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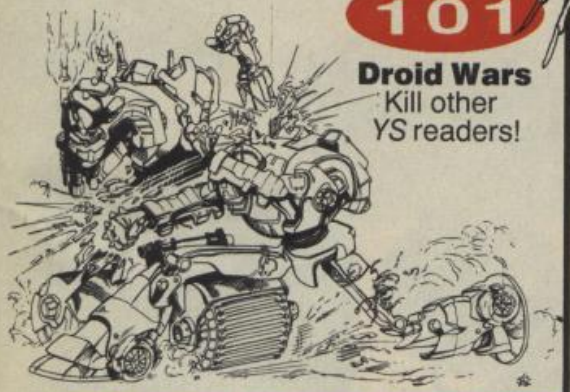

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Your Sinclair, Sportscene Specialist Press, 14 Rathbone Place, London W1P 1DE

TAPE TROUBLES?

If your copy of *Rasputin* fails to load, here's what you do: Send the tape in a strong envelope to Rasputin Returns Dept, PO Box 320, London N21 2NB and make sure you enclose a similar self addressed envelope with at least 18p worth of stamps on it. And please don't phone the office as we can't deal with the problem here. The free copy of *Rasputin* is only available on copies of *YS* sold in the UK.

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With the Graphics Suite from Print 'n' Plotter.

If you're interested in producing great graphics with your Spectrum, then these programs are designed with *you* in mind.

And you *don't* have to be an expert. Even with no programming knowledge the programs will enable you to produce fantastic graphics to use in every piece of software you write.

Or you can use them just for the fun of producing computer art.

Each of the programs are inter-active and together they form the most accomplished graphics toolkit you will find on the market today.

But you can also use each of them separately, as each are self-contained and cover a specific area of graphics programming.

With Print 'n' Plotter's 'GRAPHICS SUITE', everything is made so simple you won't believe it.

Just a few of the things you can do...

PAINTPLUS (GRAPHICS SUITE 1)

If you want to produce fantastic screen graphics or UDG's on your Spectrum, then you will find PAINTPLUS not only a complete graphics toolkit . . . but also the simplest to use at every level.

Facilities include: DRAW, PLOT, ARC, CIRCLE, FILL IN SOLID OR PATTERNS, FILL IN OVER MODE, DRAW RADIALLY, ARC RADIALLY, ENLARGE TO EDIT, PAPER WASH, BOX DRAW and so on . . .

As well as drawing, PAINTPLUS has a tremendous UDG section. It also has UDG "grabbing" from screen as well as full facilities for defining, saving and loading UDG sets.

The Organiser section of the program enables you to automatically store multiple screen graphics or multiple UDG banks.

PAINTPLUS comes with a demo of screens, animation and alternative character sets, plus a copy of Print 'n' Plotter PICTURE BOOK – 100 pages of instructions, hints, tips, listings and related graphics information.

SCREEN MACHINE (GRAPHICS SUITE 2)

SCREEN MACHINE is *the* graphics manipulator.

Use it when you want to take your graphics and turn them into professional machine coded data for use in BASIC or M/Code programs.

For instance:

SCREEN MACHINE will compress the memory consumption of your graphics to cram even more into the computer's memory –

As well as memory compression, SCREEN MACHINE allows you to put your graphics through a series of highly-sophisticated graphics manipulations.

These include ENLARGE, REDUCE, RELOCATE TO OTHER PARTS OF THE SCREEN, STEP AND REPEAT, BLEND SCREENS TOGETHER, RECOLOUR SELECTIVELY OR GLOBALLY, FLIP SCREEN, etc.

And SCREEN MACHINE also has a dedicated Text Compiler – ideal for anyone who uses lots of text for instructions or menus on screen.

SCREEN MACHINE also comes with a copy of PICTURE BOOK and a demo that's so good you can't believe it.

ART-O-MATIC (GRAPHICS SUITE 3)

Ever wanted to produce screen graphics for Adventure Games, Educational, Training, or Scientific programs and run out of memory because the graphics handling consumed too much memory?

If so, you need ART-O-MATIC, Print 'n' Plotter's great new graphics compiler.

With ART-O-MATIC you can draw, define and store an incredible number of screens or parts of screen in your programs as compiled instant machine code which is usable from BASIC or M/C.

The exact amount of compression possible depends on your graphics, but up to 99% is possible and an average of 85%-90% is usual.

ART-O-MATIC is a complete graphics drawing program, so you can produce your works of art and compile at the same time.

The instruction book and demo that comes with the program show you *everything* you need to know about cramming great graphics into your Spectrum.

SPRITE MACHINE (GRAPHICS SUITE 4)

There have been a number of programs called Sprite Generators. Most of these are self-contained and not a great deal of use to people who want to use Sprites in their own programs.

SPRITE MACHINE is different. This program was written with *you* in mind – whether you are a professional, amateur or beginner.

There's never been a simpler Sprite program to use. All you have to do is draw your Sprite and then choose from a fantastic range of options to get it doing what *you* want.

You can: animate your Sprites, choose any direction and starting position, adjust speed, adjust height, choose running time, decide on edge actions such as bounce, wraparound, reflect or stop, make intelligent decisions like strike and collision actions, colour your Sprites or take colour from the screen, trace or non-trace, etc.

The program comes complete with a cursor-operated Sprite drawing board and catalogue/store function.

Instruction booklet and demo are included with the program.

Now *you* can have professional Sprites in *every* program you write.

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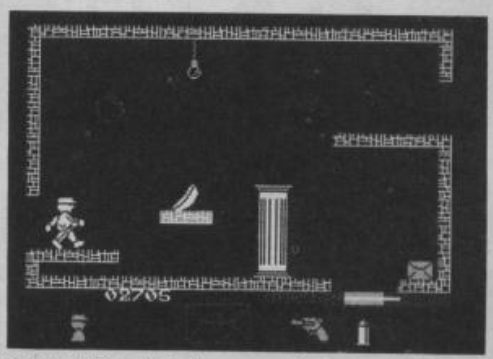
Print 'n' plotter Products

FRONTLINES

● *No, it's not just a careless whisper! Melbourne House has released Wham! The Music Box. It's a two-channel synth that needs no hardware — impressive, huh? Rather less than impressive are the five example tunes on the tape by none other than the pretty popsters themselves. Load 'em up before you go-go — and listen to* Club Tropicana, Young Guns, Careless Whisper, Bad Boys *and* Freedom.

The Music Box has been used to develop commercial tunes — Fairlight f'rinstance. Give that a quick listen and you'll hear what The Box of tricks has on offer — without having to suffer the desperate duo's warblings.



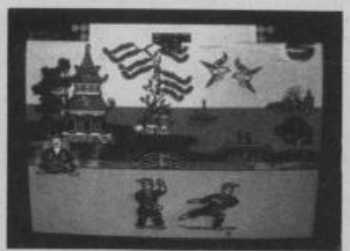
● Meet Sid. He's the guy who's starring in Alphabatim's new game *Robot Messiah*. And the company's so proud of Sid that it's given Frontlines two hundred signed *Robot Messiah* posters. Signed by who? We hear you cry. By authors Christian Urquart and Mike Smith, of course, — the ones with the worn-down fingers.

And we're gonna dole out all those love-ely colourful piccies to you. All you've gotta do is solve the riddle below. We've even included a few clues for the hard-of-thinking brigade.

My first is my fourth, and also my last.
My second is in bang but not in blast.
My third and my fifth initial VAL/LEN.
My sixth and my seventh follow an 'N'.
My last is in true and also in love.
My whole can be found in the screen shot above.

Right, we're looking for an eight letter word and your best bet is to start at the bottom and work up. Simply fill in the answer with your name and address on a postcard and sent it to Mensa, sorry, Robot Messiah Compo, *Your Sinclair*, 14 Rathbone Place, London W1P 1DE. Get those entries in by 31st January or you won't stand a chance.

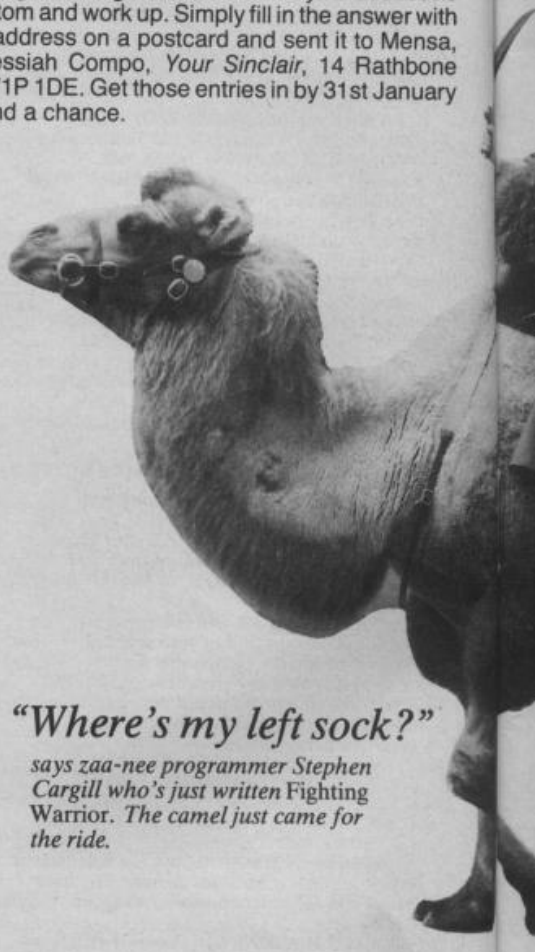
Phizzz, burrrp, brzzzzz.... Now arriving at platform 3 is the 125 from Cheetah.... Tickets costing £8.95 are now available .... Phizzz, brzzzzz, burrrp. (To be read with a peg on your nose.)



System 3 has ten freebie copies of its latest rave *International Karate* to give away. But if you want one you'll have to be quick! The buck doesn't stop there, though. System 3 is also offering a £1.50 discount on the game exclusively to *YS* readers.

How does it all work? Send off your five gold coins (Postal Order or cheque) to System 3 and if you're in the first ten orders your money'll be refunded and you'll get a copy of the game. Pretty mega eh?

For all those doubting Thomas's, Fred's, Dave's... there's no catch. All you've got to do for a discount is snip out this piece of prose and send it off with your readies to prove you're a dedicated *YS* reader. Post it to 'I'm a dedicated *Your Sinclair* reader' Dept, System 3 Software, Southbank House, Black Prince Road, London SE1 7JS. Now you too can travel the world kicking the living daylights out of anything that moves...

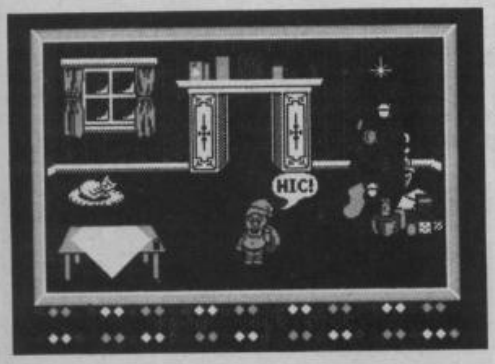


"Where's my left sock?"

says zaa-nee programmer Stephen Cargill who's just written Fighting Warrior. *The camel just came for the ride.*

● If you're the sort of person who quivers with fear, cowers behind the sofa and covers their face with their hands whenever there's a late night horror on the box then Domark's new game just ain't for you.

That little shop of horrors, Domark, has turned the gruesome film *Friday The 13th* into an arcade extravaganza that promises to be full of surprises. It's a shame that as you only get to play the good guy — boring! On the other hand, Jason, the resident psycho has all the fun tearing around a holiday camp brandishing a knife that's permanently attached to his arm. That arm starred in the film considerably more than the rest of his body. Sounds absolutely yummy!



It's a Christmas cracker from Virgin — Santa claws his way into the software charts with the first re-usable computerised Chrissie card. Perfect for those doddery dears who persist in sending you the same pair of socks year after year. Just load it in to see Santa delivering the pressies and supping his sherry. It even plays a merry Yuletide jingle — bang goes those Silent Nights, eh?

EVERYONE'S A WALLIS

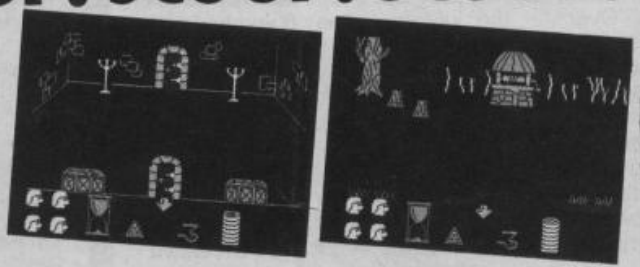
● Reduce speed and altitude... We're going in for the winners of our Dambusters compo of Your Spectrum issue 18!

David Gilchrist, Basingstoke; C Hankins, Gwent; A Chambers, Preston; J Lowe, Blackpool; G S Tattersall, Cheadle; M Abid Ali Khan, Sunderland; J Davies, Stockport; Robert Taylor, Chesterfield; Shyam Vyas, London NW2; Michael Monah, London SE11; A Cooke, Cheselbourne; Mrs C Welsh, Glasgow; N J Sutton, Oxford; Andrew Geddes, Buckie; Mr L Honeyman, Glasgow; L Braybrook, London E15; Jason Kiner, Camberley; David Noone, Warrington; Ian Munslow, Buxton; J Walsh, St Annes On Sea; Alexander Stivaros, East Didsbury; Sean McKenzie, Mid Glamorgan; June Wilson, Birkenhead; Neil McDonald, Aberdeen; M. O'Sullivan, London SE26.

Right, de-briefing over. Back to normal duties...

● Buy a Nightingale modem between now and February 1st and you could win an amazing return trip to the Big Apple. You'll get six nights of terror in a New York Hotel plus £400 to bribe the doorman to let you out. Wackee!

SCOOP! SCOOP! SCOOP!



What an exclusive! We've managed to get a preview look at Alphabatim's new game *Darion — Child Of A Stargazer* and, boy, is it hot. Written in the same style as *Robot Messiah* by the same writers (funny that!) it takes place in a village full of bumpkins who reckon that only the child of a stargazer could possibly topple the tyrannical rule of the Evil Warlock. *(Any stargazers' children out there who want to have a crack at toppling the Ed? Troubleshootin' Pete).*

You play Darion and you've got to set off in search of the Transformer Spell that'll eventually change you into a real man. Once that's done it's off again in search of the eight pieces of the amulet — your only weapon against megalomaniac Warlock.

On your travels through the rather rustic woodlands, villages and undergrowth you'll collect lots of lovely spells. These'll come in very useful in your attempt to get past the gargoyles and castle guards. Once you've infiltrated it's off with the Warlock's head using the amulet, of course. And that, as Barry Norman would say, is that. Or is it?

So we've given you all the gen, you've seen the pictures and now you wanna buy it! Sórry, *Darion* won't be out until February, so you're just gonna have to wait....

T'zers...

Welcome to the column that gives you the gen on what's happening in the Spectrum world — the who, what, when and where.

First off there's a rumbling that CRL 'the dream makers' next game is to be called **It's In Chaos**. What it's all about and how far away it is, is still under wraps (could it be set in CRL's offices?) but keep your eyes glued to **T'Zers** for further info...

Rumours have it that Electric Dreams Software is currently negotiating the rights to Spielberg's new blockbuster **Back To The Future**. Electric Dreams says, "We know nozzing", in fact it even denies all knowledge of the film — we'll see!

Commando's being sold in West Germany under a different name — **Space Invasion**. And the reason, well I think its got something to do with the war, but don't mention it.

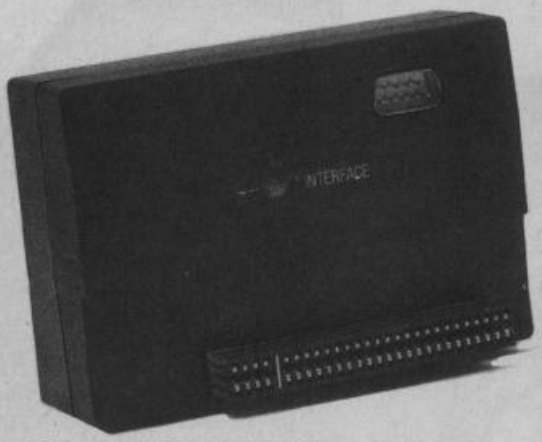
There's over ¼ million Spectrums in America — apparently it's a real cult out there — you know, like Macdonalds. Not a lotta people know that! 'Cept me of course.

No-one could accuse Ultimate of talking endlessly about its games prior to their release. Getting anyone there to talk at all is nigh on impossible. **Pentagram** is still on target for release before Christmas but more than that I can't say — 'cos I don't know. You may even have a copy of the game before you read this.

Firebird has been opening its purse again and bought OCP's **Art Studio** package which is due to be released just before Christmas.

Did you know that Hewson Consultants' sales are up by 60 per cent compared with the same period last year? This is mainly due to the success of **Southern Belle**, **Paradroid** and **Dragontorc**. On second thoughts, did you really want to know?

CRL has discovered a way of bringing down unemployment in this country — how patriotic. It's taking on YOP scheme programmers to help with its new games. Could this mean that CRL will be bringing out a new range of budget games?



● **It seems Cheetah really is changing its spots 'cos it's slashing the price of its joystick interface to an amazing £9.95. Can you really miss such a bargain? No? Call 'em on 01-833 4909.**

● **Wow, it's dayglo Dynamite Dan author, Rod Bowkett, sporting the latest in lurex 'pass the sunglasses' jackets, while still trying to convince his 'admirers' that posing as Rodin's Thinker makes him similarly intelligent. Cor, ain't he dynamite?**

● *Fork out £9.95 on a copy of Level 9's new game* Worm In Paradise *and you'll get a poster free. You won't even have to worm it out of 'em! A-maze-ing!*

FROM LE HIP

"Can you . . ." Okay, I'll be with you in two ticks. "Pete, will you . . ." Look, I've got to write the column. "Over here, Pete . . ." Oh no, unless I get a moment to myself I'm not going to get the chance to write to you, let alone have my afternoon doze.

Phew, that's better — peace and quiet at last. No-one's going to think of looking for me here and it's another first for *YS*. Well, how many other columns have been written in the loo?

Things have been pretty hectic of late. I dunno whose idea it was to increase the size of the mag. All I know is that my comfy chair quotient has plummeted for the month — you could say the bottom's dropped out of that market.

But enough of the chatter. Let's look back to issue 20 of *Your Spectrum* where Tony 'Slim' Samuels' *Samsynth* program had some of you more than a little foxed — sort of Sam Foxed, eh? Okay, please yourselves. Not only did we hide the start address somewhere that you'd never ever think of looking for it but we also left the checksum off altogether. Bit of a jolly wheeze, what? No! Well, the start address is 64750 and the checksum is 37771. Sorry 'bout that!

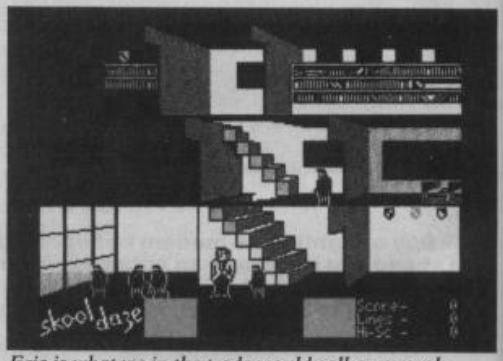
More aggro from **Jill Hunney** from Watford over Ian Ravenscroft's POKEs for *JSWII* that appeared in *Your Spectrum* 20. She reckoned that they didn't work. Well, err, actually Jill, they *do* work. They're *supposed* to reset your Spectrum (Haw, haw!). Okay, it's not that funny but it's still the best thing we could think of doing to *JSWII!*

Sshhh! I hear footsteps outside. Time for a bit of quiet typing . . .

Off now to sunnier climes — if only! Israeli reader, **Ram Dagan** writes in to point out a problem with the *Edit Key* program published way back in the July ish. In line 10 you have to substitute 65133 with 65142 and in line 40, 11802 should be replaced by 12697. Without these changes, it seems that the last routine will crash the Speccy. Hmmm, back to the manual lads!

Oh no, I think I've been rumbled! "Peter, are you in there?" Right, out the window . . . stuck . . . Oh Gawd . . . "C'mon out we've got you surrounded." Just time to tell you . . . bout what's happening to the column. Unfortunately, I'm just not going to have time to carry on with the phone-in helpline as I can't guarantee being in the office all the time — I might just be in the loo! So, if you have any programming problems or you've spotted **BANG BANG** something odd about a program in the mag, write to me at From The Hip, *YS*, 14 Rathbone Place, London W1P 1DE and I'll sort you out in the column — if you see what I mean. "Right, we're coming in." Top of the world, ma!

TROUBLESHOOTIN' PIERRE.



Eric is what we in the trade would call an anorak. Why? 'Cos he managed to swipe the skool rekords in Microsphere's Skool Daze *and the dum dum is now after putting them back in the sekwel* Back To Skool. *And he's got to pit his wits against girls! Grooo! S'pose we'd better pool our poket money and kome up with the £6.95 to buy it.*

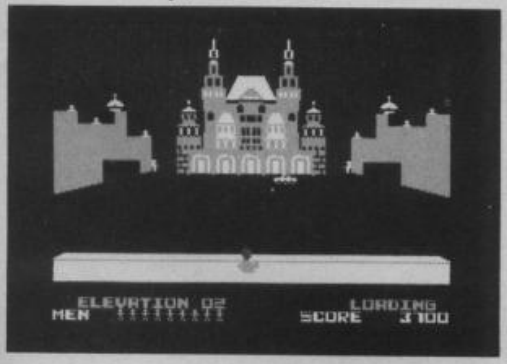
● A quick shufti at Dean Electronics' new Super Champ joystick may give you the idea that the lead's not long enough to clear the user port. Not so. It's got one of the longest leads ever. Ten feet carefully wrapped up the joystick's own insides. But the biggest surprise about this new aide-de-high-score is the price — £6.95. More gen on (0344) 885661.

FRONTLINES

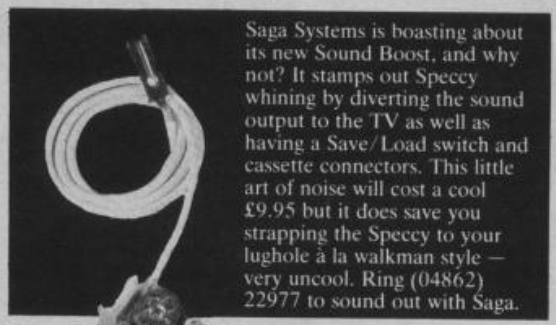
Here's Ian 'fame doesn't affect me, even though I'm about to be interviewed on the radio' Flory, collecting the 250 quid prize money from Print'n'Plotter who fronted our Castle Rathbone Compo in *Your Spectrum* 14. Ian put £50 in the bank and, horror of horrors, spent the other £250 on a Commie 64 — well he won't get a very high interest rate on that!

That's the last time we go out of our way to organise a compo for you lot.

US Gold has just produced its own compilation tape featuring a bevy of Speccy hits, including *Raid Over Moscow, Flak, Blue Max, Hunchback II* and *Rocco*. Did you spot a few of these that aren't by US Gold? Funny, so did we!



Ain't he a little dahling, possums? Chris Smith of Saga is desperate to tell you about his combined printer/interface package. Can't talk right now, eh Chris? Well don't you worry your pretty little head about it, 'cos we'll tell 'em, won't we? Buy a Saga LTR1 printer and Chris will give you £10 off the Kempston Centronics E interface. If you don't trust us you'll have to call him on (04862) 22977. What a little possum.



Saga Systems is boasting about its new Sound Boost, and why not? It stamps out Speccy whining by diverting the sound output to the TV as well as having a Save/Load switch and cassette connectors. This little art of noise will cost a cool £9.95 but it does save you strapping the Speccy to your lughole à la walkman style — very uncool. Ring (04862) 22977 to sound out with Saga.

