input, sometimes by using the arrow keys to shift the cursor around the map of the school. **DJ**

Graphics	6
Sound	6
Ease of Use	8
Originality	7
Lasting Interest	7
Overall	6

GAME: MUNCH MAN
MACHINE: TI99/4A
JOYSTICK: OPTIONAL
CATEGORY: ARCADE
SUPPLIER: TEXAS
PRICE: £29.95



Texas Instruments' version of *Pacman* offers you cartridge convenience, but at the price of poor graphics and, if you don't have joysticks, infuriating movement keys.

The maze is well thought out, however, with six exits, so you can move about the screen quicker than in most versions.

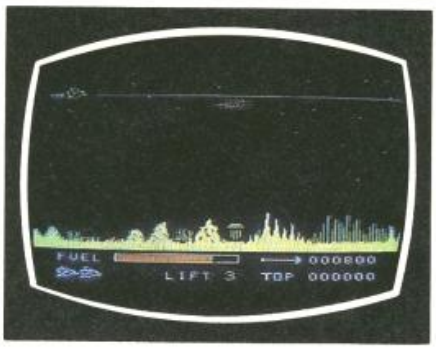
Instead of gobbling dots, in this game you leave 'footprints' behind you, and as soon as you have covered the available floor space, you move on to the next screen.

You have three lives, and the longer you last, the more intelligent the four ghosts become, until at the higher levels they become very difficult indeed to avoid. Picking up an energizer turns the opposition black and also increases your speed. The effects of the energizers last longer in this game than in most, and when you catch up with a ghost it disappears with a satisfying crunch.

If you have a joystick, don't mind the mediocre graphics, and want to play a *Pacman*-type game, then this is perhaps worth considering. **SC**

Graphics	3
Sound	4
Ease of Use	2
Originality	0
Lasting Interest	4
Overall	3

GAME: PARSEC
MACHINE: TI99/4A
JOYSTICK: OPTIONAL
CATEGORY: ARCADE
SUPPLIER: TEXAS
PRICE: £29.95



Parsec is a straightforward scramble-and-defend game with no option to reverse direction (as you have in *Defender*) and no bombs (which you have in *Scramble*).

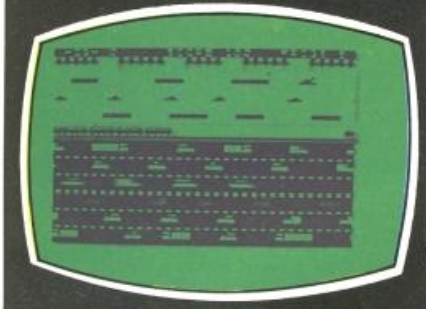
The control keys present serious problems for those without joysticks, and you just have to fiddle about until you find the best compromise.

The graphics are adequate, and the landscape over which you fly is varied, if rather uninspired. There is a freeze command for when the milk boils over, and if you have the Texas Instruments speech synthesizer unit the game will give you verbal status reports.

There are 16 levels of play, and you have four lives. As you move through the different screens, you encounter seven different enemies and asteroid belts, all of which get speedier as the game progresses.

Parsec appears hopelessly out of date in comparison with games currently available on other machines, although some will no doubt still enjoy it. **SC**

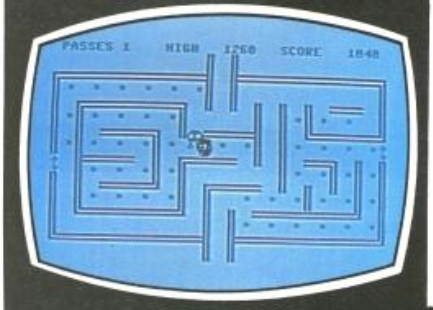
Graphics	3
Sound	5
Ease of Use	1
Originality	0
Lasting Interest	4
Overall	4



GAME: MISSION OM
MACHINE: COMMODORE 64
JOYSTICK: NO
CATEGORY: ADVENTURE
SUPPLIER: SPECTRESOFT
PRICE: £7.95

Mission Om should give all Sword & Sorcery freaks another challenging adventure. Based on a now ageing theme, it offers differences which make it, in my opinion, worth buying.

As part of your initiation into the mastery of time and space, you have to find the password which will allow you to recover the symbolic crown of Om.

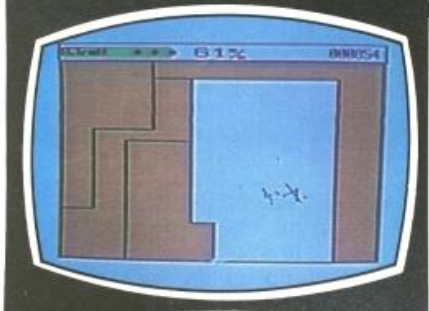


GAME: HUNGRY HORACE
MACHINE: COMMODORE 64
JOYSTICK: OPTIONAL
CATEGORY: ARCADE
SUPPLIER: MELBOURNE HOUSE
PRICE: £5.99

This version of Horace puts him in the park where he has to eat everything in his path. To travel through the park, he has to cross bridges, move along the paths, and go through the tunnels.

The park guards are patrolling, and if they catch Horace, he will be chucked out of the park, and if this happens four times, he won't be allowed back in again.

To score points, you must guide Horace through the four sections of the



GAME: STIX
MACHINE: COMMODORE 64
JOYSTICK: OPTIONAL
CATEGORY: ARCADE
SUPPLIER: SUPERSOFT
PRICE: £8.95, CASSETTE, £19.95 CARTRIDGE

The good thing about the Commodore 64 is that an arcade game can be faithfully transferred to the machine without loss in quality of graphics. *Stix* is just one example where the pleasure of playing an arcade quality game from your own armchair is within the bounds of possibility.

In this game, the *Stix* is a bundle of energy which is trapped in hyperspace. You must harness the evil powers of the

GAME: EVEREST ASCENT
MACHINE: COMMODORE 64
JOYSTICK: NO
CATEGORY: STRATEGY/ ADVENTURE
SUPPLIER: RICHARD SHEPHERD SOFTWARE
PRICE: £6.50

Here's an adventure game that requires some mathematics to progress! You play the role of the leader of an expedition whose goal is to reach the top of Mount Everest. You'll need help, of course, and this is got by bringing along sherpas, supplies, and equipment.

Everything costs money these days, and the sherpas are charging on a daily basis. Not only that, but you only have £1,000 to start with, and the blighters need feeding every day!

PCG HIT ✻ PCG HIT ✻ PCG HIT ✻ PCG HIT ✻ PCG HIT ✻ G

GAME: INTERNATIONAL SOCCER
MACHINE: COMMODORE 64
JOYSTICK: NECESSARY
CATEGORY: ARCADE
SUPPLIER: COMMODORE
PRICE: £9.95, CARTRIDGE

Plug in the cartridge, switch on, and you're instantly rewarded with a sign-on logo and copyright message.

You must now look at the instruction page, because the screen gives no indication of what to do next.

In fact, it is very simple indeed. You use the function keys to scroll through all the possible colours for the players to appear in. There is a large-scale picture of the player on the screen, and you use 'f1' to choose for one side and 'f3' to choose for the other.

If you want to play against the computer you use 'f5' to scroll through the nine levels of difficulty, otherwise you play against the opponent operating the other joystick.

A press on the joystick fire button, and off you go.

It is immediately obvious that this game will set new standards.

The view of the football pitch is three-dimensional, as if you are in the best seat in the stand, and the players run on to the pitch and take up their positions.

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Once this is done, you can then learn the keyword which entitles you to wear the mission Om badge, which can be obtained from Spectresoft, along with their newsletter. (No kidding.)

To reach your goal, you will have to do battle with many enemies, chart your way through mystery hazards, find clues – the usual stuff.

When fighting, you can choose to fight with brute strength or with spells – though the spells are not guaranteed to work all the time!

All the typical adventure words are accepted in *Mission Om*, but what is not so typical is that it was possible to corrupt the lower part of the screen if you entered too many characters.

This aside, *Mission Om* will provide you with a lengthy challenge. **DJ**

Graphics	2
Sound	2
Ease of Use	2
Originality	4
Lasting Interest	6
Overall	5

park, using either a joystick or the keyboard. Points are awarded for each flower that Horace eats and each alarm bell that he steals.

If a guard drops his lunch of strawberries and Horace eats them, extra points are awarded.

To score points, you must guide Horace through the four sections of the park, using either a joystick or the keyboard. Points are awarded for each flower that Horace eats and each alarm bell that he steals.

If a guard drops his lunch of strawberries and Horace eats them, extra points are awarded.

This version is clearer than that on the Spectrum because of the superior graphics of the 64. Good use of the 64's sound is also made, with the alarm bells constantly ringing, and sounding very authentic, too.

The big difference about this version of Horace, is that it is possible to define your own park and then save it to tape. The instructions are not too clear on how to do this, but once mastered, defining your own maze simply adds to the enjoyment of a great game. **DJ**

Graphics	7
Sound	7
Ease of Use	6
Originality	4
Lasting Interest	7
Overall	7

Stix by constructing (drawing) forcefields within the hypersquare and so contain it.

Once you have boxed in more than 75 per cent of the hypersquare, you go on to the next level where the *Stix* is a little more active in trying to break out.

The hazards in drawing the force fields are that you must not allow the *Stix* to touch the forcefield you are drawing, nor must you pause drawing or else the field will be destroyed by a power ripple.

There are also a couple of particles which travel around the inside of the forcefield perimeter you are drawing, and if they collide with you, a nuclear explosion will occur.

The graphics are tremendous in *Stix*, with the *Stix* travelling in a very smooth manner. Four-directional control is achieved by using either joystick or keyboard, and each section is coloured as it is 'boxed in'.

Stix is a challenging game that's well worth looking at. **DJ**

Graphics	8
Sound	6
Ease of Use	6
Originality	5
Lasting Interest	6
Overall	6

Once the game is loaded, you are presented with a list of sherpas' names, together with their daily rate and strength ratings. They do seem to have a degree of British upbringing, with names like 'Tom', 'Keith', 'Jim', and so on.

Once the sherpas have been hired, a list of equipment is displayed, with items such as radio (always buy it), tent, oxygen, and so on. Some of the equipment will be essential, some not.

You then have 20 days' trek to the summit, which is measured in half days. At night, you can set up camp, and if you choose, establish one of three base camps where you can leave sherpas, equipment, and supplies before moving on.

In reality though, you'll probably run out of cash and your sherpas will desert back to the village. To continue, you'll have to descend to the village, where hopefully there is a donation waiting for you for succeeding in your climb.

This game requires you to find the right combination of sherpas, supplies, and equipment and so face the hazards ahead. A real challenge. **DJ**

Graphics	2
Sound	1
Ease of Use	4
Originality	7
Lasting Interest	6
Overall	6

T ✻ PCG HIT ✻ PCG HIT ✻ PCG HIT ✻ PCG HIT ✻ PCG HIT ✻ PCG HIT ✻ PCG HIT ✻ PCG HIT ✻

A realistic blow of the ref's whistle, and you kick off.

You control the movements of your player nearest the ball, by moving the joystick.

He will take the ball with him, either dribbling or heading the ball continuously! The fire button makes the player kick the ball.

It makes a very satisfying bouncing sound, and you'll be surprised to see the shadow which appears under the ball whenever it's in the air!

The player(s) being controlled by the joystick(s) obligingly change colour, so that you can tell when you're controlling a different player. This is very valuable, because one of the attractive features of the game is the way the other players run around the field.

The goalkeepers are made to jump or dive by using the fire button. But you must choose your moment well: a fraction out, and the goalkeeper is left lying on the ground while the ball bounces in the net, and the crowd roar and clamour (no violence, though!).

Indeed, the one lack of realism is that there are no fouls! If you bring your player into contact with the one who has the ball, you will take possession.

The score is shown on the board, along with the time ticking away. At half time, the players and officials leave the field and return, changing ends, of course!

At the end of the match, unless it is drawn, the Queen presents the cup, and the crowd goes wild.

The quality of the game is best summed up by saying that it gets even the cynics who have 'seen it all', playing, and I think it will prove highly addictive.

Commodore obviously think so too, as they are pricing it higher than any other cartridge in their range.

Watch out for *Basketball!* **BY**

Graphics	10
Sound	8
Ease of Use	9
Originality	5
Lasting Interest	8
Overall	9

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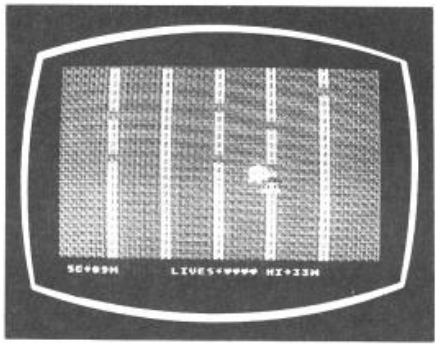
GAME: STEEPLEJACK
MACHINE: ATARI
JOYSTICK: NECESSARY
GAME CATEGORY: ARCADE
SUPPLIER: ENGLISH SOFTWARE
COMPANY
PRICE: £9.95



This game has much in common with the ever popular *Frogger*. The principle is the same although the graphics and the atmosphere are new.

With *Frogger*, you had to hop the frog over a multi-lane highway and across a stream to home. *Steeplejack* simplifies all that without losing any of *Frogger's* addictive qualities.

There are a number of vertical ladders on the screen. Your job is to hop your man (represented by a grimacing head) from ladder to ladder, avoiding the gaps which appear in the ladders from time to time.

The only way to avoid a gap is to leap on to an adjacent ladder, assuming it hasn't got a gap in roughly the same position.

Leaping is achieved by pushing the joystick to left or right and pressing the fire button. Holding the joystick down in either direction while repeating the fire button will leap the steeplejack rapidly from ladder to ladder.

To make the task a little more difficult, there is also a pink ghost who floats from bottom left to the mid-right hand side of the screen.

Touching or hitting any of these causes your man to split in half and costs you a life.

At the bottom, left edge of the screen a scoreboard keeps track of how far you have managed to climb. I managed 177 meters, which is probably not great.

There are all sorts of problems preventing a high score, most of them deliberate.

For a start, although the gaps in the ladders are usually staggered, they tend, when you least expect it, to coincide on three or four ladders.

You can only leap your steeplejack successfully from one ladder to another while you are still more than one and a half rungs from a gap (the brief blurb on the cassette cover doesn't tell you this – it's something you have to discover for yourself.

The screen scrolls downwards all the time, so the mere act of leaping costs you about two rungs.

You have some control over the speed with which the ladders scroll down the screen. Pulling the joystick towards you allows you to climb down the screen faster than the ladder is descending – but only as far as the foot of the screen.

You can't outrun a falling elephant (there's a moral in that somewhere) by going down a ladder, but it is useful sometimes since it can give you a chance to leap to another ladder before you hit the gap in the one you are currently on.

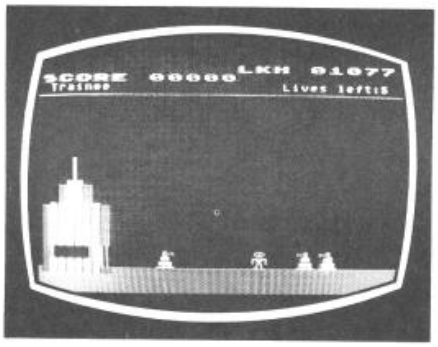
What makes this game work is that you are constantly fooled into believing that its strategic dimension is larger than the element of chance that really fuels it.

Like most tapes for the Atari, the loading is slow but reliable. As usual, the instructions are minimal and are written on the cassette wrapper, but they are adequate for the job.

A game I rather enjoyed. **TH**

Graphics	7
Sound	5
Ease of Use	9
Originality	7
Lasting Interest	6
Overall	7

GAME: LONE RAIDER
MACHINE: ATARI 16K
JOYSTICK: NECESSARY
GAME CATEGORY: ARCADE
SUPPLIER: ATARI
PRICE: £14.99



The Atari's graphics and sound capabilities mean games can come on with all the impact of a Hollywood movie. *Lone Raider* starts with an action music theme which becomes a mighty Wurlitzer, and then 'The Flight of the Bumblebee'.

And that's only while the game loads.

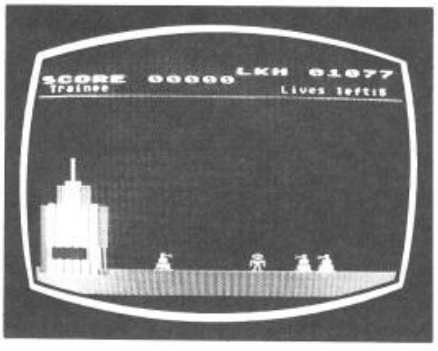
The action revolves around a nuclear power station which has been taken over by aliens. There are four screens to battle through, and the first shows the power station.

It's a big glowing pink thing that looks like an art-deco hatbox.

You descend from a spaceship, and find yourself defending the ground between the station and what looks like a telegraph pole.

Robot guards (looking just like Daleks) come at you from both sides, shooting at head-level. By pulling the joystick down, you can duck their shots so the robots shoot each other, but there are points to be gained by doing the shooting yourself.

When the robots are all out of the way, one last massive tank of a guard rolls up. Since he's indestructible, the only escape is to dash into the power station.



Inside the power station, the shooting stops, and you find yourself in a multi-floored space. Each floor has a line of dots to consume, and one blue proton drifting at head-level. Absorb it, and for four seconds, you can annihilate Mutant Guards on contact, rather than vice-versa.

There's a lot more of the same before you make it to the last screen. Then it's a matter of a quick dash through a simple maze to the faithful spaceship.

Getting through all this is heavy, even with five lives and at the lowest of 10 skill levels. *Lone Raider* is smooth running, has sharp graphics and professional sound effects.

One thing Americans have is technical know-how, and it shows. The game is addictive, and as an added bonus, there's a multilingual instruction manual. The French version is hilarious as well as having educational value. **WD**

Graphics	7
Sound	8
Ease of Use	8
Originality	8
Lasting Interest	7
Overall	8

GAME: SEA LORD
MACHINE: BBC MODEL B
JOYSTICK: NO
GAME CATEGORY: ARCADE
SUPPLIER: BUG-BYTE
PRICE: £7.50

In this game you are the commander of a mini-sub, out to do battle with the various malevolent representatives of the Sea Lord.

You can roam at will through the wavy blue lines which are meant to represent the sea – and you have to avoid the randomly placed rectangles – which apparently are meant to represent the rocks.

The action takes place at a sedate pace, entirely befitting underwater exploration but not at all suitable in an arcade game.

Sound is adequate but uninspired – surely a lost opportunity, given the possibilities of the Beeb and the almost symphonic performance that takes place beneath the surface of the sea in real life.

GAME: OBLIVION
MACHINE: BBC MODEL B
JOYSTICK: NO
CATEGORY: ARCADE
SUPPLIER: BUG-BYTE
PRICE: £7.50

Bug-Byte have come up with yet another *Space Invader* type of game. But it has all the qualities of a good arcade program.

The scenario of this game is quite typical. You control a rocket, and you have to zap as many aliens as possible. Your craft moves on the bottom part of the screen, and you can move left or right as well as thrust upwards.

The aliens are quite different from the normal type. Here they gently descend towards you, firing lasers, and it's quite easy to pick them off. But if the aliens reach down half the screen, they begin to glide at different angles.

The further you get in the game, the more things hot up, with aliens coming at a tremendous rate. As well, there is more than one hovering alien, plus the occasional guided missile.

I must admit I found the game highly

GAME: MICROBE
MACHINE: BBC
JOYSTICK: OPTIONAL
CATEGORY: ARCADE
SUPPLIER: VIRGIN
PRICE: £7.95

Microbe runs so fast that it is almost impossible to play for any length of time. You control a 'microbe' – another name for a double-barrelled laser – using the 'Z' and 'X' keys to move left and right, and you can also move up and down using the ':' and '/' keys.

Firing is rapid and effective, using the space bar, and it has to be because the opposition is nimble and numerous.

The idea behind the game is that you have injected a microbe into the bloodstream of an alien, and your task is to use your firing button to polish off the alien's biological defences.

You start at the bottom of the screen, blasting the various anti-bodies as they approach, but when the ribosomes

GAME: CRUNCHER
MACHINE: BBC MODEL A OR B
JOYSTICK: OPTIONAL
CATEGORY: ARCADE
SUPPLIER: VIRGIN
PRICE: £7.95

You have wandered into a very strange land full of timebombs, flags, and bovver boots. Your task is to avoid being crunched by the blue bovver boots, and to trample instead the flashing time bombs which are counting down to zero.

You lose one of your lives if a bovver boot gives you a biff, or when a time bomb explodes. Failure to trample the time bombs will result in them blowing you up – don't worry though, I found it dead easy to avoid this.

This offering from Virgin Games is, I'm afraid, boring. It is so easy to avoid being crunched by the boots that the game has no real challenge of any sort.

Things are supposed to be made dif-

GAME: TRANSISTORS REVENGE
MACHINE: BBC MODEL B
JOYSTICK: NO
CATEGORY: ARCADE
SUPPLIER: SOFTSPOT
PRICE: £7.95

Even microprocessors have enemies, or so it would seem from playing this new game from Softspot. You take on the role of guardian of a 6502 microprocessor chip, while a multitude of electronic components move toward you along 16 circuit wires.

If any component reaches you, your chip explodes, and you are only able to prevent this by firing spark-like objects down the wires at the components.

A total of 50 components will attack during each level, and as they are destroyed, the number remaining is displayed on the screen.

As you get to the higher levels, the speed of the components increases, and so does the complexity of the tracks leading to the chip, making it difficult to see exactly which track the component is on.

Just to hinder you a little more, the

GAME: THE WIZARD
MACHINE: BBC MODEL B
JOYSTICK: NO
CATEGORY: ARCADE
SUPPLIER: QUICKSILVER
PRICE:£6.95

After reading the scenario on the cassette insert, I was looking forward to playing the game. What a let down.

First of all, I had trouble loading, until I realised that one side was recorded at 300 baud – a very nice feature, though undocumented.

A wizard, wand in hand gazes out upon a lake and sees, standing atop five small islands, five lonely princesses. The wizard is of course their protector, for above hover five demons waiting to prey on them.

You are able to position the wizard's wand anywhere between horizontal over the lake and vertical to the sky, and all you need do is point the wand and fire one shot, and the demons are destroyed.

All seems fine, but you only have 22 lightning bolts, though more are awarded after each attack wave.

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Since your ship is constantly moving, the only keys you need are the TAB key and the 'Q' key, which rotate you left and right respectively.

Your mini-sub will move and fire in the direction it is pointing, but since movement is possible in only eight directions, you have to spend a lot of time shunting backwards and forwards to get into a position for accurate fire.

Unfortunately, *Sea Lord* does not provide sufficient incentive for this challenge to be undertaken. **SC**

Graphics	6
Sound	3
Ease of Use	5
Originality	7
Lasting Interest:	4
Overall	5

addictive. The reasons for this are the smooth graphics and thunderous laser fire, which makes the whole game realistic.

Dodging the aliens can be achieved in several ways, and it's fun trying to outwit them, but you're bound to be duffed up in the end.

Oblivion will provide the arcade player with a tough challenge, and while I don't agree with Bug-Byte when they say it's the most addictive arcade game for the BBC micro, I can imagine players of this game suffering from eye strain and battle fatigue! **DJ**

Graphics	7
Sound	6
Ease of Use	6
Originality	3
Lasting Interest	7
Overall	7

appear, you have to move up the screen to survive.

Here the problems begin since the action is so fast, the screen so crowded, and the explosive effects of each destroyed enemy so widespread, that telling exactly what's going on is very difficult.

Although the action is fast, noisy and colourful, *Microbe* is a frustrating game that is good to watch, but not much fun to play. **SC**

Graphics	5
Sound	4
Ease of Use	2
Originality	2
Lasting Interest	1
Overall	3

ficult because you are not allowed to traverse the path you have come from, yet the scroll feature of the game ignores this. The result is that the game has very little excitement.

So if you fancy reaching scores of over 100,000 with very little effort on your part, then *Cruncher* is for you. However, if you don't like getting bored quickly, give it a miss. **DJ**

Graphics	2
Sound	2
Ease of Use	8
Originality	4
Lasting Interest	0
Overall	2

firing rate slows down on the higher levels.

A feature which is relatively new to home computer games is the ability to continue your next game from the same point at which you finished your previous one.

This feature enables you to achieve very high scores by playing game after game, but it does have the disadvantage of the user losing interest in the game sooner than normal. Even so, this does not in any way detract from what is a very good game. **BL**

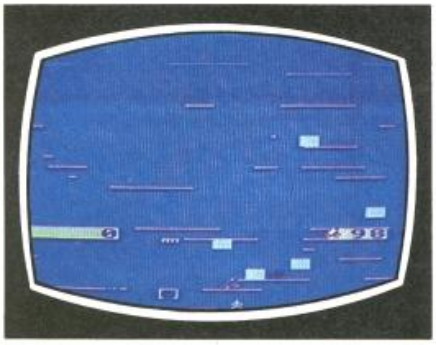
Graphics	7
Sound	6
Ease of Use	7
Originality	8
Lasting Interest	6
Overall	7

You may think that you have a sporting chance while you have shots remaining. True, until a demon decides to go for wizard rather than princess; the demon has a nasty habit of flying just behind the vertical or from below making it impossible to destroy.

The explanation for the relative simplicity of this game is that it's written in Basic. But this does mean it is possible to increase the shots you have.

The quality of the sound and graphics is ok, it is just the overall idea which made me lose interest so soon. **BL**

Graphics	5
Sound	4
Ease of Use	6
Originality	5
Lasting Interest	2
Overall	3



GAME: PLANKWALK
MACHINE: BBC MODEL B
JOYSTICK: NO
CATEGORY: ARCADE
SUPPLIER: VIRGIN GAMES
PRICE: £7.50

Here we have Scaffolding Sid, who after erecting the planks on the building he is working on, finds that they have gone berserk.

The planks are lifting him to the top of the screen, and you have to make Sid jump from plank to plank without him falling off the bottom, either edge, or being crushed on the top.

If that wasn't enough, the planks have a strange effect. If Sid lands on white planks, he slides to the left. If he lands on magneta planks, he slides to the right. If he lands on a flashing plank, he falls right through!

Not only that, but there is a monster after Sid which can only be killed if it, too, falls off the bottom or edge of the screen.

The keyboard is used to move Sid about, and this is one game which should have had a joystick option.

The sound in *Plankwalk* adds to the game tremendously. The best way to describe it is as a constant plinkering sound, with other effects thrown in when you land on planks, blocks, and so on.

Alas, the graphics are not so good. The planks are really lines, and Sid is no more than a puny match-stick man. The scaffolding and surrounds don't look like any building I have seen (the Barbican being the exception), and the imagination has to work overtime.

Virgin have almost got it right with *Plankwalk*, but the big disappointment is the poor graphics, which, if improved, would give them a guaranteed winner. Highly recommended. **DJ**

Graphics	**4**
Sound	**7**
Ease of Use	**4**
Originality	**7**
Lasting Interest	**7**
Overall	**7**

GAME: NOC-A-BLOCK
MACHINE: BBC MODEL B
JOYSTICK: OPTIONAL
CATEGORY: ARCADE
SUPPLIER: VIRGIN GAMES
PRICE: £7.95

This game is a version of *Penguin*. You don't blast or zap the aliens – you crush them instead!

You control a robot which is in the middle of a cold-store full of ice-blocks. Also in the cold-store are spods which you must avoid at all costs. You must also destroy them, if you want to get anywhere.

So, to kill them, you crush them. This is achieved by moving your robot into a position where there is a block of ice in front of it, and a spod somewhere in front of that.

You give the ice-block a shove, and depending on how quick you are, the spod should be crushed.

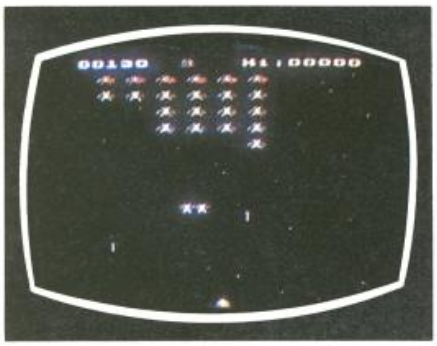
You can also kill the spods by stunning them when they are beside one of the four walls, and then walking over them.

When you've done that, you are then moved on to the next 'sheet' where the whole thing starts again. Bonus points are scored if you can line up the three special blocks into a line, but I give warning, it's not easy.

Control is by keyboard or joystick, and each sheet gives a different 'maze' of ice which forms into more complicated patterns as the game progresses.

Altogether, *Noc-a-block* is a good game, with clear, smooth graphics and plenty of colour, but it could be improved with more sound – worth looking at. **DJ**

Graphics	**6**
Sound	**3**
Ease of Use	**5**
Originality	**4**
Lasting Interest	**6**
Overall	**5**



GAME: BIRDS OF PREY
MACHINE: BBC MODEL B
JOYSTICK: OPTIONAL
CATEGORY: ARCADE
SUPPLIER: ROMIK
PRICE: £6.99

Birds of Prey features 'swoopers' and kamikaze birds, both of which belong to the *Galaxian* family.