That place your mother warned you about, St Bride's school for young 'ladies' has just installed a bit of high technology — a phone. Providing St Bride's receptionists have read the bit in the manual entitled 'How to answer' you should be able to suss out more of their Secrets *if you ring them on 010 353 75 42030. Don't expect a serious answer though...*

Quick, for Pete's sake do a U-turn. Yikes, the hit car's closing in, oh no... Can't explain too much at the moment except that it's Durell's new game, *Turbo Esprit* available soon. Arrrrggghhh, it's gonna get me!

Ding Dong! **Fairlight II** calling. It looks likely that the follow-up to The Edge's smash-hit **Fairlight** will come with a ROM attachment much like the one on Mikro-Gen's **Shadow Of The Unicorn**. All that's certain is it won't be the Mikro-Plus. And if you were looking forward to playing **Fairlight II**, called **A Trail Of Darkness**, before Chrimble, brace yourself for a disappointment. Bo Jangeborg, its Swedish programmer (hurdie, hurdie, ho) is too busy putting the finishing touches to his updated version of **The Artist**, to get cracking on **Fairlight II**. You'll have to sit tight till January.

The follow-up to Ariolasoft's **Panzadrome** is really wet — well it's called **Aquadrome!** The Ramjam Corporation's busy writing the game at the moment but the release date has yet to be announced. Still, it's a dead cert that it'll slide down the slipway before Ramjam's long-awaited successor to **Valkyrie 17**. **Three Days In Carpathia** has already stretched into weeks and now months. Is a change of title imminent? **Three Years In Carpathia!**

Talking of the Carpathia complex, this month finally sees the release of **Tomahawk**, the chopper simulation that took eighteen months to get off the ground. Plus, shock horror news is now reaching us that **Swords and Sorcery** by PSS is due for imminent release, after only a couple of years in development. Just hope it's not a rushed job!

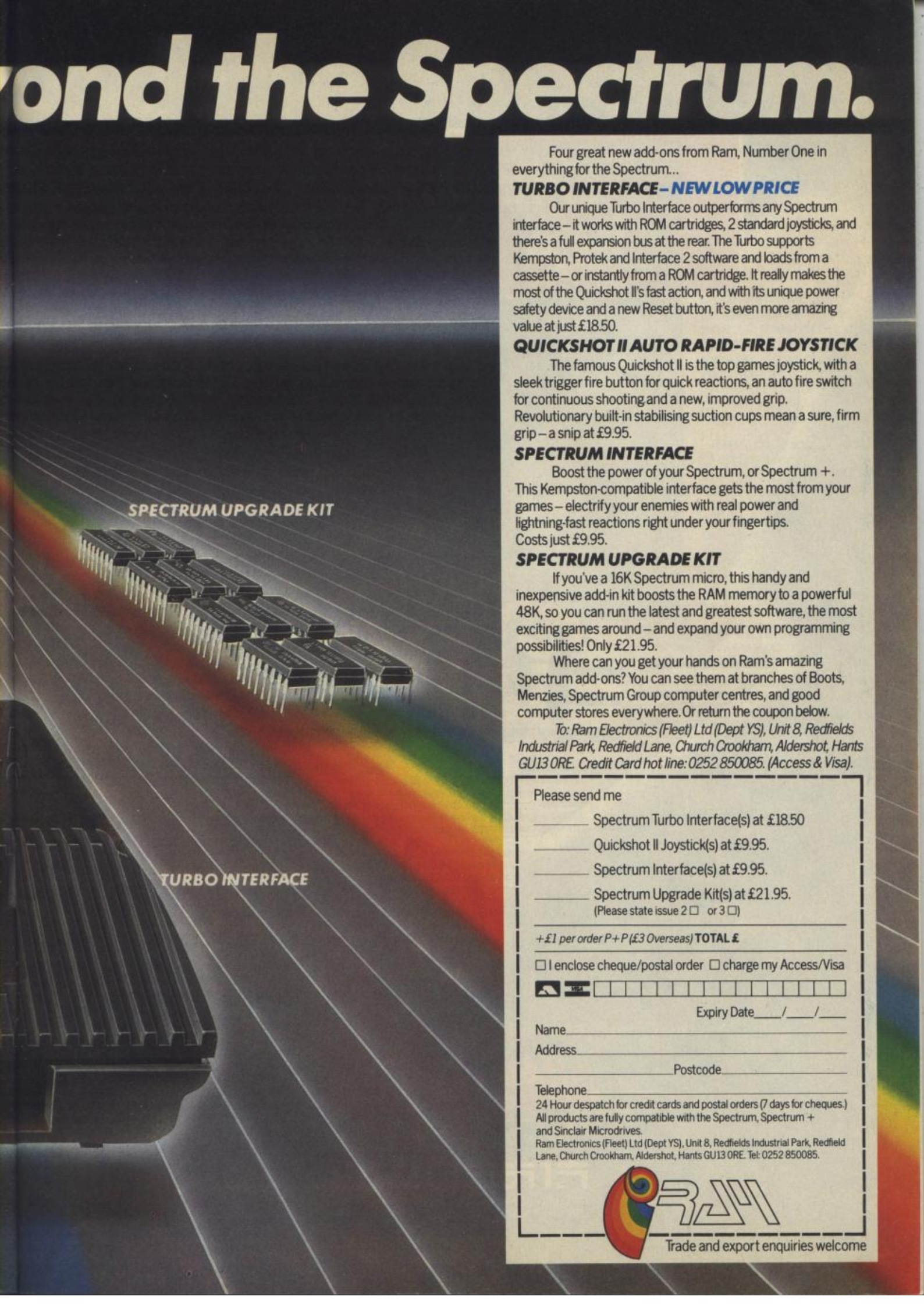
Heh,guess what? I've seen the pre-production copy of **Mother Of Charlotte** by System 3. It was going to be called **Mother Of The Harlots** until some not so bright spark realised what it meant. It's a 3D maze in space and the player has to rush around beating up snakes and the like whilst trying to avoid rampant women. We can't publish any piccies, though, 'cos we'd get done under the obscene publications act.

Beyond has been bought out by British Telecom much to Buzby's delight. It's beyond the pale as far as those magazine chaps at EMAP are concerned — I mean, how will they get to see all those games first?

Teresa Maughan

We'll take you beyo

ond the Spectrum.



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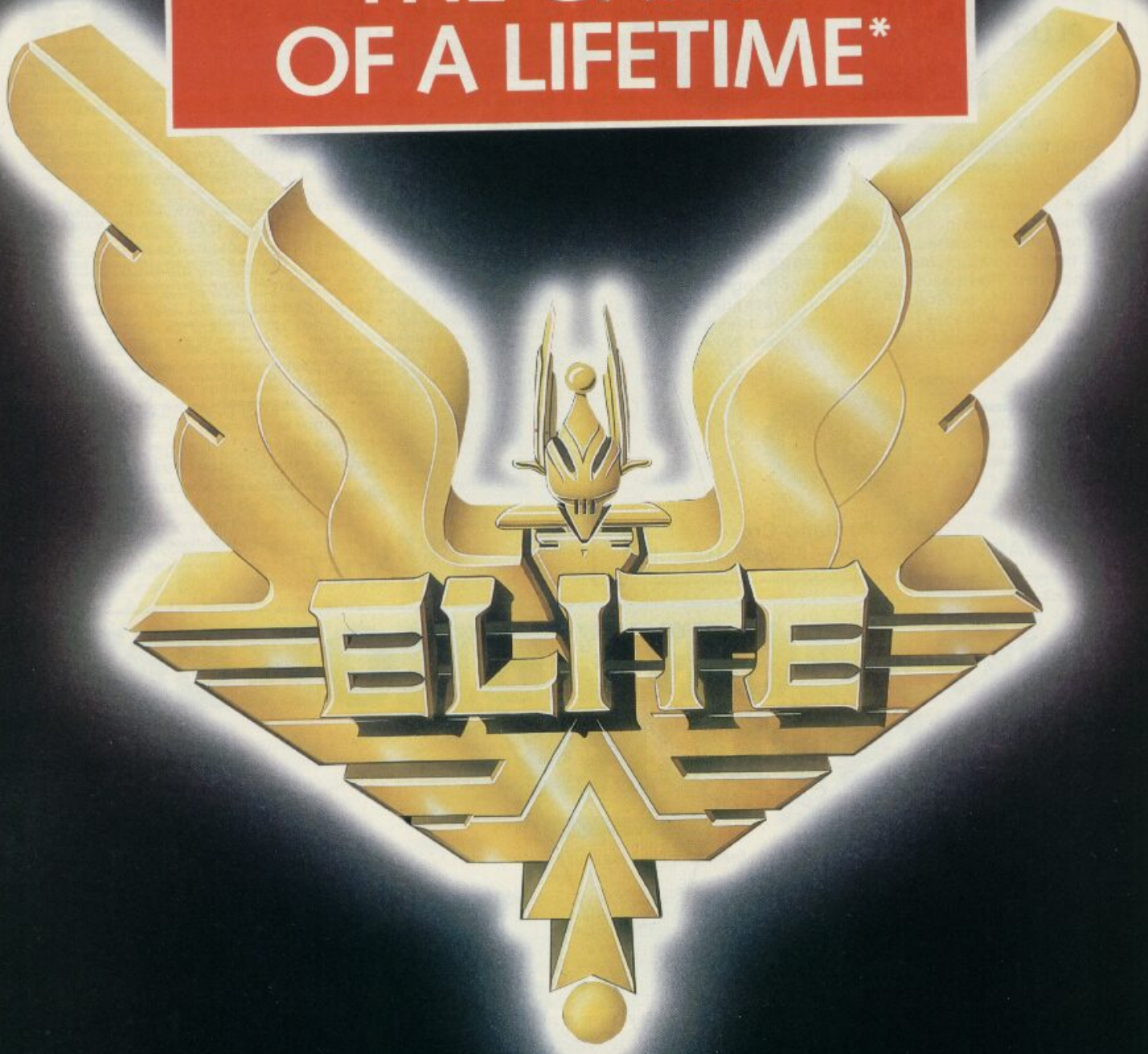

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Your Sinclair Spectrum is a powerful computer, not just a games console. Oxford Computer Publishing unleash that power to make your Spectrum useful and help you perform important tasks. The Manager series of business programs has thousands of satisfied customers over the last three years. Your Spectrum can do jobs normally associated with business computers many times the price. The Utilities were written to create our own application software. They are offered to you as proven reliable programs that have stood the test of our own usage and become industry standards. The classical games are realistic simulations of proven widely played "real" games.

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QL NEWS

YS takes a Quantum Leap into the world of the QL. Catch up on all that's new...

Rumours about the appearance of an upgraded QL have been rife in the computer industry over the last few months. Dubbed the QL Plus, some say it'll be a Macintosh clone while others reckon it'll have a colour monitor and 3.5" disk drive to replace the existing microdrives.

Sinclair Research hotly denies all this, of course, and a spokesman told *Frontlines*, "The QL is a perfectly good machine and is selling like hot cakes." He went on "We've never had such a popular machine and you should pay no attention to current rumours." Even *Frontlines* had to smile — the QL more popular than the Spectrum?

Current rumours aside, Uncle Clive himself was recently collared at a business machine show and admitted that he was thinking about bringing out his own business unit. Shame he hasn't told anybody else at Sinclair Research as they all seem to be in the dark about any developments — or maybe it's a case of 'mum's the word'.

In fact, Sinclair Research doesn't seem to know the official line either. Another spokesman commented, "Nothing will be launched until next year." Hmmm, maybe Sir Clive's going to bring out a turbo driven C5 instead!

Believe what rumours you like but one thing's for certain you can never be sure until it happens.

Digital Precision recently launched a bevy of software products for the Sinclair QL.

Its major new release is Supercharge described as 'a state-of-the-art SuperBasic compiler'. It can translate any SuperBasic program automatically and directly into machine code and speeds up Basic by factors between 20 and 200. Supercharge comes complete with a 40,000 word manual and costs £59.95.

The *QL Sprite Generator* is a complete games design system that allows you to have up to 256 sprites and planes of movement, automatic sprite collision detection, sprite reversal and high speed action. Not only that, it also requires no machine code knowledge and costs £24.95.

Digital Precision's other releases include *Super Astrologer*, a computerised horoscope priced at £24.95, *QL Super Arcadia*, two action packed machine code programmed arcade games at only £15.95 and *QL Super Backgammon* also £15.95.

If you want any further information give Digital Precision a ring on 01-527 5493.

***Master Blaster* is** the new offering from Compugem. Dreyfus the dread, a galactic assassin has had to retire due to ill health and the position of Master Blaster is now up for grabs. You must successfully complete twenty levels in the game in order to become the Master Blaster supreme. *Master Blaster* costs £9.95.

Compugem is also working on a couple of other arcade extravaganzas for the QL that'll probably be available early on in 1986.

Microdeal is soon to hit the market with a pre-Christmas package of aerial games and peripherals.

The might of *Flight* will soon be winging its way to the shops. A realistic flight simulator — it's based on a single engined, nose-wheeled light aircraft. Full instrumentation is provided and a comprehensive view from the cockpit. At £9.95 it sounds a goodie.

On wings of a different kind, *Eagle* is a very similar QL version of the arcade blockbuster *Defender*. In *Eagle* much mega-collection of objects and shoot 'em skills is required! At £8.00 Microdeal reckon it's top value and another feather in its QL cap. Its new £4.95 joystick interface might be just what you need to make the most of these games.

Sales manager Neil Struthers, when asked whether customers had problems loading microdrives, commented "90 per cent of telephone queries concerning loading difficulties can be solved very easily. It's usually because they've not unplugged all peripherals."

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THE HIT LIST

Hey, would it really freak you out to know which games are the bubblers, the breakers, the busters and the golden oldies? Well, freak out 'cos its all here in the *YS* Hit List.

Chart Chat 1

This month's number one, *Fairlight* from The Edge, entered the chart five weeks ago and has soared through the weekly rankings from number eight, to number six and four, and has occupied the No. 1 slot for the past two weeks.

Set in a castle, *Fairlight* is an adventure game complete with stunning 3D graphics. The Land of Fairlight is smitten by plague, famine and pestilence (sounds like our office. Ed.) Your job is to rescue a magician from the castle Avars, whose Book of Light can restore *Fairlight* to a happier state.

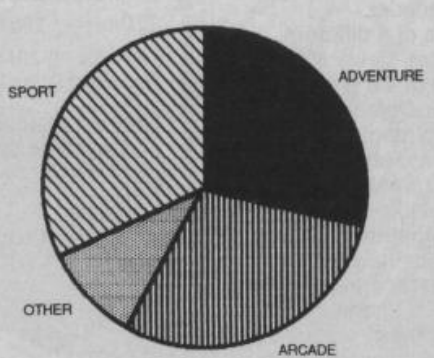
The Edge plans to release the second part of the Fairlight Trilogy, *The Trail of Darkness,* early in 1986, we'll have to see how well this one does.

This Month's Top Ten Titles

Position	Last month	Weeks in Chart	Title/Publisher
1	8	5	**Fairlight**/The Edge
2	2	8	**Way of the Exploding Fist**/Melbourne House
3	1	5	**Daley Thompson's Super Test**/Ocean
4	—	3	**Fighting Warrior**/Melbourne House
5	—	1	**Shadow of the Unicorn**/Mikro-gen
6	—	3	**Bored of the Rings**/Silversoft
7	3	6	**Now Games**/Virgin
8	5	9	**Frank Bruno's Boxing**/Elite
9	4	8	**Nightshade**/Ultimate
10	—	2	**Sorderon's Shadow**/Beyond

Slice of the Cake

The pie below shows how this month's 40 best sellers are split up. Honours are almost equally shared between sports, arcade and adventure games. Compared with the chart six months ago sports games have rocketed in popularity. The beginning of the sports games boom can be traced back to the Los Angeles Olympics in the summer of 1984. Programmers in this country have no doubt been spurred on by the success of *Daley Thompson's Decathlon* and *Super Test* games by Ocean. Currently in the Top 40 are snooker, soccer, athletics, cycling, cricket and several martial arts games including Melbourne House's *Way Of The Exploding Fist* and *Fighting Warrior*.



The Hit List is based on the *MicroScope* chart as compiled by Gallup.

MicroScope GALLUP

MicroScope is the weekly trade paper of the microcomputer industry. If your computer store doesn't display the latest MicroScope chart, get him to call Mark Salmon on 01-631 1433 — we'll send him a copy every week.

Last Six Months Favourites

Position	Title/Publisher
1	**Daley Thompson's Decathlon** Ocean
2	**Softaid** Softaid
3	**Booty** Firebird
4	**Ghostbusters** Activision
5=	**Starion** Melbourne House
5=	**Knightlore** Ultimate
7=	**Shadowfire** Beyond
7=	**Spy Hunter** US Gold
7=	**Way of the Exploding Fist** Melbourne House
7=	**Airwolf** Elite

12 Months Ago

1	**Daley Thompson's Decathlon** Ocean
2	**Sherlock** Melbourne House
3	**Beach Head** US Gold
4	**Monty Mole** Gremlin
5	**Kokotoni Wilf** Elite
6	**Full Throttle** Micromega
7	**Sabre Wulf** Ultimate
8	**Match Point** Psion
9	**Lords of Midnight** Beyond
10	**Jet Set Willy** Software Projects

18 Months Ago

1	**Jet Set Willy** Software Projects
2	**Fighter Pilot** Digital Integration
3	**Chequered Flag** Psion
4	**Manic Miner** Software Projects/Bug-byte
5	**Bugaboo (the Flea)** Quicksilva
6	**Hunchback** Ocean
7	**Atic Atac** Ultimate
8	**3D Ant Attack** Quicksilva
9	**Flight** Psion
10	**Fred** Quicksilva

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Crikey, it's fantastique, wonderfuel, a-maz-ing, thrilling and simply sooper! What is it? Is it a bird, is it a plane? You got it in one — it's a plane and it's this month's MegaCompo, that's what!

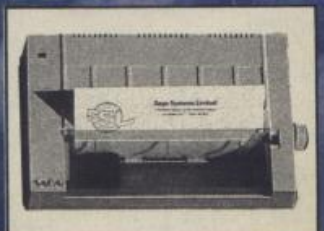
Now if you're a supersonic airline pilot this compo ain't for you. 'Cos a ride in supersonic Concorde down to the Bay of Biscay and back wouldn't make you bat an eyelid. But ... if you're any normal human being you'd probably give your right arm to be on board.

Just to spell it out, Saga Systems and Ram Electronics have put their respective heads together and come up with a magnificent prize for readers of *Your Sinclair* — yup, two tickets to fly on Concorde to the Bay of Biscay. You too can experience the thrill of travelling at twice the speed of sound, not to mention the big boom!

Yippee, eh readers? Not only that, Saga and Ram, being generous to the last, are also providing a Saga 3 Elite keyboard, a LTR1 letter-quality printer, a Style graphics package and a Saga Sound Boost as the second prize. The five runners up will get a Ram turbo interface and Quickshot II joystick. How's that for a compo?

Now here's the toughie you've all been dreading — it's interrogation time!

Even the second prize is like sticking your head out while Concorde's in flight — it takes your breath away! There's a Saga 3 Elite, LTR-1 Printer (picture here), a Saga sound boost and a Style Graphics package.



Don't go away now, there's more! Five runner-up prizes of a Ram Turbo plus Quickshot joystick are there for the taking!

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he world's favourite airline, in the world's favourite magazine, courtesy nufacturers. Now we're flying!

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- *How fast will you be flying when you break the sound barrier?*

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1. Employees of Saga Systems, Ram Electronics and Sportscene Specialist Press who try to enter will be chucked out of the plane without a parachute.
2. Entries must be on the back of a postcard or sealed envelope, or we'll get you to open the rotten things.
3. Entries must be received by the end of January or else!
4. Anyone found arguing with the Editor is either brave or stupid.

Okay, I'm not a supersonic pilot, so I'd love to enter your compo. I reckon that the airline involved with British Airways on Concorde's launch was

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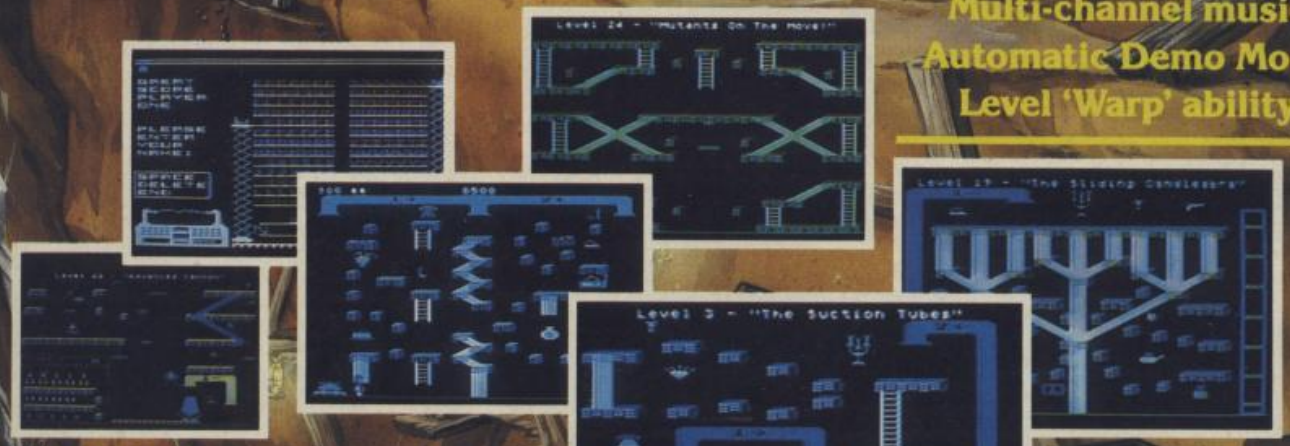

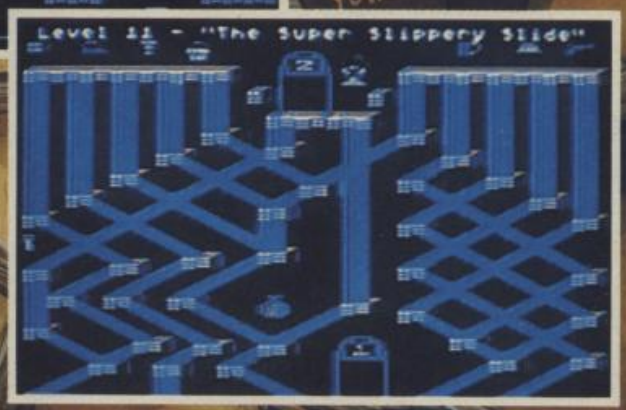

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LETTERS

YOUR SINCLAIR, 14, RATHBONE PLACE LONDON W1P 1DE

JEKYLL AND HYDE

Okay the game's up. Your little secret is out! You might as well admit it — the Editor and Troubleshootin' Pete are both the same person. I mean how else could Pete reply to one of the Ed's inserts in an article?

Hah, well you can't pull the wool over my eyes and if you don't want me to spill the beans you'd better make it worth my while to keep my mouth shut. And don't try to do anything silly like escape in your turbo driven C5, 'cos if you look out of the window of your cosy little office you'll see I have posted men with rayguns, ready to shoot at my command.

Don't say I didn't warn you!

Mooney Wahooney
The Intergalactic Trade Commission, Planet of Altair.

Hmmm, an interesting one, this. I don't think we're the same person but just to make sure I'd better check it out with Pete. What d'you think Pete? ***Ed.*** *Hang on a tick while I have a look. Thigh bone's connected to the leg bone, leg bone's connected to the back bone . . . I think I'm missing a bit in the middle. It's tricky to tell in this light what with working in an office that makes the black hole of Cirius Major seem like a summer's day in the South of France.* ***Troubleshootin' Pete.*** *It's okay, I've got your middle bit! But that means . . . we are . . .* ***Troubleshootin' Ed.***

BOARDTALK

I'm writing to inform you of the opening of my Bulletin Board for Spectrum and BBC users. Here are the details:

Spectrum Bulletin Board
Name..... ARC NET
Tel.....(0226) 292118
Sysop..... Keith Burton
Baud.....1200 Half Duplex
Times .....Mon, Thurs, Fri 9 pm till 10 pm Sunday 11.30 am to 12.30 and 4 pm to 5 pm
Ring Back.....Yes (Auto answer available soon)
Password .....Yes (New users can use 12345)

This board is one of a number of boards being run on a Spectrum/microdrive set-up so don't expect the rapid response that you get on disk based boards. At the moment the board is Speccy and BBC only and requires special software to access it. You can get this from Micronet:

Spectrum ..... Spectacular pages
BBC..... Page 810622321

The system has Prestel-like frames and uses full colour and graphics. The areas include CUG's Sig's, hints and tips, Chat mode, Message to board, Private mailbox (like Prestel mailbox) and several Auto-updating pages. Users can leave messages on these like a notice board that can be read by any other caller.

K Burton
Barnsley, S Yorkshire

The interest in Bulletin Boards has rocketed since Iolo's article in Your Spectrum *20. If anyone else knows of any good BB's for Speccy owners, send us the info and we'll pass it on.* ***Ed.***

FISTFUL OF BUGS?

Whilst playing *Way Of The Exploding Fist* my friend and I were happily beating the hell out of each other when we were returned to the demo mode. We tried again, thinking it was our fault when after another few seconds it happened again. After many games we found that if you press keys D, H, K and Break at the same time whilst on a two-player game, you'll be returned to the demo.

Now it could be our copy that's not up to scratch otherwise it's a genuine, first rate bug — yippee we've found one. If so, how much do we get for spotting it and when will the Porsche arrive?

From two members of the 'We also think Gollum deserved everything he got' Society.
Chester

PS Who is Gollum anyway?
PPS Don't let the Ed write silly little comments on the letter.

Oh goodie, does that mean it's my turn to write silly comments on your letter. Like, fancy not knowing who Gollum is! (Who is he then clever clogs? Ed). *I shall ignore that. Also are you and your friend octopusses? How else can you reach all those keys at once? Your Porsche is in the post.*
Troubleshootin' Pete

YOU CAN'T BEAT IT!

The *Beat* magazine (a freebie from HMV shops) announced that *Frankie Goes To Hollywood* (the game, that is) is now available for the 49K Spectrum. So much for Sinclair's pledge of no new Spectrum before Christmas!

James O'Neill
Worthing, West Sussex.

– Frankie Goes To

● THE LONG-AWAITED *Frank* **computer game for the Commodore 64 and 49k spectrum is finally available (Ocean Software, £9.95).** *Da Ward,* **director of Ocean**

That'll teach you to nip off while our backs are turned and read these ill-informed rags. 'Ere Pete, what's a K? ***Ed.***

GET RATTED

I demand compensation. "Oh yeah, what for?" I hear you ask. Well, last month (*Your Spectrum* 20) I turned to the review of *The Rats*, having been enticed by the revolting picture on the front cover. Having read the blood-splattered pages, telling the gruesome tale of 'rats gnawing at Ferris' body', 'gnawing at his bones' and 'ripping mouthfuls . . .' I mused to myself, out loud, that I might buy the game. Oh, that I'd kept my big mouth shut.

The result of my innocent remark? It panicked my thoroughly terrified Speccy into having a heart attack. Well, it blew its CPU actually. I blame this entirely on you. If you hadn't published such a gory review my poor ol' Speccy wouldn't be under some surgeon's screwdriver.

Right this is what I want.

1. A solemn promise that you won't publish anymore gore, like pictures of Troubleshootin' Pete.

2. Something that'll reassure my Speccy when it eventually returns to the land of the living — preferably nothing furry that eats human flesh and squeaks. And I don't mean one of T.P.'s socks.

Stephen Fodder
Southampton, Hants.

D'you know, I was wondering why I'd started taking a smaller and smaller shoe size. Nah, it couldn't be my socks — I washed 'em out at the end of last yeaaarghhh . . .
Troubleshootin' Pete.

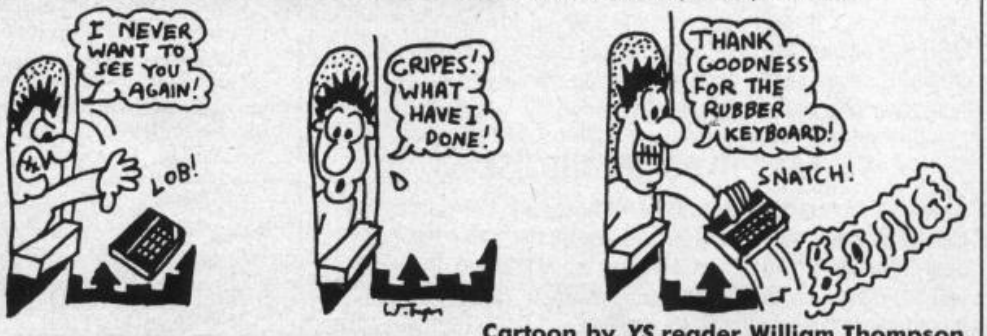
MEGABRAIN

I'm amazed at the mentality of some of your readers. I am, of course, refering to the letter from Richard Relf in the November issue. If Mr Relf had more than half a brain he'd have realised that what Pete was trying to show was how the actual addresses for the display file were calculated.

There can hardly be a Speccy programmer in the

DOODLEBUGS

Look, it's no laughing matter — or it won't be if you don't send your cartoons to Doodlebugs, *Your Sinclair*, 14 Rathbone Place, London, W1P 1DE.



Cartoon by *YS* reader William Thompson.

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is the name for computer programs which are broadcast as Teletext. Thus they may be loaded "OFF-AIR" into your Spectrum instead of being loaded from, say, tape or microdrive. 4-Tel is Channel Four's Teletext magazine and they are now broadcasting FREE telesoftware. Because of the special nature of teletext these programs are frequently updated – so you will not see the same thing each time you run the program.

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LETTERS

country who isn't already aware of the ROM routine at 22AAh. If our friend had sat back and thought he would've realised that Pete's diagram was the algorithm used in the ROM routine and that understanding the algorithm would enable him to write faster and more varied pixel address calculation routines.
Seb Dacre
Cricklewood, London

Your cheque's in the post, Seb. ***Troubleshootin' Pete.***

CLUB SANDWICH

Despite the sceptics I believe in the C5 — so much so that I am now using my customised C5 'Sputnik One' as a mobile sandwich board in the Greater Manchester area.

If C5 Promotions continues at its present rate of success I intend to customise more C5's for promotional usage.

I see the C5 as having great potential as a low cost cheap to run personalised fun buggy and want to open a specialist C5 shop offering a customising service. I'd also like to start a national C5 owners club.
Nev Foaris
Ashton-under-Lyne

Yes, despite the sceptics I too believe in the C5. Everyone else at YS just laughs at me. I know it sounds incredible when I tell people that I had a close encounter with this little white electric vehicle that looks like a large shoe built of washing machine parts. But I did. And there was this little green man driving it. One day the world will believe me. ***Ed.***

SOFT ON THE END

Hi. Just a note about your piece in *Frontlines* entitled 'I saw a mouse, where?'

First, we haven't actually made our plans about *The Artist/Artist II* public yet, as you know. But there are a couple of possible misconceptions your piece may have given rise to. First, you're, shall we say, on the right lines when you describe *The Artist II* . . . a pointing device, keyboard use option, printer dump options, icons, menus . . . hum, yes things like that.

But we have to be quick to correct you, for no-one here at SoftTechnics (no-one alive that is) has ever commented that they feel that OCP's offering is better than *The Artist!* Shame on Mr Everiss of OCP for saying so.

And a second point, we are not yet stating when *The Artist II* will appear, or even whether it will be a separate package, or run with *Artist I*. So watch this space . . . one thing we will guarantee though — we will see that everyone who buys *The Artist* will get full support on upgrades if they join the SoftTechnics Connections.
SoftTechnics
Customer Support Division

Hang on a sec, I'm the only one allowed to do commercials around here! What we now want to see is whether Bruce Everiss names names and tells us who at SoftTechnics spilled the proverbials. Is that person now dead? And was it of natural causes? Do people at SoftTechnics have names that can be named? It's time the world was told! Da-daa! Ed)

SMALL PRINT

. . . Anybody who has entered the Samsynth program in *Your Spectrum* 20 may like to try 5 for the wavelength and 50 for the depth control. It sounds like a drunken bee!
David Sellen
East Hanningfield, Essex

. . . Is the Ed any relation to Kevin the Gerbil?
(Yes! T.P.) (No!! Ed)
Paul Weller
Reading, Berkshire

. . . as the owner of an Opus Discovery disk drive, I'm trying to start a users club for the Netherlands. Would any UK Discovery users like to contact me to exchange information and so on?
D C Kruithof
Boeierkade 6
2725 CH Zoetermeer
The Netherlands

I claim a YS first. I believe I'm the first potato to write to you. As a resident of Easton-in-Gordano I was shocked that the Ed should accuse Matthew Exley (the amazing new Easton superstar since winning the Trainspotter Award in *Your Spectrum* 20) of making up the name of the village! So, shocked was I that I had to go and talk to Angus the Brick. Nuff said. *(More than enough! Ed).*
Sammy Spud
Easton-in-Gordano

. . . aark, aark, my name's T.P., what's your problem? What's come over me? Nowt. I've just (train) spotted the most classic printing error ever. Have a squint at *From The Hip* (ish 19). Now look at the two hundred and eighty-eighth word. Got it? Ha ha. *(One hundred and sixty-five, one hundred and sixty-six, one hundred . . .T.P.)*
Ian Fisher
Barbourne, Worcestershire (saucey devil).

TRAINSPOTTER AWARD

Ta for such a wonderful, splendiferous, fabaroony mag. Every month, I glance through its pages, looking at, what was it . . .? 'Fantasising over features . . . marvelling at machine code . . . revelling in reviews . . . lusting over listings . . .' and trainspotting the bugs!

'Tis the third time I've written in about your inadeq . . . inedk . . . minor hiccups. Now who, I'd like to know, ruined an otherwise perfect ish 20? Troubleshootin' Pete? The Ed? Andy Pennell? Small though the brains of these loonies may be, surely none could make such a stupid mistake as that which proudly displays itself on page 24.

For here is the sooper-dooper compo entry form, complete wiv a dotted line to which we must apply those sharpened cutting utensils (scissors to you!). Trouble is, when you've cut down the dotted line, you're left with nuffin' more than a small strip of paper about 1cm wide . . . The stupid line's on the wrong side of the page! If you don't believe me, just look! Hanestly . . . Now this one must earn me a Trainspotter Award!
Paul Taylor
Peterborough

PS I don't feel sorry for Gollum.
PPS Have you ever tried Hex on Toast for breakfast? (Breccy wiv your Speccy, eh?)

Dear (he who writes the witty comments) Ed.
I hereby claim the Trainspotter Award. You have made the terrible slip up of putting the dotted line with the mad scissors on the wrong side of the competition in *Your Spectrum* 20 (cue witty comment from Ed). *(Ooh er, sorry I was dozing there . . . um . . .er . . . pass the scissors and I'll just cut that bit out. Ed).*
Hallinics Domadam
Universe 32a
PS Who is this Erauqs type person?
PPS I think it's only fair to tell you that I have a Protonic Enmostic Extremely Violent Energy Disrupter (PEEVED) gun aimed at your office and I'll not hesitate to fire if I don't get the award.

Oh come on, you did do it on purpose — didn't you? I refer, of course, to page 24 ish 20. You know, the compo with all those stars on it. Running down the left-hand side is one of those dotted lines that are meant to be the guidelines for cutting the page out. Well, I've sussed you! You thought you could con us intel . . . intellic . . . brainy people into sending the little white strip down the left hand side of the page, didn't you?

This would mean, of course, that no-one would win the compo and so the judges wouldn't have to count all those stars. I saw through your evil plan from the beginning — to deprive us of a Star STX-80 printer so T.P. could have it himself!

Well, I'll tell you what. If you hand over an illustrious Trainspotter Award I'll tell no-one. Deal?

Anyway, brill mag (creep, craaawl). How about some more on comms — I liked the Bulletin Board article in ish 20. Keep it up!
Jeremy Doyle
Englefield Green, Surrey

Hmmm, three candidates for the Trainspotter Award this month. All of them have spotted the same cock-up in ish 20. Problem is, how are we going to pick the most deserving candidate for the supreme accolade of a YS Trainspotter Award?

It's about time Paul got something if this is the third time he's written in — but this time it'll be the sole of my boot. Call me a loony, indeed! As for Hallinics — you can't frighten me with your gun. Made up name, made up gun. And anyway we can't afford the postage to Universe 32. So, it looks as though Jeremy's this month's trainspotter supremo. And if anyone dares to suggest he only got the award by dint of a final bit of crawling at the end of the letter — well, they'd be dead right! **Ed.** *I'm still trying to find out who printed the mag on the wrong side of my dotted line . . .* ***Art Ed.***

HARD FACTS

Does your hardware give you a bad case of heartburn? For fast action relief, Stephen Adams is your man . . .

I'm an operator at Prontaprint and use a Spectrum to update a Lilliput Sales Ledger. After months of trouble-free working my microdrive has now decided not to Verify 25 per cent of the cartridges which is obviously causing a lot of problems. Why should this be?
John Williams, Grimsby.

Well John, this usually occurs because the microdrive ROM doesn't completely erase the file header and reads the old header instead of the new one. The best remedy is to change the name of the file regularly and copy the results to a new microdrive so that the old one can be reformatted (which clears all the headers) before reuse. Apart from this, the only other person who can cure it is Sir Clive.

I've just bought an Interface 1 and would like to know how to wire the RS232 socket to Save and Load like a network?
A Blackmore, Boston.

The Interface 1 is fine if you directly connect the two computers together but it won't work with a modem. Use the 'B' channel to Save and Load and make sure that you have the RX and TX pairs correctly connected. The distant computer must have a CTS connected so that it doesn't send info when the Spectrum is busy doing it's own internal thing.

Sob Sob. I've blown up my ZX Spectrum by using an Interface 2 on it. What can I do?
R Capson, Dorset.

Sounds like you've blown up the ZTX 651 or 650 transistor. Try and get another one fitted and see if that brings your Speccy back to life. Be careful when connecting the Interface 2 as this might have a fault on it. Marshalls of Edgeware Road, London stock this transistor if you have problems getting one. If it still doesn't work I'm afraid it's going to need the old Red Cross treatment. Stick it in a jiffy bag and send it off to your local Speccy repair man for major surgery.

My poor old Spectrum has lost its voice and I miss it — help.
M Owenn, Dyfed.

Try replacing the loudspeaker with a 1 inch diameter speaker of about 8 ohms. If that doesn't work try replacing the diodes — or get a hearing aid! Good luck.

I've got two Spectrums, an Interface 1, microdrives, printer interface and monitor connected up. A wonderful system you might think. Yes, but I'm getting a very noisy picture — can you help me?
Brian Davies, Aldershot.

Well, with all that lot connected up I'd say you need a better power supply. Your best bet would be to take the video connection from the modulator input and cut the track to the edge connector. This'd reduce the noise from the peripherals. Even better, put it through a 1000 uf capacitor as an additional filter.

I'd like to connect my Spectrum to a monitor that requires a composite video signal but how on earth do you do it?
D Shotten, Belmont.

This is actually covered in *Your Spectrum 3* but for those who can't get their hands on a copy, here's how you do it! Connect the inner wire to pin 15B (underside counting from slot side) and the outer wire to pin 14B of the edge connector. If you've got an issue 1 or 2 machine, connect up the two solder spots marked 'VID' with a piece of wire inside the Spectrum first.

Help Help Help! I can't use the 'P' and 'Q' keys on my Spectrum when my Alphacom printer is connected.
Chris Oliver, Staffs.

Seems to me, Chris, that the printer is overloading the data line D0. I'd send it back to get it looked at.

Ummmm . . . er . . . I've a slight problem . . . yer see. Well . . . it was like this. I took my tape recorder to pieces because I was having loading problems, and yes, I did know how to put it back together, but I lost the screws. I had a bright idea and super-glued it back together again but it still didn't work! I then bought a new recorder and it works fine on my friend's BBC but, you guessed it, it doesn't work with my ZX Spectrum. Help!
Pete Taffs, Luton.

Oh dear Pete, what *have* you done? Since you've checked everything inside the Spectrum there's unlikely to be a fault there but have you checked the tape leads to the Spectrum? Also don't forget to leave the Mic lead out when loading and if all else fails try reading Melbourne House's *Spectrum Hardware Manual* by Adrian Dickens, price £6.95, as it contains some useful circuit diagrams. And to think Pete advises other Speccy owners every Saturday in a shop!

How do I get A4 (80 characters) listing from my Interface 1 and how do I count the lines?
G Saunders, Hertford

The only way that I can think of, off the top of my head you understand, is to print the program to the screen (using PEEK in program area). Then use SCREEN$ to look at the line on the screen and LPRINT the resulting characters, counting them as you go.

When you reach 80 Chr$ or an Enter character send Chr$ (13) to print a new line. You'll have to convert the line number's first two bytes to a four digit number. Any Chr$(14) encountered indicates you skip the next five bytes. Counting the lines will be easy as you can make a note as each Chr$ (13) is issued to the printer.

What limitations are there on the number and type of peripherals that can be attached to my Spectrum?
Jim Grimwood, London.

The limits on the Speccy's expansion port are roughly 300 ma on the 9 volt power supply and a max of two devices to pick up address and data lines. You'll need a larger power supply and a buffered motherboard if you want to add more — I don't know of any commercial supplier of these. Does anyone out there know better?

My ZX printer spits out blank paper, though it still line feeds, and it won't stop until I pull the plug. What's wrong?
John Swan, Edinburgh.

It sounds as though the printer's writing okay but is having trouble reading its status, that is whether it's busy or not. Check the read connection and make sure the writing stylus is poking out of the printer slot as this could be causing the problem. If that doesn't work go see a specialist.

I would like to use a home-built AY-3-8910 sound chip to imitate the Fuller sound box. How do I do it?
Mark Robertson.

The addresses are Control port 95, data port 63. The clock frequency is between 1 and 2 MHz and can be generated from a stable 555 IC. Hope all that helps.

How can I print things which normally go to the screen to the printer without changing the print statements?
Carl Howes, Eastbourne.

Well Carl, you can either COPY all the screen at various points in the program or change channel 2 to channel 3 (LPRINT instead of PRINT). If you aren't using Interface 1 you can do this by POKEing 23743,80. POKEing 23743,83 will restore printing to the screen.

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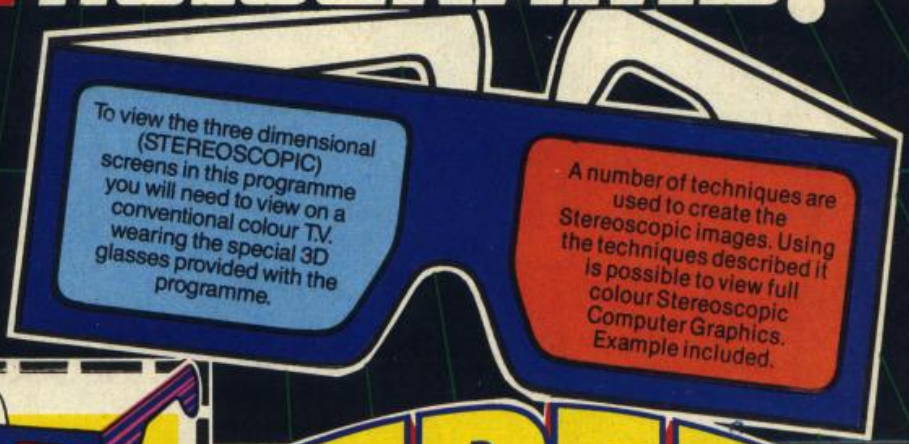

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RASPUTIN

Starry, Starry KNIGHT

***Last month, you saw the storyboard. This month, you've played the demo version. Now it's time to read the full review!* Rachael Smith *rights the wrongs of the mad Russian monk in Firebird's hot new mega-game,* Rasputin.**

YOUR SINCLAIR MEGAGAME

Last month good ol' *YS* brought you a preview of *Rasputin* in the shape of programmer Paul Hibbard's Storyboard. Now, lo and behold, good ol' new *YS* brings you a preview of the game in the shape of four playable screens. And, give or take a pixel, it's not unlike the storyboard except for one detail — Paul neglected to mention how @*!!*! hard it is!

Of course you wouldn't expect it to be easy. Your quest is to destroy the jewel of the Seven Planets which has kept the soul of mad monk Rasputin, the kind of guy gets religion a *baaad* name, alive. The bauble is hidden away in the dimensions of the netherworld, a sort of supernatural housing estate for assorted nasties, spreading off a main courtyard and linked by spells cast by the Lords of Chaos.

Now this is some task — even for a Super Crusader who closely resembles the knight from the Daily Express's masthead. So, as well as dodging the best selection of oddballs seen this side of Castle Rathbone, there are secondary objectives, such as discovering the Eyes of Heaven spell that'll black Rasputin's evil eyes as well as opening further boxes containing magic to neutralise his power.

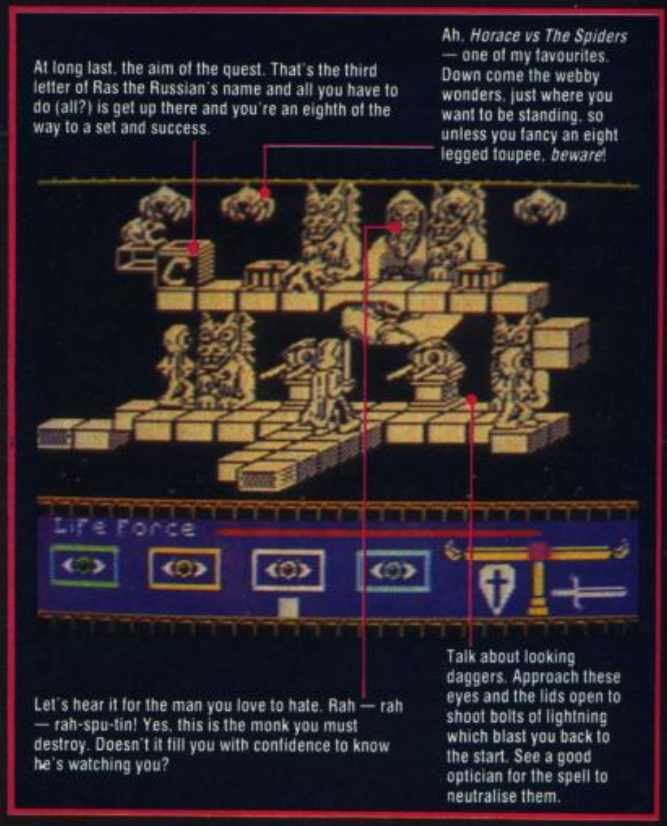
Not that sword play is neglected. In many cases it's a good idea to clear a screen of wandering monsters before exploring properly. Be warned though — not only do the greeblies return when you re-enter a screen but if you come into contact with them, or take a fall, they'll flock back too. And talking of falls, at some stage you're sure to find that the netherworld is cruising at 60,000 feet and you haven't got a parachute. Luckily the clouds act as lifts and whisk you back at the cost of a life.

Once you've hacked and slashed to obtain unimpeded progress, make for the boxes with suns on the side. Jumping onto all of them causes a psychedelic display from which emerges a four headed monster (see, I said this was like Castle Rathbone) shooting rays from its eyes. Slay this and you get a new spell to add to your armoury. Then you can move off to seek one of the stones engraved with a letter of Rasputin's name but be warned, getting those makes everything else seem simple!

Rasputin is not an easy game to get into and you'll spend your first few plays just working out what can and cannot be done — as well as what lies behind some of the Seven Planets' more extraordinary masonry (Winner of the Infernal Architects Award 1985). In this respect it's very much like Ultimate's products — never giving anything away. It's also got the same sort of 3D view, though seen from a slightly lower angle which can cause problems. Take good care of the squared floor and how many (audible) footsteps it takes to cross one unit and you should avoid making too many trips down to cloud nine.

So there's an unavoidable Ultimate comparison but before the boys at Firebird send me an ultimatum (Ho, ho), I must say that this is a decided advance, with larger sprites and some very smooth animation. There are some really amusing critturs in there, as well as some maddening nuisances plus the truly malevolent presence of the villain.