For those of you unfamiliar with the genre, this game is essentially *Space Invaders* with the added thrill of tumbling aliens, who break ranks to swoop down, and across, the screen in the hope of bombing or ramming you.

Romik's game is fast and furious, with 10 levels of play, but there are one or two drawbacks. The speed has been achieved at the expense of the graphics, which flicker annoyingly and, sometimes, misleadingly.

There is a high-score table to which you can add your name, but if you go down fighting, the use of the 'S' key as the firing button means you often end up entering 'SSSS' before you know what's hit you.

Movement is accomplished using the 'A' and 'D' keys, which means the control keys are rather cramped. However, if both keys are pressed the 'D' key is ignored, so by keeping your finger on the latter, you need use only the 'A' key to control movement about the screen. Work that out in your head if you can, but, in fact, it works rather well.

Birds of Prey is fast and challenging, but the display is poor and *Galaxian* addicts will find they can do better elsewhere. **SC**

Graphics	**2**
Sound	**3**
Ease of Use	**4**
Originality	**1**
Lasting Interest	**3**
Overall	**3**

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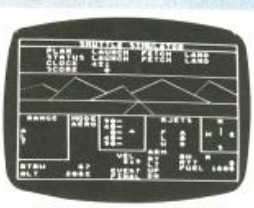
SPECTRUM LAUNCH STAGE

DRAGON 32 ARM STAGE

BBC FINAL STAGE



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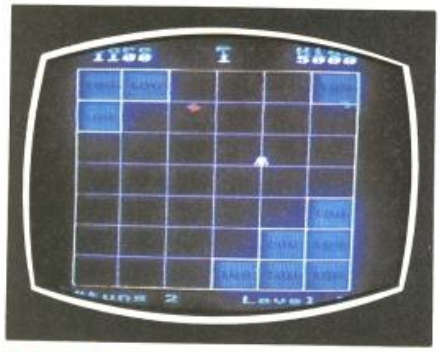

GAME: DEMON DECORATOR
MACHINE: BBC
JOYSTICK: NO
CATEGORY: ARCADE
SUPPLIER: PROGRAM POWER
PRICE: £6.99

Demon Decorator is one of those annoyingly simple games that can end up driving you to distraction. The graphics are awful and make no use of the machine's capabilities whatsoever, and the sound is no better, but mercifully there is little of it.

When you actually get down to playing the game, however, you will find it very difficult to stop. The screen is divided into squares and you control a paint-roller as it rolls along the lines of the grid.

On entering the game, the grid perimeter is painted yellow, and your task is to spread this paint across all four sides of each square. At this point the square in question will fill with colour and you can then move on to another.

All the while you have an octopus in hot pursuit, which you can stun momentarilly by pressing the space bar. If it catches you, you lose one of your three lives. On the other hand, you gain a bonus life if you succeed in filling an entire grid.

You can freeze the game in case of emergencies – and believe me, it has to be an emergency to get you away from this one.

As you progress through the various screens, the action gets faster and the octopus more intelligent. Despite strong reservations about the graphics and sound, this game is recommended. **SC**

Graphics	1
Sound	1
Ease of Use	3
Originality	3
Lasting Interest	6
Overall	5

GAME: ZALAGA
MACHINE: BBC
JOYSTICK: OPTIONAL
CATEGORY: ARCADE
SUPPLIER: AARDVARK
PRICE: £6.90

One of the problems with the *Galaxian Invader* type of game is that it must be difficult enough to present a challenge, but easy enough to tempt you back for another go. *Zalaga* scores well on both accounts.

The program welcomes you with a short tune, and as soon as your ship appears, some very colourful aliens swoop and loop about the screen before joining ranks at the top.

The aliens then dive one by one, *Galaxian* style, until you have cleared them all from the screen.

My only quibble with *Zalaga* is that the aliens' flight paths become a little too predictable after a while.

Another annoyance is that each time you lose a life, you have to wait rather too long for your ship to be replaced.

Occasionally one of the larger aliens swoops down and bombards an area of the screen with radiation, and if you're in the right place, and you still have a ship in reserve, it will join you on the screen, blasting away while the Beeb plays some jolly 'let's kill the aliens' music.

When you've finished zapping all of the aliens, there's a Hall of Fame to add your name to – unless you're too busy hitting the return keys to get back into the game.

Zalaga has nothing new to offer the hardened games addict, but what it does is well presented and fun to play. **SC**

Graphics	7
Sound	6
Ease of Use	8
Originality	3
Lasting Interest	7
Overall	7

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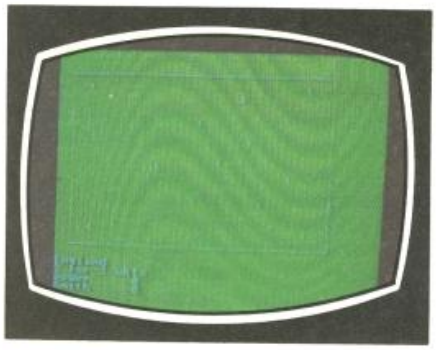

GAME: OWZAT
MACHINE: BBC
JOYSTICK: NO
CATEGORY: ARCADE
SUPPLIER: VIRGIN
PRICE: £7.95

There's no doubt about it – this program goes out for a duck. From the moment you load it and it asks you to delete lines 0-190, something tells you this is one of those few occasions when you might as well ask for your money back.

Owzat has one or two brief moments of graphic interest, but, apart from that, it's a shambles.

Let's examine just a few of the astonishing features of *Owzat*, all of which are presented in – ugh – white on a green background.

WANT TO SELECT A NEW TEAM MEMBER?

The program asks you to list and edit the lines concerned.

WANT TO SELECT THE AUTO-BOWL FEATURE?

Once selected you are doomed to watch the entire game without being able to stop it, unless you quit the program.

WANT TO ENTER DATA?

Have fun taking advantage of the lack of entry validation by entering a record innings, with 60,000 runs and minus 89 wickets.

MADE AN ERROR IN DATA ENTRY?

Oh dear! The program seems to have come to a halt. Start again.

I've said enough. Want to play cricket? Then play cricket, not *Owzat*. **SC**

Graphics	2
Sound	0
Ease of Use	0
Originality	10
Lasting Interest	1
Overall	0

MORE GOODIES FOR THE BBC MICROCOMPUTER FROM RH ELECTRONICS

The RH lightpen is compact, little bigger than a felt-tip. It is versatile, with a sophisticated microswitch at its point which responds to the slightest pressure, and an LED lamp at the user's end to indicate data transmission. Both microswitch and LED are fully programmable.

The RH lightpen is reliable, with a rugged metal case to provide physical and electronic protection. Its sensitivity can be adjusted to the thickness and type of your TV screen, giving the highest levels of accuracy.

With the lightpen connected to your BBC Micro you can draw lines on the screen, or give commands simply by pointing to a menu.

Colour-graphic software

This additional software is available so that all the colours of the BBC Micro's palette are available at the tip of your pen. Complex graphics can be created in minutes.

Art-fun software

This program is guaranteed to bring out the artist in you. It provides inspiration for users of the lightpen and provides full interaction between pen and screen.

Lightpen £45.95
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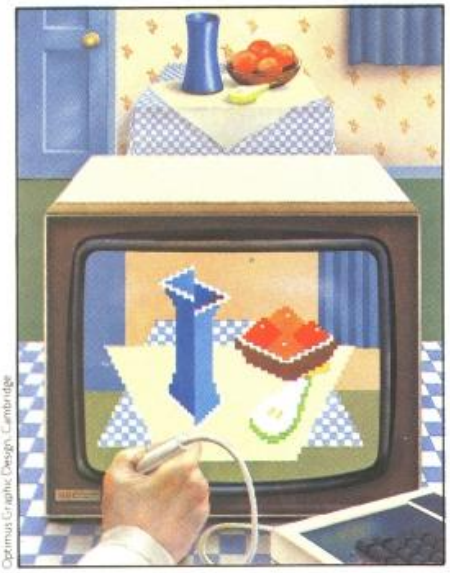
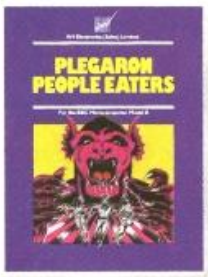
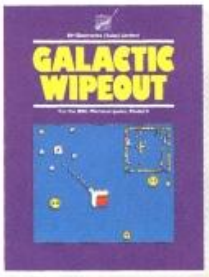
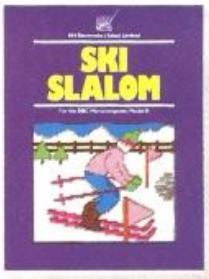
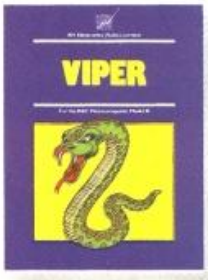


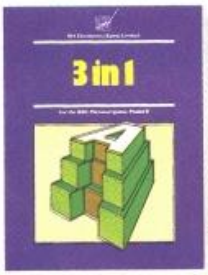
Optimus Graphic Design, Cambridge

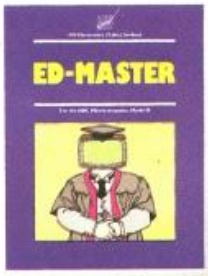


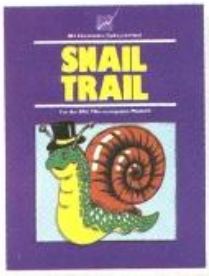


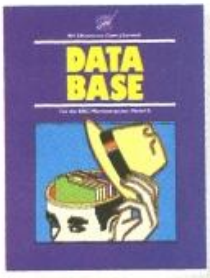












RH Electronics has a whole series of excellent software for the BBC Microcomputer Model B. For games, business and education, they will be highly valued by any BBC Micro owner.

Plegaron People Eaters £8.95
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Guide the skier through the 40 gate course avoiding deadly ice and landsliding snowballs.

Viper £8.95
Guide the snake around its electric cage devouring as much food as you can. Avoid touching the electrified walls, swallowing unsavoury food or causing the snake to eat its own tail.

3 in 1 (A) £7.50
This set of three games for the younger enthusiast includes: Task Force – a strategic battle of sea and air; Demolish – blast your way to freedom avoiding radioactive fall-out and falling masonry as you go; Cosmos – where you have to defend the earth from an invading battle fleet.

Ed-master £12.95
This program uses the quiz format combining the element of fun with educational teaching. 160 questions may be programmed by the teacher, divided into eight subject areas of 20 questions each. Questions and answers can be changed as often as you wish. The computer will tell the pupil whether he or she has the correct answer or not, but cheating is prevented as pupils cannot access the program to find out the correct answers. The scores of up to 40 pupils are stored in the quiz memory and are easily recalled for comparison.

Snail Trail £4.95
Help the snail escape from the maze he's fallen into before he starves to death. There are two skill levels to this cassette.

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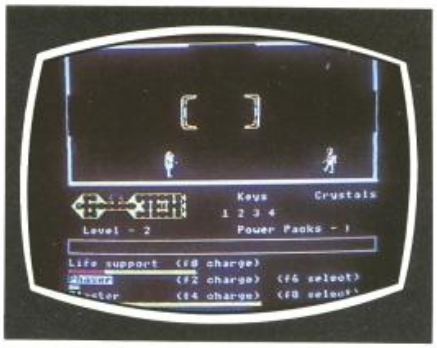
MACHINE: BBC MODEL B
JOYSTICK: OPTIONAL
CATEGORY: ARCADE
SUPPLIER: VIRGIN
PRICE: £7.95



In *Space Adventure* you control a small animated figure as he explores the rooms of an abandoned space ship. The object of the game is to collect four power crystals, but first you need to find the keys for the rooms in which the keys have been locked away.

You are armed with a phaser and a blaster, either of which you can use against the various hostile androids who inhabit many of the rooms you have to pass through.

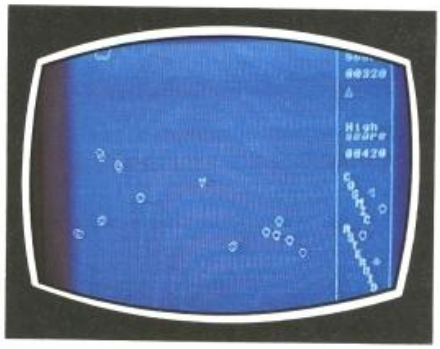
The top half of the screen gives you a view of the action taking place, while below is a map of the space ship so you can see which room you're in, together with a status display of your energy.

The battle sequences require a lot of skill at the higher levels, though finding all four crystals before you are wiped out tends to be a matter of luck.

Since you only have one life, you will often find yourself starting again at the beginning, but the game holds sufficient interest for this not to matter. Recommended. **SC**

Graphics	7
Sound	3
Ease of Use	6
Originality	6
Lasting Interest	8
Overall	8

GAME: COSMIC ASTEROIDS
MACHINE: BBC MODEL B
JOYSTICK: NO
CATEGORY: ARCADE
SUPPLIER: ALLIGATA
PRICE: £5.95



Alligata's version of *Asteroids* loads in just over two minutes, and on running, shows a few differences to the standard version. The display is white on blue, and there is a panel on the right which takes up far too much of the screen just to print your score and remind you of the high score you are aiming for.

Ship rotation is accomplished using the 'Z' and 'X' keys, while you thrust with the SHIFT key, and leap into hyperspace using the space bar.

You fire by pressing the RETURN key, but the range is annoyingly short. The thrust control is more sensitive than most, so moving your ship can involve a greater degree of precision than usual.

The action is accomplished by some rather uninspired sound effects that grate on the senses after a while, and which cannot be turned off. Blasting the asteroids in this version sends them spinning away from you as well as shattering them. The occasional flying saucer is small and speedy, and its fire is frustratingly accurate.

Nevertheless, the game plays very smoothly, and for *Asteroids* fans, it could offer many a happy hour of frenzied blasting. **SC**

Graphics	6
Sound	5
Ease of Use	4
Originality	0
Lasting Interest	7
Overall	6

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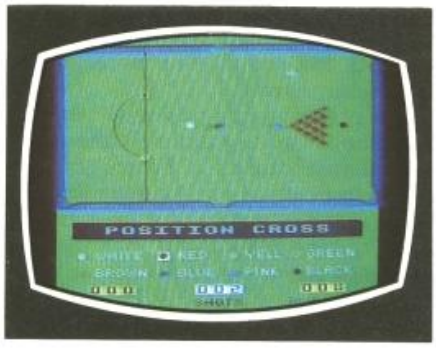
GAME: SNOOKER
MACHINE: ELECTRON
JOYSTICK: NO
CATEGORY: SIMULATION
SUPPLIER: VISIONS
PRICE: £8.95



Loading and running *Snooker* is exciting – you get an excellently designed title page that successfully whets your appetite for what is to come. But actually playing *Snooker* is a different experience altogether.

In the real world, snooker is a game of skill, but in this version it has become more a game of chance – and a frustratingly unsatisfying one at that.

It's not that the graphics are poor. Apart from the brown ball and the annoying flicker of balls in motion, the display is attractive, and can draw your eyes hypnotically.

Unfortunately, the display and the various options, such as 'ball deletion' and 'foul, pass to your opponent', do not make up for contradictions with the laws of physics.

Whereas rebound from the cushions is reliable and predictable, when two balls collide, you get unpredictable table results. This does not accord with that calm precision which makes real snooker such fun to play.

In actual play, the table occupies the top half of the screen, and you position a white cross to indicate the direction you wish your ball to travel in. Speed of travel is varied by the time you spend holding down the space bar, and on releasing it, your ball spins across the baize.

Only if you are very keen on *Snooker* and can't wait for a better version, should you consider this version. **SC**

Graphics	5
Sound	3
Ease of Use	4
Originality	3
Lasting Interest	2
Overall	3

GAME: REVENGE OF THE MUTANT CAMELS
MACHINE: COMMODORE 64
JOYSTICK: REQUIRED
TYPE: ARCADE
SUPPLIER: LLAMASOFT
PRICE: £8.00

Here it is, arcade freaks – the game you've all been waiting for. A pulsating shoot-em'-up featuring no less than 42 separate attack waves, unsurpassable graphics and sound, and more laughs than Kenny Everett.

Our exclusive, pre-release viewing of the game caused a sensation in the office and almost caused a breach of the peace, so great was our excitement.

The game is a sequel to Llamasoft's *Attack of the Mutant Camels* in which you used space ships to try to stop advancing alien camels – a scene cribbed from *The Empire Strikes Back*.

In *Revenge of the Mutant Camels* the tables are turned. You are the camel who has to advance through wave after wave of extraordinary assailants.

And when I say extraordinary, I mean extraordinary.

You start off happily enough with birds flapping across the screen and dropping 100-ton weights on top of you. But then come the rain-clouds which rain cats and dogs – literally.

The next attack is 'Manic Minter', an animated drawing of the programmer himself, accompanied by his favourite llamas.

Succeeding attacks are: whacky whackers, mutant-mutant camels, Tardis-like telephone kiosks, kangaroos on skis, exploding sheep, music stands, fried eggs, and Atari joysticks.

And that's only for starters. When he put this game together, Jeff Minter decided that anything and everything he came into contact with was suitable material.

Jeff lives close to Greenham Common, so naturally enough, cruise missiles and CND protesters make up one attack wave.

Another attack wave is made up of alien cigarettes which turn to stubs when zapped and teapots which try to pour tea on to you.

But the main source of ideas is the world of micro games itself. Our heroic camel is assaulted at one point by clearly identifiable Spectrum computers.

(If you hit them, all the rubber keys fall out and bounce all over the screen.)

Another familiar attacker is the original *Pacman*, accompanied by his chasing ghosts, while the 38th alien wave is called 'Attack of the Awful Software'.

As in *Manic Miner*, you will also see a dig at Imagine's heavily-hyped ▶ page 87

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teenage programmer Eugene Evans.

Speaking of *Manic Miner*, I wonder where Minter got his ideas for attacking toilets with flapping seats, and telephones with jiggling receivers?

It's all great fun until you remember you're supposed to be destroying these aliens.

To destroy an alien, you spit fire at it, by holding down the fire button, and pointing your joystick in the direction you wish to fire in.

You can also get your camel to jump or duck in terrific, fully animated style. The graphics are indeed remarkable.

Throughout the game your camel is walking along against a beautifully drawn background which scrolls smoothly right to left. The background features futuristic buildings, twinkling stars, palm trees, and pyramids with blinking eyes.

And don't forget the sound. The game opens with the best piece of music I've ever heard on a micro – specially supplied by a friendly concert pianist.

Just before your camel embarks on his voyage, you get a chilling, bass tone which lets you know in no uncertain terms that the next few minutes are going to be daunting.

As soon as you've got any good, each game will last at least half an hour. That's because you have five camels in all, and each one has a protective shield, which can withstand a certain number of alien hits.

Even so, it'll take you days of practice to get past about the 10th attack wave.

Another attractive feature of the game is that you can set the first 32 attack waves to come in random order. This means you won't get bored by going through the same order each time you play.

However, if you do use this random option, you're still left with the final challenge of 10 unknown attack waves when you've mastered the first 32.

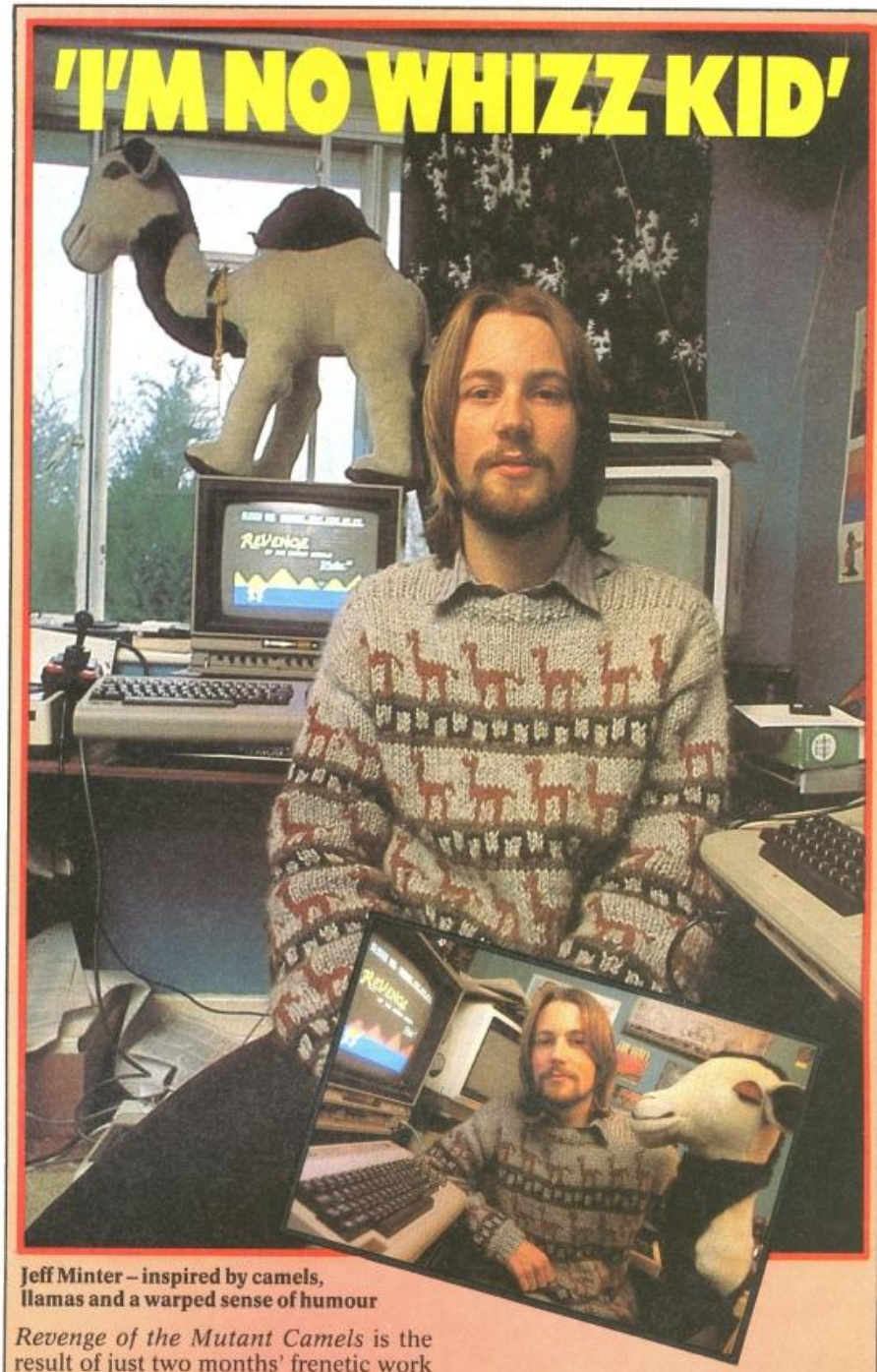
Of course, if you do ever get through the lot – and it could take years – you simply go back to the beginning, but this time you have twice as long to survive in each wave ...

All in all then, *Revenge of the Mutant Camels* is a miracle of programming which should provide hours of high-quality entertainment. This game shows conclusively that the Commodore 64 has come of age as a games machine.

Indeed, Commodore ought to give Jeff Minter a medal. His program is the best reason I've yet come across for buying one of their machines. **CA**

Graphics	**10**
Sound	**10**
Ease of Use	**8**
Originality	**9**
Lasting Interest	**10**
Overall	**10**

'I'M NO WHIZZ KID'



Jeff Minter – inspired by camels, llamas and a warped sense of humour

Revenge of the Mutant Camels is the result of just two months' frenetic work by one of the world's most brilliant games programmers – Jeff Minter.

On days when he was in the right mood, he would start work on the Commodore 64 in his bedroom at 9am and continue right through until late at night.

'You just have this one thing on your mind,' he said. 'It really is like being addicted to something.

'I wanted to write a game that you could play for three months and still not have seen all the aliens.'

After writing a series of routines to allow him to create and move his monsters, he found he could introduce as many as four waves of aliens in a single day of programming. But why mutant telephone kiosks and flushing lavs? 'I've got a warped sense of humour,' he admits.

Jeff also loves animals – at least, some animals. To develop the brilliant animation of his screen camel, he spent hours at the zoo studying the real beast.

'When I move into my new place I'm going to have my own llama. I don't think I'd be able to keep a camel.'

At 21 years old Jeff is adamant about one thing: 'I am *not* a whizz kid. I mean, I'm not a kid. I'm not another Eugene Evans. That's why I keep my beard.'

And what is his next mind-blowing game going to be? 'Well, I've always loved *Battlestar Galactica* and I do love *Star Raiders*. That's all I'm saying.'