All that jumping may remind you of platform games but here the landscape is solid and incredibly well realised. Just as the dimensions of the netherworld spread from the central, circular highway the game has great depths. This one could take months to solve — it's certainly not for the faint-hearted. But most of you now have the opportunity to test your mettle against the infamous mad monk, and if the challenge of these four screens whets your appetite then rush out and buy the complete game because it's ten times as large and contains a whole host of nasty traps that'll test your timing to the limit!



Graphics
Playability
Value for Money
Addictiveness
9

Fax Box

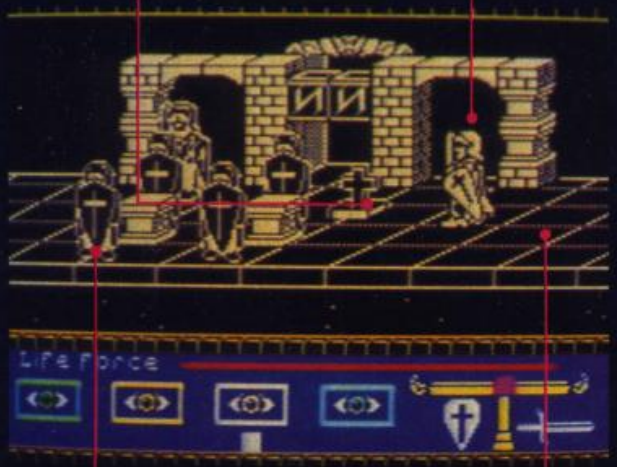
Game ..... **Rasputin**
Publisher ..... **Firebird**
Price **£7.95**
Joystick ..... **Kempston, Interface II, Cursor**
Keys ..... **Turn Left/Right** — Q/W; **Walk** — O; **Jump** — P;

The demo version of Firebird's *Rasputin* is only available with copies of *YS* sold in the UK. Unfortunately, it is impossible to send the tape abroad.

1

Old soldiers never die — they leave neat little graves instead. And as contact's still deadly it's better to avoid combat altogether when you can.

It's the caped crusader! Control is by the (love it/hate it) turn clockwise or vice versa. That takes some getting used to before he walks the way *you* want. And fighting really calls for careful timing if you're to slip in the fatal thrust.



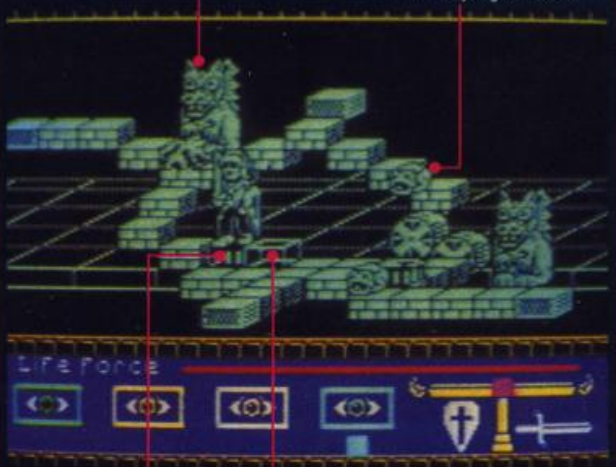
Call out the guard. Take advantage of their initial state of suspended animation because pretty soon they'll be marching up and down and indulging in a little swordplay — with you as target.

The netherworld's main street is neatly paved, but those parallel lines also help you steer a course through all the obstacles. Don't fall off the edge though.

2

These goggle eyed gargoyles won't remain stony for long. Like all good dragons they've got a breath problem that makes napalm look cool. Note how inconveniently they're placed, making you wait till the heat's off.

They look like big frogs, hop around like fleas and have a grin you won't forget as they cause you to restart the screen and they're rather too short to hit easily at ground level.



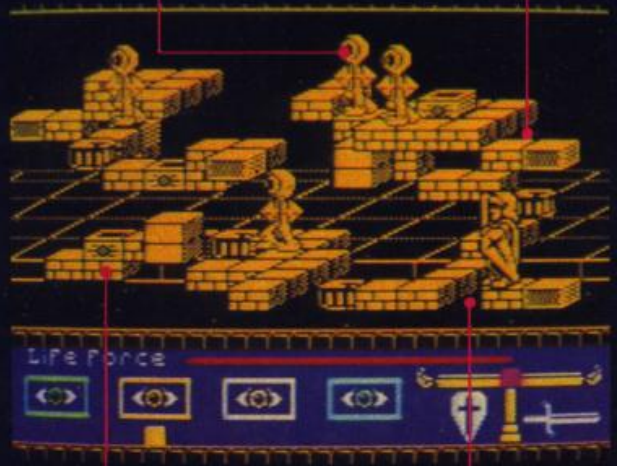
Want to know how a Wham record feels? The turntables move in steps, not smoothly. The secret of jumping off is to wait till you're a quarter turn before your destination then leap.

Ignore this apparently innocuous box at your peril! As if by magic it'll return you to where you entered the screen and at the same time diminish your life force. Frustrating, eh?

4

The toffee apple with the eye is a cyclops, and though he's dumb he'll still diminish your life force if he collides with you in his aimless wanders.

Nobody gets out of here alive — or at least not easily. Flashing boxes represent exits and even when a screen has five of them like this, it's obvious the inhabitants prefer you to stay.



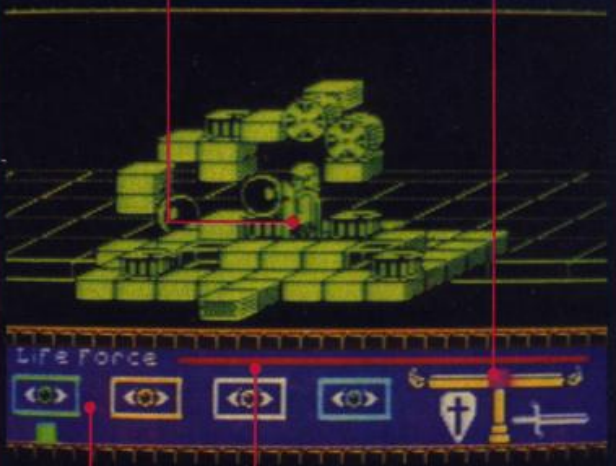
Ladies and gentlemen, an empty box . . . but like all good magic boxes jumping on them makes things appear — like a monster from the dark side of Rasputin's mind. Kill it for a reward.

Look before you leap. Several screens have a gap immediately after the entrance so never charge straight in. This one's particularly bad — you'll have to perform an extended leap to clear it.

5

Observe the course taken by the nasties. The balls hardly ever slip between the turntables so if you stand here you can swipe them as they conveniently reach sword height.

Your hero's burning the candle at both ends and using shield and sword causes it to gutter (still it keeps the rain off!) Two solutions — find the stones with Rasputin's mark or, more drastically, lose a life.



Hey, four eyes! Yellow, green, white and blue are the colours of the netherworld and the marker beneath the boxes indicates the interior decoration for the dimension.

Think that life line looks long? Well, for every contact with an alien it diminishes quite slowly, but if you fall to the clouds it's cut off even shorter — depending on the size of the drop.

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HACKING AWAY

Wanna POKE a little more fun into your games? Join Chris Wood for the hack of a lifetime as well as a damn good read.

Welcome one and all! As you'll have noticed — wake up at the back — the mag has undergone a metamorfis... metimarfus... well, it's changed. And the good news is that I now have a whole page to fill with goodies, so keep 'em coming! You never know, if you send in enough, the whole shebang may spill over onto two pages, then three... Today a page, tomorrow the world! (Pass me the sedative please nurse! Ed).

First a confession — last month I made a bit of a boob. I know, I know, doesn't sound possible but there it is. The program that I claimed was for Monty Mole was, in fact, for Mutant Monty. Dunno how I missed that as I was the one who hacked Monty Mole back in Your Spectrum 15. Ah well, on with the show!

NIGHTSHADE

Yes, I know our very own Dave Nicholls — do you want your very own Dave Nicholls, yours for a few bob, guvnor — hacked this when he reviewed it but Mick Davey from somewhere in London has sent in a few extra POKEs:

```
10 LOAD "" CODE: LOAD ""
   CODE: LOAD "" CODE
20 POKE 23453,201: PRINT
   USR 23424
30 REM PUT POKES HERE
40 REM AND HERE
50 REM AND HERE
60 POKE 23453,33: LOAD ""
   CODE: LOAD ""CODE
70 PRINT USR 23453
```

And here are the POKEs that'll fill out lines 30, 40 and 50: POKE 52665,33: POKE 52668,52 for infinite lives POKE 49228,20 to run fast all the time POKE 52900,0: POKE 52901,0: POKE 52902 to see the final screen when you die.

Now put in all or some of them as you choose. Mick tells me that if you put in the 'run fast' POKE you should avoid picking up the winged boots as you'll then revert to normal speed. And it's not much cop if you put in the first and last POKEs — the final one won't work 'cos you now can't die!

ALIEN 8

For an indestructible Alien 8 POKE 43735,201. For those without Your Spectrum 14, (shame on you!) add line 22 POKE 50085,167 : POKE 50084,178. This allows you to touch anything without dying — yippee!
Finally, T Smyth of Minehead can't get Alien 8 to run with his XP memory expansion fitted. Sorry old chap Ultimate do some very peculiar 'OUT' instructions when they're reading the keyboard which clashes with the XP. You'll just have to remove it to play the game, unless, of course, anybody out there knows of any POKEs to remedy this.

FAIRLIGHT

What's this you're saying? Another ginormous listing for Fairlight. Didn't we have one of those last month? A touch of the old deja vus? Well, yes but since then Bo Jangeborg, the programmer, has added the Kempston joystick option to the game and consequently moved parts of the program about. To overcome the problem I fed the new version into the Hacking Computer in the back room and good ol' ZZKJ spat out another version. Ninety per cent of it's the same so if you typed in last month's, you've done most of the grind already.

On top of this, ZZ has added a few POKEs sent in by Edmund Baby of Staines that'll stop the screen going blank each time you enter a new location. Now you'll be able to see how Bo's graphics program, Grax, draws the screens. The 6 in line 350 is the new attribute for the screen and you can change it if you like. For those of you with the new version of the game, wind the tape past the anti-piracy message (and no, this program won't help the pirates) before running the program.

```
  1 REM FAIRLIGHT POKEIN
G PROG
  2 REM MODIFIED FOR FAI
RLIGHT2                 '
 10 LET T=0: FOR N=18000
 TO 18175: READ A: LET T=
T+A: POKE N,A: NEXT N: RE
AD A: IF T<>A THEN  PRINT
 "CHECKSUM ERROR": STOP
 20 FOR N=20000 TO 1E9:
READ A: IF A<999 THEN  PO
KE N,A: NEXT N
 30 RANDOMIZE USR 18000
 100 DATA 221,33,203,92,1
7,93,5,62,255,55,205,86,5
,48,241,6
 110 DATA 20,33,130,94,24
3,49,0,91,205,195,70,33,8
6,96,17,21
 120 DATA 209,1,153,1,237
,176,33,40,209,17,40,145,
1,19,1,237
 130 DATA 176,235,54,201,
6,9,38,145,17,186,70,26,1
11,203,182,19
 140 DATA 16,249,205,40,1
45,33,174,210,6,120,62,12
,50,176,92,205
 150 DATA 195,70,62,195,5
0,198,220,33,181,70,34,19
9,220,62,55,50
 160 DATA 233,218,195,223
,218,237,176,195,32,78,14
1,197,200,221
 170 DATA 224,229,232,235
,247,197,229,62,32,237,17
7,182,242,197,70,35,209,2
37
 180 DATA 82,235,66,75,17
,246,70,237,176,229,235,5
4,237,35,54,95
 190 DATA 35,54,201,205,2
38,70,50,239,70,225,193,1
6,214,201,62
 200 DATA 58,61,61,230,12
7,237,79,184,146,147,129,
129,236,244,225,247,208,2
2697
 320 DATA 175,50,197,241:
 REM    Infinite Lives
 330 DATA 62,24,50,77,245
: REM No More Weight Limi
t
 340 DATA 62,24,50,246,24
7: REM  No More Locked Do
ors
 350 DATA 62,62,50,189,22
9,33,6,0,34,190,229: REM
See Room draw
 400 DATA 201,999: REM Da
ta End Marker
```

JET SET WILLY II

Aarrgg! They said it couldn't be done. No man, no hacker could do it! Until now. Yes, Peter Faas from the Netherlands armed with a soldering iron and an armadillo has come up with a new POKE for JSWII. The POKEs we supplied for infinite lives meant several of you were in grave danger of going batty because you couldn't turn the music off. Well, Peter has sent in a new improved POKE (gasp) — gor blimey he'll be after my job next!

For blissful silence whilst playing this game change line 90, in the small hacking program, and line 100, in the large progam, (both in Your Spectrum 18) to read:

```
DATA 62,195,50,22,122
```

Silence really is golden! Oh, and while I'm on the subject of JSWII it appears that some of you, namely P Villars of Essex, R Whitehead of Londonderry and Stephen Dove of Stone, are having problems with the large program. Well, you'll notice, or you should do, that after each block of data each feature has a REMark above it — if you don't want that particular feature don't type in it. When you've decided what you want, wind the tape past the first bit of Basic in JSWII before running and playing it.

For those of you who haven't fathomed how to use the Room Finder program — it's easy. When you Run the first program put a blank cassette in before entering your pass code and press Record. You'll see a bit of on-screen activity followed by a block of code and then the Speccy will reset itself as the program has been destroyed in producing the block of code. Type in the second program, Run it and play the block of code you've just saved. It will then print out the rooms, their numbers and the numbers of rooms they exit to. Change LPRINT to PRINT in line 50 if you don't have a printer and want it to go to the screen.

KOKOTONI WILF

Charles Smith from Girdle Toll (where?) has sent in this piece of code for invincibility against the nasties in the Softaid re-release.

```
10 POKE 23693,4: CLEAR
   24100: LOAD"" CODE
20 LOAD"" CODE:
   RANDOMIZE USR 65100:
   LOAD"" CODE
30 POKE 28929,8: POKE
   28934,8: POKE 28939,8
40 RANDOMIZE USR 41712
```

Lots of programs nowadays are MERGE proof and that makes putting the POKEs in

a little difficult, as you have to make false headers. Chris Pile from Plymouth has provided a program which will Load in a Basic program and Save it out again tame — in other words it won't Auto-run.

```
  1 REM DE-MERGE & SAVE
 10 CLEAR : FOR n=23296
TO 23357: READ a: POKE n,
a: NEXT n
 20 PRINT AT 10,10;"LOAD
BASIC"
 30 RANDOMIZE USR 23296
 40 DATA 62,3,50,54,91,2
05,32,91,58,62,91,167,192
,33,0,128,34,75,91,175,50
,54,91,211,254,62,254,219
,254,31,56,249,17,17,0,22
1,33,62,91,175,205,53,91,
237,91,73,91,221,33,168,9
7,62,255,24,3,195,194,4,5
5,195,86,5
```

The program ignores CODE and will only work if you feed in Basic. Play your program and then use a blank tape to Record. Press the Caps/Shift key to save the tame version of the program.

MANIC MINER

Whoops! Robert Hioms has sent in some corrections to the infinite air supply for Bug Byte's* Manic Miner. *These are:

```
POKE 34798,0
POKE 34799,0
POKE 34800,0
```

Not only that, G Reynolds of Nottingham also noticed that the second three POKEs* (Your Spectrum 18) *stop the light beam in the solar power generator from decreasing your oxygen. Now you can escape from Amoebatron's revenge cavern.

BOULDERDASH

Having trouble with* Boulderdash? *Never fear Martin Cleaver of Hull is here with a routine for infinite lives (what else?)

First wait until the second screen has loaded before stopping the tape and pulling the plug on your Speccy. Type in this natty piece of programming, run it and restart the tape.

```
10 FOR N=50000 TO
   50022:READ A:POKE
   N,A: NEXT N
20 DATA 243,17,51,91,221,
   33,0,94,62,255,55
30 DATA 205,86,5,243,62,
   52,50,32,121,195,183,
   124
40 RANDOMIZE USR    50000
```

Martin says he's not sure whether this will work on the* Rockford's Riot/Boulderdash *re-release but if it doesn't you know where to send your POKEs don't you?

TASK FORCE

Now's your chance to join the programmers' task force, headed up by* Ian Hoare. *He's counted all his small routines out and now he's counting them all back in again . . .

Calling all programming geniuses everywhere — here's the page for you! Oh okay, you don't have to be a genius but you'll still find a good few things that'll add that extra zap to your programming. And I hope very much that it won't be too long before you see some of your programming hints'n'tips in these pages too — this is your chance to beam out your brainwaves to all your fellow *YS* readers. Plus, if you have any programming problems, this is where to turn to for help. Together we'll form the biggest task force in the country!

To launch you on the way, I'll start off with a few nifty snippets that took hours to work out but . . .

Well, you know the sort of thing — like this input routine that prints a message on the bottom of the screen and waits for a keypress. Just one keypress mind you. Type it in and try it out.

```
  10 REM **** INPUT ROUTI
NE ****
  15 PRINT AT 0,0;M$
  20 IF INKEY$="" THEN G
O TO 20
  25 LET I$=INKEY$
  30 IF INKEY$<>"" THEN
GO TO 30
  35 RETURN
```

What's that? You know a better way? Great — write and tell me all about it.

While we're looking at input, just take a butchers at this and try to work out what it does. But don't type it in just yet.

```
  40 REM **** ???? ROUTIN
E ****
  45 LET ER=(VAL I$<IMIN
OR VAL I$>IMAX): RETURN
```

Have you cracked it yet? Nope! Well, don't look at me — you're just gonna have to find out for yourself!

And now for something completely different. I often want to find the address of a particular memory area. Problem is, all those addresses are hidden in two bytes. This makes it hard to see where the program starts just by looking at the contents of the system variables. In fact, any whole number between 0 and 65535 can be stored in just two bytes. So this helps you recreate the number again.

Stick this at the start of each program you write.

```
  10 DEF FN P(X)=PEEK X+2
56*PEEK (X+1): DEF FN H(Y
)=INT (Y/256): DEF FN L(Y
)=Y-256*FN H(Y)
```

The FN h and FN 1 will split any number up to 65535 into the two bytes that you'd look for in FN p. Got it?

Now for a very useful snippet from a *YS* reader who lives in London, *Kevin Cooke*. A problem you may have experienced when using string arrays is that wasted spaces appear at the end. The best way to get round this is by storing the string's length in an extra character at the start. Use these lines to set up the string element:

```
  10 REM CREATE STRING LE
NGTH INDICATOR
  20 INPUT B$
  30 LET B=LEN B$
  40 LET B$=CHR$ (B)+B$
  50 LET A$(N)=B$
```

In these lines A$() is the array you've manipulating and N is the element in the array you want to fill. When you want to print the string, use this line:

```
 60 PRINT A$(N,2 TO CODE
A$(N,1)+1)
```

A very clever bloke, that Kevin!

One problem you may have come across when writing machine code is passing information to the code routine. It's dead easy — when you know how! You can put the information into a string variable and search for it from the code. It's impossible to do any serious machine code programming without an assembler, so I'll give the assembler mnemonics for a routine that'll search for a particular variable — in this case q$. It'll end with HL pointing at the first byte of the string and with BC containing the length of the string. I use the excellent Picturesque Assembler, but please don't feel obliged to do the same! I've used the convention for describing decimal and hex numbers. Decimal numbers appear as normal, hex numbers are followed by 'H' and, if starting with a letter, are preceded by 'O'. Thus 255 (FF hex) appears as 'OFFH'.

```
0000          ORG    40000
0005 STR      EQU    81 (q is
 17th letter,64+17=81)
0010 NEXT1    EQU    19B8H
0015 VARS     EQU    23627
0020 START    LD     HL,(VARS)
0025 LOOP     LD     A,(HL)
0030          CP     80H
0035          JR     NZ,OK
0040          RST    8
0045          DEFB   1
0050 OK       CP     STR
0055           JR    Z,GOTIT
0060           CALL  NEXT1
0065           EX    HL,DE
0070           JR    LOOP
```

Now you can process the information in q$ any way you want.

Use this little subroutine to perk up your printing for, say, pounds and pence. Go on, type it in and then call it with various values of 'money'.

```
  10 LET IV=(INT (MONEY*1
00+.5)/100): LET V$=STR$
IV
  20 IF V$(1)="." THEN L
ET V$="0"+V$
  30 LET VL=LEN V$-LEN ST
R$ INT IV
  40 LET V$=V$+".00"(VL+1
TO ): RETURN
```

Now you can print a whole series of numbers aligned by the decimal point — just like you have to do when you're dealing with cash.

```
  50 PRINT TAB (10-LEN V$
);"#";V$
```

Now a plea from across the water. *Martin Fitzpatrick* from Cork in Ireland asks if there's a way that text sent to the screen can easily be diverted to the printer without duplicating every line. Well, Martin, simply set a variable like, let me think, p and make it equal to 2. Then on every PRINT command use this formula:

```
PRINT #p;"your message"
```

Now, when you want to print on the printer simply set p equal to 3. Nifty eh? But perhaps you've got a better solution? Well, you know where to send it.

Right, that's it for this month. Now, you know the task that you've been set — to send in all your fave programming bits 'n' pieces. There's no point in sitting on all your short sharp subroutines when you could send them out into the world to make your name in *YS*.

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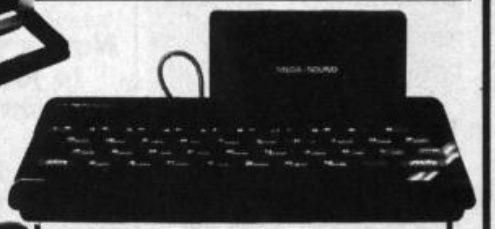

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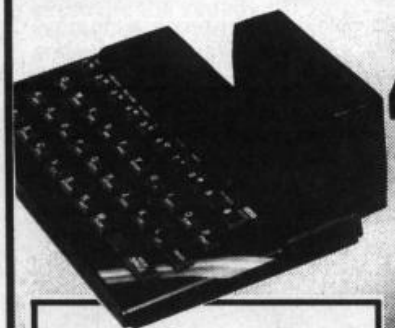

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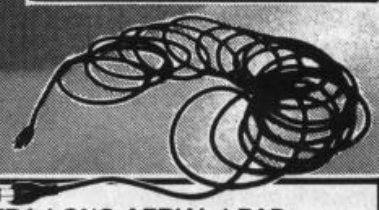

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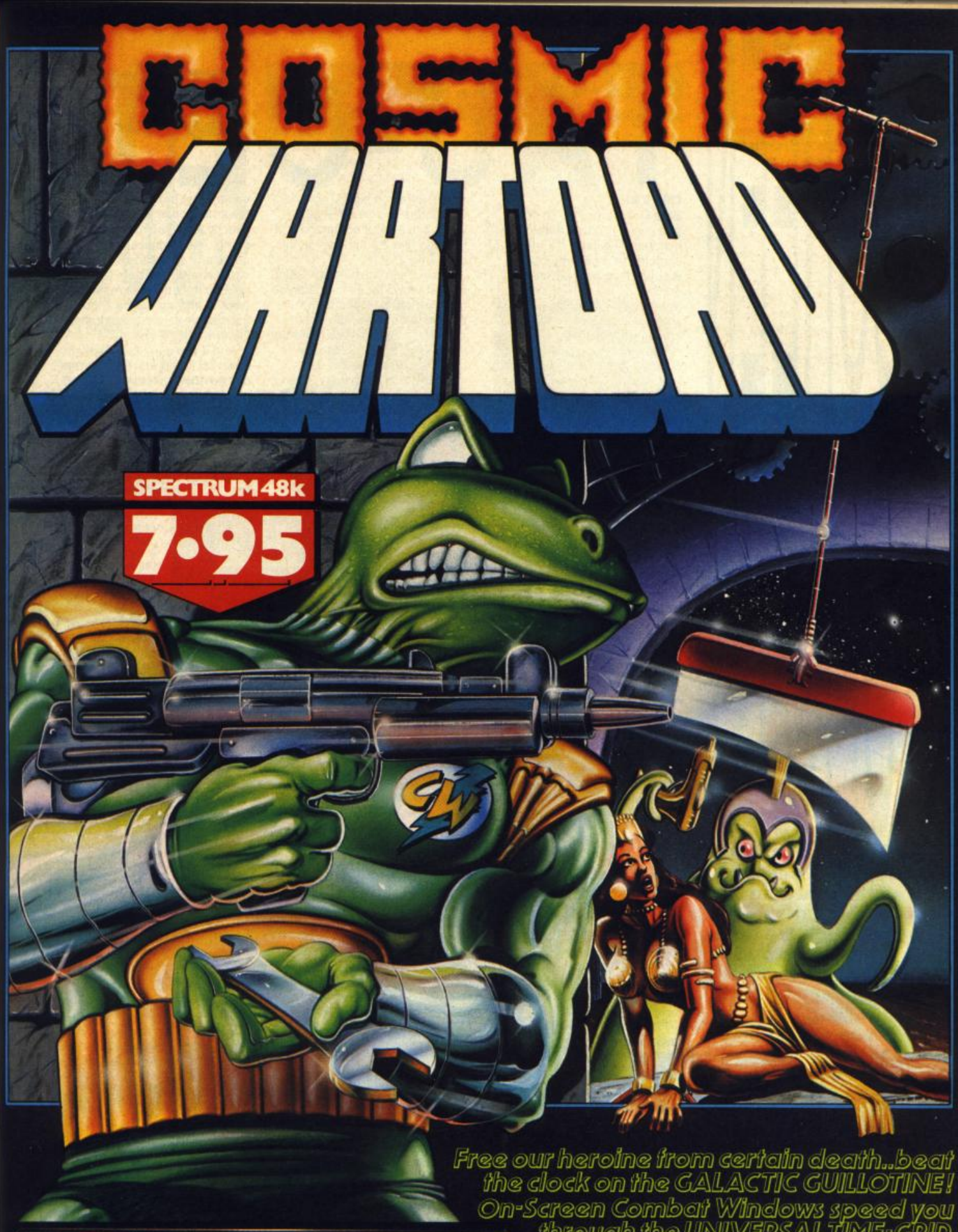

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SCREEN SHOTS

Get a grip on your joystick 'cos here come this month's great games. But first meet the team that's battled against the best and waggled with the worst — *Rick Robson, Rachael Smith, Steve Malone, Sue Denham* and *Alison Hjul*. Shoot . . .

HOT SHOT

TAU-CETI

CRL/£9.95

Sue Don't expect to sit down and play this game within a few minutes. The cassette inlay card contains so much information that you'd be best advised to transfer all the relevant key data down on to a separate piece of paper and display it above the screen while playing.

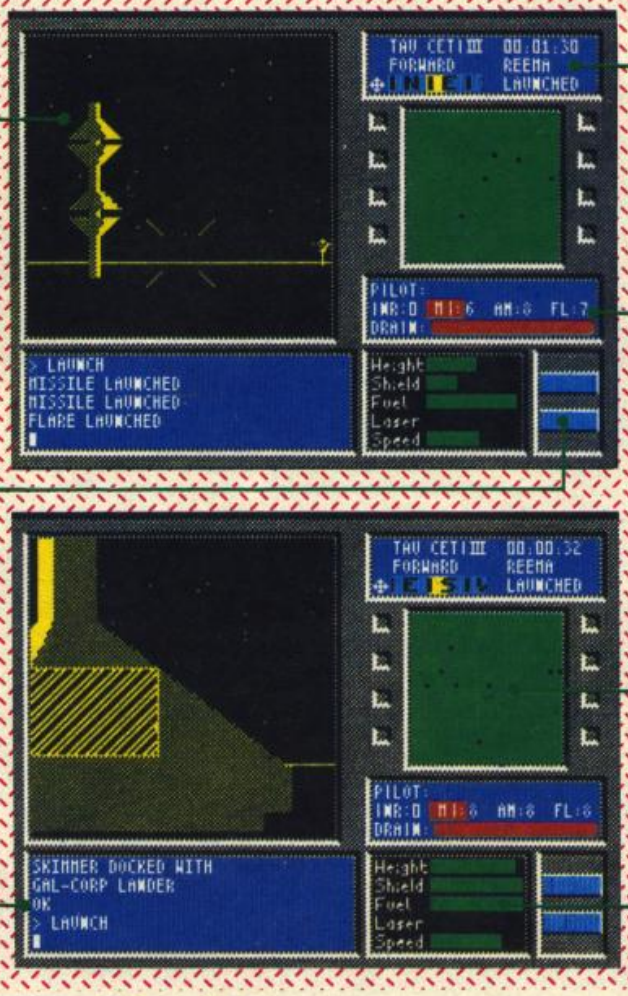
The plot is complex in the extreme, but here's the gist of it. You have to land a small space craft on a robot-run planet and shut down its fusion reactor — and all of this must be completed in the time limit shown on-screen! On board the craft you have a variety of lasers, defensive shields, missiles, flares, infra-red sights, scanners, computers and so on — all of which are at your command .. if you can find the right key at the right time, that is!

The screen's just as confusing, with windows for all the data you need as you descend to the planet. But each window holds necessary details of your mission if you want to come out alive — again, a careful read of the instructions is necessary. Use of the computer is extremely helpful once you've landed the space craft — and there are 20 commands you can use to carry out various tasks within the reactor that'll destroy it.

Tau-Ceti is a game of great complexity, but one that is rewarding once you figure out exactly what you're meant to be doing. The graphics are well done, and the action's very impressive on-screen. It does take an hour or so to really sort out any playing tactics .. but maybe this is testament to the game's addictiveness.

And if you don't fancy sitting down for hours at a time in front of a red-hot Spectrum, you can always save the half-finished game and finish it later. Can't say fairer than that, can you?

Graphics 9
Playability
Value for Money
Addictiveness



This is the action area of your instrument panel — here you see out of the space craft's cockpit on to the planet's surface. If you call up the ship's built-in computer, this area then becomes a VDU screen providing graphical representations of the answers to your questions.

Here you will find a compass, a real-time clock, an indication of the city you are in, and a message telling you the state of your space craft.

You only have a limited amount of missile/laser power, and your armoury is shown for you here so that you can keep track of what weapons you haven't used yet.

These block graphics represent the two ADFs (automatic direction finding computers) you have at your disposal. One helps direct you to the city, the other helps you find your space craft again once you have shut down the fusion reactor.

This is the scanner screen — showing just how much trouble you've managed to get into.

This is where you type in commands to the ship's computer and receive messages as to the status of your space craft.

Using block graphics, you can see very clearly your height, shield power, fuel, laser power and speed.

BUCCANEER

Insight/£7.95

Rick I haven't a buccan clue what is going on. It's a curious mish-mash of a jet fighter and space ship whizz-bang shoot 'em up arcade. This really is a cheapy in fairly expensive wolf's clothing. Your Buccaneer has up and down but no lateral movement during the early screens and a very slow fire response. But don't worry, the aliens are so moronic that often you can stay where you are and top 'em as they queue up. The quicker you blast, the quicker you move through the remarkably similar screens. Even the most amateur of arcaders will have been this way before.

The Buccaneer is all but redundant as a modern day fighting plane — as is this game compared to many excellent alternatives.

Graphics 4
Playability
Value for Money
Addictiveness

DISCS OF DEATH

Artic/£6.95

Rachael After ditching their Terminal Tapes and crashing the Morbid Microdrives the contestants settled on Fatal Floppies, a game played by dodging the deadly discs of the title. Sound easy? The only problem is that you're standing on tiny platforms, so room to manoeuvre is limited to a step on either side.

It seems this somewhat surreal space duel is based on the movie *Tron*. It's certainly different from your average sport simulation, taking place in a checkerboard stadium obviously designed by Dali. Luckily, the computer takes care of your jumping so there's no slipping into space, but apart from that you're on your own. The rest of the memory has obviously gone to playability and providing a mean opponent. If you have time during all this frantic frisbee action try to pick up tips from his behaviour, firing off a volley of discs then jumping to one side while you're busy using your rapidly diminishing shield or taking evasive action.

A bit of strategy is called for to make sure all your discs aren't in

the air when you need them, but basically this is a test of reactions and moves so fast it's easy to get drawn in. It's just a disappointment that the third screen is like the first, only faster and with a guided disc that locks onto you bringing the game to a quick conclusion. And wrap your ears round the superb robotic soundtrack.

I was hooked for a time but I can't see myself returning often. If only there could have been a true player vs player option instead of just you and me against the micro. A trifle overpriced? Perhaps.

Graphics
Playability
Value for Money
Addictiveness
7

I, OF THE MASK

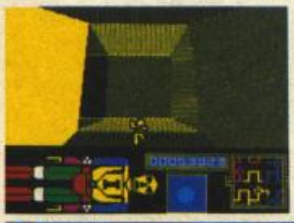
Electric Dreams/£9.95

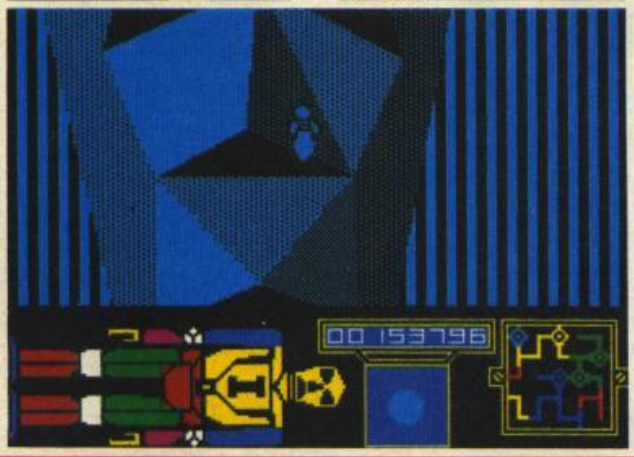
Alison Seb Coe's got nothing on our hero as he hurtles around a labyrinth of psychedelic corridors in breathless pursuit of bits of a dismembered robot's cadaver.

No, it's not a space-age Frankenstein travesty, but an above average maze game, embellished with stunning 3D graphics.

A megalomaniac robot has been dismembered by world rulers to curb its yearning for universal power. As the hero of the piece, your aim is to flee the maze and become I, Of The Mask, by collecting the robot bits and reassembling this hapless heap of metal.

Battling against a remorseless





clock, you must head for the three crystals blocking the entrance to each of the maze's 32 universes. But, once you find the crystals, there's no time off for good behaviour. Using the laser on the front of your jet-suit, you must zap the crystal to activate it.

But don't panic and fritter away your ammo on any old crystal, 'cos each has its own function.

One will beam you to another part of the maze, one will transport you to the entrance of a nearby universe and the other will reveal a robot part, which must be zapped three times to render it harmless. This done, your score rockets, leaving you oodles of time to pursue your mission.

But, take heed! The robot must be collected in the correct order — from feet to Mask. If you collect the wrong bit at the wrong time, you'll lose a life. A pretty nerdish thing to do since you've only got three to play around with. But, still, it's worth risking one life just to give yourself a little more time.

I, Of The Mask takes a bit of getting into but, once you've got the hang of it, you'll be hooked. And don't waste time gawping at Sandy White's amazing 3D graphics — time's in short supply!

Graphics
Playability
Value for Money
Addictiveness
8

TOMAHAWK

Digital Integration/£9.95

Rachael It's been a long time since *Fighter Pilot* — the revolutionary flight simulator from Digital Integration that revived a whole genre by giving the opportunity of killing things. Well now it's the turn of the helicopter pilot to take off from the comfort of his own living room and keep the Western World free from whichever menace owns the bases, tanks, guns and other choppers that take pot shots at you.

Ignoring the militarism for a moment, this is a real treat for those of you who've only ever flown Cessnas with your Spectrum before. You won't believe how hi-tech the helicopter of today is. What with the chips that keep the nose level and the ones that tell you where the next target is, flying time before you arrive, when the pubs open . . . well, there's the equivalent of a couple of ZX81s here making flying a doddle.

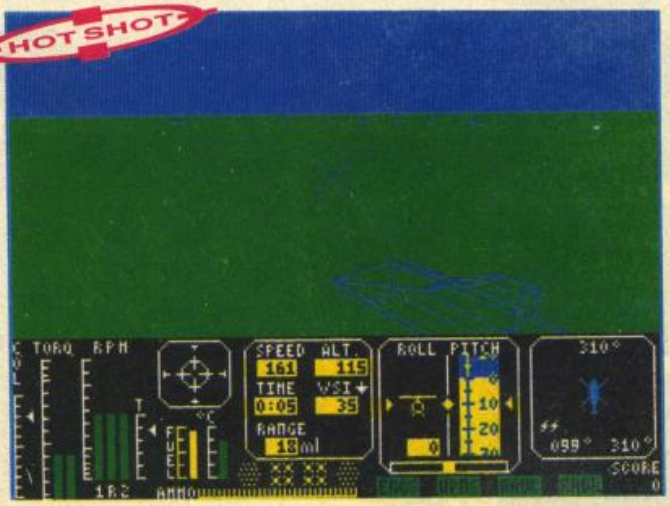
I really enjoyed road-testing this machine, swooping low around the smooth 3D vector graphics of the landscape, clipping the tree tops, swerving among the mountain peaks. But Uncle Sam has a mission for me so it's out of practice mode, a quick look at the map, and I align my heading with the target radar dot — just time to check up on the combat mode before we encounter Ivan!

It should come as no surprise that you've hardly been short changed on weaponry. I was spoilt for choice between guns and missiles but finally plumped for a rocket to take out their field gun. After all, I could hardly keep them waiting while I hovered around making up my mind! Tilt nose down, target and fire. A satisfying explosion blows them into a thousand pixels and it's onto the next base.Of course I was on Trainee rating, flying without crosswinds, by day, but one day it'll be a force nine gale with only infra-red sights and then I'll deserve the Ace rating. Clint Eastwood, watch out.

Yes, it looks like D.I. has done it again — I got a real kick out of *Tomahawk*. My only quibble was the Lenslock security system that it's using. It's like something dreamt up by the MoD to protect official secrets, and I'm sure *Tomahawk* isn't that accurate!

Graphics
Playability
Value for Money
Addictiveness
9

HOT SHOT



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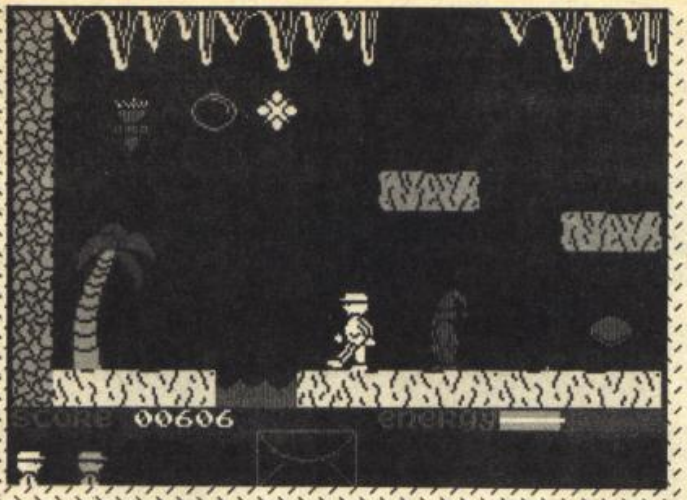
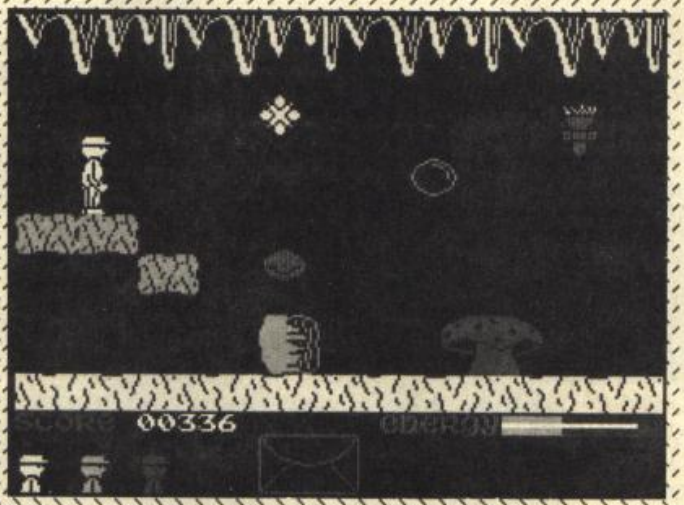
ROBOT MESSIAH





Alphabatim

Sue Reliable information from *Robot Messiah*'s creators let me in on the fact that there are three stages to this game, unfortunately, intense investigation has only led to finding two stages — but what stages they are!

First sight of the game and it became apparent that *Jet Set Willy* and the Ultimate series of games were the major inspiration. But that's not such a bad thing, especially when you see what the programmers have done to improve the on-screen graphics. In true Ultimate-style the nasties — a *Prisoner*-like bubble, flashing stars and blinking eyes — appear out of the ether and follow set patterns around the screen, hoping to drain your energy. You do have a weapon that can destroy the nasties, but don't bother trying to use it on the mad professor sprite — just run for your life!

You play the part of Sid, who looks like a character straight out of pigeon fanciers club — all cloth cap and the like. His task is to leap around the various platforms on-screen in search of three computer programs that he must carry back to a computer terminal. Sid is a splendid sprite, but the true joy is when he jumps — it is by far the best movement on-screen that's been seen yet on the Spectrum.

You can pick up various objects to help you with your mission, but only three can be held at any one time. Of the two stages seen — you travel between stage one and two in a car — both are similar in content — you leap around the gaily-patterned platforms, picking up food, searching for the computer programs and keeping a wary eye out for the nasties.

Play is easy — you can boot up *Robot Messiah* and have fun straight away. The storyline has been kept to a minimum and is largely irrelevant, which means you don't have to keep referring to the cassette inlay card every time you want to do something.

Overall, *Robot Messiah* is a great game — with colourful and clear graphics, superb on-screen movement and a goodly selection of caverns to map out.

Graphics 9
Playability
Value for Money
Addictiveness

SPACE FIREBIRDS

Insight/£7.95

Rachael No relation to either Firebird Software (unless it's a by-product of *Don't Buy This*) nor *Star Birds*, this is a recreation of an old arcade machine. A very competent recreation — but also a very old machine.

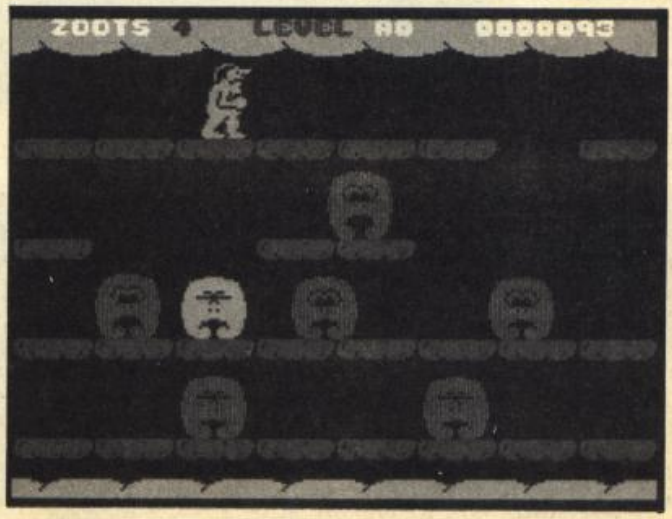
And it came to pass that *Space Invaders* begat *Galaxians* and *Galaxians* sort of begat *Space Firebirds*, who swoop around in various Red Arrows style flight patterns, dropping what the instructions say are bombs, though we all know what birds usually drop!

For protection your titchy little ship has got an umbrella . . . no, a cannon and a faulty warp which operates once only as and when it feels like it, wiping out everything you encounter in your race for the top. So you blast away at the birds shoot out the odd mega-bomb for bonus points, and finally take multiple pot-shots at the big red bird that swoops in at the end. All of which is so simple on the two easier levels that you'll soon be in a High Score Table that took umbrage to my name and crashed. The two higher levels are for speed freaks only!

So, the high scorers will love it, as will nostalgia buffs, and even I'd play it for a hour or two of brainless pleasure but for one thing — £7.95 is an awful lot of ten pees down the arcade. At this price it's strictly for the birds!

Graphics 6
Playability
Value for Money
Addictiveness

ZOOT



Bug-Byte/£2.95

Sue Zoot's an ugly little sprite. But he's a darling compared to the horrors that he finds in the sewers on his search for his missing marbles(!).

With four lives, Zoot starts off punching out his opponents — a selection of ghoulies and ghosties with silly names — but, on the second screen, he has to trap each of the ghosts on a separate ledge. Points are awarded throughout the game but it's the missing marbles that Zoot is really after. It's all very confusing, and extremely frustrating ... but it does have you screaming for more.

The program boasts 234 screens, but you'll be lucky to get past the fourth — so you may never find out if the company is making exaggerated claims or not!

Zoot is a very simple platform game — but one that's very addictive and a lot of fun. Shame it's made much too confusing by introducing a silly plot-line that really has little to do with the on-screen action.

Graphics 7
Playability
Value for Money
Addictiveness

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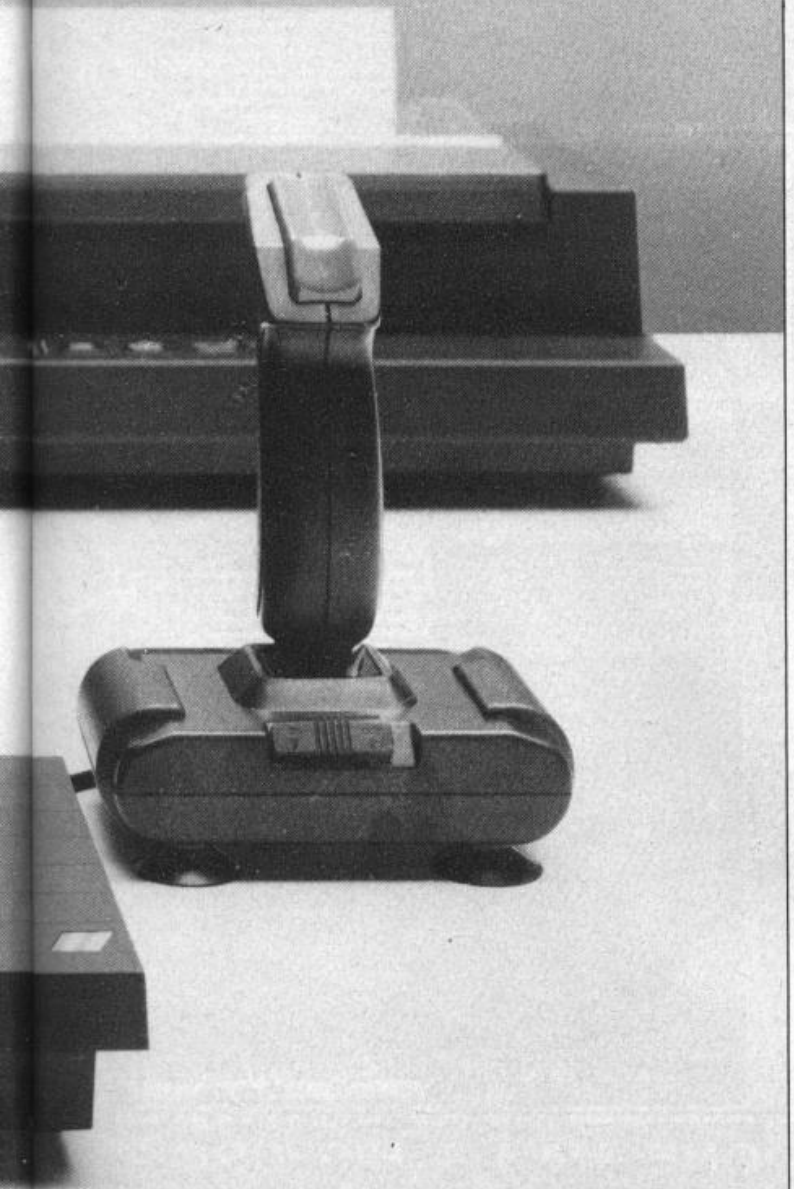

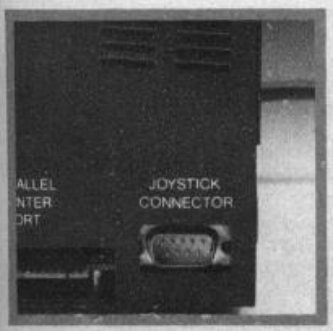

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GYROSCOPE

Melbourne House/£8.95

Alison If you get your kicks from those fairground rides that have you reaching for the nearest brown paper bag, then Melbourne House has got a treat for you. 'Cos, with *Gyroscope*, those nauseous thrills have been transported to your Speccy.