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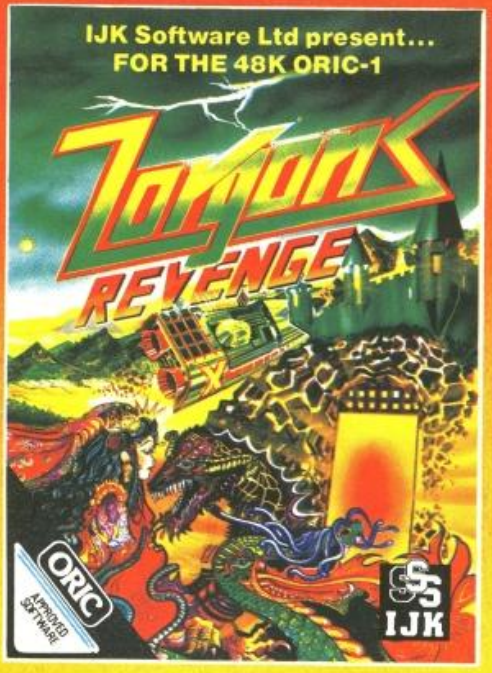

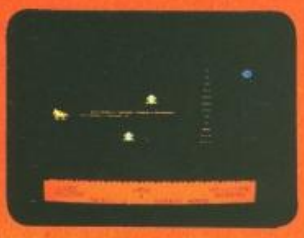

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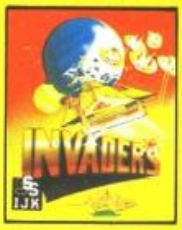

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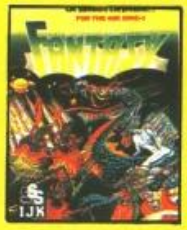

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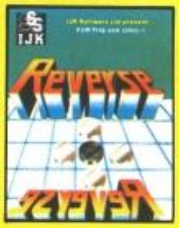

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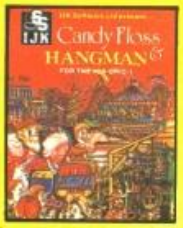

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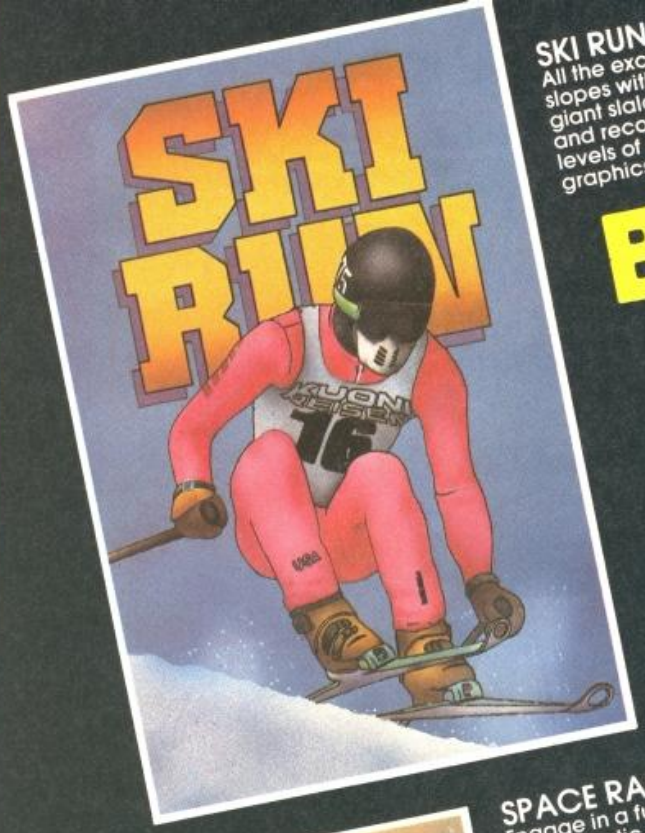

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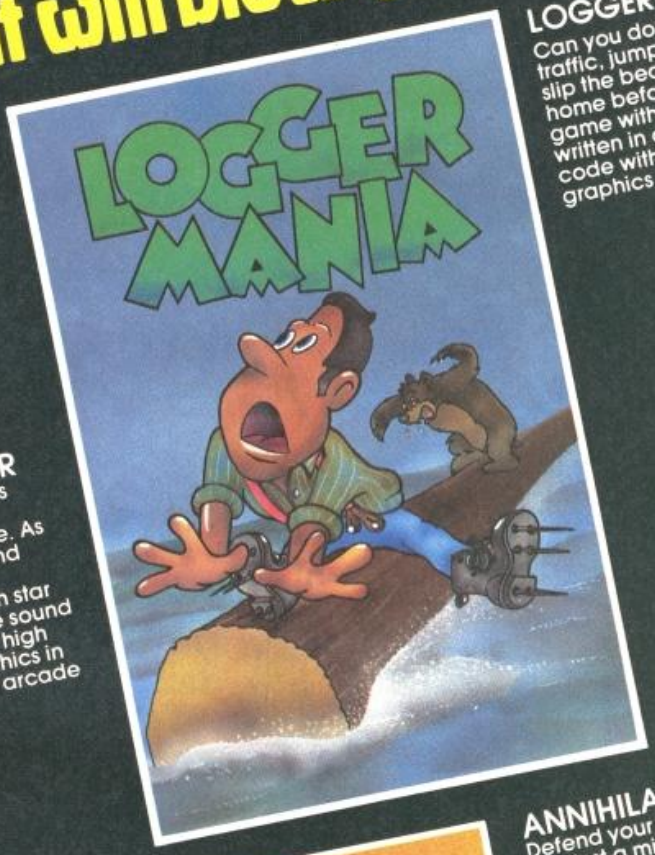

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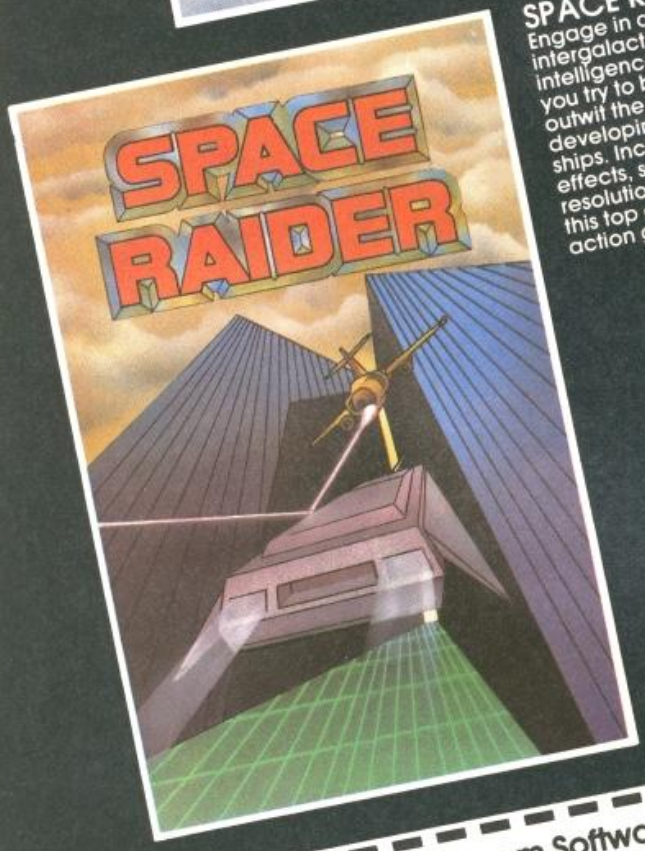

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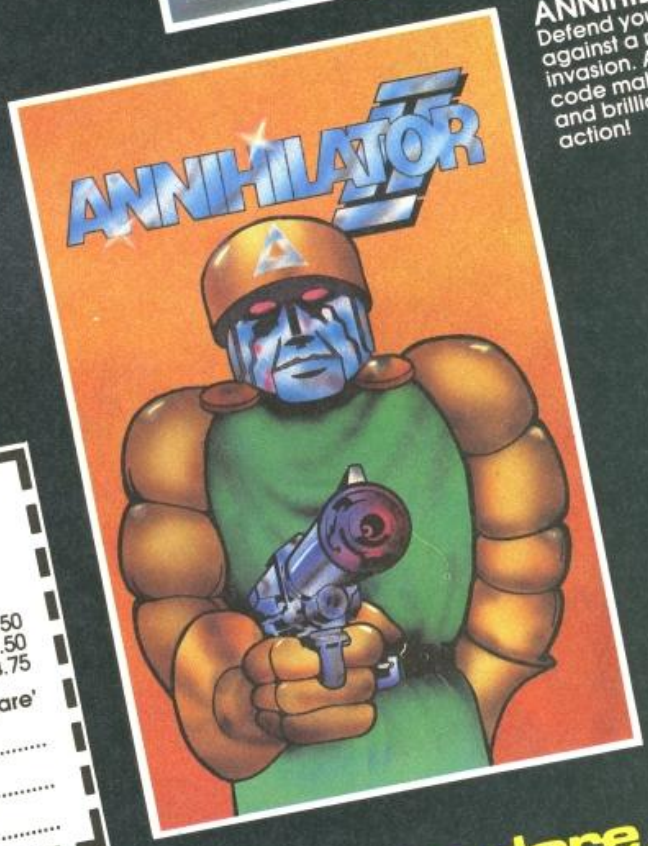

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commodore 64
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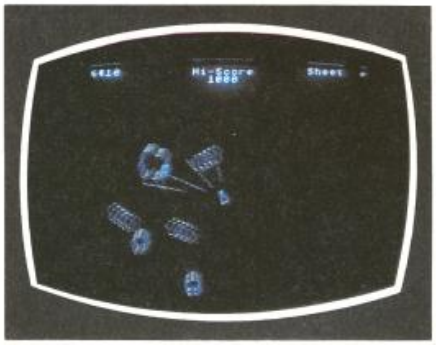
N • VIC 20 • ELECTRON

GAME: METEORS
MACHINE: ELECTRON
JOYSTICK: OPTIONAL
CATEGORY: ARCADE
SUPPLIER: ACORNSOFT
PRICE: £9.20



Meteors gives you and your Electron the chance to try your hand at that old favourite, *Asteroids*. It is a faithful adaptation of the arcade original, with no frills apart from the addition of a 'freeze' facility.

For the benefit of the small minority unfamiliar with this genre, you command a ship which you can manoeuvre about the screen. Asteroids of different shapes and sizes pass in all directions, together with the occasional enemy flying saucer.

Your task is simple – blast everything in sight, and avoid collision and the alien missiles to stay in the game.

Pressing the space bar will project you through hyperspace to another part of the screen.

Those of you determined to add this well-worn favourite to your collection could do a lot worse. **SC**

Graphics	5
Sound	5
Ease of Use	4
Originality	0
Lasting Interest	6
Overall	6

GAME: MONSTERS
MACHINE: ELECTRON
JOYSTICK: OPTIONAL
CATEGORY: ARCADE
SUPPLIER: ACORNSOFT
PRICE: £9.20

Monsters will be familiar to those of you who have tried your hand at *Space Panic* in the arcades.

The screen is divided into separate levels and you control a small figure who can move from level to level by climbing the ladders provided.

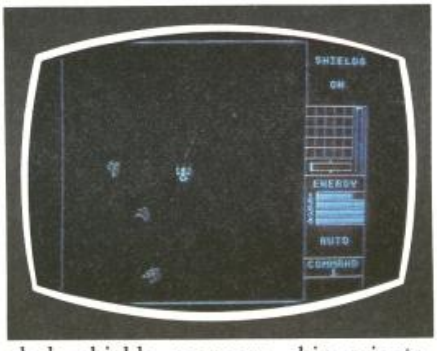
Throughout the game he is pursued by the monsters of the title – some of which look more like apples than anything else – and his only defence is his shovel, which he can use to dig holes in the floor.

In their haste to make a meal of you, the monsters fall into the holes, which you must then fill in so they can't clamber out.

Progressing through the different screens in this version brings you into contact with red, green and white nasties, some of which need to fall through more than one hole before giving up the ghost. **SC**

Graphics	7
Sound	4
Ease of Use	4
Originality	1
Lasting Interest	7
Overall	6

GAME: STARSHIP COMMAND
MACHINE: ELECTRON
JOYSTICK: OPTIONAL
CATEGORY: ARCADE
SUPPLIER: ACORNSOFT
PRICE: £9.20



Starship Command is an exciting game in which you chase alien craft across the universe, and either ram them, shoot them, or spare them – according to your whim, and your energy level.

The display is divided into two, a view of deep space (with your ship in the centre), and a status display of the various functions available. These include shields, scanners, ship orientation, acceleration, score, and energy level.

As you boldly roam the universe, your ship remains stationary while the rest of the display advances, retreats, and revolves disconcertingly about you. So mastering the controls is the key to the game.

The graphics are good and the sound effects well-executed. The various menus and the high-score table are cleverly presented too. **SC**

Graphics	7
Sound	5
Ease of Use	5
Originality	5
Lasting Interest	7
Overall	6

GAME: COSMIADS
MACHINE: VIC 20 UNEXPANDED
JOYSTICK: NO
GAME CATEGORY: ARCADE
SUPPLIER: BUGBYTE
PRICE: £6.95

Cosmiads is a dull version of *Galaxians*. The aliens have little graphic interest; they look rather like masks raining down iron tubes.

As the aliens near the bottom of the screen, the previously red or green invaders turn white and start moving from side to side.

But even this does not increase the interest of the game, since it is far too slow and the sound is far too bland.

This slow-firing, slow-moving version of an arcade classic is very disappointing. **PC**

Graphics	3
Sound	3
Ease of Use	3
Originality	2
Lasting Interest	2
Overall	2

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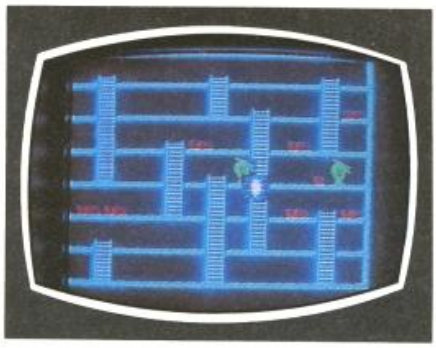
GAME: BONZO
MACHINE: VIC 20 PLUS 8K OR 16K
JOYSTICK: OPTIONAL
CATEGORY: ARCADE
SUPPLIER: AUDIOGENIC
PRICE: £7.95



The loading gave no problems, but any difficulties would have been minimized because Audiogenic gives you two copies on each side of the tape.

You use the joystick or four well-chosen keys to move the little workman around.

The figure is really endearing, in fact the use of colour graphics is good all-round.

You are presented with a screen of various layers, linked by ladders of varying lengths.

A good feature is that every game is different, because the placing of the ladders, and the boxes, which you must collect, are random.

You always start at the bottom layer, and the evil monsters which try to stop you start at the top.

You pick up the boxes simply by walking past them, and you go up and down the ladders under your own control.

You can't jump off a ladder other than when you have precisely reached a particular floor so that you must operate coolly under stress as the Bonzos get near.

You score highest by clearing all the boxes without being caught. This takes you to the next level of play, with the boxes worth more points – but the Bonzos doubled in number.

So getting to the third and highest level takes a lot of skill.

I liked this game. It is not a shoot 'em up, and your interest is likely to be kept going by the commiseration 'Next time the ladders and boxes may be more suitably placed.'

It lacks skill levels, which is a pity, but score ratings means it can be used by any number of people as a form of competition. **BM**

Graphics	8
Sound	6
Ease of Use	9
Originality	8
Lasting Interest	7
Overall	8

GAME: SCRAM-20
MACHINE: VIC 20 UNEXPANDED
JOYSTICK: YES
CATEGORY: ARCADE
SUPPLIER: ARTIC
PRICE: £5.95

Most versions of *Scramble* for the unexpanded Vic 20 are a profound disappointment, presenting the player with fuzzy graphics, weak sound, and dismally low speed.

Scram-20, though, is different. It's the sharpest and fastest *Scramble* game around for this machine.

The chunky, colourful graphics give a good approximation of the arcade landscape, with jagged mountains, deep caverns, and enemy bases. Also present are the familiar opponents zooming up to send you to your doom.

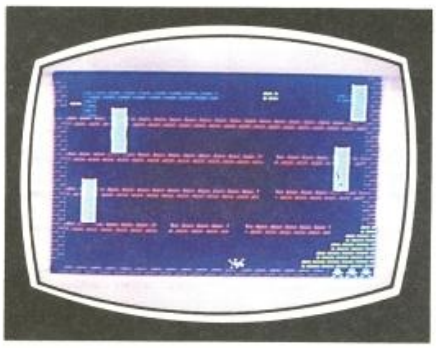
In the green cavern are the indestructible, bouncing red UFOs, a problem for even the most experienced of pilots. Elsewhere you will encounter the purple lamps and the vicious white zoids.

Should you survive all five sheets, you will arrive at your ultimate goal – the enemy base.

Scram-20 is an exciting program, but does have one drawback. It is so fast that it might take you years to reach your destination. **PC**

Graphics	8
Sound	6
Ease of Use	5
Originality	½
Lasting Interest	7
Overall	7

GAME: ZORGON'S KINGDOM
MACHINE: VIC 20 PLUS 8K OR 16K
JOYSTICK: OPTIONAL
CATEGORY: ARCADE
SUPPLIER: ROMIK
PRICE: £6.99



The game is a variant of *Kong:* you must go through five traumatic screens of experience until you finally get a chance at a crack at the great Zorgon.

The use of high resolution colour graphics is outstanding, and sound is well handled.

On level one you climb ladders to the top of the screen while avoiding bombs. You must then, twice, step on to a shifting floor.

Part two sees you struggle on your way from the top to the bottom of the screen, by jumping from moving lift to moving lift.

After climbing a rope you must run under the Gorgoids. These mutate, and fall, when their wings turn green!

Arriving in a boat, you avoid octopuses, until they too change, and you then catch two of them.

Level three sees you running across wires, avoiding rockets in tunnels and fleeing through organ pipes.

At part four you avoid electron bolts and Web Trackers; level five is infested with Robots of Death, whilst you are digging holes and dropping bombs.

Finally, you kill the Zorgan by shooting him in the end of the nose, whilst his mouth is open.

Overall, this is a very good, tough game. Even old hands will find it totally nerve racking. **BM**

Graphics	7
Sound	7
Ease of Use	8
Originality	8
Lasting Interest	9
Overall	8

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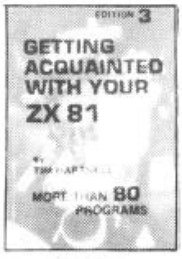

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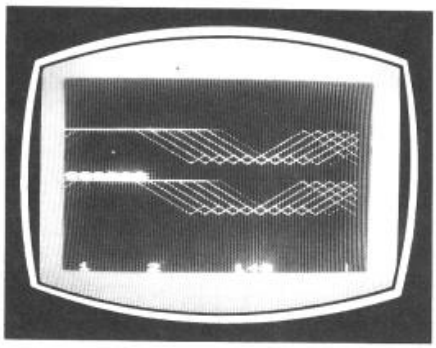
INTERFACE PUBLICATIONS

VIC 20 • VIC 20 • VIC 20

GAME: SPACE SNAKE
MACHINE: VIC 20 UNEXPANDED
JOYSTICK: NO
CATEGORY: ARCADE
SUPPLIER: COMMODORE
PRICE: £4.99



Space Snake really should be called *Subterranean Snake*, since the object of the game is to guide your reptile through tunnels while gobbling up the eggs which lie on the bottom.

The snake in question, consisting of shell-like segments, first appears speeding through the cosmos. Using the 'A' and 'Z' keys to move up or down, you must avoid the many 'satellites', which block the entrance to the cavern.

Should you survive these obstacles, your snake goes on an underground roller-coaster ride as you climb and swoop trying to avoid the tunnel's sides.

If you eat five of the eggs, you emerge at the other end to negotiate more satellites and another tunnel, this time narrower and faster. If you suffer from claustrophobia, play a different snake game!

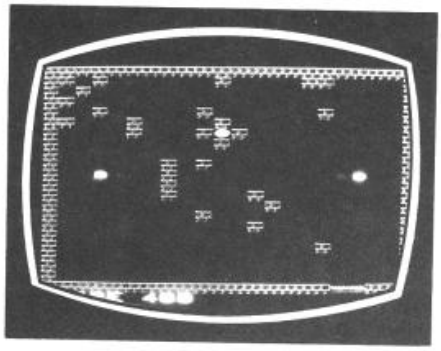
Space Snake's colour is good, changing every time you lose one of your three lives. The graphics are uncomplicated and very sharp.

An added bonus is that, since you use only two keys, your right hand is free to do other things. You might try charming the snake with your clarinet.

Although the game relies on a simple idea, it is executed very well and is good value for the unexpanded Vic. **PC**

Graphics	7
Sound	5
Ease of Use	8
Originality	6
Lasting Interest	6
Overall	7

GAME: TRAP
MACHINE: VIC 20 UNEXPANDED
JOYSTICK: YES
CATEGORY: ARCADE/ STRATEGY
SUPPLIER: COMMODORE
PRICE: £4.99



There you are, surrounded by a brick wall with only one narrow exit. So off you go, down to the bottom of the screen. Suddenly, crazy bricks start appearing to block your escape route.

At the lower levels of this engaging game, your man has little trouble in negotiating these obstacles to freedom. In fact, it's so easy the game hardly seems worth playing.

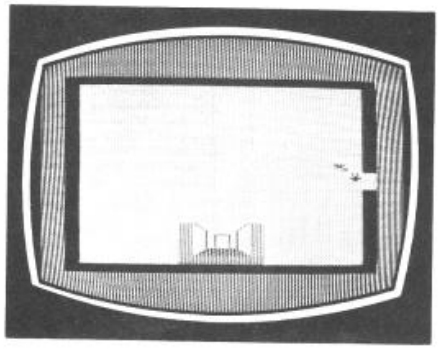
But, step up to one of the higher of five levels and the masonry comes crashing down around you. Before you know it you have been bricked into a tiny prison.

The only choice left to you is to take one of the two oblong white blocks and demolish your tiny prison, hoping you won't be caught more than twice before you make good your escape.

Graphically, *Trap* is not very interesting, consisting of a characterless little man and simple red bricks. But at its higher levels it can become a fast and compulsive bid for freedom. **PC**

Graphics	5
Sound	5
Ease of Use	6
Originality	5
Lasting Interest	6
Overall	6

GAME: STARSHIP ESCAPE
MACHINE: VIC 20 PLUS 16K
JOYSTICK: OPTIONAL
CATEGORY: GRAPHIC ADVENTURE
SUPPLIER: SUMLOCK
PRICE: £9.95



'Compelling . . . exciting . . . full hi-res colour graphics and superb sound' reads the hype on the package. Unfortunately, *Starship Escape* can't live up to this.

The graphics are of the kind found in maze games, and the characters depicted are absolutely tiny.

You use the joystick or keyboard to move around inside an alien ship into which you have been attracted by a 'Force Cloud Entity'.

This has dismantled your craft and put the bits in various rooms within the spaceship.

You now travel from room to room retrieving the pieces. These you take back one at a time to the airlock.

If successful, you reassemble your ship and escape.

Of course, you never had a chance of doing this peacefully ... assorted armies of aliens attack, driving you back to the airlock.

You have a laser, but it is of limited 'stopping power'.

You have a faithful friend amid all this turmoil. K9 is found in a random location, and brush past him and he'll accompany you on your travels.

His value is his magnetic personality! Hit 'f1' and he attracts all the aliens in the room towards him, leaving you free to pick up the bits in the room.

Two functions called 'time stop' and 'map' let you pause the game for a breather and show you where you are.

The game is tough going even at the lowest of the four levels of difficulty.

It would be greatly improved if the very bare rooms were redecorated with more elaborate graphics. **BM**

Graphics	3
Sound	7
Ease of Use	9
Originality	7
Lasting Interest	3
Overall	4

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Dragon 14K EPROM Board: takes 3 × 4K and 1 × 2K EPROMs. Specify 25 or 27 series. Assembled Board	£15.00

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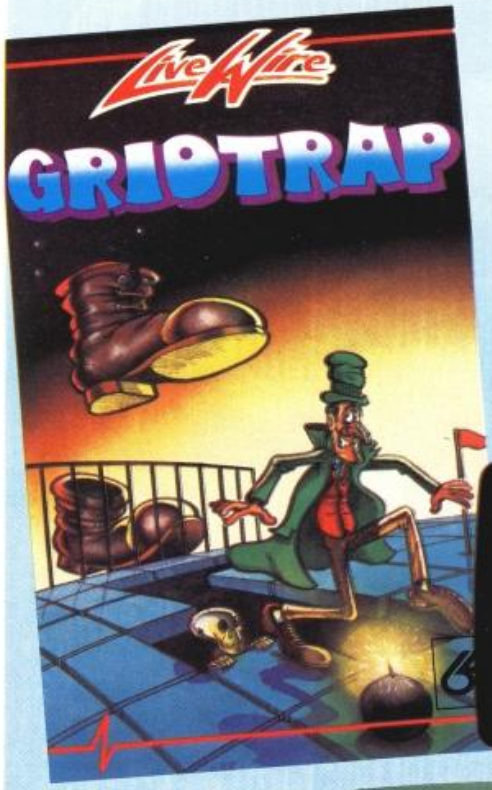

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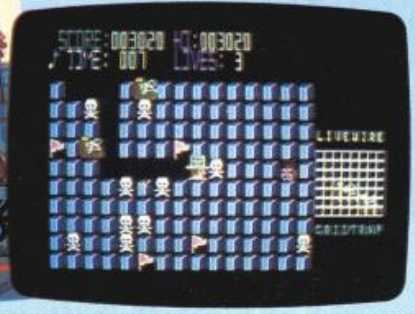

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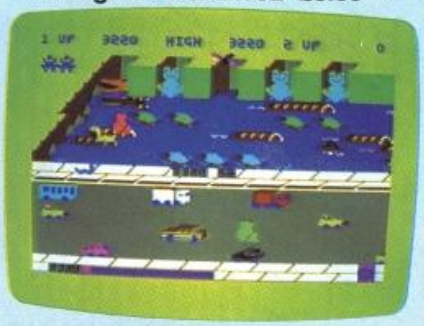

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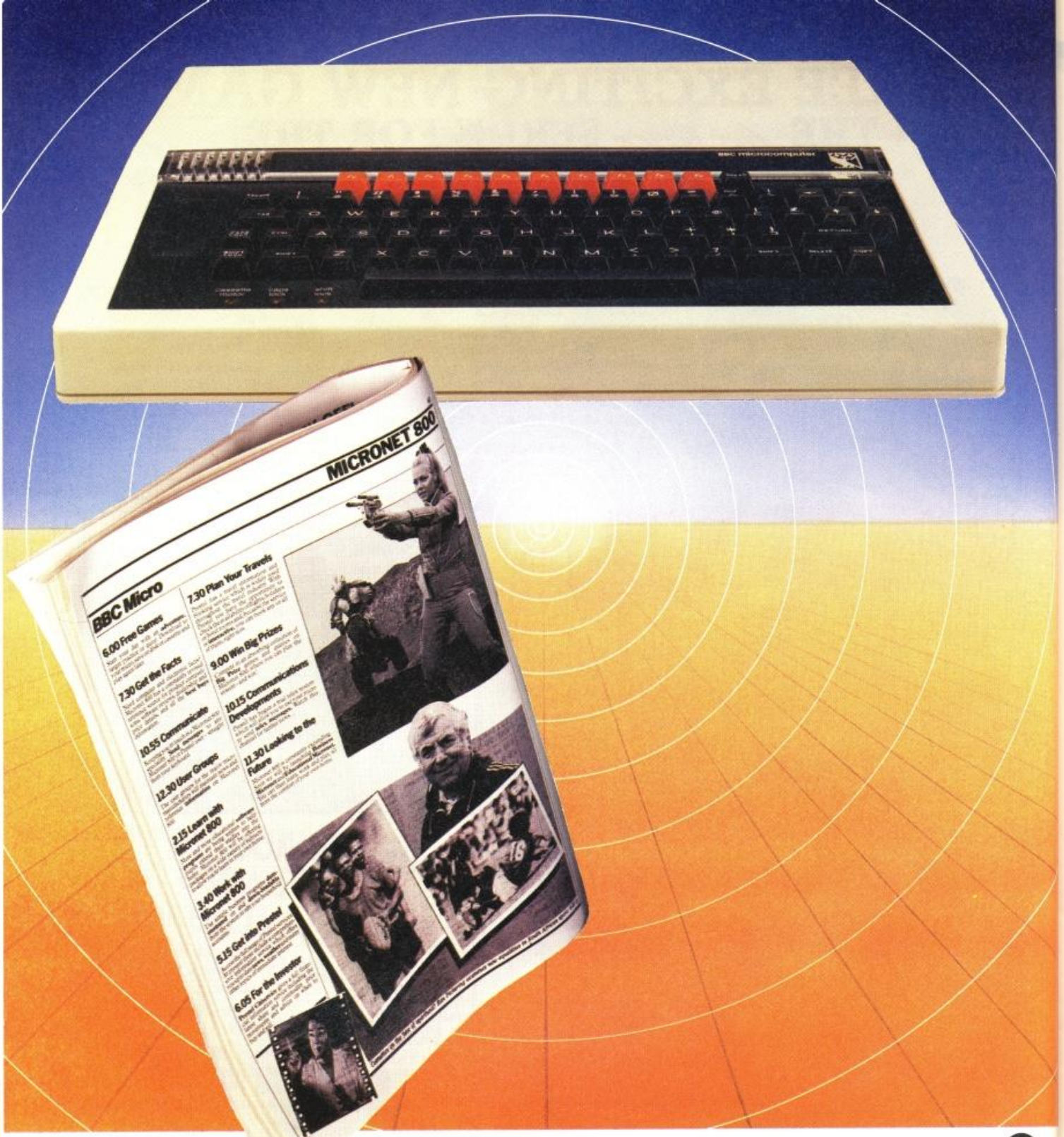

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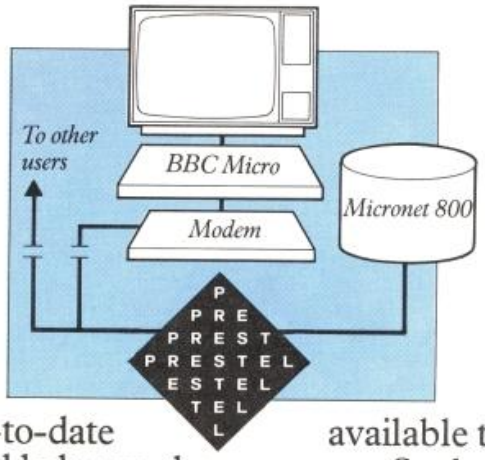

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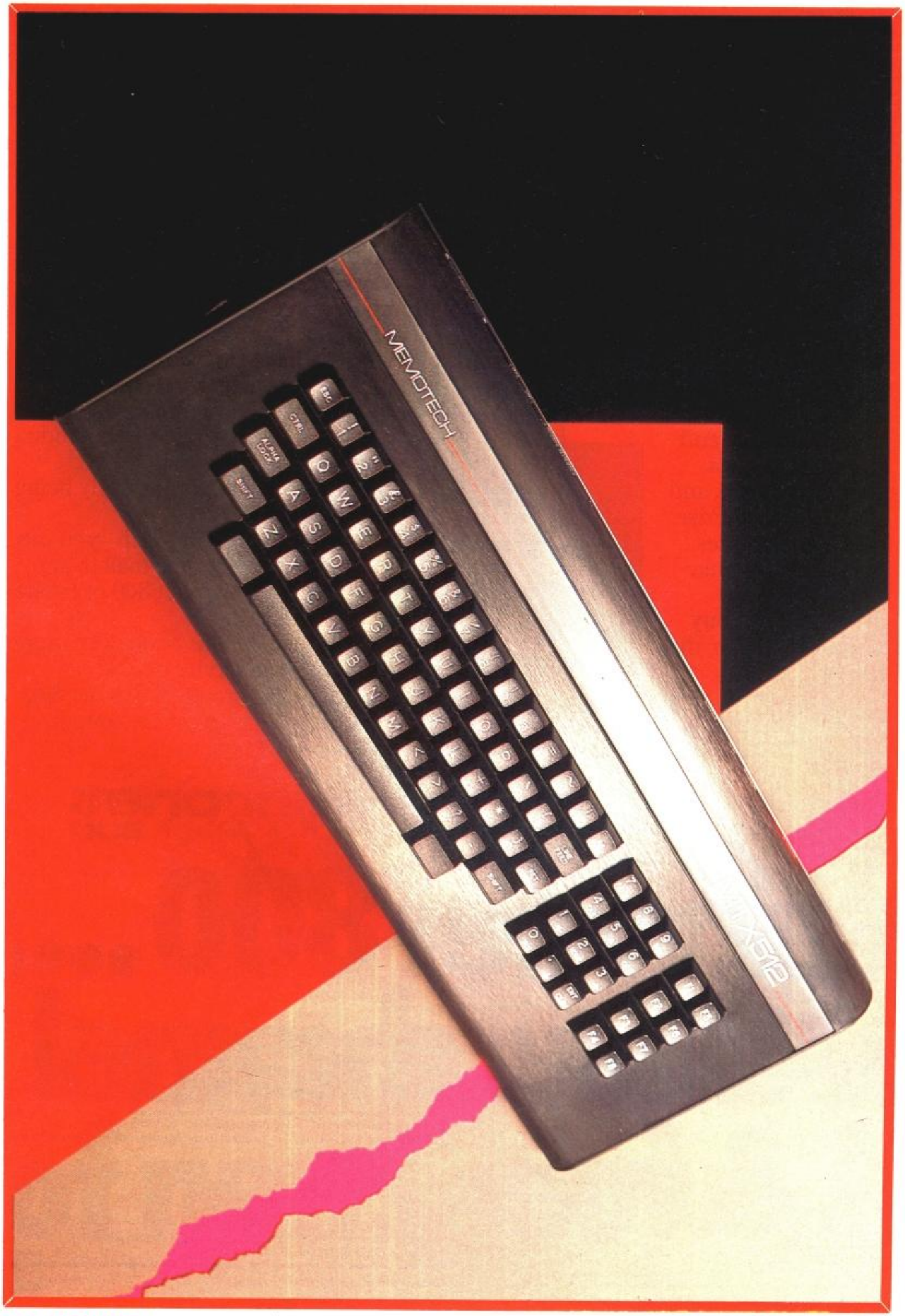
MEMOTECH

A machine test for the games addict

MEMOTECH

David Janda checks out the potential of the smart new MTX computers

If you want to buy a newly released computer primarily to play games on, the overriding cosideration should be: how many high quality games programs are likely to be produced for that machine?