It all sounds very easy — guide a giddy gyrating gyroscope across 20 screens — just five courses of four screens.

But don't be fooled! The gyro's got a will of its own and you'll need to be quick witted if you're to stop it falling off an edge or hitting an alien, while manoeuvring steep slopes, slippery glass or directional magnets. Gulp! Pass that paper bag . . .

In fact, I really thought I had it cracked after belting through the first course, but it's all downhill — literally! — after that. Shame you can't pick a course at random to get a bit of practice on those stickier screens.

Melbourne House says a surprise awaits at the end of the game— getting to the end of the game would be surprise enough for me!

Gyroscope, with its stunning 3D graphics will have you hooked — especially if you're a devotee of *Marbles Madness*, its arcade twin. But remember to keep a bottle of aspirin by your side . . .

Graphics
Playability
Value for Money
Addictiveness
8

THE SHADOW OF THE UNICORN

Mikro-Gen/£14.95

Steve Psss! Hey, kid, wanna buy a game? Not any old game, you understand — this one gives you a fancy set of fins that bolt on the back of your Spectrum. That not only means a whole 16K more to splash around in — but a joystick port as well.

But what of the game? *Shadow of the Unicorn* is an arcade adventure, rather in the vein of the excellent *Lords of Midnight*. The goal is to rescue the lands of Ocofal and Falfarn from evil.

Of course, baddies abound in the game and each character has different powers to deal with the assorted nasties. The ones that you're most likely to meet in the early stages are small hideously misshapen dwarves. These are easily zapped by the magician, but for the likes of Gail the best strategy is to leg it.

There's a mountain more to this game — and many a player will spend happy hours wandering across the extra 16Ks of peaks and deserts.

Graphics
Playability
Value for Money
Addictiveness
7

VECTRON

Insight/£7.95

Sue Insight's *Vectron*'s not a game for the faint-hearted. I'd only recommend it to those of you with fingers that move like lightning and whose quick reactions haven't been dulled by playing too many adventure games.

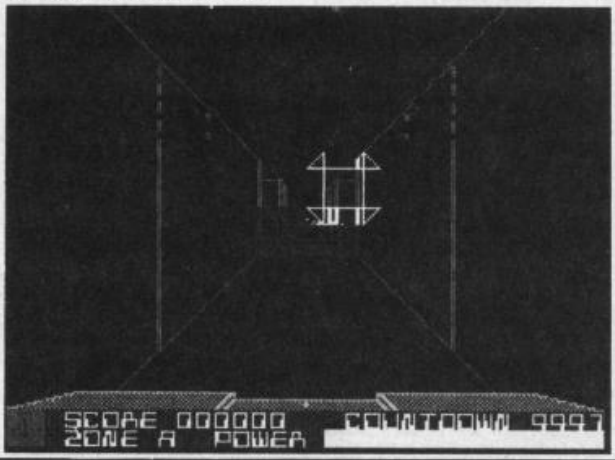
Inside a massive computer, you control a fighting machine and it's your task to manoeuvre around a maze of corridors, blasting plasma bolts at the various nasties you find there. Movement around the corridors is conducted at a terrifying pace — it's an exhausting process lining up one of the enemy Randomizers or Tanx in your on-screen sights in time to blast it to smithereens. More likely, you'll find that you've bumped the fighting machine into a wall at the end of the corridor and you're careering off in the opposite direction!

To help you, there's the option to view the whole affair from above — by pressing one of the keys from the 'B' key to the Space bar — but this can be just as confusing as you can see the on-screen map from above superimposed over the view out of your fighting machine. The map depicts the Randomizers in red, the Tanx in magenta, the energy units in cyan, and your fighting machine in white — and try taking that lot in when you're shooting around the maze at what seems much faster than any sensible speed limit! The idea is that once you get near to one of the enemy, you quickly switch to the normal screen and zap them with your plasma blasters.

For those with the faith that you can get past the first stage — by destroying all the alien nasties — there are three more stages that look just as tricky as the first, especially if you have an aversion to killer robots, fireballs and all sorts of other traumas.

Overall, a great idea for a game, but it may prove to be just a little bit difficult to play. Still, if you reckon yourself as a hot arcade games player, *Vectron* might be the one you've been waiting for — if this doesn't keep you quiet trying to finish all four stages, then nothing will!

Graphics
Playability
Value for Money
Addictiveness
6



ONE MAN & HIS DROID

Mastertronic/£1.99

Steve Fancy a job as an intergalactic shepherd? — this is your game. Just round up the Ramboids and drive them into a teleport. But you've only got twenty minutes to complete this tricky task. As you probably know, Rambos, sorry! Ramboids — are particularly stupid animals and you'll need megapersuasion to make them behave. Old hands at Mastertronic games will know that the plot often bears little resemblance to the surreal puzzle that sits on your TV screen, but, heck, they're great fun.

For starters your droid has to struggle through a horde of advancing Ramboids. It's a bit like driving the wrong way down a rush hour one-way street!

Any flush of success from scrapping your way to the teleport chamber is soon dissipated by the mediocrity of making the crittur behave. Only for those with a quiet temperament

Graphics
Playability
Value for Money
Addictiveness
6

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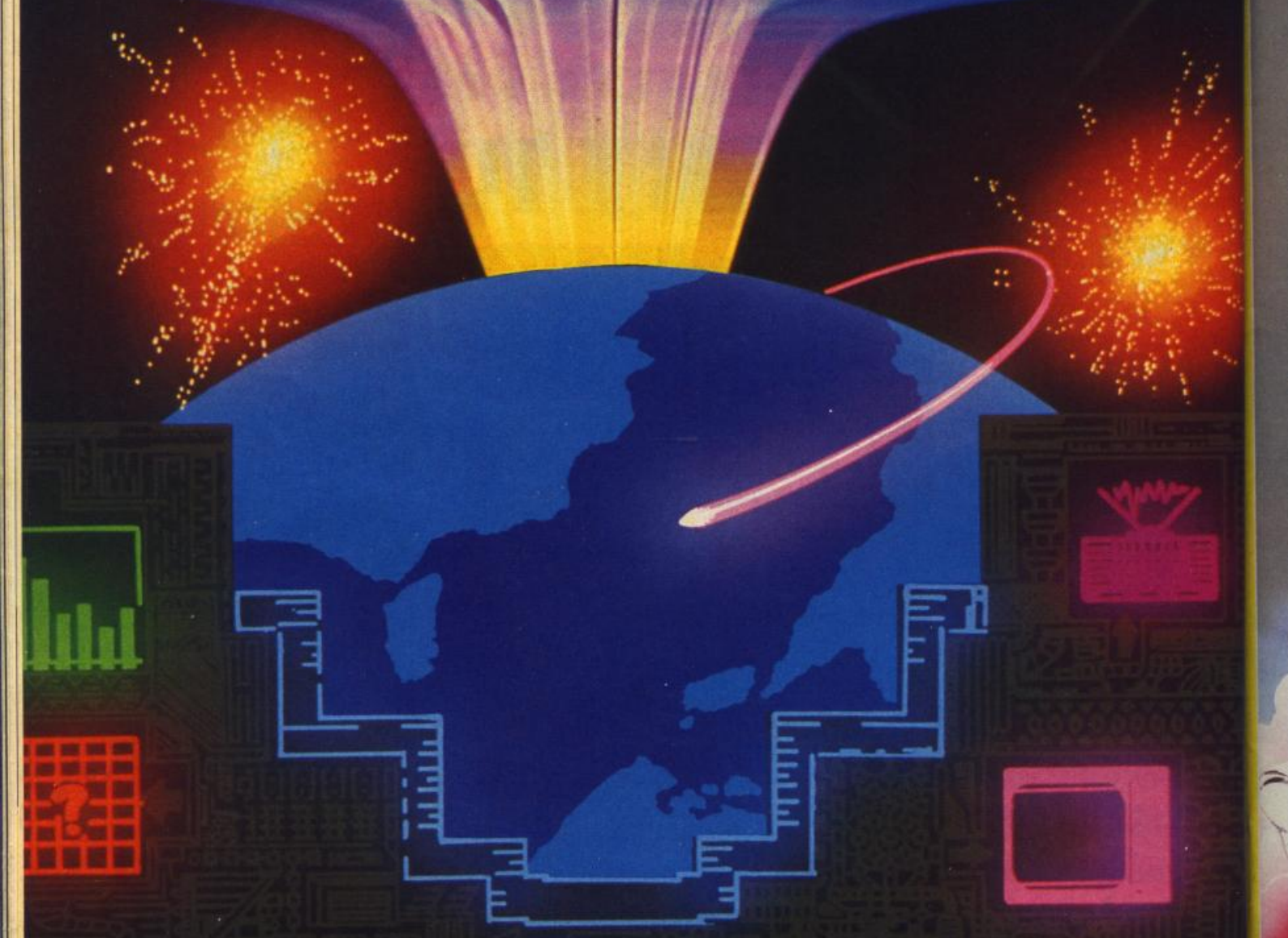

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THUNDERBIRDS

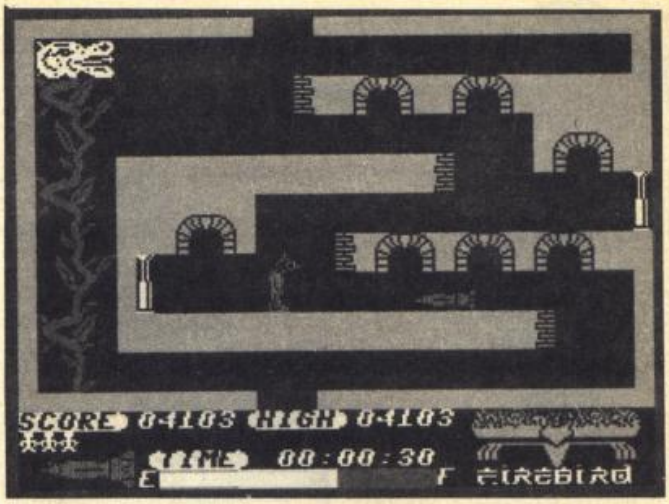
Firebird/£8.95

Rick Thunderbirds are Go! But not in the form Firebird (any relation?) have naughtily notched up in a lazy maze based on the puppet show that had no strings attached. Of course, I'm not old enough to remember the original, but the Ed tells me they've got the logo, the music and even Thunderbird One taking off from under the pool dead right. But after that it wouldn't raise a F.A.B from Parker, m'lady.

Back on earth Thunderbirds 1 and 2, flown by Scott and Virgil, have to rescue two Egyptologists trapped beneath a pyramid with air running out. Both ships have to be flown in concert around the maze to rescue the asphyxiated archeologists — using the loaded gear to overcome obstacles or pick up treasure.

The maze is made trickier by different blocks dropping fore and aft of your access. Instead of making the game more interesting, though, they basically slow the whole thing down.

Graphics
Playability
Value for Money
Addictiveness
6

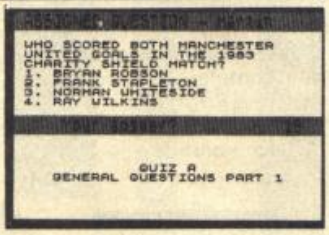


ROTHMANS FOOTBALL QUIZ

Cassell/£8.95

Rick How can it fail? With a picture of Reidy on the box, this game's bound for glory! But can even this compensate for all our resistance to quiz computer games? On the other hand, until the Beeb does a deal this might be the nearest you'll get to soccer on a TV screen.

The loading screen doesn't help the image of dumb footballers by having them totally faceless. Is it just coincidence they're all in quasi Arsenal strip? But of course the pleasure of games like this isn't in the power of the pixels or the groovy graphics. This really is a game for football freaks . . . and there are still some of us out here you know. Mind you, there's enough quiz thrill in-built to keep the non-Association afficionados interested.



There are four quiz options. Assigned questions, three in a row, the race and the full quiz combining all elements. There's also a bonus system — so much barmy key bashing can go on. But be sure you've the correct answers. Ten points deducted for an own goal if you get it wrong!

The print is clear and the response swift, explanations full — and they'll often include clues to the more arcane questions. Answers are multiple choice so intelligent guessing can count for a lot. The only minor quibble is the program is so long you can waste a lot of time on the re-wind button desperately seeking soccer questions on one of the eighteen available subjects. These are pleasantly varied — from League (Scottish and English) through to European and World and even Non-League. The emphasis is on contemporary soccer, not a lot of stuff pre-'80. What it won't tell you is who are the eleven players whose surnames ending in 'y' played for England between '67 and '81 . . .

Graphics
Playability
Value for Money
Addictiveness
7

CHIMERA

Firebird/£3.99

Steve Your first puzzle in this game is to decipher the instructions. What d'you reckon this means? "Each priming mechanism requires the completion of a multistage disablement of Artifacts (DDA) sequence." So, now you know, eh! Luckily, you'll find more comprehensible blurb once the game starts.

And quite a game it is too! It's along the lines of *Alien 8*, both in appearance and gameplay. You control a little robot that wanders around the three dimensional objects in each of the rooms collecting useful items as he goes. You'll also have to steer well clear of the more awkward rooms where the nasties are holed up. There's radiation in them there rooms!

If you should fall foul of the radioactivity your food and drink supply starts to dry up — and carrying objects has the same effect. You can read all about it on your status message line. Luckily, there are extra supplies of grub for you to pick up, dotted around the maze.

Chimera looks as attractive as its Ultimate predecessors, though, maybe it's not quite as inventive. The only thing I missed out on was not being able to jump around. But at this price who am I to complain? Go out and buy it — it's a cracker!

Graphics
Playability
Value for Money
Addictiveness
8

ENDURANCE

CRL/£7.95

Rick On yer bikes, you leather lovers — CRL's new motorcycling simulation is a beaut for bikers with brains. It's not, as you might think, a high adrenalin arcade but a stolid strategy puzzle — more akin to *Football Manager* than *Pole Position*.

Quite simply (ah! if only it was!) you have to prepare your two superbikes to compete and win a motorcycling endurance race that varies between six and twenty four hours in length. A complete season comprises seven races, all requiring different skills, each with five different levels ranging from trainee to expert. So this is one cunning cassette you won't have sussed in a week.

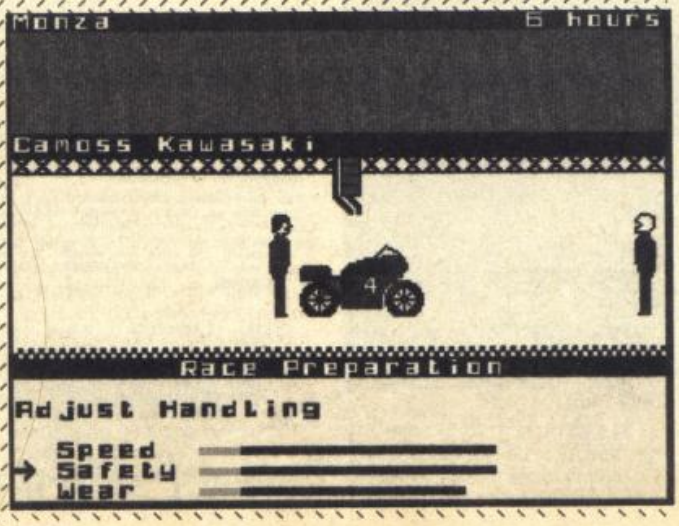
The real skills are off, not on the track, then. No frantic joystick juggling here, indeed, so swiftly do the Supers zoom by, you'd be hard pressed to see what's going on. But don't worry, race order is shown in front of the grandstand. Then you'll know if you managed the right engine tune, handling and tyres.

Variations exist once the race is running. Weather conditions change, accidents happen and pit stops occur through choice or fate.

Although these stops aren't as frenetic as the real thing the sight of little men whipping off your wheels or cowling whilst away the winter nights.

With no obvious loopholes (though no imaginative leaps either) the game, like the graphics, is functional not thrilling but a solid buy all the same.

Graphics
Playability
Value for Money
Addictiveness
8



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  as:
  10 FOR n=1 TO 10
  PRINT n
  NEXT n
- KEYWORDS can all be entered by typing them in full, or by the "single entry" method, or both in the same line; e.g. the line:
  10print"hello":if x=1 THEN goto 100 will be recognised and listed normally.
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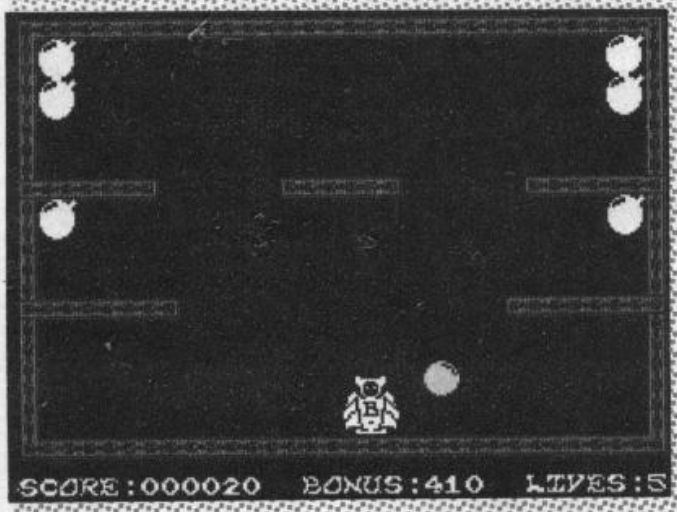


BOMBER BOB IN PENTAGON CAPERS

BugByte/£2.95

Steve Quick! Kaptain Kleptor's hidden a whole stack of bombs in the Pentagon, and it's up to our gallant hero to defuse 'em.

The explosive action takes place in one of those a-maze-ing room games that we all know and love — well, I do anyway! You'll find the bombs tucked away in awkward nooks and crannies so get searching. But keep a sharp eye open for the usual collection of sentinels bouncing around, ranging from diamonds to spacemen looking like extras from *JSW II*.

On the face of it, the rooms look a doodle but hang on a sec, there's a slight problem. Our hero, all togged up in his super-hero suit (*A sort of bomber jacket? Ed*), has a terrible tendency to bomb around the screen — that's why he's called Bomber! Off he goes crashing into every meanie that moves and a helluva lot that don't. So, Bomber, lovable as he is, needs a firm hand on the joystick.

True, the game contains nothing you won't have seen before but I still found *Bomber Bob* great fun. One to pass a boring afternoon when the bomb drops!

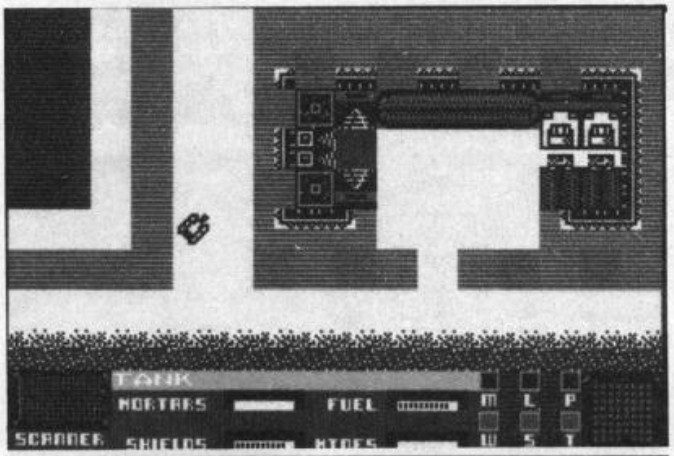
Graphics
Playability
Value for Money
Addictiveness
7

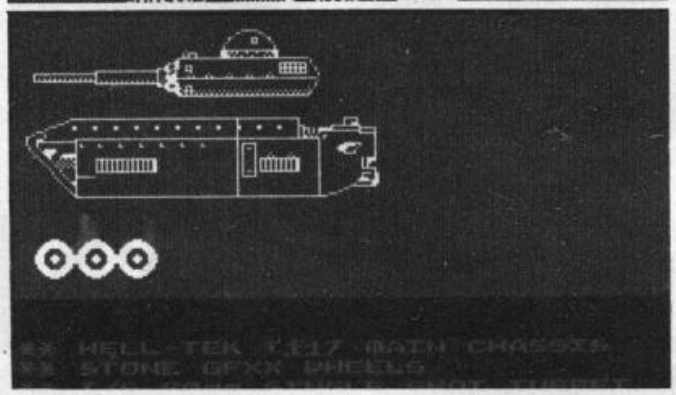
Ariolasoft/£7.95

Rachael I'd like to say tanks for the memory but I can't remember if I've seen this in the arcades or not. It's not the sort of game I'd give my ROM 'ell for, but even if wandering round labyrinthine streets isn't totally a-maze-ing there could be enough nasty shocks to scare the panz off you.

A tank game written by those wacky persons The RamJam Corporation, best known for *Valkyrie 17*, would hardly be expected to clone *Tank Battle*. No namby pamby 3D graphics or planet surface shoot 'em ups for RamJam. Instead a bird's eye view of the holiday island of Panzadrome where happy little two tracks go to blast the scenery, each other . . . and just about everything else.

Gunning for a good time you take your Panza out for a spin but compared with the beach bullies you're a mere pansy — a veritable C5 of a vehicle. Still, the island is well equipped with garages just waiting to re-equip you with mortars, mines, mend your shields and replenish your Polycrete, a building material made from dead parrots and used to repair road damage.





Actually procuring the Polycrete is your first aim because until then any enemies you wreck in narrow streets leave uncrossable craters. Run into one at either end of the alley and you're a sitting panther for the dreaded red tanks whose mortars'll make you just another brick in the wall. Never mined (yes, you'll need to collect those too, to leave your own calling cards) if you get to grow up into a big tank you too can hurl shells long range instead of only packing a punch in the clinches. Meanwhile your scanner warns you of impending encounters with the exploding cow pats.

That's not to mention the automatic gun towers, so I won't. After all, if you knew about them it may put you off mapping *Panzadrome*, and until you've done that and found your first garage your game of hide and seek through the narrow streets is distinctly nervy. It's a novel variation on maze games with some simple but neat graphics and lots of destroy.

Graphics
Playability
Value for Money
Addictiveness
7

XCEL

Program Techniques/£7.95

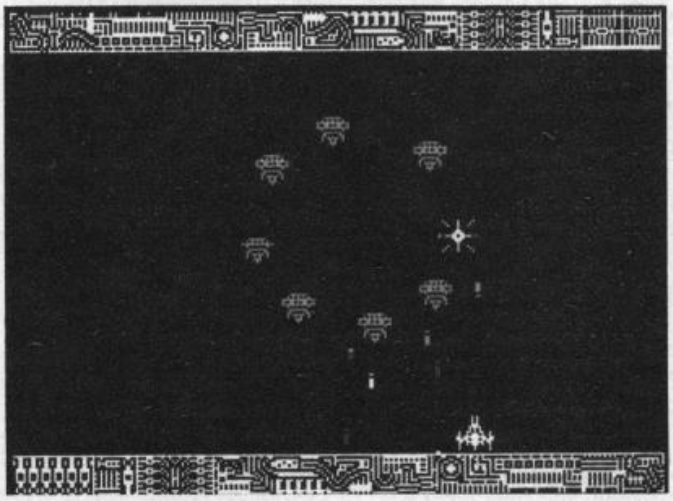
Steve Ain't it always the same? Every time you go to load up a new game there's someone looking over your shoulder. This time, he said to me wistfully, "You know what I'd really like to see is a souped-up version of *Galaxians*." I'd only been playing *Xcel* for a matter of moments when he started jumping up'n'down yelling, "That's it, that's it!"

But first the story so far — it seems that the Sentinels have muscled in on our galaxy and it's your job to muscle 'em back out again by destroying their thirty or so planets.

The game initially looks like an *Elite* clone. There you are orbiting a planet with the option of choosing your next destination. But pressing the fire button sends you off into a *Xaivor*-type game — just dodge the obstacles and shoot the aliens. Okay, I suppose, but it's a bit slow though never fear it's just for openers.

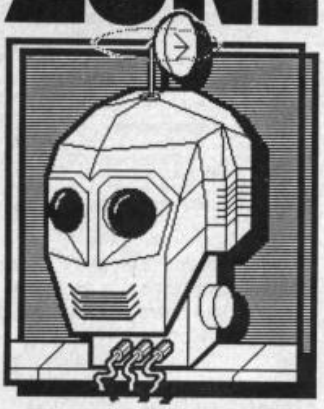
Next comes the bit when my mate had to be sedated. And for once the programmer's taken trouble over movements and formations. He's taken his cue from all those old westerns — the aliens form up into a circle. Tricky!

The graphics didn't quite live up to their original promise but you won't have time to take in the scenery as you're locked into a life-and-death shoot'em up! A treat for arcade addicts.



Graphics
Playability
Value for Money
Addictiveness
8

HACK FREE ZONE



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Buzzzzzz... Click! Errr. Hi There! Bzzzt. Pppttt. Toing! Ouch! Hi There! God, I hate waking up, don't you? I'm in a good mood today. No, really I am. Pete has fixed my plug and my circuits are buzzing with life — not to mention my mailbox buzzing with mail. Y'know, its people like you who make a young computer generated columnist like me very happy.

Hey, how d'you like the new spread? Puh-retty bozzy, huh? I told you, my little potato, that I could wind dear old Ed round my littlest tentacle, and so here I am. Ta-dah! The Big Time!

Gosh. What's this? Do my optical pickups deceive me? (Give 'em a quick polish, Pete, there's a good lad.) A letter from **Keith Gronneberg** *of Scalloway, Shetland. (Y'know that I'm a bit of a young Scalloway m'self) He says* **"I've completed *Fairlight* — I think! I found the key, which I presumed was for the Castle gate, and walked into the gate. I was then told that I'd failed in my quest, the Wizard is free, the quest continues in *A Trail of Darkness (Fairlight II* presumably). The man from The Edge told me I *could* be successful in my quest, so I must battle on.**

"Anyway, here are some tips to help others get at least as far as I've got. (Hopefully no further!)

Collect the two stoppered bottles mentioned in the article Gothic Horrors, *Your Spectrum* 20, but don't use them to increase your life force as it says there — you cannot complete the game without them. Take the Crown standing on the top of the pillared doorway over the drawbridge. In the caved area, using the crown, you should find a secret room. Here you'll find the dead King and a book The Book of Light? Oh no, this is a very clever deception. Slide the body off the platform. The platform is divided in three, slide off the nearest section from right to left and jump inside. You fall into a room containing the real Book of Light!"

What happens next? Hah! You'll have to wait till next time to find out. Oh yes you will! (Oh no we won't) Look here mate, this isn't a school Panto, you'll wait when I say so.

Bryan Charlewood *(aka Harry the Halfling) sent me this note about* Avalon.

"Jerry Tattum's letter *Your Spectrum 19* was virtually useless to newcomers to *Avalon*, so I've sent you these tips.

"To find the Cup (chalice) go to the Goblin Warrens and find the unopenable door. Use the Open spell from under the sack in the mines, and enter. Take the Reveal spell from the skeleton's ribs and open the right hand door. Use the Reveal spell to find the Cup. It's in the middle of the wall around the top.

"Next the sword Caliburn. Find the lady's picture on the Labyrinth Level (from the spell Message) then go to the door on her left then on to the Scorpion room. Missile it, and use the find spell from the same level."

Voila! (pro. Waller!)

Now, Yours Unpokingly (shouldn't that be POKElessly?) **Matthew Davies** *of Blackpool, Lancs.*

"I have just one tip for Mikro-Gen's *Dummy Run*. To get to Lost and Found, get the tennis racket and go into the room on the 4th Floor. You must play like Breakout and get all the blocks away then the Glove will drop. Then go to the 1st Floor and get to the Glove room, jump at the middle of the door and you're in Lost and Found!" *Voila II!* **"I haven't managed to switch on the elevator yet."** *Any clues, you guys? Or gels — no sexism in this column.*

Yours skilfully (!) **Jonathon Leach** *of Sidmouth, Devon has this to say about PSS's* The Covenant.

"I completed this great game on the 8th of July..." *What kept you?* **"... after three days of solid playing. I was rewarded with a box of goodies from PSS worth fifty quid, for being the second person to complete the game. Here goes with my tips:**

Number one: Use the Save facility.
Number two: Practice makes perfect when controlling the globe.
Number three: Energy points that look a bit like shining lamps drain away your energy, whilst energy points that look like round canisters on four legs replenish your energy.

Just for the record, I scored 65464 points. The scroll when complete reads 'Then and now, All as one, Xaviours task, Will be done.' Once completed I was met with the message 'Xaviour Triumphs!' "

Wait! Hold everything! Nobody move! You sent me your tips, and you told me your Hi-scores... but you didn't send me a piccy of yourself. If you had, you could be one of Hex's Heroes. If having your name in print isn't enough for you, then this could be your chance to plant your mush on my illustrious column. There's something big brewing and I'm not telling you what it is... yet. Stay tuned. Ok, you can carry on reading now. Fffffrrrp, zzt!

Okay, all you carbon based folks out there, get weaving. I want to see your name on the Hex's Heroes Chart (the only chart that matters!) next month. Type, write, telex, carrier pigeon, message in a bottle (Yo-yo-yo), paper aeroplane, I don't care. I want your hints'n'tips! You know my address. There's no time to lose. Be in on the biggest pool of arcade intelligence since... the Pacific Ocean!

I'm waiting.

(Click! Bzzzzzzzzzzzzzz...)

LOADS MORE HEX!

Now's the time to switch on to Hex. But if he's to be switched on again next month, you're gonna have to send him your arcade tricks'n' tactics. Okay, so he'll probably pass them off as all his own work but he is a megastar. Write to him at Hack Free Zone, Your Sinclair, 14 Rathbone Place, London W1P 1DE.

HEX'S HEROES

Phhhhzzzttttt.... Hi again! Now's the time to introduce my fab fave games players of the month. Firstly we have Scott Donaldson from Hamilton in Scotland. Scott's been working really hard on Frankie. *But then he needed to to end up with a score of 83,250! Following Scott, there's weirdo Jonathan Meller (I have a feeling Jonathan would prefer to stay anonymous!), who's been playing* Nodes Of Yesod *and come up with a score of 39%. Pretty good Jonathan, so why are you too ashamed to flash your fizog? Anyway, last but not least on this list of Hex's Heros is Valetin Kressler from far-off (far out?) Switzerland. Hmmm, do they have electricity over there? Well, Valetin seems to have plugged in, 'cos he's got a score of 198710 in* Daley Thompson's Supertest. *Well done my little Hexophiles!*

Scott Donaldson
Frankie/83250

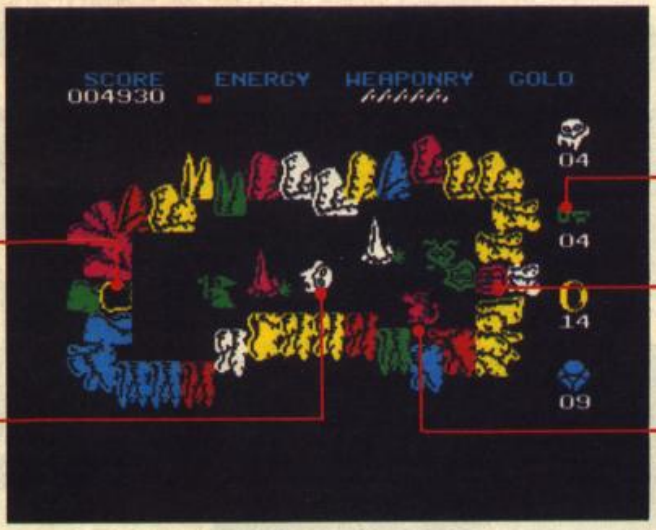
Jonathan Meller
Nodes of Yesod/39%

Valetin Kressler
DT's Supertest/198710

ILLUSTRATION: IAN McKINNELL

WIZARD'S LAIR

Tips supplied by John O'Connor, Cheshire.



A good ploy when entering a new room is to pause the game right away. This allows you to survey the territory at your leisure, without being hassled. Snee-key!

Spell scrolls shouldn't be collected unless you have some gold to transform into 'keys'. Don't waste them. You can always remember where they are and come back to them. Good reason to make a map, eh?

Watch carefully where the animals come from. There may be a secret passage in the room. Some passages may surprise you, by being fronted by fireplaces, and cabinets and the like.

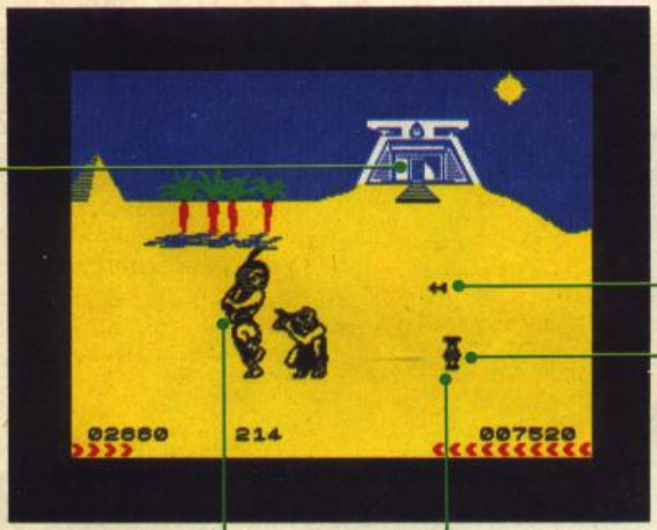
Crosses allow you to walk across the snakes without coppin' it. Just make sure you don't get topped before you make it to the snake, as you'll be unprotected. Crikey!

Don't shoot animals — they prevent your energy decreasing. The only exception is the hooded monks, and axe-wielding homicidal knights. They'll kill you with one swipe.

FIGHTING WARRIOR

Hints 'n' tips sent in by Alan Charles of West Yorkshire.

The backgrounds give you a clue as to how far into the game you are. They go like this: start screen, desert, desert, Cleopatra's Needle, desert, desert, Cleopatra's Needle. On the second needle scene, an extra vase appears, bigger than the rest. Strike it and the temple door appears. Once inside you must fight to the death with a winged creature, who's defending the Princess. Make sure you've got lots of stamina though, 'cos every strike *you* make will cost you a point. To release her you must strike her bandages with an upper cut. Then she's all yours.



Arrows are a real pain in the neck. And the groin and the knee... But don't bother about 'em too much as they'll only strike once whereas the enemy may get two in while you take avoiding action. The only time this doesn't apply is when you have the protection of a shield spell from vase five. Avoid them at all costs or lose the spell.

If you're having trouble getting to the vase you want, walk backwards until the current vase disappears off the right of the screen and another appears. This'll be the next vase so go for it before the enemy cuts you down. By walking back and forth, you'll make s-l-o-w progress....

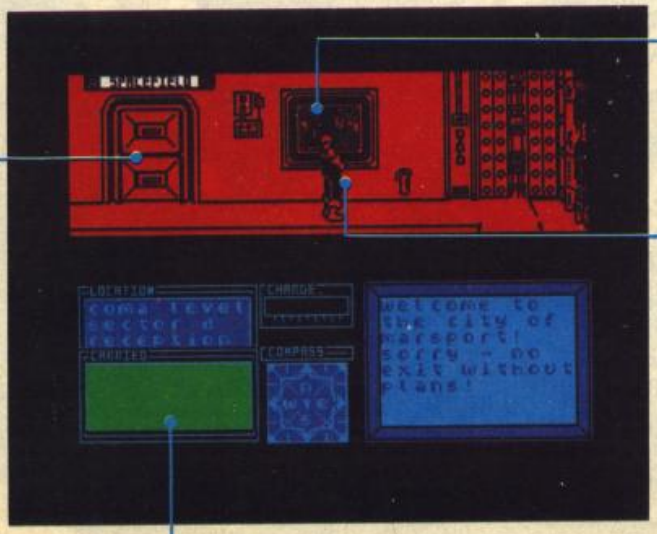
Always go for the mid-strike when you're attacking the current enemy — it seems to take less time than the other strokes on offer. Yep, it makes your fingers hurt but hang in there. The real key to the game is persistence.

Vases are magic objects in this world. Smash them and you'll get a variety of effects. Numbers two, three, five, six and seven bode well but the others can be bad news. So, keep a count and go for the good ones.

MARSPORT

Intelligence comes from James Winnard, Normanby, Cleveland.

● To open the Bakery, you must put water, flour, and a baking tin into the factor. The resultant cake must then be placed in the key slot. (Urgh!)



To get past the gas bomb, make a gasmask in the factor by putting charcoal and a gauze in it. You may leave the finished gasmask in a locker until you need it.

When you've cleared the area of Sept Warriors, you can use the auto feature (key 4) to search round for you, saving wear 'n' tear on the old fingertips. Just toggle it off when you come to an interesting doorway, or locker.

Pssst! Hey, buddy. If you want a piece of top secret intelligence, the *first* key to M-Central is in the director's room on Alba level. It's not easy to get there, but it's handy to know this in advance.

It's essential that you arm yourself as soon as possible, unless you're a very fast runner. The Sept Warriors will tear you to bits in two shakes of a tentacle. Get the gun permit out of the supply locker on Elis level, put in the key slot on Daly level, and pick up your gun from the locker to your left. Put it into a charge point to power it up, or you won't get anywhere. Happy Zapping!

● Ah, the music room! No tunes here, until you place the cornet from the ice cream room into the waiting key slot.

There's never been a better reason for looking forward to Winter!

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GHOST IN THE MACHINE

PHOTO: TONY SLEEP

Y S S P E A K E A S Y

What does the name David Crane *mean to you? How about* Pitfall? *Or* Space Shuttle? *And, of course, there's always* Ghostbusters. Alison Hjul *was ushered in to his (ghostly) presence to meet the man behind the machine code . . .*

David Crane's not your average programmer. Firstly, he doesn't even look like a computer programmer. You know the stereotype — young spotty and scrawny due to devotion to his Speccy beyond the call of nature. Well, Crane's even older than the Ed (gasp!), hairy and very, very big — 6 ft 6" in his trainers.

Secondly, as Activision's foremost 'games designer', he turns his rather large nose up at the 'programmer' tag. Since he joined Activision as a founder member in 1981, more than six million of his titles have been sold worldwide. *Ghostbusters* has notched up over 100,000 UK sales on the Speccy alone.

He paid a fleeting visit to the UK at the end of October, to attend the British launch of his latest creation, *The Little Computer People,* which should be available on the Speccy sometime soon.

Okay, so you're called a 'games designer' — but isn't that just a fancy way of saying you're a programmer?
No, it's not. Anyway, I'm really a 'generalist'. I come up with the ideas, design the game and get involved in the programming. But it's really all down to teamwork. I head a team of technical people who're the best in the industry. A real good game requires good team concept — there's a lot of mutual respect.

Your games are all bestsellers, but how do you suss out what's going to be a megahit?
We play a lot of games as games designers. We know what people are playing today, why they're enjoying them. We must design games people will enjoy a year from now. For example, when the market was flooded with space games, I did *Pitfall.* People obviously wanted it, it's been incredibly successful. Basically, I watch what other people are doing — and try to do something different.

Do you personally research all your games?
When I was doing *Ghostbusters, I* spent a lot of time on research. I got hold of a video of the film and watched parts of it over and over again. Real spooky.

Didn't you get bored with the film?
No, I loved it.

How did you get involved in *Ghostbusters?*
Columbia and Activision approached one another to see how the film might lend itself to a good computer game. Discussions were underway before I got involved. When I was asked if I'd like to do *Ghostbusters,* I'd just seen the movie the night before so I went back the next day to see it again. I wanted to see how an original game might be designed based on the film.

Who's your favourite character in *Ghostbusters?*
The Marshmallow man . . . no, not really. I don't think I have one — I just like the interaction between all the characters.

Do you believe in ghosts?
I don't actively believe in ghosts, although people have reported seeing them. I think there may be little computer ghosts.

Are you obsessed with little people because you're so tall?
No, it's not because I'm so tall . . . I never really thought of it like that.

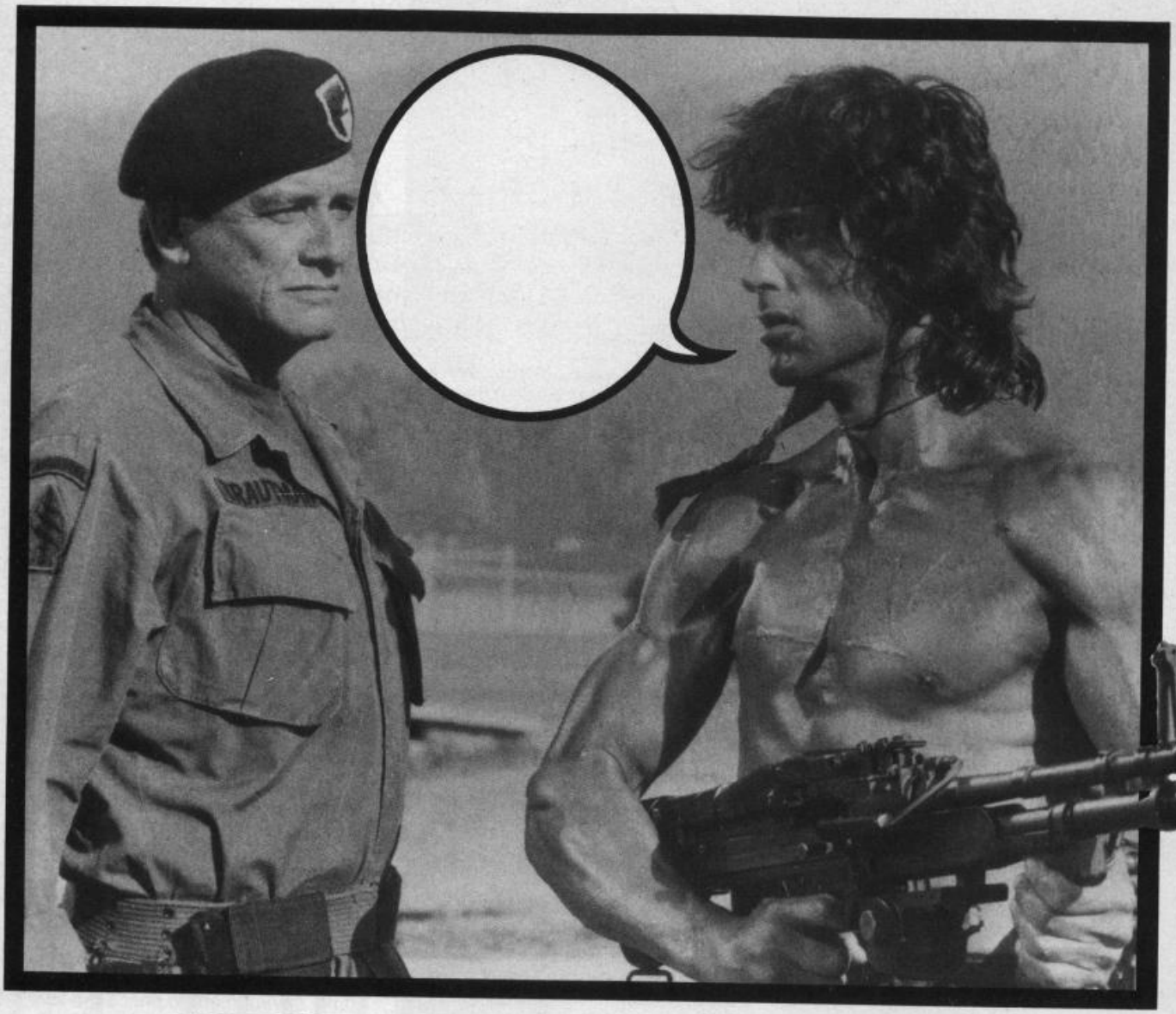
About a year ago my research team and I decided that little people inside computers were to blame for unexplained hardware and software performance. We decided to design a comfy environment to entice the little people out. The result was a 2 ½ storey house where the little people go about their daily business, eating, sleeping, listening to music and playing the piano. Each little person has a name and is slightly different to the next, but all share basic traits such as responding to love and attention — a pat on the head works wonders!

Isn't it all a bit daft?
Heck no. Back in the States there's a woman who bought three extra Commodore 64s just so her whole family could each have their own little person.

Hmmm, buying Commie 64s in the first place sounds a bit daft to me! Have you got any favourite little person? And is it true that some of them are transvestites?
Well, Wallace and I had a good time, and Zeke baked cookies once. As for the transvestites, I've never met one, but I guess there's all kinds living in these computers.

What are your plans for the future?
Nothing at the moment. I've just finished this one so I'm taking time off at the moment. I tend to limp along and then something suddenly hits me and an idea comes.

Are you a trainspotter?
What's one of them?



RAMBOCOMPO

If only Rambo had the power of speech. Just what is he trying to tell us? If you know, tell us and you could win one of ten snazzy sweatshirts or a copy of his new game. We've got 50 to give away! Read on...

You know it's that time of the year when you wake up and find Jack Frost's autograph on the window pane and icicles hanging from Grandma's nose. When Dad brings out that poor excuse for a Christmas tree and Mum starts complaining that the local newsagent is already selling Cadbury's cream eggs.

Yup, it's winter again, so it's a wonder that shirtless ol' Johnny Rambo here doesn't catch his death. What he needs is a nice warm 100 per cent cotton, mega-thick American sweatshirt with the Ocean logo emblazened across his left nipple.

Funnily enough, we just happen to have ten of these Rambo-cosies tucked away within the confines of Castle Rathbone. And what's more we're gonna give you lot the chance to win one — that's if we can prise off the five the Ed's wearing. Even if you're not lucky enough to win a stylish winter-warmer, you can still pass the Yuletide hols with one of the fifty runners-up prizes. You guessed it, they just happen to be copies of the racy *Rambo* game from Ocean. Faberoonies!

All you have to do to get your frost-bitten paws on one of these groovy prizes is come up with a caption most fitting to the posing Sylvester 'bulging biceps' Stallone. Fill in the speech bubble, clip out the coupon (or a photocopy) and send it off to Rambo 'Can-he-say-anything-but-urrgh-anyway?' Compo, *Your Sinclair*, 14 Rathbone Place, London W1P 1DE

RAMBO RULES OK

- *Entries should reach us by no later than January 31st 1986.*
- *Each entry must include your caption written inside the grunt bubble.*
- *The Editor's decision is final so no correspondence will be entered into — well, he's not much better at writing than Rambo!*

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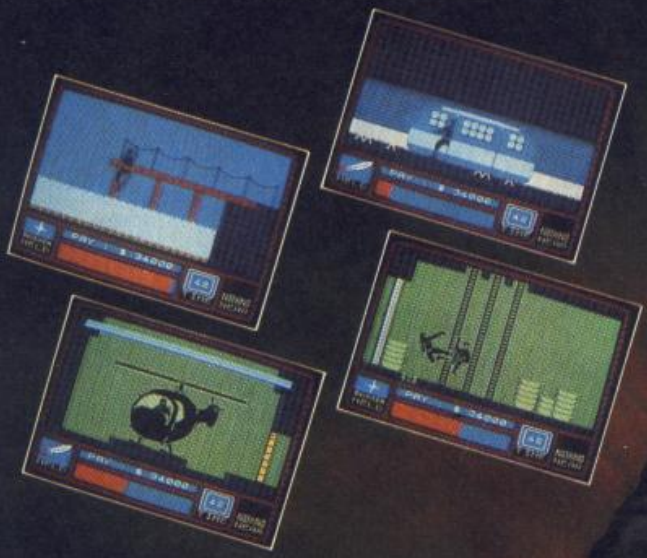
SABOTEUR!



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SPECIAL PREVIEW

COMMANDO
SOLDIER OF FORTUNE

Simon Forman *journeys north to join the Elite where he encounters their crack troops putting the finishing touches to* Commando, *the arcade megahit. Under intense interrogation, they crack and reveal all he wants to know. Shoot,* Simon . . .