This is an extremely difficult question to answer since it depends on how many other people decide to buy it and on whether the program writers think it'll be a big seller.

There are no clear indications yet that Memotech's new computer will 'take off'.

Bearing this in mind, I've reviewed the Memotech thinking of both the straight games player and the program writer.

The Memotech MTX 500 and 512 micros incorporate some sophisticated graphic commands, as well as an assembler and 'front panel' machine code monitor. Both should provide the games programmer with powerful tools to write and test his own software.

The machine comes in a large box which contains not only the machine with separate power supply, the manual, and leads, but also a demonstration tape, cassette head cleaner (tape), blank cassette, and two games from Continental Software to get you going.

The MTX micro itself, is a very robust, professional-styled machine which looks, and is, larger than most. Housed in a black anodized aluminium case, it has three sets of keys: the main keyboard, a 12-key numeric pad, and eight function keys.

On the back of the MTX, there is a number of sockets for the TV lead, cassette recorder and power supply. Also, sockets are provided for external audio, composite video, printer port, cartridge port, and two joystick ports which will accept the Atari type of joystick.

For further expansion, there is space for the two RS232 ports which require a communications board.

Features

The MTX 500/512 uses a Z80A processor running at 4MHz – a fair old speed.

In the 24K ROM fitted inside the machine, Memotech have managed to cram in a lot. The Basic has a whole host of graphics commands *(see table)*, which will no doubt facilitate games design.

Indeed, Memotech have made a big deal about the graphics in their adverts, saying they are of the Logo type. But the fact is that they are not like the MIT (standard) Logo commands, and I can't help but wonder why REAL Logo commands were not included.

The machine itself supports two display modes, text and graphics. In the text mode you have 40 columns by 25 lines and 16 colours can be set for the INK and PAPER. NODDY – the text based language which is also incorporated into the machine – can be used to define 'pages' of text which can then be accessed by MTX Basic.

The graphics mode allows you to display both graphics and text, although the text is limited to 32 columns by 24 lines.

A graphics resolution of up to 256 by 192 pixels is possible, and as with text mode, 16 colours may be used which are: white, grey, black, light green, medium green, dark green, light yellow, dark yellow, light red, medium red, dark red, magenta, cyan, light blue, dark blue and transparent.

If you take away the shades of colour you are left with nine 'different' colours.

For animation, up to 32 sprites may be defined. Basically, a sprite is a character which can be moved about the screen without too much fuss.

The character set can be redefined as well as 25 others. Of the 25, seven may have each line of the character a different colour. The defining of user-definable characters and sprites is made quite easy with the use of the GENPAT command.

No game nowadays is worth a hoot if it doesn't use zaps and pings. The MTX series has a sound command which can be used in what Memotech call direct or continuous operation. Direct operation plays a note until stopped and continuous operation allows a sequence of notes to be played.

The continuous sound creates the notes from a *buffer* which is an area of memory set up by the SBUF command.

Finally, for the machine code programmer, an assembler is incorporated which supports the use of labels. Also, to debug your programs, a 'front panel' machine code monitor is included, which will enable the user to debug machine code programs.

Built-in features are hex/ASCII dump, register display, disassembly, trace and so on.

Documentation

To get an idea of how to use all the features the machine has to offer, you need a good manual. Unfortunately, the manual that comes with the MTX can't be considered adequate.

Split into two main parts, it attempts to teach Basic in the first, and then goes on to give details about the graphics, sound, and so on.

The author has managed to write a very boring text which does not give enough detail, and instead, waffles on about the most trivial things. In its present state, I would recommend that anyone gives the manual a thorough reading three or four times before embarking on any projects.

MTX Basic Commands

ABS	GOSUB	NEXT	RIGHT$
ASC	GOTO	ON/GOSUB	RND
ATN	IF/THEN/ELSE	ON/GOTO	RUN
AUTO	INKEY$	OUT	SAVE
CHR$	INPUT	PAUSE	SGN
CLEAR	INT	PEEK	SIN
CLS	LEFT$	POKE	SQR
CONT	LEN	PRINT	STOP
COS	LET	RANDOMIZE	STR$
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DIM	LLIST	REM	TAN
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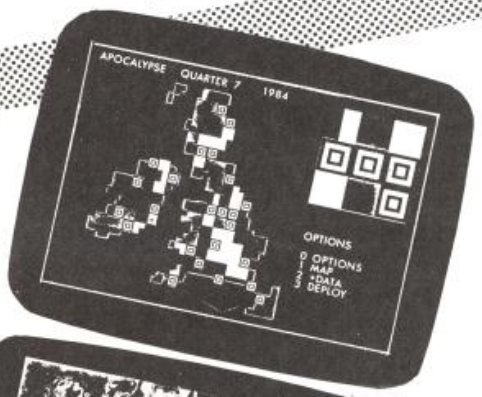

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GAMES WORKSHOP

Apocalypse is produced under licence from The Games Workshop Ltd.

As well as sockets for the TV lead, cassette recorder and power supply, the MTX carries sockets for external audio, composite video, printer port, cartridge port, and two Atari-type joysticks.

In use

My general opinion of the MTX is that 90 per cent of it is great, but the remaining 10 per cent is rotten.

While entering programs, the screen shows a blue background with white letters. If you don't like this combination, then tough, it can't be changed. This also applies to the front panel which is bright red (on my telly).

Entering programs is easy enough. The MTX does some syntax checking when a line is entered and if something is wrong, then a cursor points to the offending piece of code, which can then be amended.

As I've mentioned, the good points of the machine include the graphics commands. After a short while, I was drawing arcs and circles and moving sprites about without too much trouble. I was impressed with the speed of the sprites, and I can imagine some good games being written in MTX Basic.

The sound command is also quite easy to master, and interesting effects can be produced with a little practice. A point worth noting about the sound is that once a note or sequence of notes is started, your program continues. It would be possible to have a little man moving about the screen to a tune, unlike the Spectrum where program execution stops when a tone is sounded.

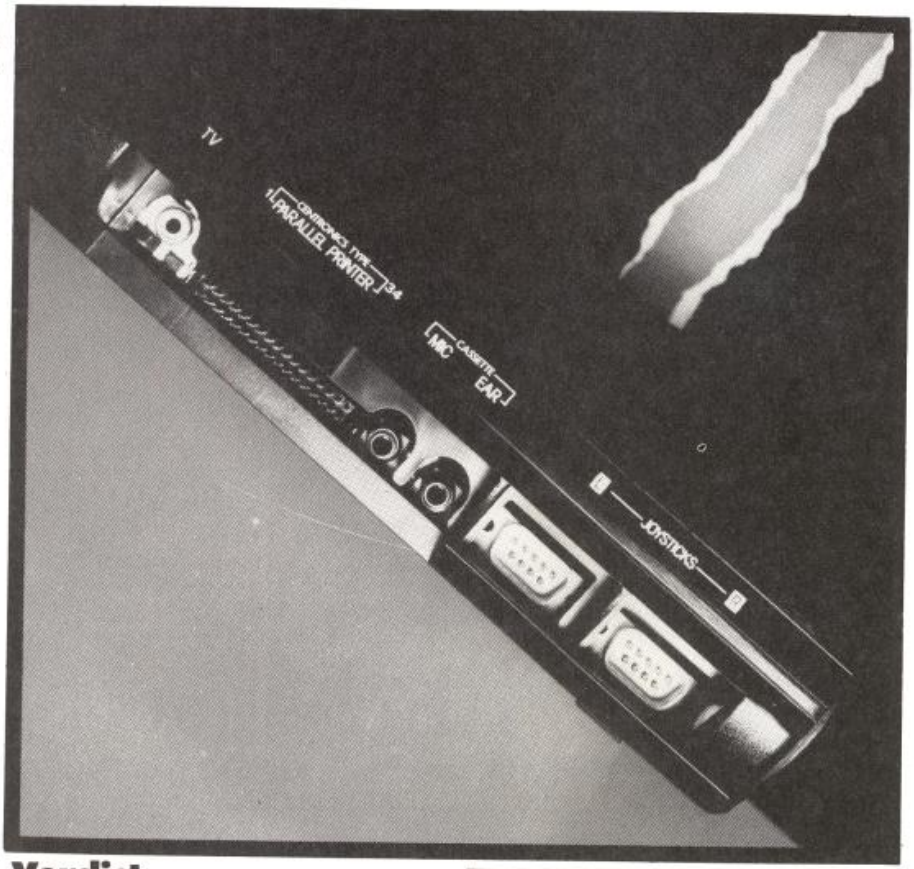
On the minus side, the MTX Basic lacks the good old DEF FN statement which allows you to define functions. In many areas such as games this is essential because it allows you to do some calculations, say in between moving an object. As it is, the lack of DEF FN means that calculations will have to be performed in sub-routines instead, which is not so good.

The machine has some other oddities such as not being able to define local colours within text mode, not supporting cassette files and so on. Even though the machine is very professional, Memotech could have used a 32K ROM for the Basic, this would have allowed them to do a really professional job – as Acorn did with the Beeb.

Software

Continental Software has been set up to produce software for the MTX series and they are going to be releasing quite a lot of games in the near future. The two games – *Toado* and *Draughts* – which come with the MTX were produced by them, and although hard to judge, were quite good compared to other versions available on other machines.

Titles will no doubt be some of the old favourites such as chess, galaxians and so on. And I understand that several software houses were given earlier models of the MTX 500 so that they could develop programs.



Verdict

In terms of value for money, I think the MTX series is overpriced by about £40 on each model. But, I can also see the micro enthusiast forking out the cash for a very powerful machine to use as a development system.

On the other hand, I would suggest that the average buyer looks at this machine not only for games playing, but as a general purpose micro.

MTX Sound Commands

SOUND channel, frequency, volume
SOUND chan, freq, vol, freq gradient, vol gradient, time, action
SBUF n sets the number of blocks of memory for extended sound command

MTX Graphic Commands

ADJSPR p,n,v	Alters previously defined sprite
ANGLE (x)	Sets absolute angle in radians
PHI (x)	Adjusts angle by x
ARC (x, theta)	Draws arc of a circle
ATTR p, state	Adjusts attributes
CIRCLE x,y,r	Draws circle with radius r and centre x,y
COLOUR p,n	Sets colour for graphics screen
CRVS n,t,x,y,w,h,s	Creates virtual screen
CSR x,y	Move cursor to x,y
CTLSPR p,x	Control sprite parameters
DRAW x	Draws line of length x
DSI	Enables direct screen input
GENPAT p,n,8 bytes	Generates character pattern
GR$ x,y,b	Reads a bit pattern from graphics screen
INK x	Sets foreground colour
MVSPR p,n,d	Moves sprite
PAPER x	Sets paper colour to x
PLOT x,y	Plots a point in graphics screen at x,y
SPK$	Peeks character at current cursor location
SPRITE n,pat,xp, yp,xs,ys,col	Creates sprite
VIEW dir, dis	Moves graphic screen relative to sprite plane
VS n	Selects virtual screen

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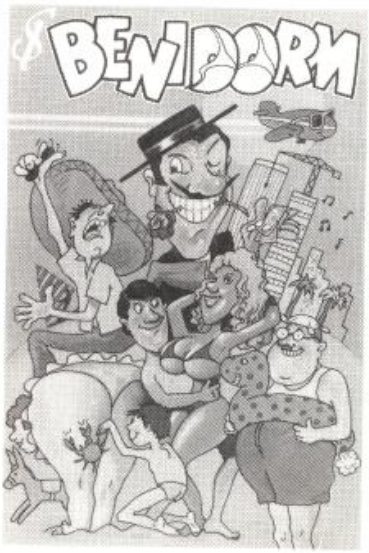

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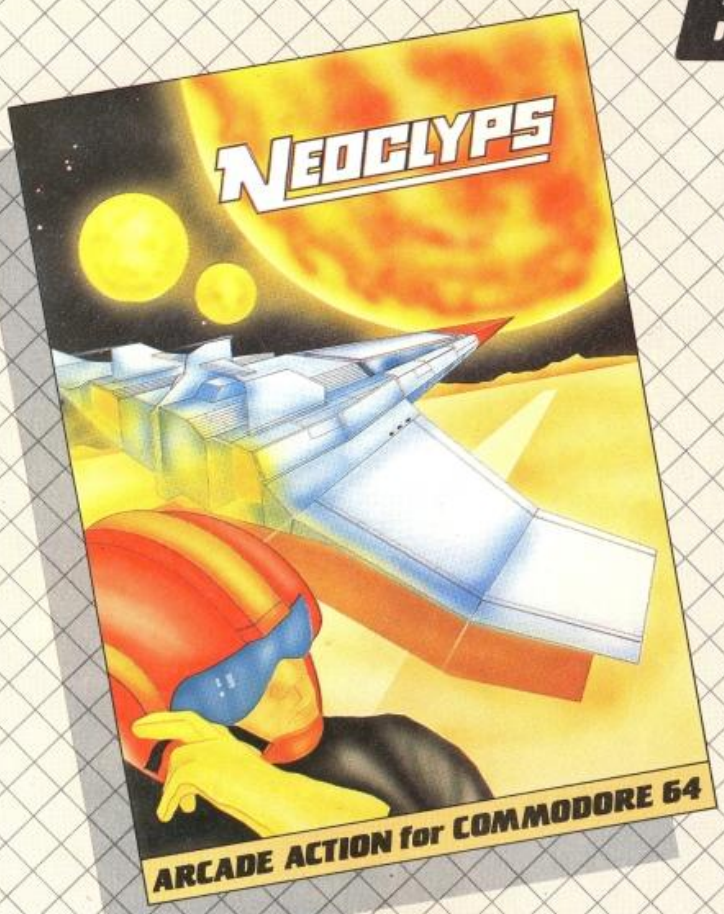

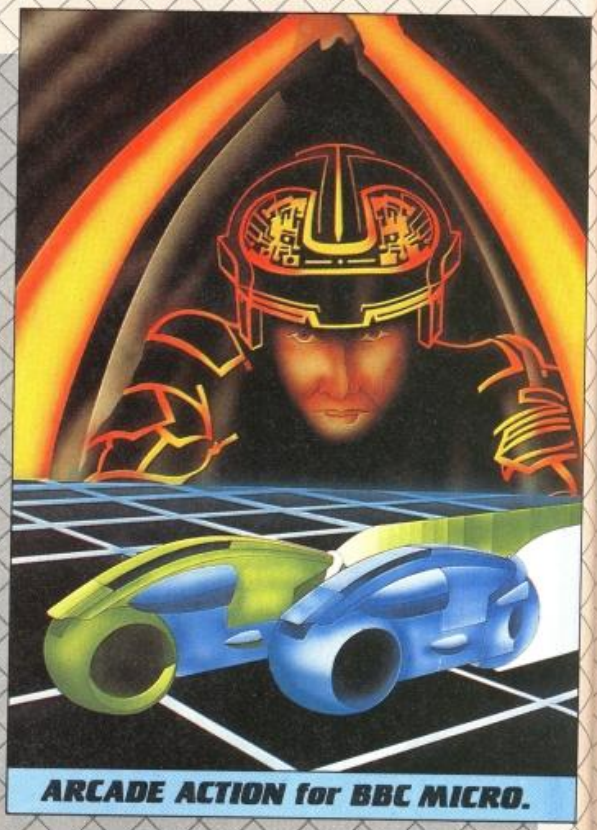

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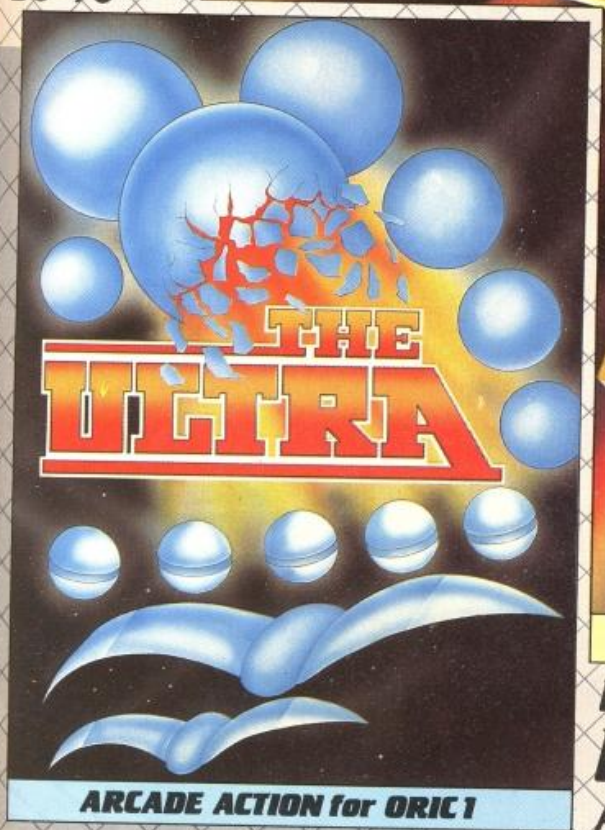

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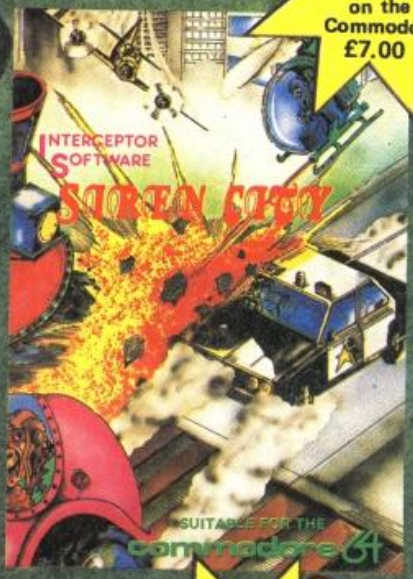

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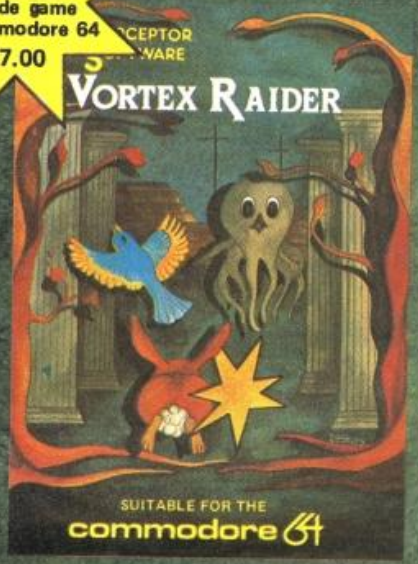

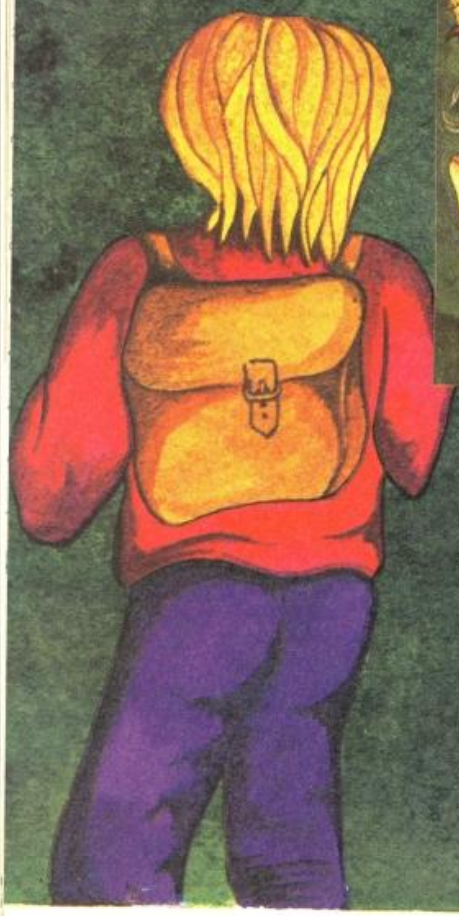

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You are in a darkened room. It is past midnight. Your face is lit by an eerie light and you mumble strange imprecations as your fingers strive to encode the magical symbols. You curse and gibber as you find yourself, once again, in the Colossal Cave...

Any fellow addict of computer games will recognize the symptoms, and a *successful* adventure player will spot some even more significant indications that you don't really know what you're doing: no huge sheet of paper with a scribbled map of your wanderings upon it, no lists of nouns and verbs, no coloured pens.

For it is an ironic fact that this pastime – it is really a kind of obsession – which seems eminently suited for the age when writing materials finally become obsolete really needs pencil and paper at your side before you can play it properly.

You can't just LOAD and RUN and fire away – or rather, you *can*, but it's the way to absolute frustration unless you have the ability of a Korchnoi to keep all the moves in your mind at a time.

On the other hand, though adventures were played with boards and dice long before Gary Gyrax invented *Dungeons and Dragons* back in the mid-Fifties, they really *are* suited to the computing mind, which is used to spelling out instructions one step at a time.

No good chopping down the tree that stands in your way, you haven't got an axe. No good using a ladder to climb out of the hole – you haven't said where you've got it from.

In fact you'll probably have to make it, which means that somewhere, in these deep, dark caves, you've got to find wood, a saw, and some nails.

Meanwhile, in a manner closer to real life than most one-step-at-a-time computer programs, things have a nasty habit of being multi-dimensional.

That bear in your way is big, and heavy, and bad-tempered, but it also likes honey, which you picked up a few caves back. If you could persuade it to sit on this end of a plank while you cross the chasm and jump the last foot or so, you might just make it.

On the other hand, you might just plunge to your death, ending your game ignominiously.

For this is a game where you have to discover the rules as you go along, which makes it a bit like real life. No one hands a new-born babe a handy set of rules on how to play the game when it comes, bawling, into the world.

Of course, to adventure purists, your average 16-48K memory can't possibly offer the variety and challenge that a 'real' adventure can. The authors of the definitive guide to such games, *What is Dungeons and Dragons?* (Penguin), said of electronic adventures: 'These games tend to be mere problem-solving exercises, interesting enough for hard-core computer freaks, but leaving us ex-wargamers longing for a bit of cold steel and some random violence.'

When you consider that the very first computer adventure was written for a hefty 300K mini by professional programmers on the graveyard shift for entertainment through the midnight hours you can see why they might think that.

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WHAT IS AN ADVENTURE?

An adventure is a type of game in which you the adventurer enter a world specially created by the computer program.

It might be a mysterious island, or a magic castle or a network of dungeons, or another planet.

Your task is to explore the world and carry out a number of tasks. You may have to discover treasure, or answer a riddle or rescue a trapped maiden or solve a series of problems.

But unlike an arcade game where you directly control a figure on screen by pressing keys (so-called 'real time' games), in an adventure you progress by typing short sentences to tell the computer what you want to do.

And usually the computer will tell you where you are, and what's happening, simply through text printed on the screen, although a growing number of adventure programs now actually draw pictures of the various locations.

The attraction of adventures lies not in the fast and furious action of arcade games, but in their ability to pose complex and intriguing problems, and to take the player into a world of rich variety.

A typical adventure will offer you from 30 to 200 different locations – and in each location there may be special objects for you to discover and dangers to avoid.

Often you can only find out by trial and error what you have to do. For example, if you get stuck in a room, it may be because you don't have a certain object with you – a key, perhaps.

And it's possible that the key is situated right at the other side of the adventure world, and that to get it, you first of all need to bribe an old beggar with a bag of gold. And of course the bag of cold may be hidden away in a locked cupboard...

A good adventure should provide even an expert with quite a few hours of mystery, so if you're a beginner, be warned: it may take you months to complete the task.

Perhaps the most difficult part is discovering the words the computer understands. You normally have to limit yourself to two-word verb-noun sentences such as: GET SWORD or ATTACK WIZARD.

In addition some one-word sentences can be very helpful. For example try HELP, WAIT, INVENTORY. The latter will usually reveal what you're carrying.

Incidentally, most adventures will accept abbreviated forms of words, INV for INVENTORY and GO N or simply N for GO NORTH.

A good general strategy is to explore the adventure world thoroughly first of all using plenty of SEACH and EXAMINE. Then you should collect as many useful objects as you can discover and simply start trying to do things with them.

If you refuse to be frustrated by seeming dead-ends you could find a whole new world opens up to you.

If you were setting out on this adventure for real, you'd try to get a map, wouldn't you? Even Jim Hawkins and Long John Silver started with a map, for goodness sake! Well, there isn't one, so you're going to have to draw it as you go along.

With this map (it's really more of a plan) you can start moving around inside your dungeon, or whatever, making notes of your exploits as you go: mark solid walls in red, list the contents of each one, its decor, whether it is light or dark, what hazards exist (mark them if you have to cross them, and bear in mind if you build a bridge, it may, *just may*, be there if you have to come back).

Don't be surprised if you move from one room south with no difficulty, but find the door locked and barred when you try to move northwards, along your tracks. Cheating? If you like, but doors have been known to blow shut, you know.

Even worse, directions don't always work out as neatly as you might like. If going west from location *A* takes you into location *B*, it's possible that going south from *B* will get you back to *A* – but you have to remember that the locations may be quite large, and that there are such things as curving paths.

You should also start making two lists, of nouns and verbs, i.e. things you discover in each location and things you do with them.

You'd do well to draw up a list of possibles before you start playing. For instance, if it's a pirate adventure, you might come across treasure, cutlass, parrot, map, rum, lantern, earring, and of course a bearded pirate.

You could bury the treasure, unbury it, lift it, drop it, hide it, pocket it, give it (to the pirate to get past him?), you could befriend, capture, escape, clobber or even kill the pirate (don't be surprised if the game responds to a 'kill' verb with 'With your bare hands? You haven't got the strength').

Remember your ladder. If you try to light the lantern, you may be told you have to find some oil first, and then some matches, then a matchbox to strike them on (or a lighter, but then you'll need some lighter fuel), and so on.

And remember, there may be some false clues, but you'll only find out which is which with experience. A staff may not be much good, until you try waving it, and discover it's a magic wand. Many an adventurer has used magic to get across the unbridgable chasm.

And work on the assumption that there is some reason for everything you are told. On the floor are some greasy rags. Why greasy? Perhaps they'll come in handy when your batteries run down. An empty matchbox? Perhaps you'll find some matches later. The bear is sleepy? Does that mean he'll be less grumpy, or more dangerous if you disturb him? You'll have to work it out.

Some games will describe your abilities: how strong you are, how large (or small, remember *Alice in Wonderland* and the 'drink me' bottle), how intelligent. You may be able to pick and choose what sort of person you're going to be, but bear in mind that brain rarely goes with braun, unless you manufacture shavers.

A strong person may be weakened by an injury, and he may recover if he has a sleep. Anyway, what male chauvinist pig says you've got to be male? A damsel with occult powers may be more your mark (then, what happens at sunrise? Your powers may fade).

Such choices are in the higher echelons of adventuring, and you'll probably find it hard enough to just soldier through the caves or the rooms or the jungles or whatever being a simple lost explorer.

And don't assume there's only one route. The program may have more than one solution – or the choices may be changed by a random number generator. However much it changes, though, the nouns and verbs will probably stay the same.

Look out for booby traps – these will certainly not be in the same place the next time you play the game. If you get yourself into a dead-end, there's a sporting chance you can get out of it, but don't expect it to be easy.

You'll have to work out how important the various adversaries and allies are likely to be. You may lumber yourself with the bear (and jars of honey) only to find he falls asleep every time you need him. And that little old man in the torn britches may be Gandalf the magician in disguise. Perhaps the description gives you a clue: in adventureland (if not in reality) a domed, bald pate usually denotes great intellect, and probably magic.

And a frog may be an enchanted prince or princess (you have to kiss an awful lot of frogs before you meet just one prince or princess).

Most of all, what you need in adventuring is ... lots of spare time.

A single game can last hours, or days or weeks becoming, well, would you settle for the rest of your life?

Most games allow you to SAVE your game up to quittin' time, so you don't have to go through all those preliminary stages again, but beware: a 'proper' adventure won't admit you to the coveted position of Grand Master if you SAVE it and quit. Better to leave the machine on, if you can afford the electricity bill, and can resist the temptation of trying 'just one more verb and noun' before you go to bed.

If your partner's started complaining that she/he's become a computer widow/widower, then they ain't seen nothing yet.

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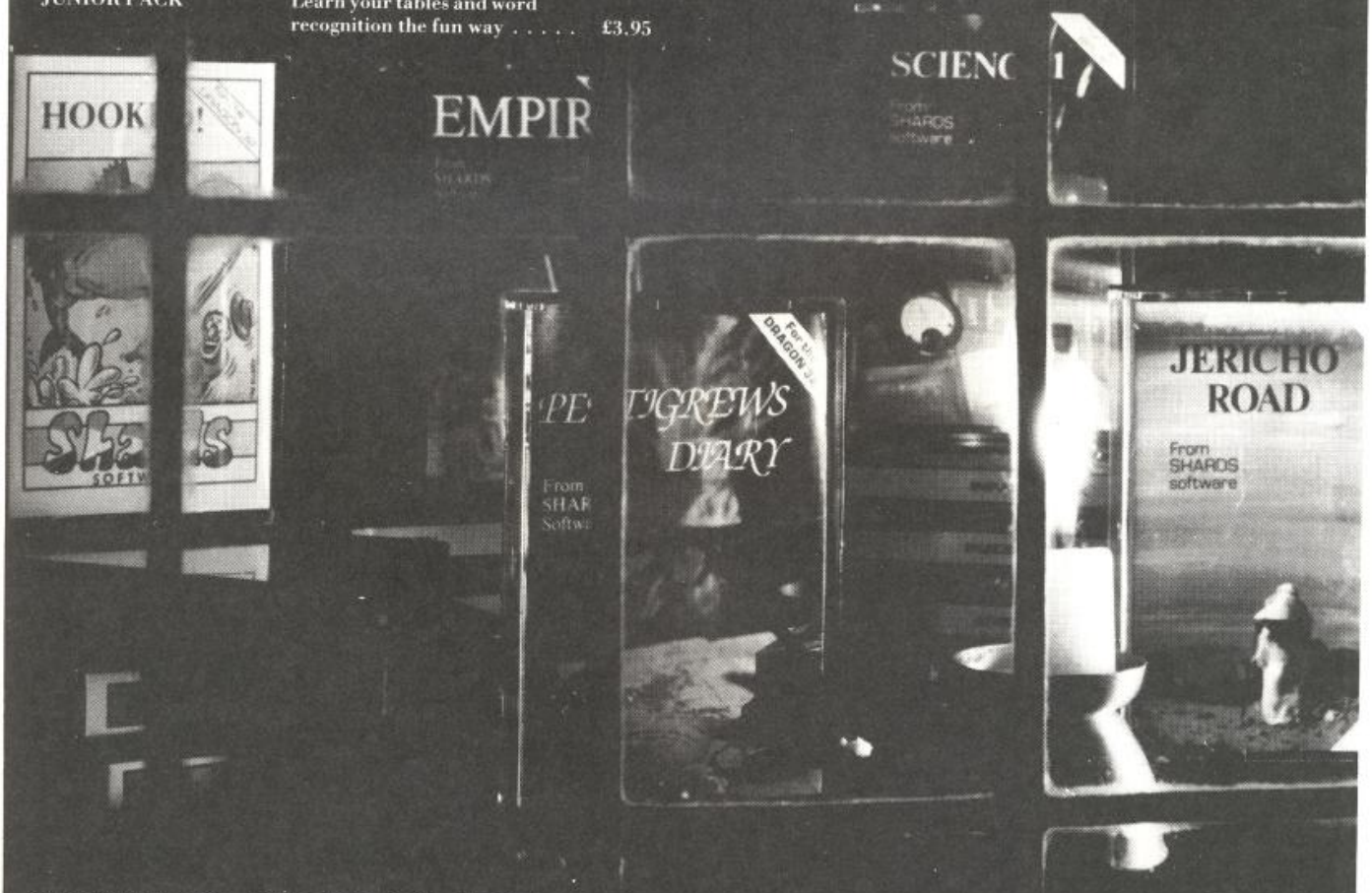

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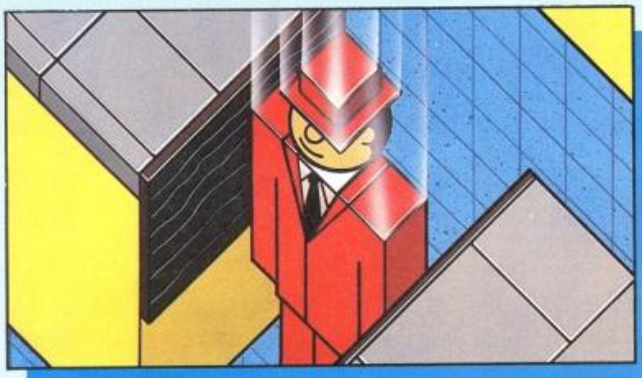

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To submit a program you must send us the following:

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4. A brief discription of the game, including any instructions.
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FOR THE VIC 20

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Your navigators struggle to plot a new course, but the ship runs into an asteroid belt and faces immediate destruction.

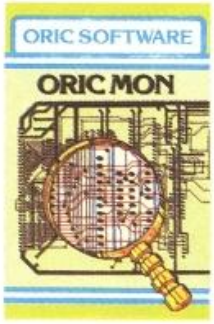
Using the 'W', 'Z', 'S' and 'A' keys to manoeuvre the ship, your task is to avoid all obstacles and steer yourself and your crew to safety. Good luck! (*This program is on your free gift flexi-disk.*)

```
1 S=7168:V=36878
2 S=7168:V=36878:POKEV+1,9:PRINT"□■WAIT":GOSUB100
10 POKE56,24:POKE52,24:POKE650,128:POKEV-12,28:POKEV-11,72:POKEV-14,6:POKEV-13,1
5
11 TI$="000000"
20 POKE648,28:PRINT"□":POKE648,30:PRINT"□":POKE36869,254
30 FORT=1TO10:X=INT(RND(1)*895):POKES+X,INT(RND(1)*4)+4:NEXT:GOTO500
100 DATA169,0,162,32,133,87,169,28,133
110 DATA88,160,0,177,87,133,89,200,177
120 DATA87,136,145,87,200,152,201,27,208
130 DATA244,165,89,145,87,165,87,24,105
140 DATA28,133,87,144,2,230,88,202,208,220,96,-1
260 T=828
270 READA:IFA=-1THEN300
280 POKET,A:T=T+1:GOTO270
300 DATA159,223,250,255,255,250,223,159,248,224,190,227,227,190,224,248
310 DATA16,152,8,33,8,162,20,145,0,148,42,64,16,196,16,136,0,0,8,0,0,0,0,0
320 DATA0,0,24,24,0,0,0,0,0,0,0,0,32,112,32,0,0,0,0,0,0,0,0,2,0
325 DATA0,0,170,0,0,170,0,0,0,0,0,0,255,255,0,0,0
330 FORT=0TO79:READA:POKE6144+T,A:NEXT
340 FORT=6400TO6408:POKET,0:NEXT:RETURN
420 POKES+X+28*Y,0:POKES+X+1+28*Y,1:RETURN
430 P1=PEEK(S+X+28*Y):P2=PEEK(S+X+1+28*Y):RETURN
440 Y=Y+1:IFY>31THENY=31
442 GOSUB430
445 IFP1<>32ORP2<>32THENGOTO900
```

```
450 RETURN
455 Y=Y-1:IFY<2THENY=2
456 GOSUB430:IFP1<>32ORP2<>32THENGOTO900
457 RETURN
460 X=X+1:IFX>14THENX=14
461 GOSUB430:IFP1<>32ORP2<>32THENGOTO900
462 RETURN
470 X=X-1:IFX<2THENX=2
471 GOSUB430:IFP1<>32ORP2<>32THEN900
472 RETURN
475 POKE36876,130:FORT=1TO10:POKEPOKE36876,PEEK(36876)+10
478 P1=PEEK(7168+X+1+T+28*Y)
500 POKEV,5:POKEV-1,140:Y=16:X=2:GOSUB420
510 POKES+X+28*Y,32:POKE7168+X+1+28*Y,32
512 X=X+1:GOSUB430:X=X-1:IFP1<>32ORP2<>32THEN900
515 SYS828
520 GETA$
525 IFA$="W"THENGOSUB455
530 IFA$="Z"THENGOSUB440
540 IFA$="S"THENGOSUB460
550 IFA$="A"THENGOSUB470
555 IFTI$<>"000150"THEN980
560 D=INT(RND(1)*22)+0
570 POKE7195+D*28,INT(RND(1)*4)+4
590 GOSUB420:GOTO510
612 X=X+1:GOSUB430:X=X-1:IFP1<>32ORP2<>32THEN900
900 POKE36877,15:FORT=1TO20:POKE7168+X+28*Y,2:POKE7168+X+1+28*Y,3
905 FORP=1TO10:NEXT
910 POKE7168+X+28*Y,0:POKE7168+X+1+28*Y,1:POKE36877,230:FORP=1TO10:NEXT
915 POKE7168+X+28*Y,3:POKE7168+X+1+28*Y,2:POKE36877,220:FORP=1TO10:NEXT:NEXT
920 FORT=255TO130STEP-1:POKEV-1,T:NEXT:POKEV-1,254:POKES+X+28*Y,32
925 PRINT"■":POKEV,0:POKEV-1,0:POKEV-9,240
930 POKEV-11,174:POKE36864,12:POKE36865,38:POKE36866,150:PRINT"■■"
935 PRINT"■ANOTHER TRY?":POKE198,0:POKE650,0
940 GETA$:IFA$=""THEN940
945 IFA$="Y"THEN10
950 POKEV+1,27:PRINT"■■":POKE650,0:END
980 POKEV-11,174:POKE36864,12:POKE36865,38:POKE36866,150:POKEV-9,240:POKEV,0:POK
EV-1,0
982 PRINT"■■SUCCESS!"
985 FORT=1TO4000:NEXT:PRINT"■":GOTO935
```

Tansoft

ORIC Software



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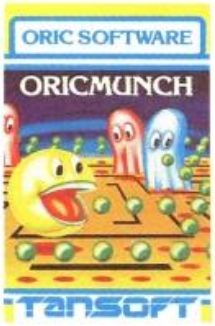

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Type in this program to save the Earth.

```
  1 BORDER 0: PAPER 0: INK 7:
CLS
  2 REM  PAUL STANLEY
  5 GO SUB 9800
  7 GO SUB 9840
  8 LET h=0
 10 GO SUB 8000
 20 GO SUB 9000
 25 PRINT AT 0,28;h
 30 OVER 1
 35 PRINT INK 3;AT y,x;"hi"
 39 IF li<=1 THEN GO TO 7000
 40 LET p=p-.05: PRINT OVER 0;A
T 0,0;s: LET g=1: GO TO (INT (RN
D*4)+1)*100
 60 FOR d=1 TO p: PRINT INK 7;A
T y,x;"hi"
 65 IF INKEY$="1" THEN LET x=x+
1: LET y=y-1
 70 IF INKEY$="2" THEN LET x=x+
1: LET y=y+1
 75 IF y=-1 THEN LET y=21
 80 IF y=22 THEN LET y=1
 83 IF x=-1 THEN LET x=31
 87 IF x=31 THEN LET x=0
 90 PRINT INK 3;AT y,x;"hi"
 92 IF INKEY$="0" THEN IF g THE
N GO SUB 1000
 93 NEXT d
 95 RETURN
100 LET o=s: FOR f=1 TO 4
105 LET a=1
110 PRINT AT 10+2*f,15; INK 5;a
$(f)
115 GO SUB 60
120 BEEP .04,f
130 PRINT AT 10+2*f,15;a$(f);AT
11+2*f,15; INK 5;a$(f)
```

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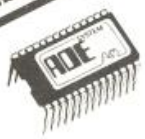

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ENERGY FIELDS

```
 135 GO SUB 60
 140 BEEP .04,f
 150 PRINT AT 11+2*f,15;a$(f)
 160 NEXT f
 165 IF s<>o THEN PRINT FLASH 1;
AT 11+2*f,15; INK 6;"j": BEEP .1
,-30: BEEP .1,-28: BEEP .1,-26:
BEEP .1,-28: BEEP .1,-30: PRINT
AT 11+2*f,15; INK 7;"j"
 167 IF s=o THEN LET li=li-.2: P
RINT AT 21,27; OVER 0;INT li;"
"
 170 GO TO 39
 200 LET o=s: FOR f=1 TO 4
 205 LET a=2
 210 PRINT AT 11-2*f,16; INK 3;a
$(f)
 215 GO SUB 60
 220 BEEP .04,f
 230 PRINT AT 11-2*f,16;a$(f);AT
 10-2*f,16; INK 3;a$(f)
 235 GO SUB 60
 240 BEEP .04,f
 250 PRINT AT 10-2*f,16;a$(f)
 260 NEXT f
 265 IF s<>o THEN PRINT FLASH 1;
AT 10-2*f,16; INK 6;"j": BEEP .1
,-30: BEEP .1,-28: BEEP .1,-26:
BEEP .1,-28: BEEP .1,-30: PRINT
AT 10-2*f,16; INK 7;"j"
 267 IF s=o THEN LET li=li-.2: P
RINT AT 21,27; OVER 0;INT li;"
"
 270 GO TO 39
 300 LET o=s: FOR f=1 TO 5
 305 LET a=3
 310 PRINT AT 10,15-2*f; INK 4;b
$(f)
 315 GO SUB 60
 320 BEEP .04,f*6
 330 PRINT AT 10,15-2*f;b$(f);AT
 10,14-2*f; INK 4;b$(f)
 335 GO SUB 60
 340 BEEP .04,f*6
 350 PRINT AT 10,14-2*f;b$(f)
 360 NEXT f
 365 IF s<>o THEN PRINT FLASH 1;
AT 10,14-2*f; INK 6;"j": BEEP .1
,-30: BEEP .1,-28: BEEP .1,-26:
BEEP .1,-28: BEEP .1,-30: PRINT
AT 10,14-2*f; INK 7;"j"
 367 IF s=o THEN LET li=li-.2: P
RINT AT 21,27; OVER 0;INT li;"
"
 370 GO TO 39
 400 LET o=s: FOR f=1 TO 5
 405 LET a=4
 410 PRINT AT 11,16+2*f; INK 6;b
$(f)
 415 GO SUB 60
 420 BEEP .04,f*6
 430 PRINT AT 11,16+2*f;b$(f);AT
 11,17+2*f; INK 6;b$(f)
 435 GO SUB 60
 440 BEEP .04,f*6
 450 PRINT AT 11,17+2*f;b$(f)
 460 NEXT f
 465 IF s<>o THEN PRINT FLASH 1;
AT 11,17+2*f; INK 6;"j": BEEP .1
,-30: BEEP .1,-28: BEEP .1,-26:
BEEP .1,-28: BEEP .1,-30: PRINT
AT 11,17+2*f; INK 7;"j"
 467 IF s=o THEN LET li=li-.2: P
RINT AT 21,27; OVER 0;INT li;"
"
 470 GO TO 39
1000 IF x<6 THEN GO TO 1100
1010 IF x>9 AND x<22 THEN GO TO
1200
1020 IF NOT x>24 THEN GO TO 2000
1030 IF x>29 OR y<2 OR y>19 THEN
 GO TO 2000
1040 FOR q=2 TO 19: PRINT PAPER
3;AT q,27;"   ": NEXT q
1050 BEEP .03,-10: BEEP .03,-13:
 BEEP .03,-15: BEEP .03,-10
1060 FOR q=2 TO 19: PRINT PAPER
0;AT q,27;"   ": NEXT q
1065 IF a<>4 THEN GO TO 2000
1070 LET s=s+20
1080 LET g=0
1090 RETURN
1100 IF x<1 OR y<2 OR y>19 THEN
GO TO 2000
1110 FOR q=2 TO 19: PRINT PAPER
3;AT q,2;"   ": NEXT q
1120 BEEP .03,-10: BEEP .03,-13:
 BEEP .03,-15: BEEP .03,-10
1130 FOR q=2 TO 19: PRINT PAPER
0;AT q,2;"   ": NEXT q
1135 IF a<>3 THEN GO TO 2000
1140 LET s=s+20
1150 LET g=0
1160 RETURN
1200 IF y>10 THEN GO TO 1300
1210 IF y<1 OR y>3 THEN GO TO 20
00
1220 FOR q=11 TO 20: PRINT PAPER
 3;AT 1,q;" ";AT 2,q;" ";AT 3,q;
" ": NEXT q
1230 BEEP .03,-10: BEEP .03,-13:
 BEEP .03,-15: BEEP .03,-10
1240 FOR q=11 TO 20: PRINT PAPER
 0;AT 1,q;" ";AT 2,q;" ";AT 3,q;
" ": NEXT q
1245 IF a<>2 THEN GO TO 2000
1250 LET s=s+20
1260 LET g=0
1270 RETURN
1300 IF y>20 OR y<18 THEN GO TO
```

ENERGY FIELDS

```
2000
1310 FOR q=11 TO 20: PRINT PAPER
 3;AT 18,q;" ";AT 19,q;" ";AT 20
,q;" ": NEXT q
1320 BEEP .03,-10: BEEP .03,-13:
 BEEP .03,-15: BEEP .03,-10
1330 FOR q=11 TO 20: PRINT PAPER
 0;AT 18,q;" ";AT 19,q;" ";AT 20
,q;" ": NEXT q
1335 IF a<>1 THEN GO TO 2000
1340 LET s=s+20
1350 LET g=0
1360 RETURN
2000 PRINT AT y,x;"hi"
2010 FOR r=y TO 21
2020 PRINT AT r,x-1; INK 5;"jjj"
2030 BEEP .001,r
2040 PRINT AT r,x-1;"jjj"
2050 NEXT r
2060 LET li=li-1: PRINT OVER 0;A
T 21,27;INT li;"  ": IF li<=1 TH
EN GO TO 7000
2065 PRINT AT y,x;"hi"
2070 RETURN
7000 FOR f=1 TO 60: PRINT OVER 0
;AT 10,8; INK f/9; INVERSE 1;"G
A M E  O V E R": BEEP .001,f: NE
XT f
7005 IF s>h THEN LET h=s
7100 PRINT OVER 0;AT 21,2; INVER
SE 1;"PRESS ANY KEY TO PLAY AGAI
N"
7200 IF INKEY$<>"" THEN RESTORE
: CLS : OVER 1: GO TO 10
7300 GO TO 7200
8000 FOR f=USR "a" TO USR "j"+7
8010 READ x: POKE f,x: NEXT f
8020 DATA 40,BIN 01010100,BIN 10
111010,124,BIN 10111010,BIN 0101
0100,40,0
8030 DATA 0,16,40,BIN 01010100,4
0,16,0,0
8040 DATA 0,0,0,24,24,0,0,0
8050 DATA 0,0,0,16,0,0,0,0
8060 DATA 255,195,189,189,189,18
9,195,255
8070 DATA 0,62,54,42,54,62,0,0
8080 DATA 0,0,28,28,28,0,0,0
8090 DATA 96,240,249,239,249,240
,96,0
8100 DATA 6,15,159,247,159,15,6,
0
8110 DATA BIN 11011010,33,76,195
,24,BIN 01100101,BIN 10010011,BI
N 01100100
8250 LET x=1: LET y=1
8300 LET a$="dcba"
8350 LET b$="dcgfe"
8400 LET s=0
8410 LET li=8: LET p=5
8500 RETURN
9000 OVER 0: PLOT 126,93: DRAW 4
,0: DRAW 0,-4: DRAW 4,0: DRAW 0,
-4: DRAW -4,0: DRAW 0,-4: DRAW -
4,0: DRAW 0,4: DRAW -4,0: DRAW 0
,4: DRAW 4,0: DRAW 0,4
9010 DRAW -40,77: DRAW 84,0: DRA
W 0,-25: DRAW -84,0: DRAW 0,25:
PLOT 86,145: DRAW 40,-52: DRAW 4
,0
9020 DRAW 40,52: DRAW 0,25: DRAW
 -40,-77
9030 PLOT 126,81: DRAW -40,-77:
DRAW 84,0: DRAW 0,25: DRAW -84,0
: DRAW 0,-25: DRAW 0,25: DRAW 40
,52: DRAW 4,0: DRAW 40,-52: DRAW
 0,-25: DRAW -40,77
9040 PLOT 122,89: DRAW -107,71:
DRAW 30,0: DRAW 0,-146: DRAW -30
,0: DRAW 0,146: DRAW 30,0: DRAW
77,-71: DRAW 0,-4: DRAW -107,-71
: DRAW 30,0: DRAW 77,71
9050 PLOT 134,89: DRAW 107,71: D
RAW -30,0: DRAW 0,-146: DRAW 30,
0: DRAW 0,146: DRAW -30,0: DRAW
-77,-71: DRAW 0,-4: DRAW 107,-71
: DRAW -30,0: DRAW -77,71
9500 RETURN
9800 FOR f=1 TO 7: FOR G=0 TO F:
 PRINT INK G;AT f,f*2;"ENERGY FI
ELDS": BEEP .03,G: NEXT G: NEXT
F
9835 RETURN
9840 PRINT AT 10,0;"Guard the tu
be with your craft  by setting u
p energy shields at the 4 open e
nds of the system.  Attempting t
o place a field at  any place ot
her than the end    will result
in your destruction."
9850 PRINT "Setting one up at a
tube not    containing an enemy
will result in destruction also.
"
9855 PAUSE 0: CLS : GO SUB 9800
9860 PRINT AT 9,0;"Move with 1(u
p) & 2(down) but    remember that
 you move right at the same time
 and going off the screen will p
lace you on the     opposite side
."
9870 PRINT "Place an energy fiel
d at a tube mouth with 0."'"Lett
ing an enemy past or self-  dest
ruction results in power    loss
 and if this is too great   then
 the game is over."'' INVERSE 1;
 OVER 1;"Press a key to start":
PAUSE 0: CLS
9880 RETURN
```

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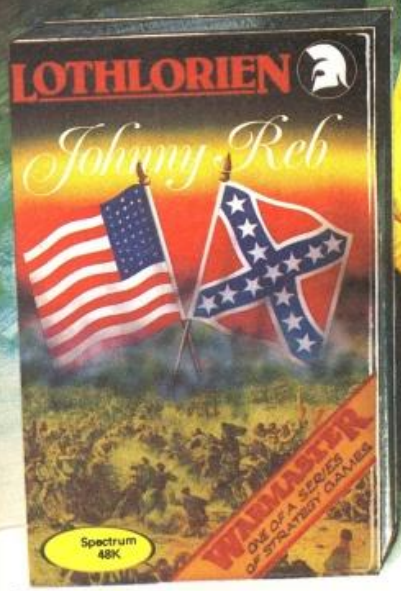

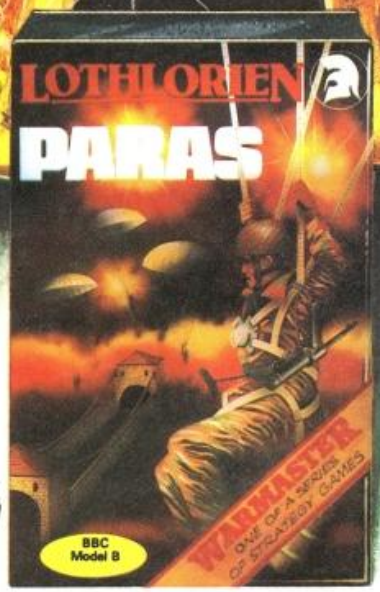

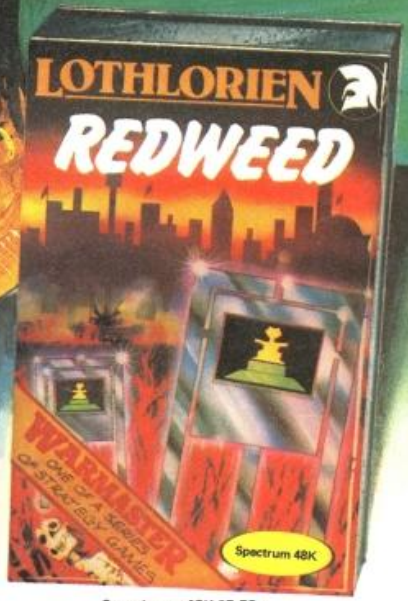

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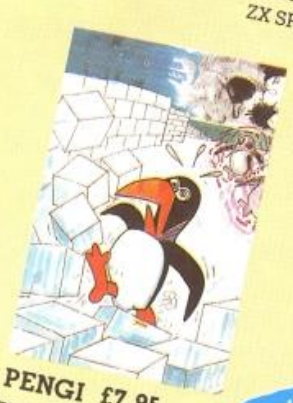

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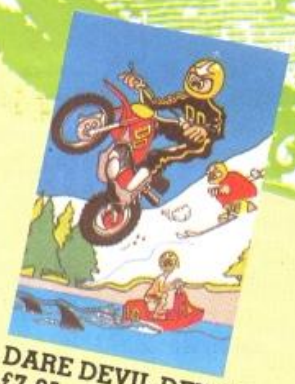

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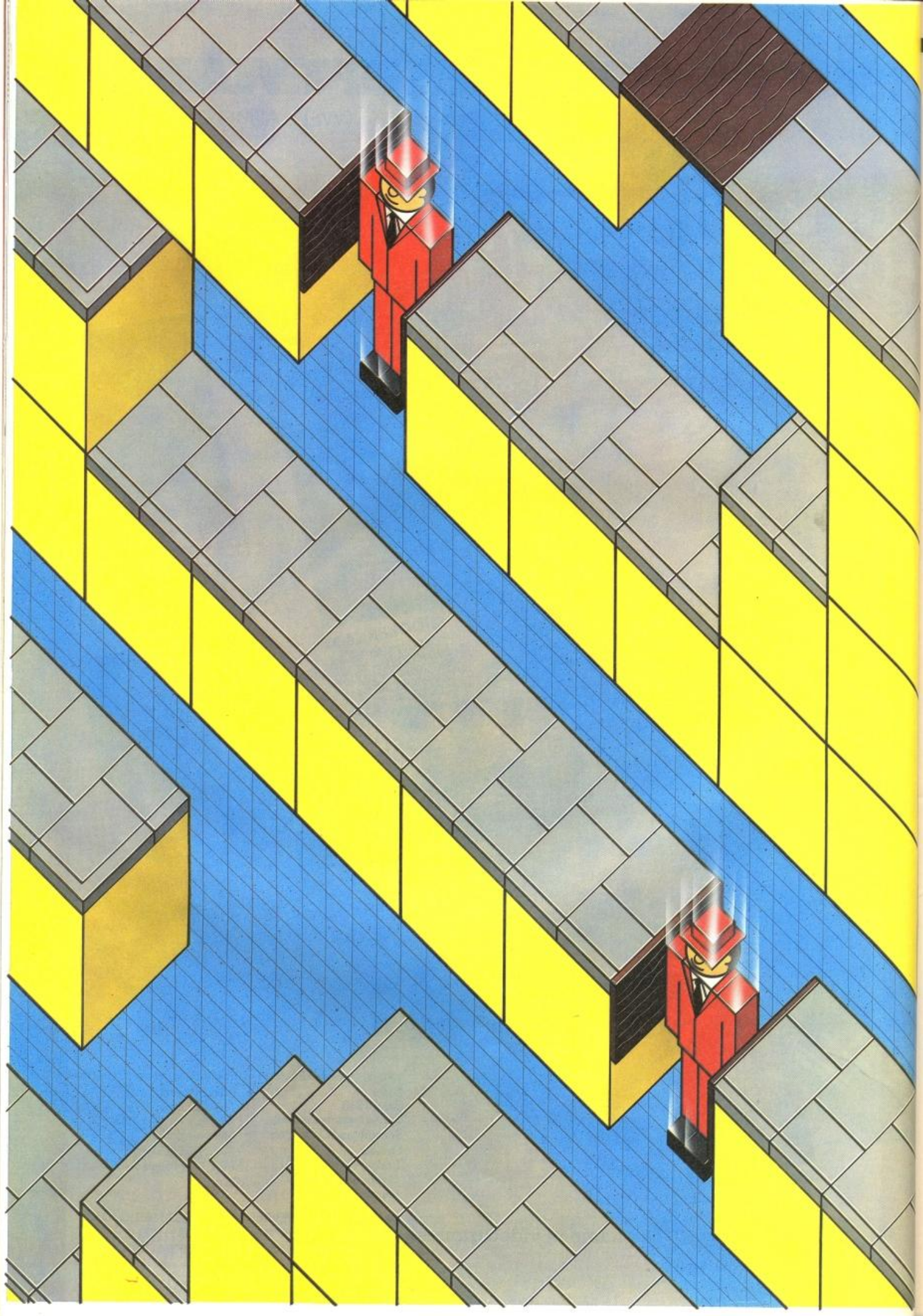

FALL GUY

Fall Guy is a strategic maze game for two players in which your task is to manoeuvre a small figure to the bottom of the screen before your opponent.

By positioning a hole directly beneath your figure, you allow him to drop through to the level below. Full instructions are printed on the screen.

The trick is to alter the set-up of the maze to your own advantage and not to your opponent's.

```
100 'FALL GUY BY PAUL STANLEY
    REWRITTEN FOR THE DRAGON 32
    BY E.A.JACKSON
105 CLEAR 5000:DIM A$(13)
110 L=1:R=1:LP=1027:RP=1052:Z=0
115 GOSUB350:GOSUB280
120 PRINT@(L*32),CHR$(62);:PRINT
@(R*32)+31,CHR$(60);
125 E$=MID$(C$,2,29)+MID$(C$,1,1
):C$=E$:PRINT@449,C$;
130 GOSUB 240
135 IF Z=99 THEN 320
140 A$=INKEY$:IF A$=""THEN 125
145 L=L-(A$="A" AND L<13)+(A$="2
" AND L>1)
150 R=R-(A$="L" AND R<13)+(A$="0
" AND R>1)
155 IF A$="Q" THEN N=L:GOSUB 200
160 IF A$="P" THEN N=R:GOSUB 220
165 IF A$="O" THEN N=R:GOSUB 200
170 IF A$="W" THEN N=L:GOSUB 220
175 PRINT@(L*32)-32,CHR$(143);:P
RINT@(L*32),CHR$(62);:PRINT@(L*3
2)+32,CHR$(143);
180 PRINT@(R*32)-1,CHR$(143);:PR
INT@(R*32)+31,CHR$(60);:PRINT@(R
*32)+63,CHR$(143);
185 GOSUB 240
190 IF Z=99 THEN 320
195 GOTO 125
200 'MOVE LEFT
205 IF BL=N OR BR=N THEN RETURN
210 M$=MID$(A$(N),2,28)+MID$(A$(
N),1,1):A$(N)=M$
215 PRINT@(N*32)+2,A$(N);:RETURN
220 'MOVE RIGHT
225 IF BL=N OR BR=N THEN RETURN
230 M$=MID$(A$(N),28,1)+MID$(A$(
N),1,27):A$(N)=M$
235 PRINT@(N*32)+2,A$(N);:RETURN
240 'FALL SEQUENCE
245 LQ=LP+32:RQ=RP+32
250 IF PEEK(LQ)=128 THEN POKE LQ
,159:POKE LQ-32,128:LP=LQ:BL=INT
(LQ-1027)/32:SOUND 125,1
255 IF PEEK(LQ)=207 THEN POKE LP
```

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```
,128: LP=1027:POKE LP,159:BL=0
260 IF PEEK(RQ)=128 THEN POKE RQ
,159:POKE RQ-32,128:RP=RQ:BR=INT
(RQ-1052)/32:SOUND175,1
265 IF PEEK(RQ)=207 THEN POKE RP
,128:RP=1052:POKE RP,159:BR=0
270 IF LP>1470 OR RP>1475 THEN Z
=99
275 RETURN
280 'DISPLAY SCREEN
285 FOR N=1TO13:A$(N)=STRING$(28
,143):K=RND(28):MID$(A$(N),K,1)=
CHR$(207):FOR J=1TO8:K=RND(28):M
ID$(A$(N),K,1)=CHR$(128):NEXT J:
NEXT N
290 B$=STRING$(2,143)+CHR$(159)+
STRING$(24,143)+CHR$(159)+STRING
$(2,143)
295 C$=STRING$(15,143)+CHR$(128)
+STRING$(14,143)
300 CLS1
305 PRINT@1,B$;:PRINT@449,C$;
310 FOR N=1TO13:PRINT@(32*N),CHR
$(143);CHR$(159);A$(N);CHR$(159)
;CHR$(143);:NEXT N
315 RETURN
320 'ENDPLAY
325 FOR T=1TO3:PLAY "T12V3104DDF
03CCFGC04CECCDDFCCCFDECC":NEXT T
330 FOR T=1TO1000:NEXTT
335 PRINT@482,"PRESS SPACE BAR T
O PLAY AGAIN";
340 Q$=INKEY$:IFQ$<>CHR$(32) THE
N 340
345 GOTO 110
350 'INSTRUCTIONS
355 CLS:PRINT@12,"FALL GUY"
360 PRINT@64,CHR$(159);"A GAME F
OR 2 PLAYERS.":PRINT:PRINT CHR$(
159);"FALL TO THE BOTTOM OF THE
GRID  BEFORE YOUR OPPONENT,";
365 PRINT " BY MOVING THE GRID."
:PRINT@202,CHR$(128):PRINT@204,C
HR$(128);:PRINT@206,"UNDER YOUR
PLAYER.";
370 PRINT:PRINT CHR$(159);"AVOID
 FALLING ON THE MINES.";CHR$(207
):PRINT" OR YOU WILL RETURN TO T
HE TOP   OF THE GRID.":PRINT:PRI
NT CHR$(159);"CONTROLS:  UP  DOW
N  LEFT RIGHT PLAYER 1:  2    A
    Q     W   PLAYER 2:  0    L
    O     P";
375 PRINT@486,"PRESS SPACEBAR";
380 Q$=INKEY$:IF Q$<>CHR$(32) TH
EN 380
385 PRINT@484,STRING$(26,32);
390 RETURN
```

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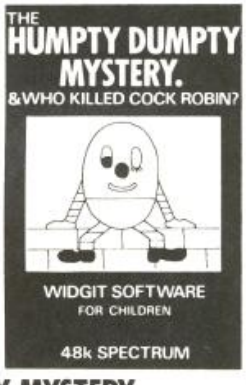

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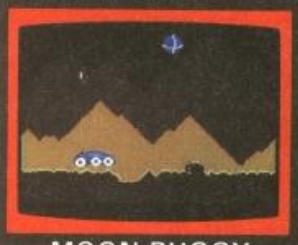

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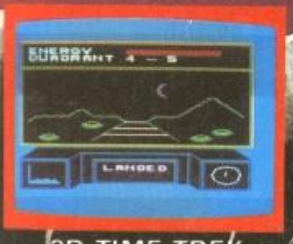

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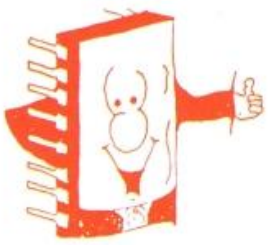

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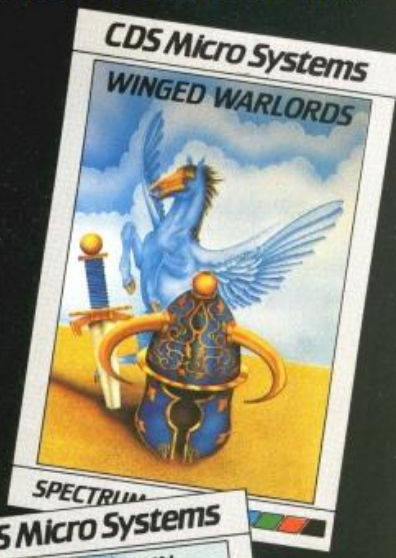

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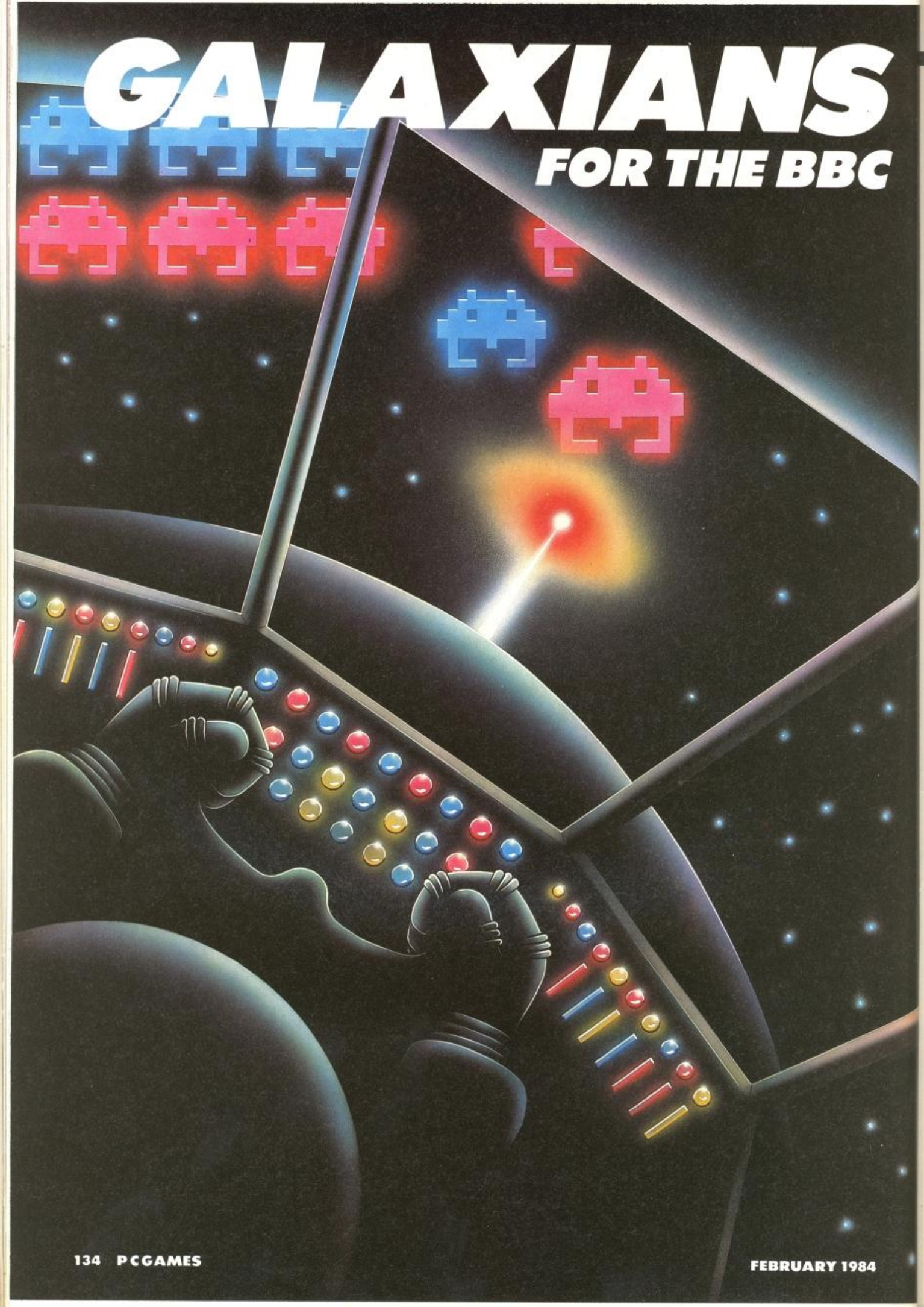
GALAXIANS
FOR THE BBC



GALAXIANS

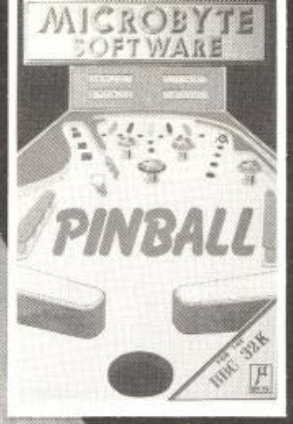
First came the *Space Invaders*, who were content to keep ranks, and drop the occasional bomb as they advanced. Now you face *Galaxians*.

These merciless aliens will first bomb you and then, if that fails, swoop down the screen to roast you alive with their lasers.

You cannot win, you can only struggle to survive. Full instructions will appear on the screen. You have been warned...

(You will also find this program on our free gift flexi-disk.)

```
   10REM CONVERTED TO 32K BBC MICRO BY C
.R.TANNER
   20MODE 7:VDU 23;8202;0;0;0;
   30hs=0
   40GOSUB 960
   50MODE 1:COLOUR 3:VDU
28,4,27,35,4,23;8202;0;0;0;19,1,4,0,0,0,
19,2,5,0,0,0
   60VDU 23,224,34,35,36,62,15,7,2,14
   70VDU 23,225,36,196,228,252,240,224,6
4,112
   80VDU 23,226,2,3,7,63,39,39,34,3
   90VDU 23,227,64,192,32,124,228,228,68
,192
  100VDU 23,228,128,&A6,242,123,61,47,39
,3
  110VDU 23,229,1,105,79,222,188,244,196
,192
  120VDU 23,230,0,240,248,252,14,6,6,6
  130VDU 23,231,145,82,0,3,192,0,74,145
  140VDU 23,232,7,31,127,170,170,127,31,
7
  150VDU 23,233,255,255,255,170,170,255,
255,255
  160VDU 23,234,192,240,252,170,170,252,
240,192
  170VDU 23,235,18,19,18,28,4,2,1,1
  180VDU 23,236,72,200,72,56,32,64,128,1
28
  190VDU 23,237,1,31,63,127,225,193,192,
192
  200x=15:sc=0:l=3:m=RND(18):g=3:h=INT(R
ND(18))
  210a$=" "+STRING$(6,CHR$(224)+CHR$(225
)+" ")
  220b$=" "+STRING$(6,CHR$(226)+CHR$(227
)+" "):c$=STRING$(19," ")
  230d$=" "+STRING$(2,CHR$(228)+CHR$(229
)+" ")
  240dir=1:y=0
  250hit=0
  260COLOUR 3:PRINT TAB(17,0);"HIGH-SCOR
E:";hs
  270COLOUR 1:PRINT TAB(y,2);a$
  280FOR A%=1 TO 6:SOUND 1,-15,100,0:TIM
E=0:REPEAT UNTIL TIME>1:NEXT
  290COLOUR 1:PRINT TAB(y,2);b$
  300FOR A%=1 TO 3:SOUND 1,-15,130,0:TIM
E=0:REPEAT UNTIL TIME>1:NEXT
  310x=x-2*(INKEY(-67) AND x<25)+2*(INKE
Y(-98) AND x>1)
  320PRINT TAB(x,21);"  "+CHR$(237)+CHR$
(230)+"  "
  330IF INKEY(-102) THEN ELSE GOTO 360
  340GOTO 480
  350COLOUR 3:PRINT TAB(0,0);"SCORE:";sc
  360y=y+dir
  370IF y=0 OR y=13 THEN dir=-dir
  380PRINT TAB(m,l);"      "
  390l=l+1:m=m+RND(4)-RND(4)
  400IF l=2i THEN l=3:d$=" "+STRING$(2,C
HR$(228)+CHR$(229)+" ")
  410IF m>25 THEN m=12
  420IF m<0 THEN m=12
  430COLOUR 2:PRINT TAB(m,l);d$
  440PRINT TAB(h,g);"  "
  450g=g+3:PRINT TAB(h,g);CHR$235+CHR$23
6:IF g=21 THEN g=3:PRINT
TAB(h,21);"  ":h1=h:h=INT(RND(17)+1):IF
h1=x+3 OR h1=x+2 OR h1=x+1
THEN GOTO 860
  460IF RND(1)>.8 THEN IF d$<>"        "
THEN GOTO 740
  470GOTO 260
  480IF POINT(128+(x*8+23)*4,192+((21-1)
*8+4)*4)=2 THEN GOTO 580
  490IF POINT(128+(x*8+23)*4,816)=1 THEN
 hit=1
  500GCOL3,2:PLOT 69,128+(x*8+23)*4,224:
PLOT 1,0,584
  510SOUND 1,-15,80,1
  520GCOL3,2:PLOT 69,128+(x*8+23)*4,224:
PLOT 1,0,584
  530IFhit<>1 THEN GOTO 550 ELSE a$=MID$
(a$,1,(x+2-y)-1)+"
"+MID$(a$,(x+4-y)+1,(LEN(a$)-(x+4-y)+1))
:b$=MID$(b$,1,(x+2-y)-1)+"
"+MID$(b$,(x+4-y)+1,(LEN(b$)-(x+4-y)+1))
  540sc=sc+10:PRINTTAB(x+1,2);CHR$231+CH
R$231+CHR$231:FORf=0TO15:SOUND
1,-15,30+f,1:NEXT:PRINTTAB(x+1,2);"    "
  550hit=0
  560IF a$=c$ THEN GOTO 640
  570GOTO 350
  580IF g=l THEN IF h=x+1 OR h=x+2 THEN
GOTO 350
  590GCOL3,2:PLOT 69,128+(x*8+23)*4,224:
PLOT 1,0,((21-1)*8-8)*4
  600SOUND 1,-15,80,1
  610GCOL3,2:PLOT 69,128+(x*8+23)*4,224:
PLOT 1,0,((21-1)*8-8)*4
  620d$=MID$(d$,1,x+1-m)+"
"+MID$(d$,x+5-m,(LEN(d$)-x+3-m)):sc=sc+2
0:PRINT
TAB(x+1,1);CHR$231+CHR$231+CHR$231:FOR f
=0TO15:SOUND 1,-15,30+f,1:NEXT
f:PRINTTAB(x+1,1);"    "
  630GOTO 350
  640FOR f=0 TO 15
  650PRINT TAB(f,7);" "+CHR$232+CHR$233+
CHR$234
  660IF f=0 OR f=3 OR f=6 OR f=9 OR f=12
 OR f=15 THEN COLOUR 1:PRINT
TAB(f+1,2);CHR$224+CHR$225
  670NEXT f
  680FOR f=14 TO 26 STEP 2
  690SOUND 1,-15,30,1
  700PRINT TAB(f,7);"    "+CHR$232+CHR$23
3+CHR$234
  710NEXT f
  720PRINT TAB(28,7);"     "
  730GOTO 210
  740IF MID$(d$,2,1)<>CHR$228 THEN GOTO
800
  750GCOL3,2:PLOT 69,128+(m*8+16)*4,192+
((21-1)*8-1)*4:PLOT
1,0,(9-(21-1)*8)*4
  760FOR f=38 TO 42:SOUND 1,-15,f,1:NEXT
 f
```



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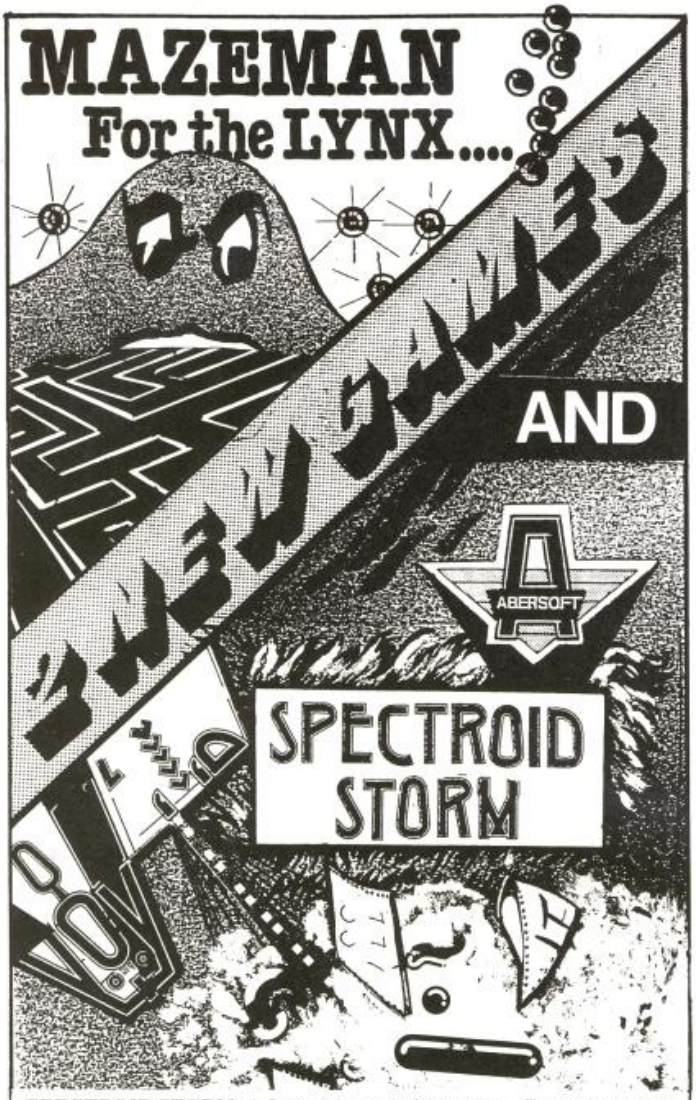
POO

GALAXIANS

```
  770GCOL3,2:PLOT 69,128+(m*8+16)*4,192+
((21-1)*8-1)*4:PLOT
1,0,(9-(21-1)*8)*4
  780IF POINT(128+(m*8+16)*4,208)=1 THEN
 GOTO 860
  790COLOUR 3:GOTO 270
  800IF g=1 AND h=x+1 OR h=x+1 THEN GOTO
 270
  810GCOL3,2:PLOT 69,128+(m*8+36)*4,192+
((21-1)*8-1)*4:PLOT
1,0,(9-(21-1)*8)*4
  820FOR f=38 TO 42:SOUND 1,-15,f,1:NEXT
 f
  830GCOL3,2:PLOT 69,128+(m*8+36)*4,192+
((21-1)*8-1)*4:PLOT
1,0,(9-(21-1)*8)*4
  840IF POINT(128+(m*8+36)*4,208)=1 THEN
 GOTO 860
  850COLOUR 3:GOTO 270
  860FOR f=1 TO 15
  870PRINT TAB(x+2,21);CHR$231+CHR$231
  880SOUND 1,-15,RND(30),1
  890NEXT f
  900PRINT TAB(x+2,21);"  "
  910IF sc>hs THEN hs=sc
  920COLOUR 3:PRINT TAB(8,10);"G A M E
O V E R";TAB(2,18);"PRESS ANY
KEY TO PLAY AGAIN"
  930*FX15,1
  940IF INKEY$(1000)="" THEN GOTO 940
  950FOR f=1 TO 100:NEXT f:CLS:COLOUR 3:
GOTO 200
  960PRINT TAB(0,0);CHR$(141);CHR$(129);
"-------------- GALAXIAN
--------------"'CHR$(141);CHR$(130);"----
--------- GALAXIAN
--------------"
  970PRINT '"Fleet after fleet, the inva
ders form andwait to attack.
Some of them dive down  to earth firing
lasers as they do.";
  980PRINT" The  invaders in the formati
on drop dangerousbombs to try
and destroy your laser base. Diving inva
ders are worth more points.";
  990PRINT"As soon as 1 fleet of invader
s have beendestroyed their
mother-ship will arrangea new battle-lin
e."
 1000PRINT'CHR$(132);"   Your controls a
re:-"
 1010PRINT''TAB(10);CHR$(133);"Z";CHR$(1
34);"....To move left"
 1020PRINT'TAB(10);CHR$(133);"X";CHR$(13
4);"....To move right"
 1030PRINT'TAB(10);CHR$(133);"M";CHR$(13
4);"....To fire laser canon"
 1040PRINT TAB(6,24);CHR$(136);"PRESS AN
Y KEY TO START";
 1050IF INKEY$(1000)="" THEN GOTO 1050 E
```



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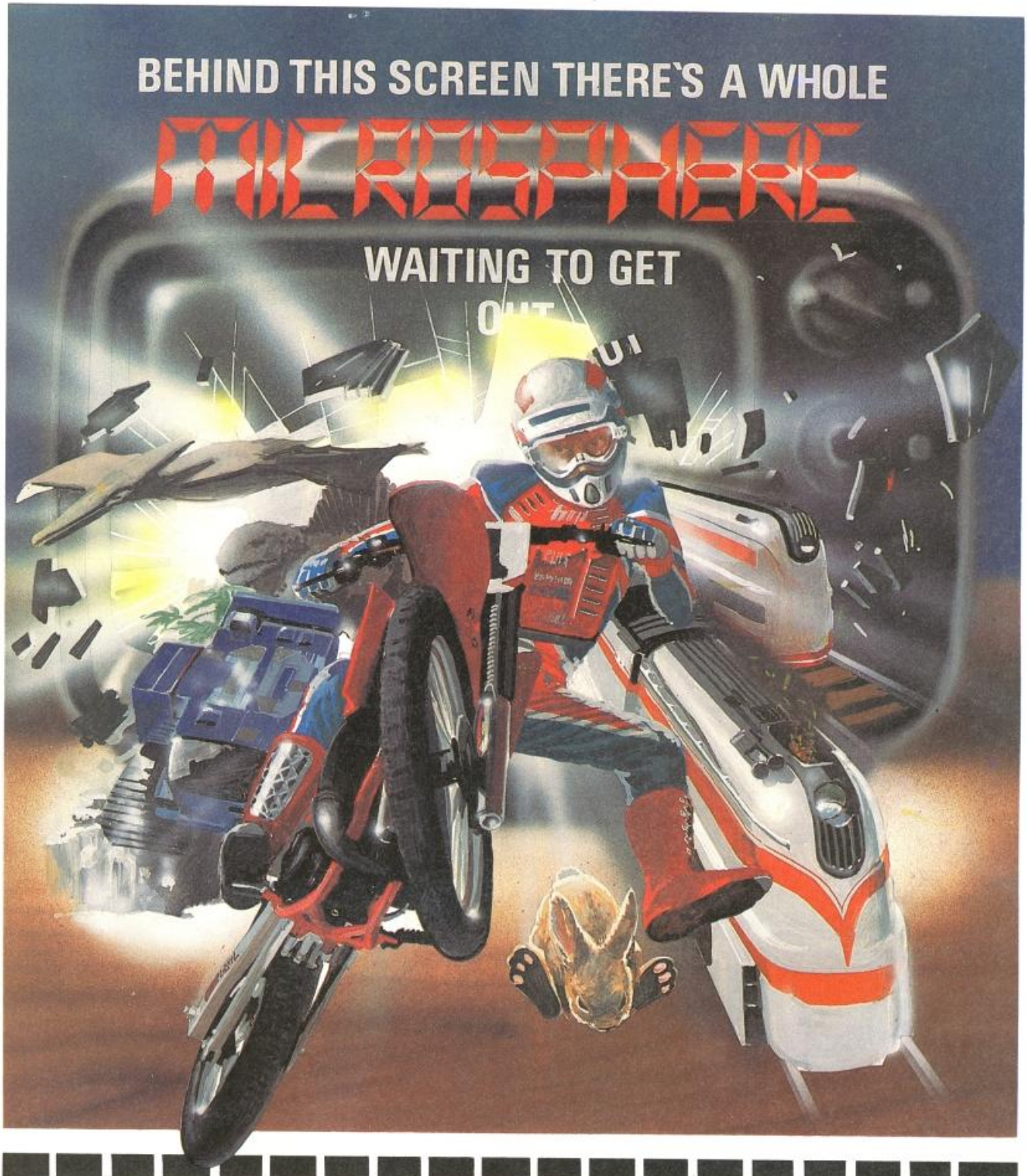

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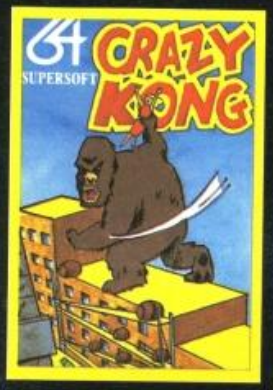

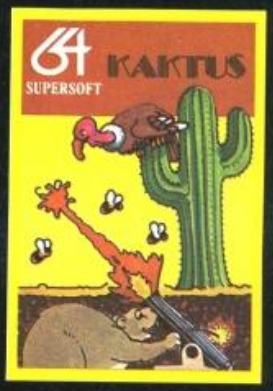

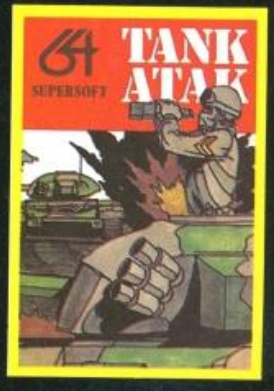

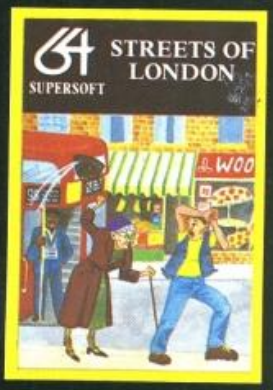

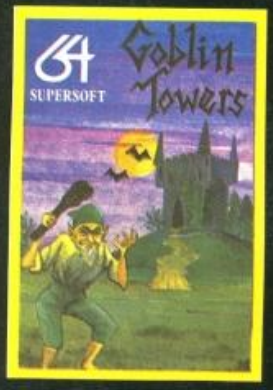

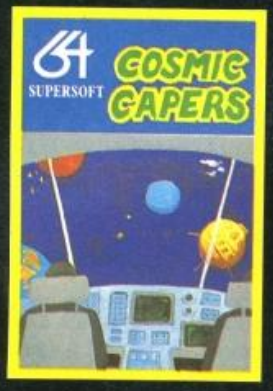

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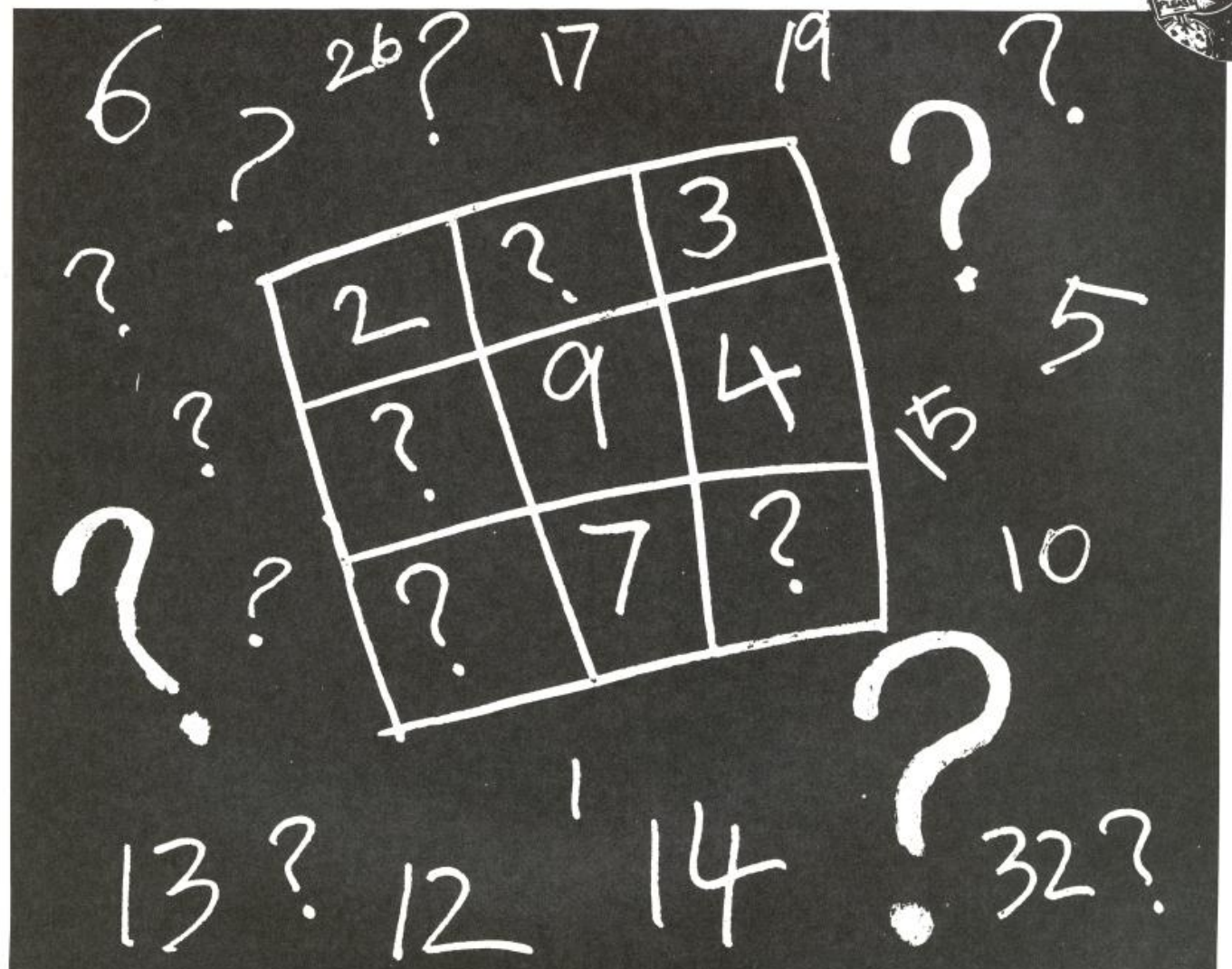

MAGIC SQUARES FOR THE BBC

MAGIC SQUARES PROGRAM

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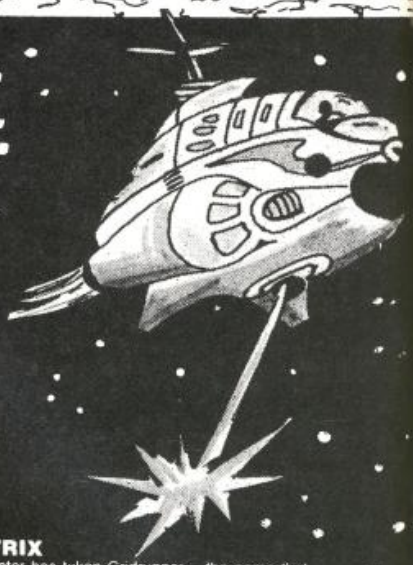

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MAGIC SQUARES

DETAILED PROGRAM DESCRIPTION

Lines 0 to 25
This is the main program structure. Lines 2 and 3 turn off the escape key and cursor control keys. Lines 13 and 14 update the screen and accept the next move. In lines 22 and 23 please enter colour control codes as follows: before the word BYE the (shift key) + (f6 key). In line 24 enter the colour code (shift key) + (f3 key) before the word BREAK.

Lines 26 to 51
This algorithm constructs the magic square and holds it in the 'A' array. The 'B' array is used to dump the magic square to the screen while the 'A' array is used to validate user answers etc. Lines 48 to 50 generate the magic square positions which have to be solved. No checking is done that three unknowns are in a diagonal line, which means that once in a while the square can be quite hard to solve.

Lines 52 to 68
This is the screen dump routine. In line 59 please enter a colour control code as follows: (shift key) + (f1 key) and (shift key) + (f8 key) before the question mark, and (shift key) + (f9 key) after the question mark.

Lines 60 to 64 are tabulation corrections.

Lines 69 to 84
This is the general routine to accept your move. It itself calls up the input function, checks your response for the correct answer, calling the appropriate procedures as required.

Lines 85 to 91
Self evident.

Lines 92 to 100
This routine invoking the display, music and time routines merely congratulates your success on winning.

Lines 101 to 111
This routine congratulates your single successful guess. Line 108 restores the music data (essential).

Lines 112 to 120
This routine is not so pleasing. If you bump into it, you have failed to make a good guess.

Lines 121 to 130
This is the chime routine. It itself calls the music of the routine in 101.

Lines 131 to 155
The introductory routine.

Lines 156 to 161
Self evident.

Lines 163 to 186
This is the input function. A maximum of three characters can be input and these can only range from the ASCII codes for minus sign to the ASCII code for 9.

Lines 187 to end
A standard time delay routine set for a half second.

Program copyright Ian Murry and Siu-Ming Cheung

SIMPLE GLOSSARY

Procedures

i	introduction
s	initialise and set up square
p	screen display of square
a	accept user's move
d	complete square solved
a	play again routine
r	got the move correct
w	got the move wrong
z	sound the chimes
m	do a delay
u	continue routine

Functions
Input: parameters specify highest ASCII, lowest ASCII and number of characters that may be input.
The input is a general purpose routine which can be patched for a number of other uses. Line 184 determines the conditions on which the function will return its value.

Variables

K	flag
M	number of correct numbers displayed
J	the number of guesses
X	controls print-out tabulations
d	delete character
r	return character
e	input character
c	used in input length of string
num	number of characters to be input
f	final time on delay

```
    1DIMA(9),B(9)
    2*FX229,1
    3*FX4,1
    4*KEY10 OLD:MRUN:M
    5ONERRORGOTO162
    6MODE7
    7PROCi
    8REPEAT
    9MODE7
   10PROCs
   11REPEAT
   12VDU28,0,20,35,0
   13PROCp
   14PROCa
   15UNTILM=9
   16PROCd
   17PROCg
   18UNTILLEFT$(R$,1)="N"ORLEFT$(R$,1)="
n"
   19MODE7
   20*FX229,0
   21*FX4,0
   22PRINTTAB(5,5)CHR$141;"BYE BYE"
   23PRINTTAB(5)CHR$141;"BYE BYE"
   24PRINTTAB(5,8)" Type BREAK for anoth
er go"
   25END
   26DEFPROCs
   27M=6:J=0
   28REPEAT
   29A=RND(9):B=RND(9):C=RND(9)
   30UNTILA<>B AND A<>C AND B<>C
   31A(1)=A+B
   32A(2)=A-B-C
   33A(3)=A+C
   34A(4)=A-B+C
   35A(5)=A
   36A(6)=A+B-C
   37A(7)=A-C
   38A(8)=A+B+C
   39A(9)=A-B
   40K=1
   41FORZ=1TO9
   42IFA(Z)=0 K=0
   43NEXT
   44IF K=0 THEN 27
   45FORZ=1TO9
   46B(Z)=A(Z)
   47NEXT
   48B(ABS(A))=0
   49B(ABS(B))=0
   50B(ABS(C))=0
   51ENDPROC
   52DEFPROCp
   53J=J+1
   54PRINTTAB(3,3);CHR$(128+RND(5));" MA
GIC SQUARE"
   55PRINTTAB(3);CHR$(128+RND(5));" ====
========"
```

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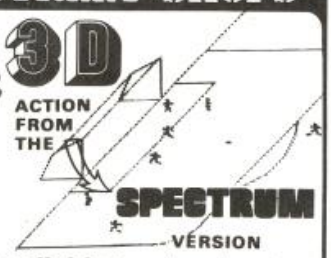

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SINCLAIR USER FEBRUARY 1983

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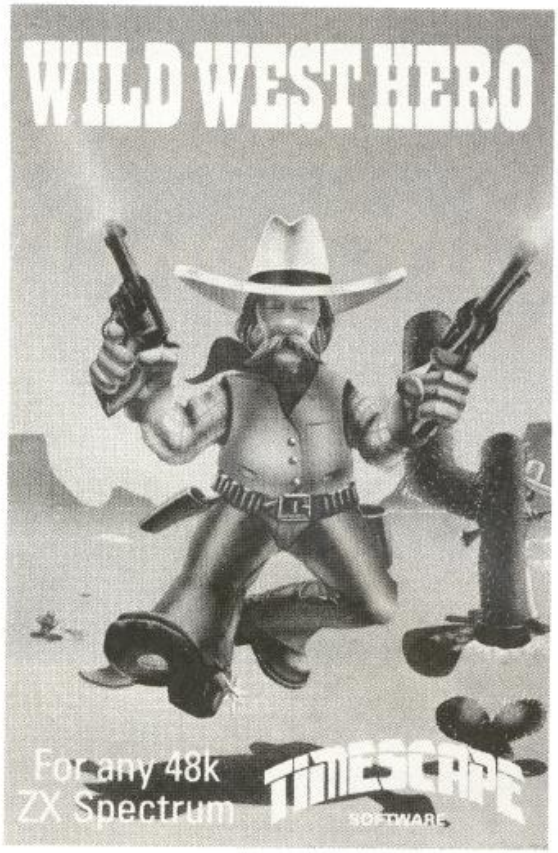

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MAGIC SQUARES

```
   56X=0:Y=8
   57FORZ=1TO9
   58X=X+5
   59IFB(Z)=0 PRINTTAB(X-1,Y);"  ? ":GOT
063
   60IFB(Z)<-9X=X-1
   61IFB(Z)>9ORB(Z)<0X=X-1
   62PRINTTAB(X,Y);CHR$(129+RND(4));B(Z)
;
   63IFB(Z)<-9X=X+1
   64IFB(Z)>9ORB(Z)<0 X=X+1
   65IFZ=3ORZ=6 Y=Y+3:X=0:PRINT:PRINT:PR
INT
   66NEXT
   67IFM<9 PRINT''CHR$(128+RND(5));"You
have "9-M;" to solve"
   68ENDPROC
   69DEFPROCa
   70M=0
   71VDU28,0,22,39,18
   72PRINTCHR$(128+RND(5));"Please type
in your guess (number ";J;")"
   73PRINTCHR$(128+RND(5));"(then press
RETURN)"

   74*FX15,0
   75W$=FNinput("9","-",3):W=VAL(W$):IFW
=0 CLS:PRINT"A non-zero number please!":
GOTO72
   76IFA(ABS(A))=W B(ABS(A))=W:A(ABS(A))
=0:PROCr:GOTO80
   77IFA(ABS(B))=W B(ABS(B))=W:A(ABS(B))
=0:PROCr:GOTO80
   78IFA(ABS(C))=W B(ABS(C))=W:A(ABS(C))
=0:PROCr:GOTO80
   79PROCw
   80FORZ=1TO9
   81IFB(Z)<>0 M=M+1
   82NEXTZ
   83PROCm(2.5):CLS
   84ENDPROC
   85DEFPROCg
   86PROCm(2):CLS
   87PRINTTAB(3,3);CHR$(128+RND(5));"Wan
t another game ?"
   88PRINTTAB(1,6);CHR$(128+RND(5));"(Ty
pe Y or N, then press RETURN key)"
   89*FX15,0
   90INPUTR$
   91ENDPROC
   92DEFPROCd
   93VDU26
   94CLS
   95PROCp
   96PROCz
   97PRINTTAB(0,20)CHR$(128+RND(5));"You
 have solved it ! Well done !"
   98PRINTCHR$(128+RND(5));"You took ";J
-1;" guesses."
   99PROCm(6)
  100ENDPROC
  101DEFPROCr
  102PRINTTAB(1,20)"You are right !!"
  103FORK=1TO7
  104READL,P,T
  105SOUND2,-L,P,T
  106NEXT
  107DATA15,101,4,15,81,1.3,0,0,.7,15,81
,1.3,0,0,.7,15,89,4,15,81,4
  108RESTORE
  109PROCm(1)
  110PRINT:PRINT
  111ENDPROC
  112DEFPROCw
  113PRINTTAB(1,20)"You are wrong !!"
  114SOUND0,-15,7,20
  115FORK=240TO180STEP-3
  116SOUND1,0,K,1
  117NEXTK
  118PROCm(1)
  119PRINT:PRINT
  120ENDPROC
  121DEFPROCz
  122PROCr
  123PROCr
  124SOUND1,-15,81,10
  125SOUND2,-15,97,10
  126SOUND3,-15,61,10
  127SOUND1,-15,69,15
  128SOUND2,-15,81,15
  129SOUND3,-15,101,15
  130ENDPROC
  131DEFPROCi
  132*FX15,0
  133VDU23;8202;0;0;0;
  134PRINTTAB(3,1);CHR$(128+RND(5));" *
* *     MAGIC SQUARE    * * * "
  135PRINTTAB(3,5)"Can you work out the
 3 unknown ";CHR$(128+RND(5));"?";"'s"
  136PRINTTAB(3,7)"Which will make every
 "
  137PRINTTAB(2,9);CHR$(128+RND(5));"ROW
 ";CHR$(128+RND(5));",COLUMN & ";CHR$(12
8+RND(5));"DIAGONAL"
  138PRINTTAB(3,11)"add up to the same a
mount ?"
  139PROCu
  140CLS
  141PRINTTAB(3,3)"for example..."
  142PROCm(1)
  143PROCs
  144M=9
  145VDU28,0,20,18,0
  146PROCp
  147PROCu
  148B(ABS(A))=A(ABS(A)):B(ABS(B))=A(ABS
(B)):B(ABS(C))=A(ABS(C))
  149PRINTTAB(3,3)"The answer is ..."
  150PROCm(1)
  151VDU28,19,20,38,0
  152PROCp
  153PRINT'''"   Each line adds":PRINT"
up to ";CHR$(128+RND(5));3*A
  154PROCu
  155ENDPROC
  156DEFPROCu
  157VDU26
  158PRINTTAB(3,23)"( Hit any key to con
tinue )"
  159*FX15,0
  160Q$=GET$
  161ENDPROC
  162REPORT:PRINT;" at line "ERL:END
  163DEFFNinput(High$,Low$,Num)
  164LOCALh,l,c,e,d
  165LOCALr,t$,e$
  166LETd=127:LETr=13
  167LETh=ASC(High$):LETl=ASC(Low$)
  168LETc=0
  169REPEAT
  170REPEAT
  171REPEAT
  172Ok=FALSE
  173LETe$=GET$
  174e=ASC(e$)
  175IFe>=l AND e<=h Ok=TRUE
  176UNTIL(c=0 AND e<>d)OR((c>0)AND(c<Nu
m))OR(c=Num AND NOT Ok)
  177UNTIL Ok OR e=d OR e=r
  178LETc=c+1
  179IFe=d c=c-2
  180IFe=r c=c-1
  181LETt$=t$+e$
  182LETt$=LEFT$(t$,c)
  183IFe<>r PRINTe$;
  184UNTIL(c<=Num AND e=r)
  185PRINT
  186=t$
  187DEFPROCm(z)
  188LOCAL f
  189f=50*z
  190f=TIME+f
  191REPEAT
  192UNTIL TIME>f
  193ENDPROC
>
```

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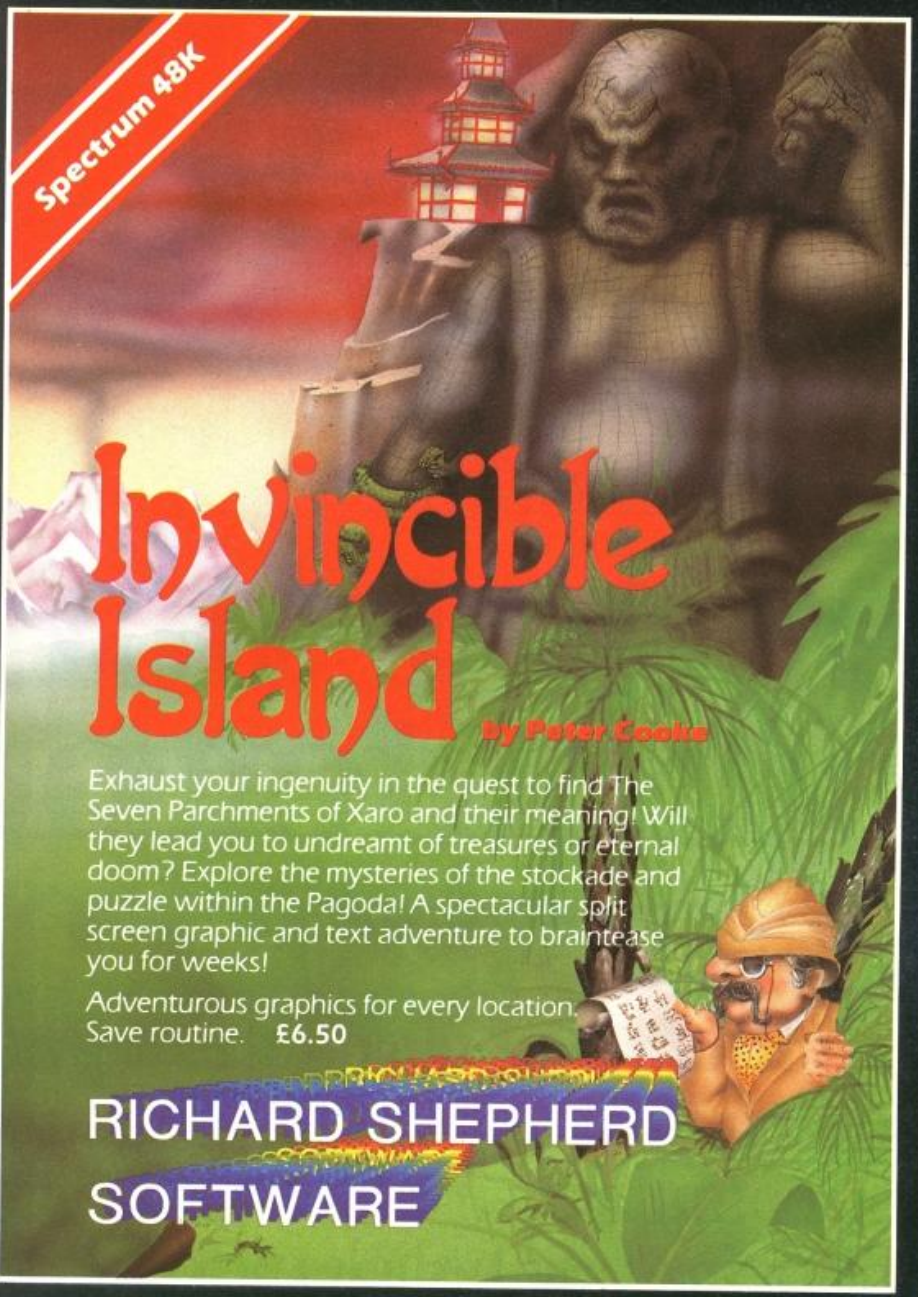

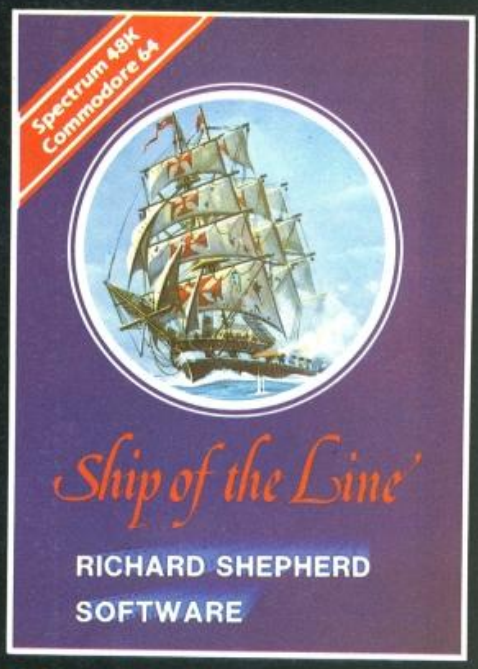

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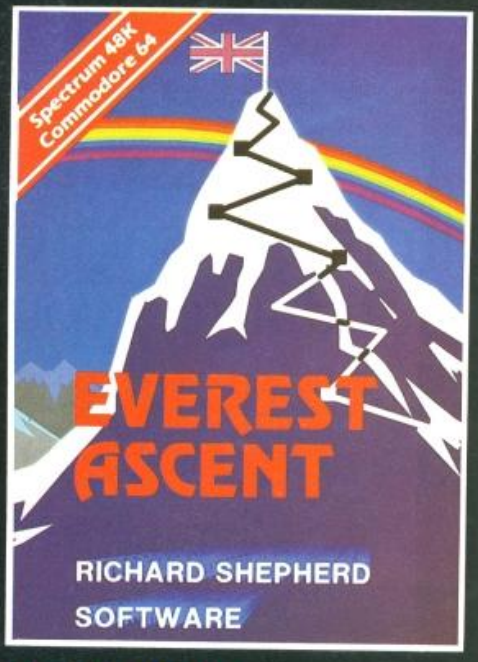

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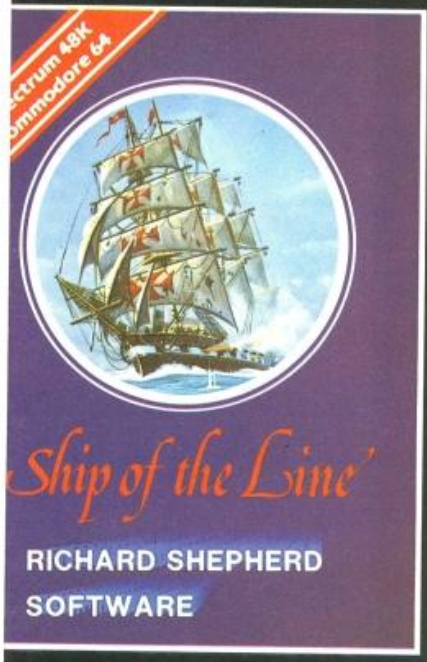

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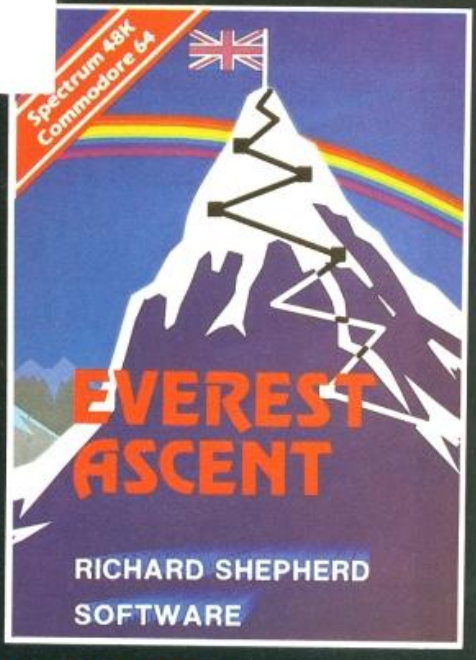

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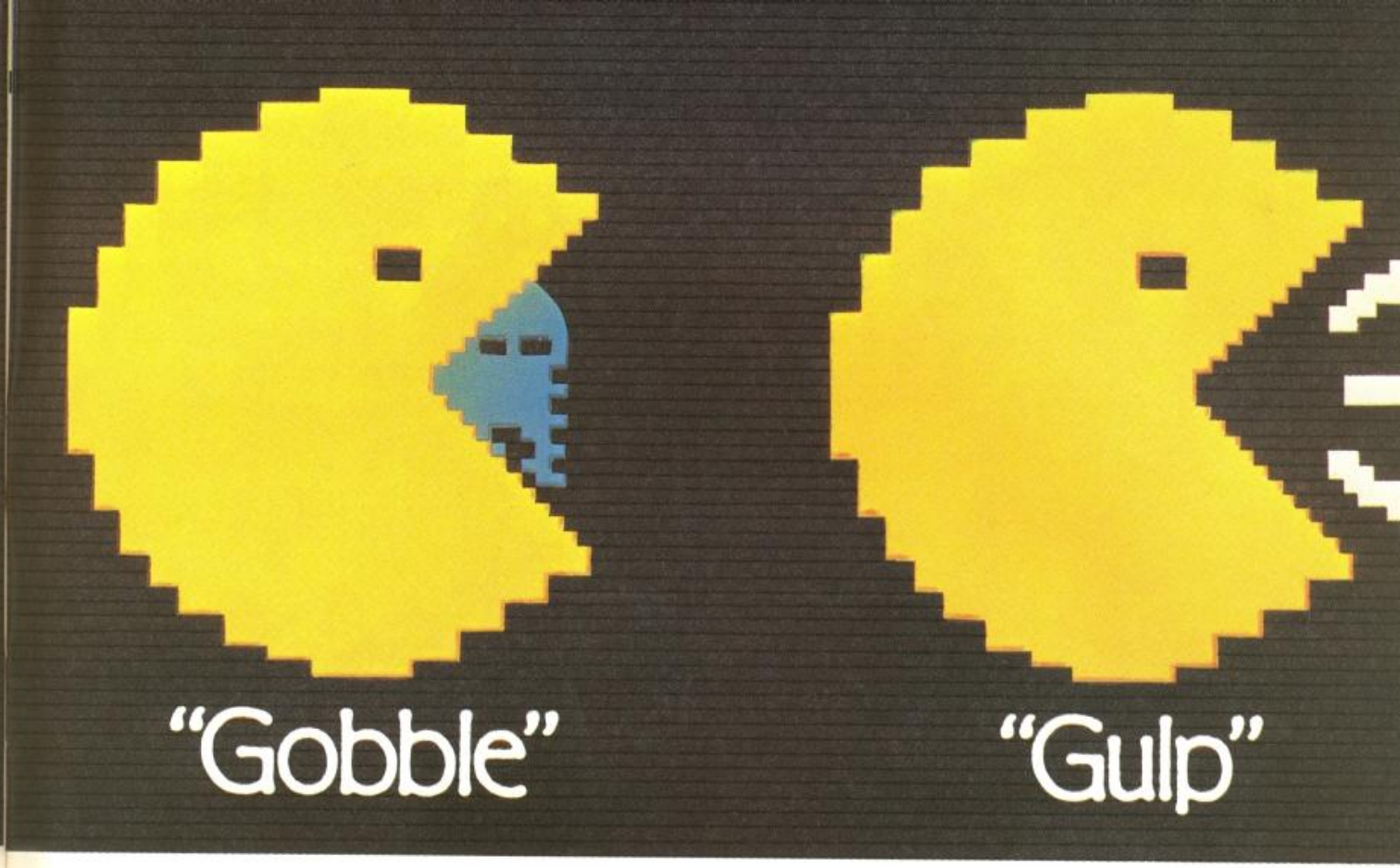

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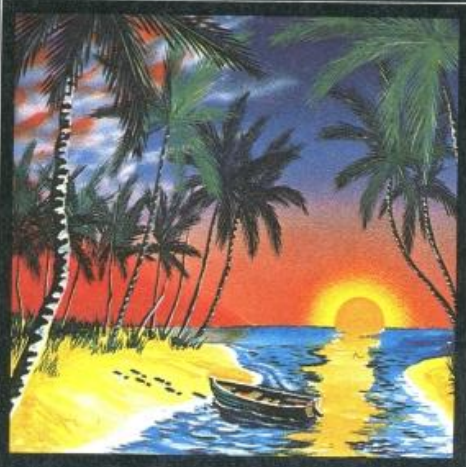

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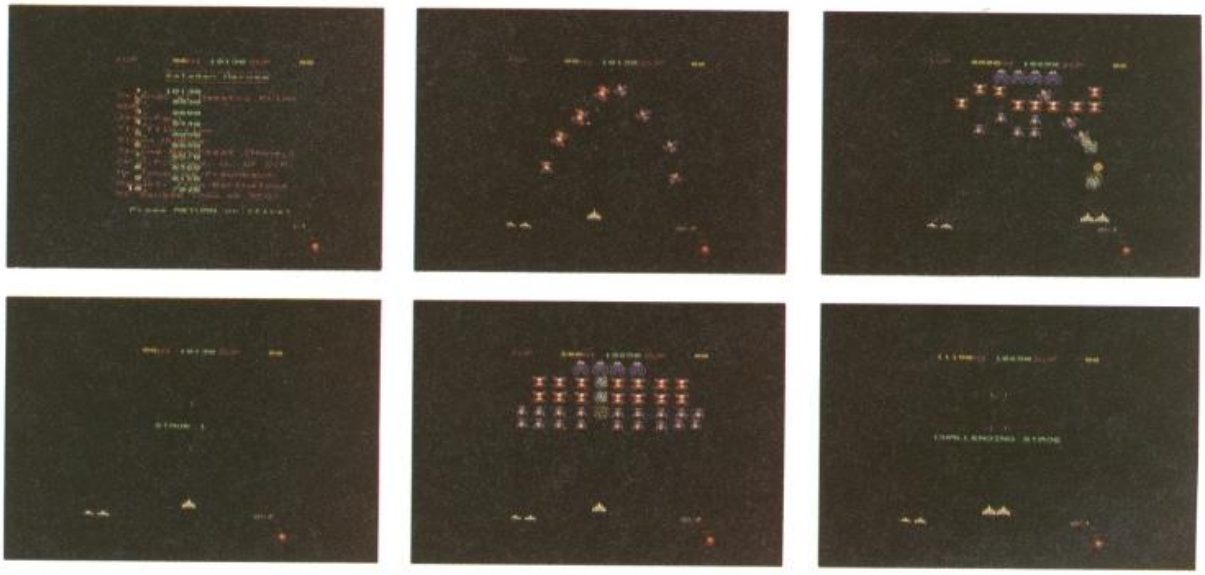

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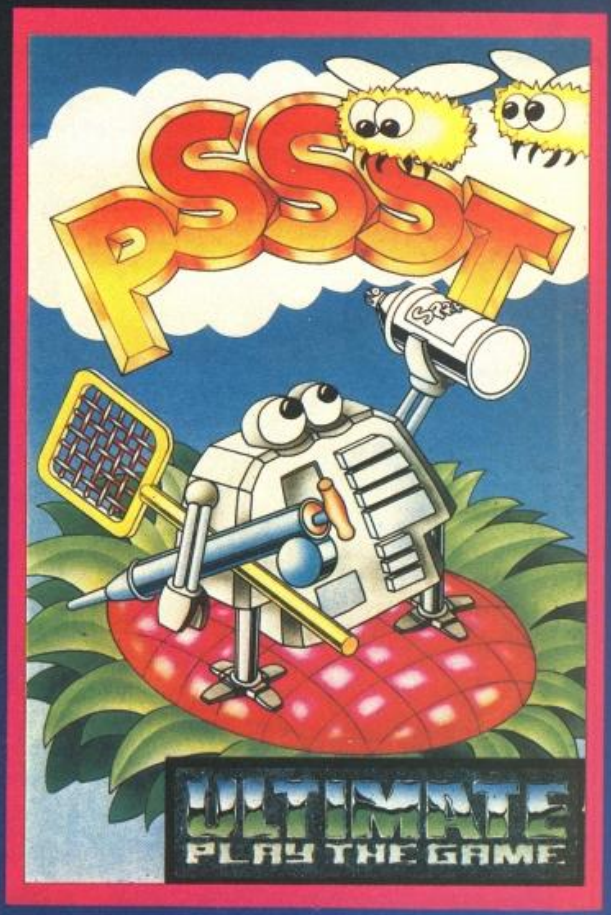

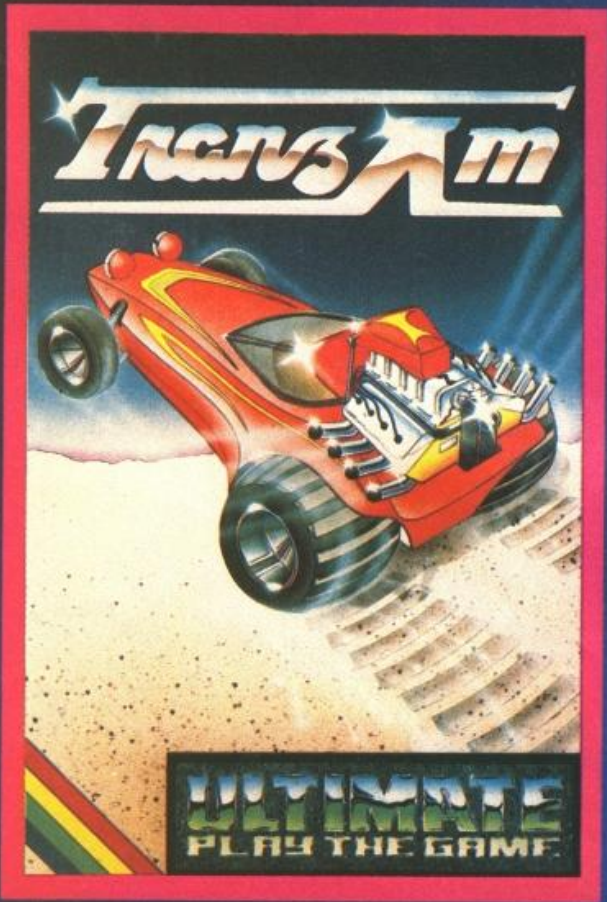

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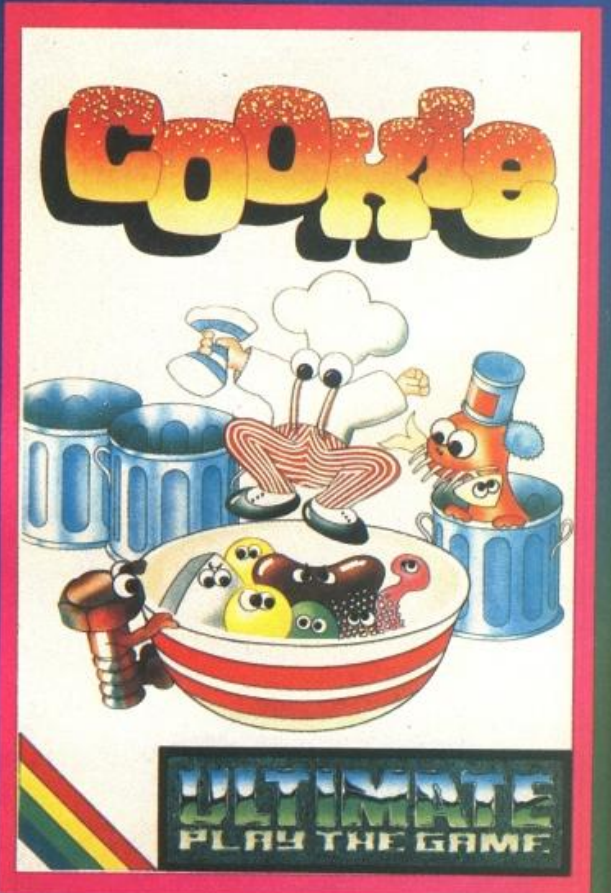

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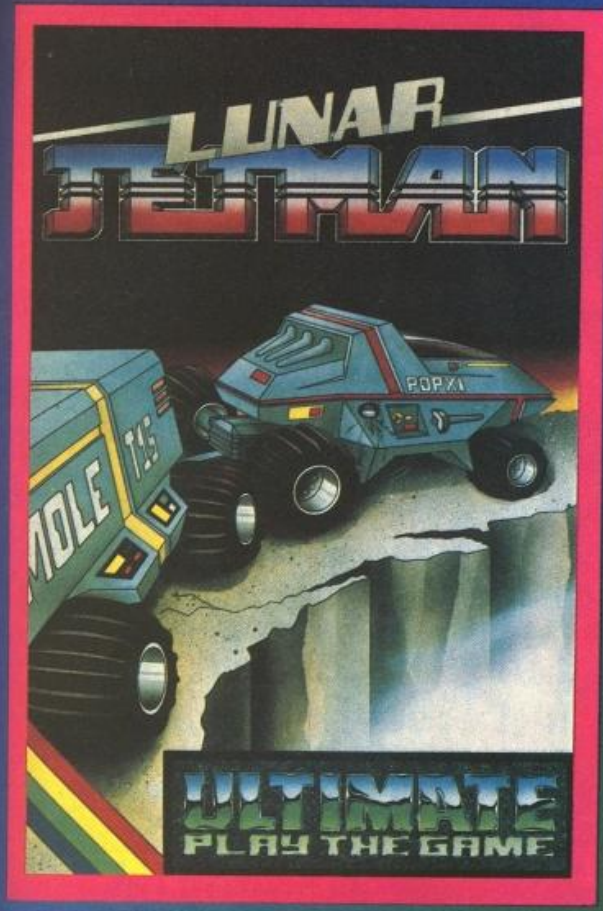

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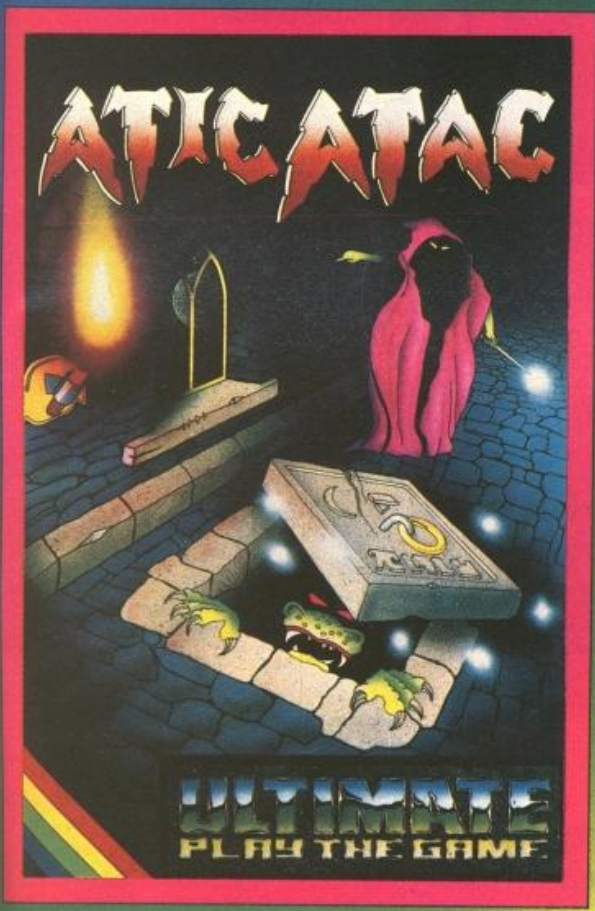

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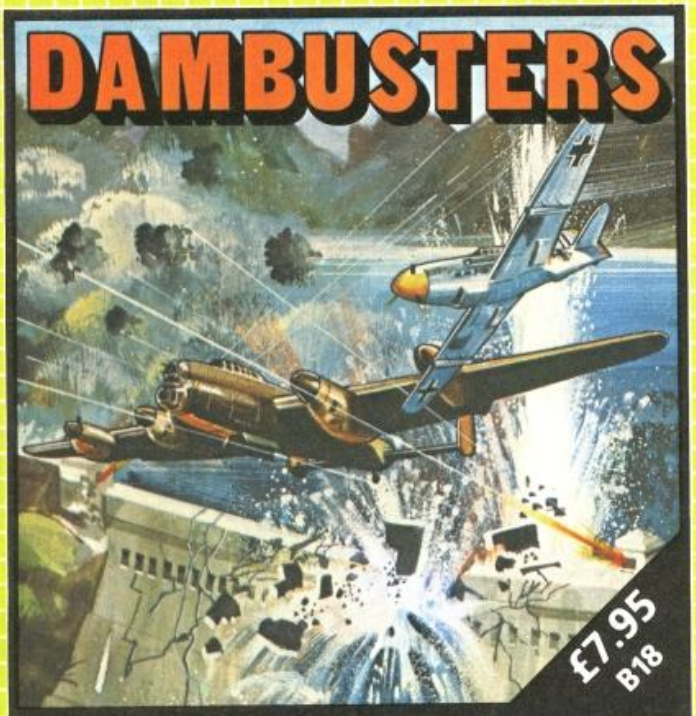

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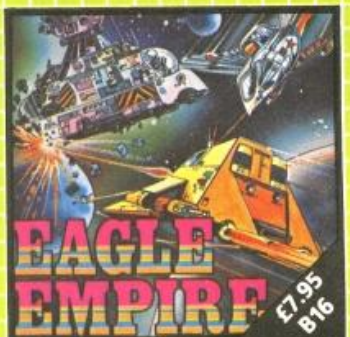

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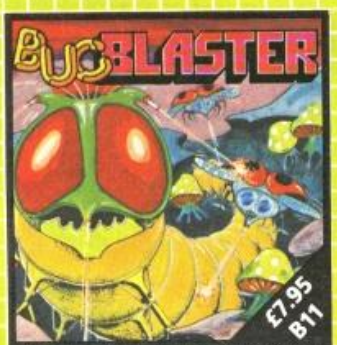

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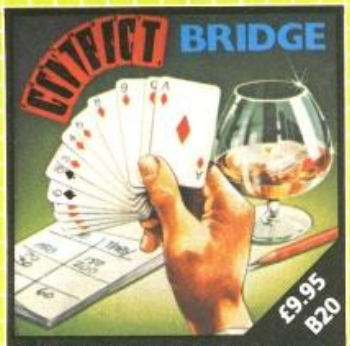

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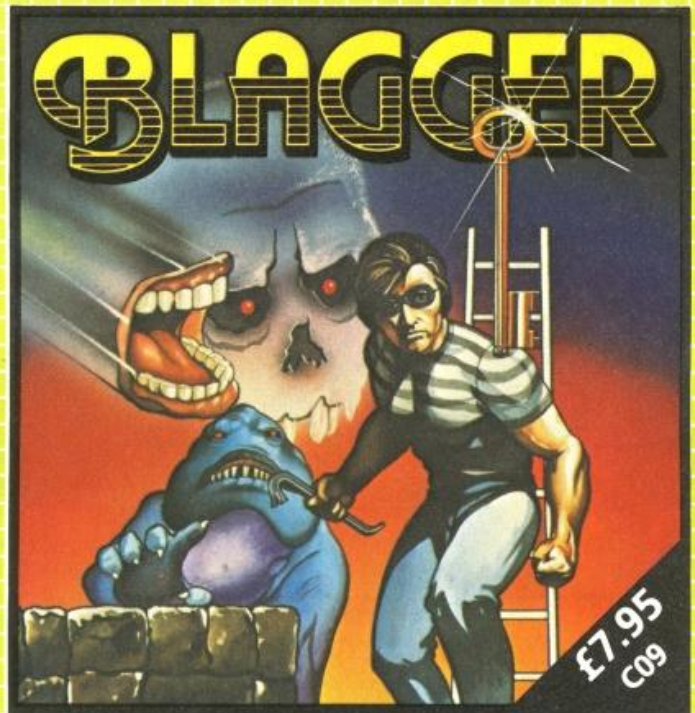

Follow the exploits of Roger the Dodger, master burglar, through numerous buildings – robbing safe after safe, avoiding the many obstructions and alarm systems, watching out for the nasty night watchmen in his search for the ultimate loot. Completion of each screen is rewarded by a progression to the next level in a seemingly endless pattern of banks, shops and houses.

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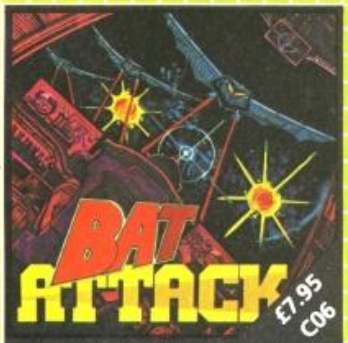

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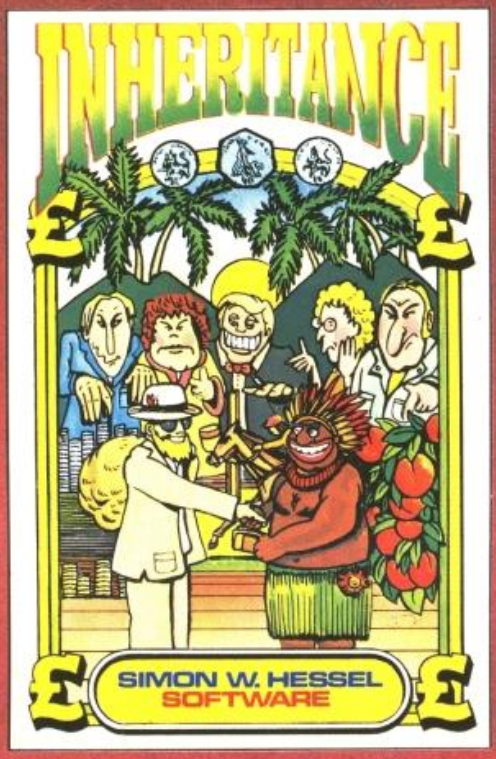

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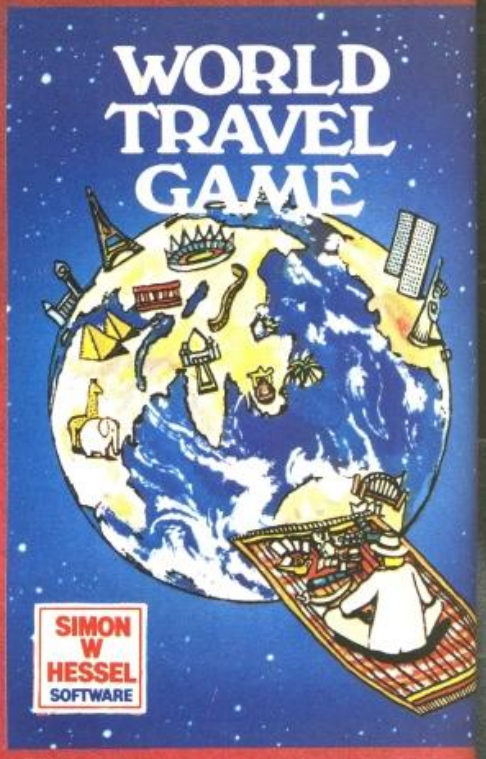

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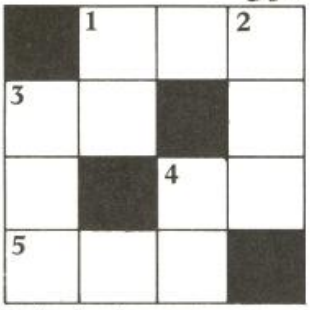
PUZZLES PUZZLES

IFs and ANDs

Study these two programs. When will they print different results, assuming the same values of X,Y and Z are INPUT to both programs?

```
10 INPUT X,Y,Z
20 IF Y=Z THEN 10
30 IF ((X>Y) AND (X<Z)) OR (X<Y) THEN 60
40 PRINT 'CONDITION NOT FULFILLED'
50 END
60 PRINT 'CONDITION FULFILLED'
70 END
```

```
10 INPUT X,Y,Z
20 IF Y=Z THEN 10
30 IF ((X<Y) AND (X>Z)) OR (X<Z) THEN 60
40 PRINT 'CONDITION NOT FULFILLED'
50 END
60 PRINT 'CONDITION FULFILLED'
70 END
```



Each clue is a series of numbers. The answer is the next number in the series.

NUMBER CROSS-WORD

Across

(1) 2, 10, 26, 50, 82, ...
(3) 2, 6, 8, 14, ...
(4) 69, 68, 64, 55, ...
(5) 113, 118, 128, 139, ...

Down

(1) 1440, 228, 72, 24, ...
(2) 166, 5, 171, 8, 179, 40, ...
(3) 200, 206, 213, ...
(4) 1, 2, 2, 4, 8, ...

ANAGRAMS

Unjumble the letters to get words or phrases from the world of micro games. The first letter of each answer will spell a well-known game.

(1) LINE A .....
(2) FAT SOWER .....
(3) MEATY GROWL, APE! .....
(4) LET CRONE .....
(5) ARM .....
(6) I, ORC .....
(7) VAIN REDS .....
(8) NEED FRED? .....
(9) CRUMPETS .....

ANSWERS AT THE BOTTOM OF THE PAGE

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Anagrams
1. Alien
2. Software
3. Two-player-game
4. Electron
5. RAM
6. Oric
7. Invaders
8. Defender
9. Spectrum

(Reading down, ASTEROIDS)

Number cross-word

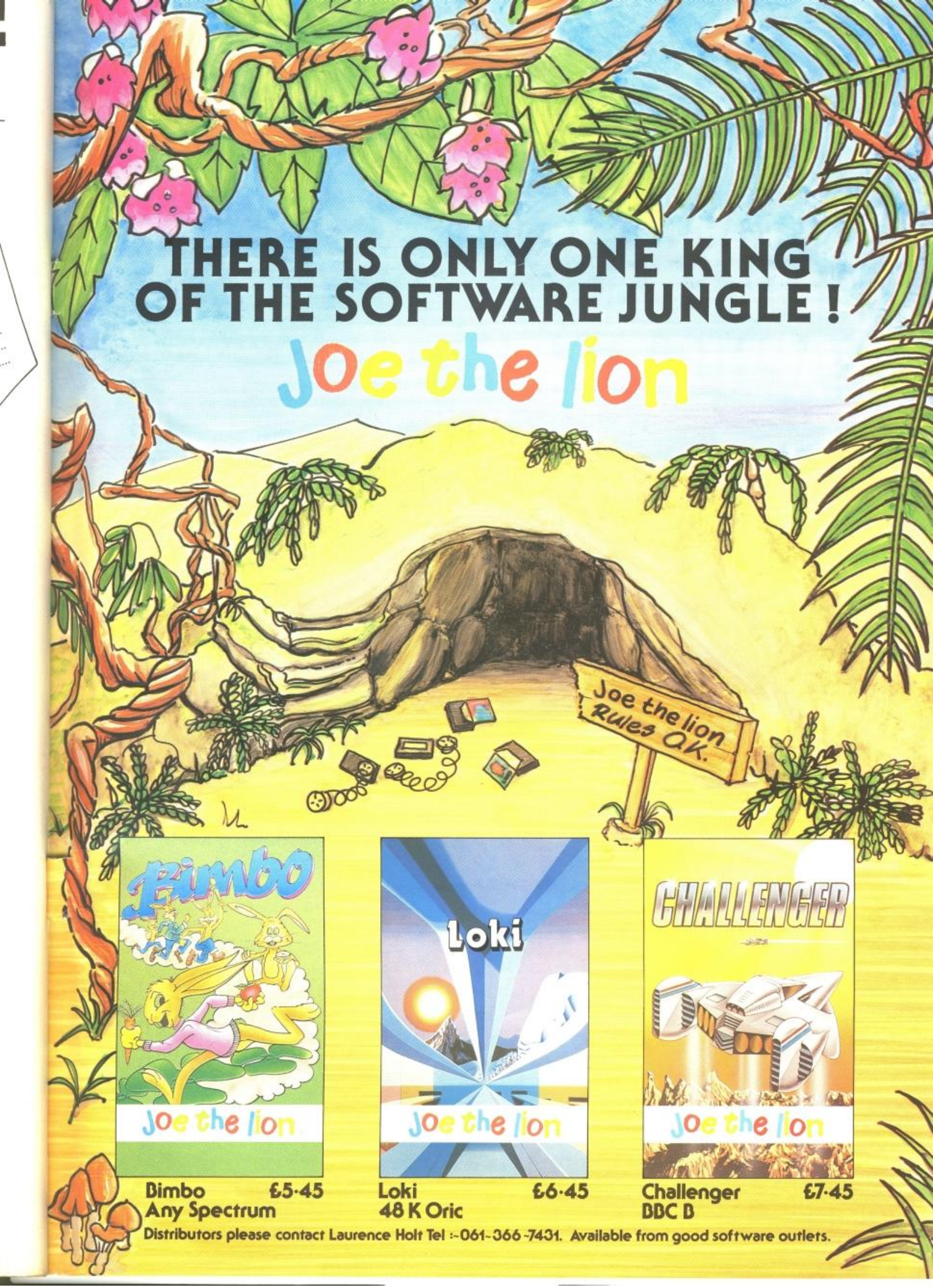
Across: 1. 122 (82 + 40)
Down: 1. 12 (24/2)
2. 219 (179 + 40)
3. 22 (14 + 8)
4. 39 (55 − 4²)
5. 152 (139 + 1 + 3 + 9)
3. 221 (213 + 8)
4. 32 (4 x 8)

IFs and ANDs

When X is equal to the lower of Y and Z.

THERE IS ONLY ONE KING OF THE SOFTWARE JUNGLE!

Joe the lion



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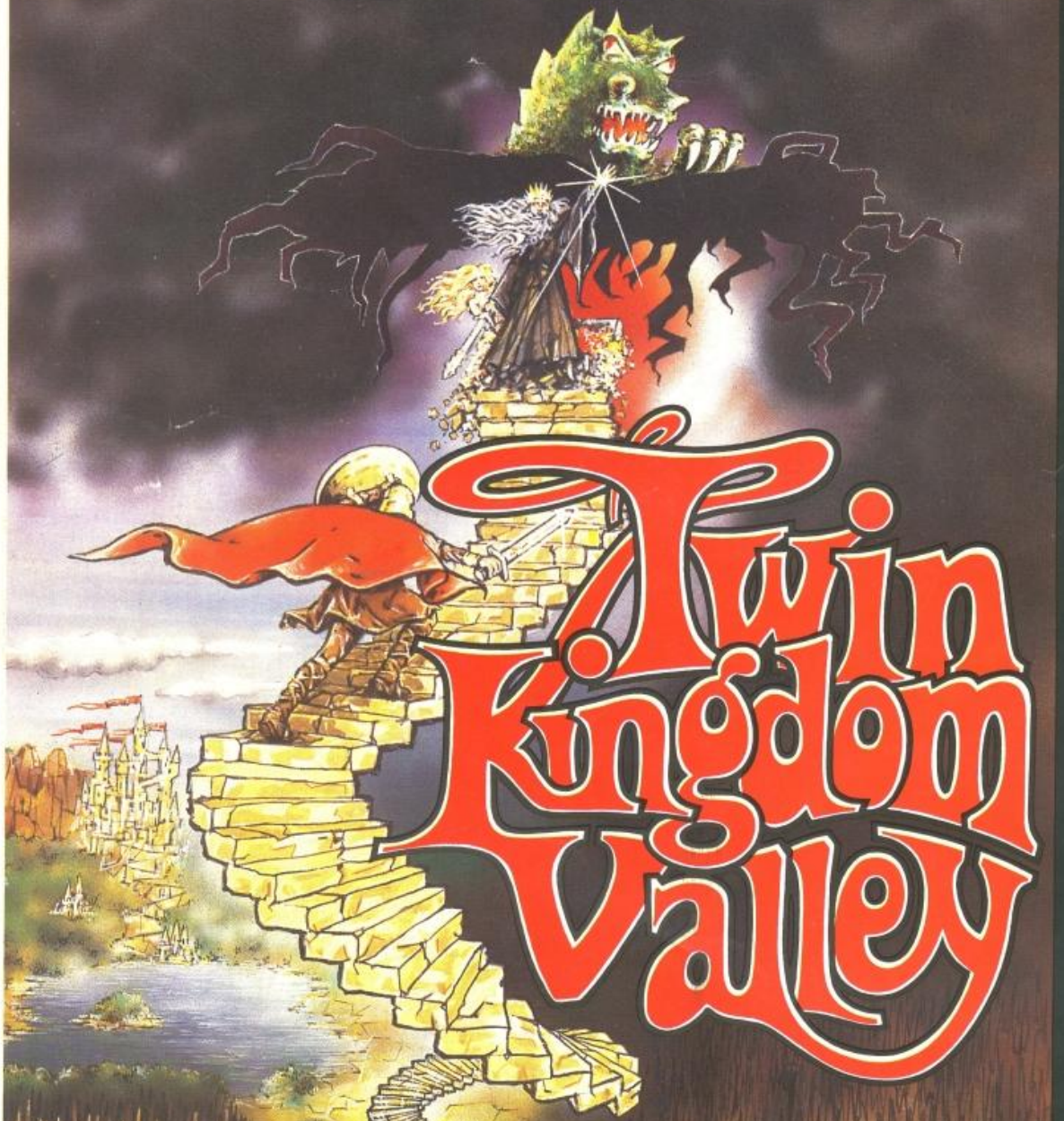

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