If I had to lay bets on the number one game this Christmas, I'd put the big money on *Commando*. What's more, I don't reckon I'd be out of pocket come the New Year. Just take a look at the form. *Commando* has been the top game in the arcades all this year, way outstripping last year's hot hit, *Track And Field* — and you all know the number ones *that* spawned. Yep, for all of you looking for some frenzied action on the fire button, this is gonna be the game.

At the start of the game, you're set down behind enemy lines — your mission, to storm the opposition's stronghold single-handed. It's been done in the movies but can you do it in real life? You're just one man faced with the fury and fire-power of a whole army of enemy storm-troopers

WHO DARES WINS

The first part of the game is divided into four sections. Take a look at the map and you'll see the sort of terrain you're up against in each of them.

When — or perhaps that should be *if* — you make it past the guards, through the trees, round the mortars, in and out of the cliffs, under the bridge to the wall at the end of the first part, you can breathe a sigh of relief — but it'll probably be your last. Within soldiers fired with the single-minded intention of wiping you off the face of the

There are snipers carefully positioned at each of the windows. You can't kill them so your best bet to avoid their bullets is to stay out of range at the bottom of the screen.

To flush out the enemy, lob a couple of grenades through the ground floor windows. That'll get the enemy out into the open where you can deal with them. As soon as you've mopped them all up, you're into the enemy's stronghold. Once you've made it into the fortress the program takes over. You'll see flames appear from the windows and then your chopper will reappear and take you onto your next, more difficult mission.

Hidden behind the boulders are enemy snipers. When you flush them out they have the sneaky trick of running backwards blasting away with the bullets.

The enemy is everywhere. Steer well clear of the trucks and jeeps as they're packed to the gunnels with soldiers. As soon as you come close, they pile out the back and start the attack.

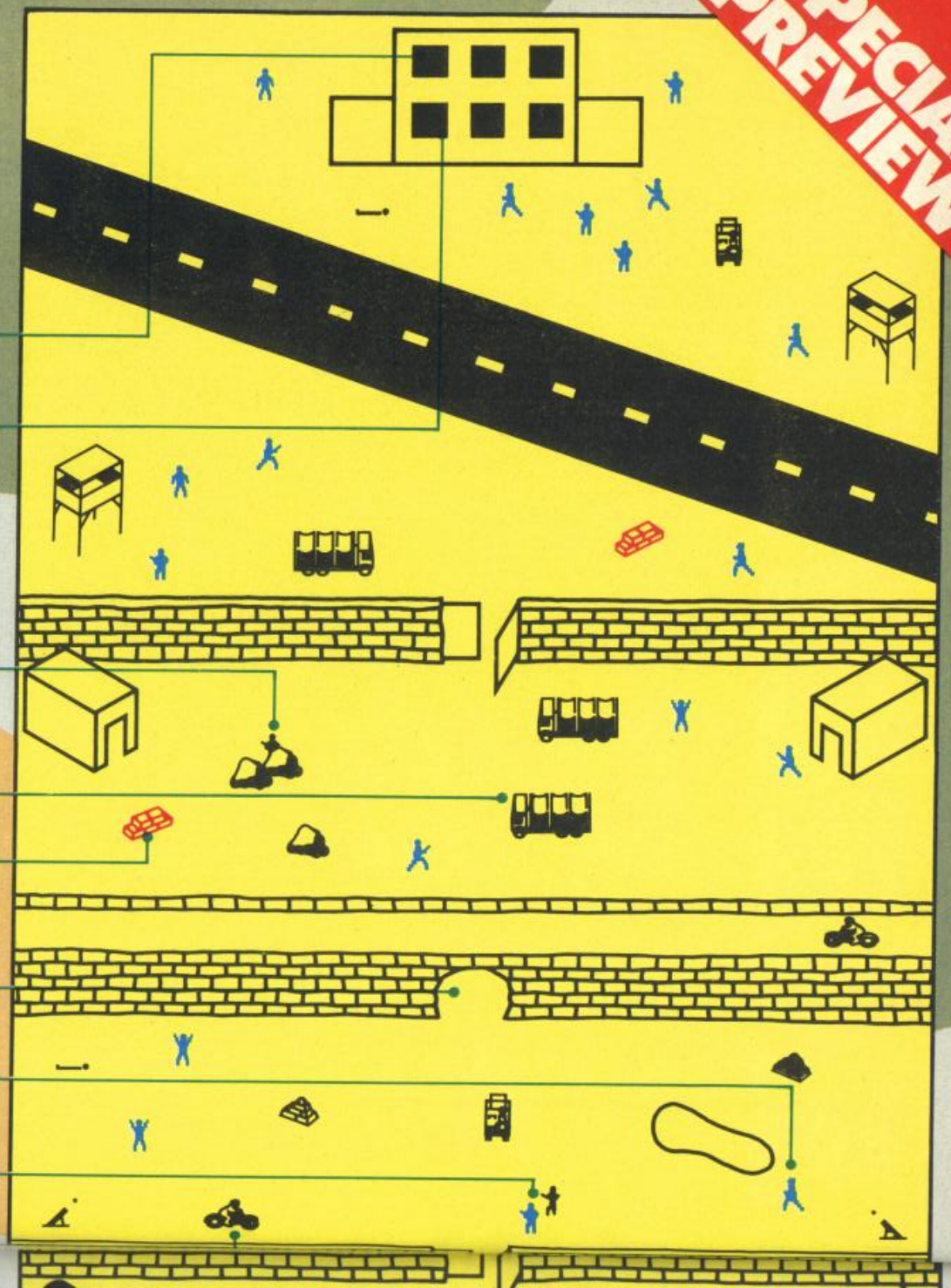
When you've run out of grenades, you're restricted to blasting away with the machine gun. Still, you can replenish your armoury by searching out these strategically placed grenade boxes.

Time your passage under the bridge with great care. You not only have to worry about the machine gun mowing you down but the motorcyclists lob grenades at you from up above.

As soon as you get close to the mortars, you'll find the men manning the guns turn tail and run. But they're not unarmed so you'll have to watch out for more gun fire.

You only have two weapons at your disposal — grenades and a machine gun. You start with only six grenades but fortunately you've unlimited fire power.

Beware the manic motorcyclists. There's road. Given the chance they'll run you down.



relief — but it'll probably be your last. Within seconds the whole area is swarming with soldiers fired with the single-minded intention of wiping you off the face of the earth. Only if you kill them, can you take a break on the other side of the wall. But it's not long before you'll be in the thick of it again in the next section.

A bridge too far for Commando

STATE OF SIEGE

Now you've done your impression of Johnny Rambo on the rampage and reached the final frame, it's time to try out some real SAS tactics. Lay siege to the enemy's stronghold, taking care to avoid the snipers, before single-handedly storming the building. As soon as you see the flames shooting out of the windows, you'll know that you've made it as a fully-fledged crack commando.

But although you've won the battle, the war is by no means over. The chopper that dropped you into the thick of the battle at the beginning, now picks you up again — only to deposit you in the middle of more mayhem. The second time around, the landscape is subtly different but the action is even hotter — and that means you'll come face to face with even greater numbers of enemy grenadiers.

DAWN RAID

When I visited Elite's offices in Walsall for a sneak preview of *Commando*, the game was only days away from completion. There was still some doubt about whether the programmers would have enough memory to squeeze in the helicopter. But the rest was more or less there. And the game is as exact a copy of the arcade original as it's possible to get on the Speccy. And so it should be, 'cos the programmers are copying straight from an arcade machine in the office — when they can drag themselves away from playing it!

Beware the manic motorcyclists. There's no following the highway code on this road. Given the chance they'll run you down.

Here's the top brass leading from the back as usual. As soon as you get close to their HQ, the generals make a mad dash for safety. They're not armed but they'll run you down if you get in their way. Kill one and you'll notch up a whacking 2000 points.

These are the cavemen. But there's nothing prehistoric about them — they have all the latest weapons. In fact, they fire off the rounds more quickly than the average foot-soldier, plus they can nip in and out of the caves for protection.

If you're quick you can save a fellow countryman — and gain yourself some extra points. Shoot the guards on either side of the hostage and he'll go free.

There's no shifting the soldiers holed up here. The only way to deal with the enemy in the foxholes is to use your grenades — so make sure you've found a plentiful supply.

It's no good trying to hide behind boulders. The enemy'll soon have you sussed and send in the grenadiers. It only takes one direct hit from a grenade and bang goes another life.

Now the enemy's bringing on the big guns. Luckily, it's not too difficult to dodge the mortar fire provided you don't run slap bang into an ambush elsewhere.

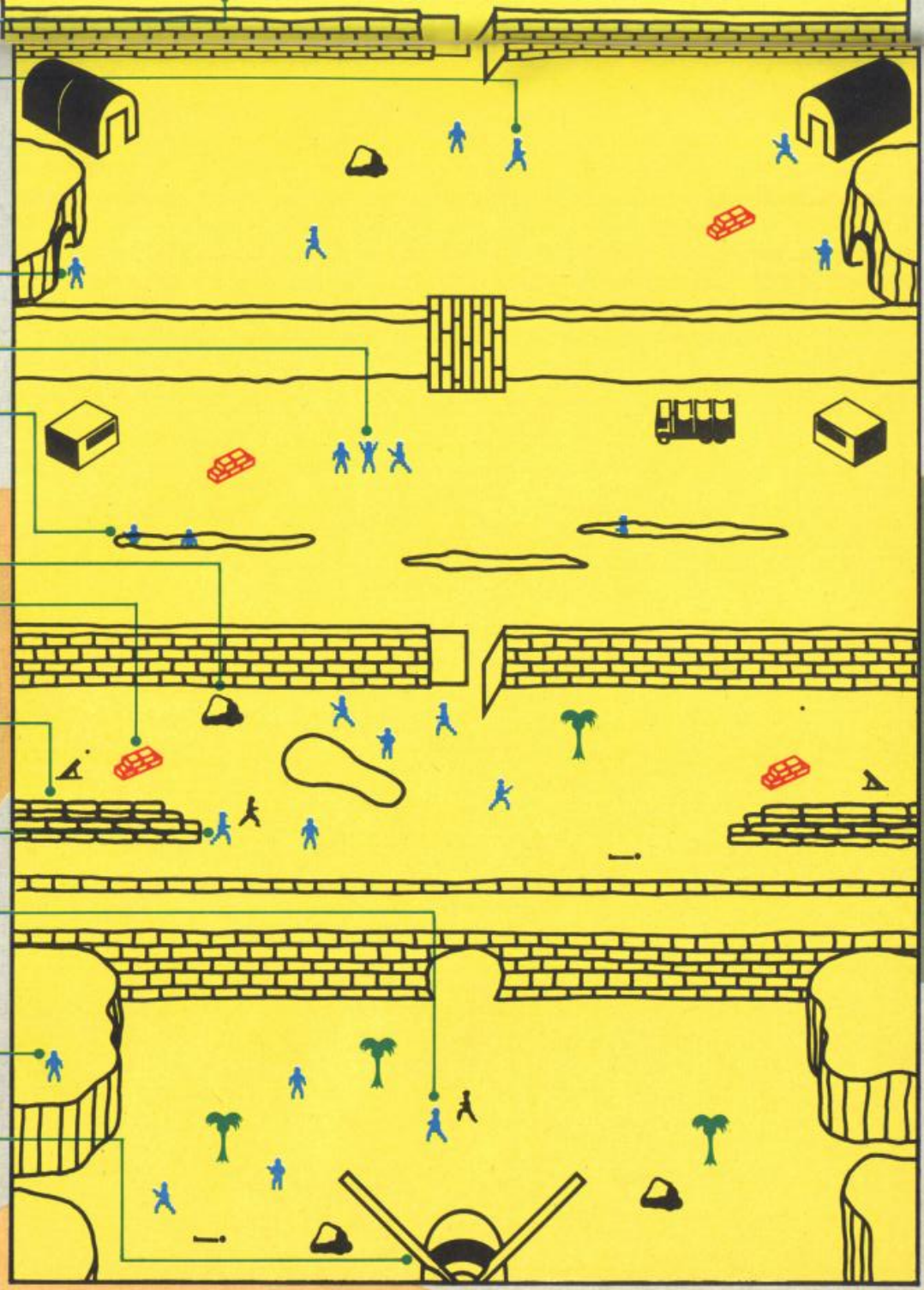
You can't shoot through the sandbags so once again you must dig into your reserves of grenades. If you run out, take extra care.

Keep on the move at all times. The enemy grenades are one hundred per cent accurate so you only have to linger for a moment and you're a gonner.

You'll start out with five lives and, boy, are you gonna need them. when you reach 10,000 points you'll be rewarded with an extra life but you won't receive the next one until you've clocked up another massive 50,000.

The enemy even employs some Tarzan tactics. Watch out for the soldiers who do the death-defying leap off the cliffs straight into the fray.

The helicopter drops you behind enemy lines and then you're on your own. Good luck, commando!



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unlocked by book of light
stairs to D.
Ground floor
tower B.
Concealed cross
without this the book of light is unobtainable
key
vital object
hidden door
item of food
guard
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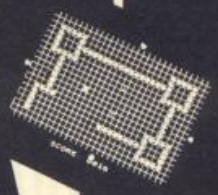


8 PAGE PULL-OUT

PACKED WITH PROGRAM POWER

OPPORTUNITY KNOCKS!

Opportunity has knocked this month for yet another brilliant programmer — and we think you'll agree that *Chopper Mission* has every chance of walking off with the number one spot as program of the year. If you're new to the mag *(Shame on you! Ed)*, let's just fill you in on the details. We're looking for the six best programs for the Speccy that are under 5K. They can be Basic or machine code, games or utilities, just so long as they reach the peak of excellence. The compo is now nearing its last knockings — next month we print the final contender so if you still want to have a crack at it, put your program in the post now.

So, who's going to do the judging then? You are! When all the programs have been printed, we'll remind you of how good each one was and ask for your votes. If you've missed out on any of the entries, you'll find them in the *Your Spectrum* back issues or on previous Digi'T'apes. Phew, just feel that tension mount!

CHOPPER MISSION

by M Rai

Prepare for take-off, chaps! This six screen 'copter game has all the makings of an arcade classic — manoeuvre round the moving barriers, dodge the alien swarms and rescue your stranded compatriots. And no we can't say it makes *Airwolf* look like Z81 Space Invaders — even if it does!

In each of the first five screens you have five men to rescue and on the sixth it's just a matter of making a safe landing on the red pad at the bottom of the screen. Simple eh? Not so fast. If you reckon this is going to be a walk over, then you've reckoned without a thing or two... or three...

You'll start out with seven 'copters and receive a bonus one, every time you complete the sixth screen. It's at this stage that you really have to hang onto your hats 'cos everything starts to speed up — and the faster your times, the higher your score.

You can define all the keys at the start of the game and you must press Enter to restart a game after a pause. Right, helmets on and give it a whirl.

The Basic Loader

Type in this loader and save it at the start of your master tape of Chopper Mission with SAVE "Chopper" LINE 1.

```
  1 CLEAR 32767
  2 POKE 23693,64: BORDER 0: CL
S
  3 PRINT AT 10,3; FLASH 1; INK
7;"CHOPPER MISSION IS LOADING"
  4 LOAD ""CODE : RANDOMIZE USR
32768
```

The Hex Loader

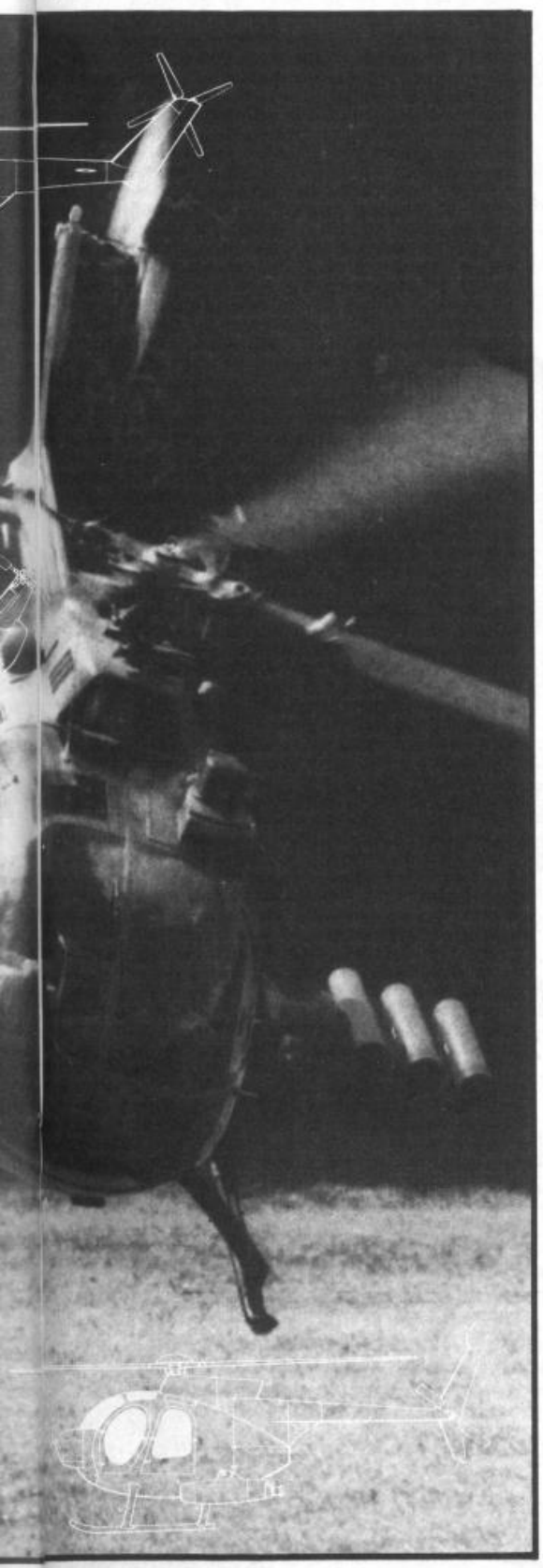
Well, look who it ain't. It's our old friend Hex Loader. Type it in and use it to enter the Hex code remembering not to leave spaces between each set of eight bytes. You may stop in the middle of a program by entering STOP (Sym+S) instead of the eight hex bytes, then enter Y to the Save Code option. This'll save the code so far. When you run the Hex loader again, enter Y to the LOAD CODE option and then enter the address from where you left off.

```
  2 CLEAR 32767
  4 POKE 23658,8
  6 INPUT "LOAD CODE (Y/N)";A$
  8 IF A$="Y" THEN  LOAD ""CODE
  10 LET ADD=32768
  12 INPUT "Address you wish to
start at? ";I
  14 LET BYTES=I-ADD
  16 LET CS=0
  18 PRINT AT 0,0;"Address:";I
  20 INPUT "8 Hex bytes ";A$
  22 IF A$="" THEN  GO TO 58
  24 IF A$(1)=" STOP " THEN  GO
TO 60
  26 IF LEN A$<>16 THEN  GO TO 5
8
  28 FOR B=1 TO 16
  30 IF (A$(B)<"0" OR A$(B)>"9")
 AND (A$(B)<"A" OR A$(B)>"F") TH
EN  GO TO 58
  32 NEXT B
  34 FOR N=0 TO 7
  36 LET Y=CODE A$(1)-48: IF Y>9
 THEN  LET Y=Y-7
  38 LET Z=CODE A$(2)-48: IF Z>9
 THEN  LET Z=Z-7
  40 LET VA=16*Y+Z: LET CS=CS+VA
  42 POKE I+N,VA
  44 PRINT AT 2,N*3;A$( TO 2)
  46 LET A$=A$(3 TO )
  48 NEXT N
  50 INPUT "CHECKSUM ";CS1
  52 PRINT AT 2,25;CS1
  54 IF CS1<>CS THEN  GO TO 58
  56 LET I=I+8: CLS : GO TO 14
  58 BEEP .1,10: PRINT AT 10,11;
"ERROR": PAUSE 50: CLS : GO TO 1
4
  60 INPUT "Save to tape (Y/N) "
;S$
  62 IF S$="Y" THEN  SAVE "code"
CODE 32768,BYTES
```

The Hex Code

'Way you go then. And as soon as the code's in, save it with SAVE "chopcode" CODE 32768,5120.

```
32768 C3 09 88 00 00 24 80 00 =504
32776 00 00 16 00 04 30 30 30 =170
32784 30 30 30 16 00 12 39 39 =298
32792 39 00 0A 00 00 00 00 00 =67
32800 00 00 00 00 00 FF 00 03 =258
32808 0C 19 31 26 00 FF 70 FC =743
32816 1E CF CF 8F 00 F8 00 00 =835
32824 00 00 81 FF FF C1 00 00 =832
32832 00 00 00 00 CF DF FF FA =935
32840 04 04 FF 00 65 FD 3F 0E =694
```



```
32848 01 01 0F 00 00 0F 00 03 =35
32856 0C 19 31 24 00 FF 50 FC =709
32864 1E CF CF 8F 00 80 00 00 =715
32872 00 00 81 FF FF C1 00 00 =832
32880 00 00 00 00 CF DF FF FA =935
32888 04 04 FF 00 67 FD 3F 0E =696
32896 01 01 0F 00 00 1F 00 00 =48
32904 00 00 81 FF 00 FF 0E 3F =716
32912 78 F3 F3 F1 00 FF 00 C0 =1294
32920 30 98 BC 64 A6 BF FC 70 =1161
32928 80 80 F0 00 F3 FB FF 5F =1340
32936 20 20 FF 00 FF 83 00 00 =705
32944 00 00 00 00 00 01 00 00 =1
32952 00 00 81 FF 00 FF 0A 3F =712
32960 78 F3 F3 F1 00 F0 00 C0 =1279
32968 30 98 BC 24 E6 BF FC 70 =1161
32976 80 80 F0 00 F3 FB FF 5F =1340
32984 20 20 FF 00 FF 83 00 00 =705
32992 00 00 00 00 1B 3E 7E 7F =342
33000 2F 57 39 5E 03 A6 FD 7B =830
33008 F7 F7 EF FF 0E BD FF F6 =1692
33016 EC D9 5C FE E5 DB 3F FE =1564
33024 E8 F0 F2 64 FF FF B7 DE =1729
33032 BF DB DC AD BF DF 7F 3F =1407
33040 1F B7 1B 0E 00 00 40 01 =320
33048 00 01 09 02 04 00 00 14 =36
33056 C6 AF F7 FE 00 00 08 20 =914
33064 C0 A8 50 FA E8 DC F8 B4 =1570
33072 C8 00 02 40 77 FB DB 6D =964
33080 DE BD 18 00 17 BA 17 0F =634
33088 07 25 03 00 DA 48 FD 89 =727
33096 01 4F 00 40 20 01 01 4F =257
33104 E0 50 20 01 01 4F 20 40 =513
33112 01 16 01 4F 3F 40 01 16 =253
33120 01 7A 21 40 09 06 1A 47 =332
33128 A3 40 05 02 01 7A 33 40 =472
33136 0C 06 1A 47 B5 40 08 02 =370
33144 01 4F 2A 40 03 08 03 4F =279
33152 2D 40 03 08 01 4F 30 40 =312
33160 03 08 01 4F CA 48 03 09 =377
33168 03 4F CD 48 03 09 01 4F =451
33176 D0 48 03 09 06 45 33 50 =498
33184 01 01 07 45 34 50 01 01 =212
33192 05 45 3D 50 01 01 04 45 =290
33200 3E 50 01 01 06 45 01 50 =300
33208 04 01 07 45 05 50 01 01 =168
33216 06 45 41 48 04 01 07 45 =293
33224 45 48 01 01 04 45 7B 48 =411
33232 04 01 05 45 7A 48 01 01 =275
33240 02 46 5C 48 01 01 02 46 =310
33248 C2 50 01 01 02 46 D8 50 =644
33256 01 01 02 46 22 48 01 01 =182
33264 02 46 AE 48 01 01 1A 45 =415
33272 CB 48 01 01 1A 45 D1 48 =653
33280 01 01 0E 07 BA 40 01 01 =275
33288 0F 07 5A 48 01 01 0C 07 =207
33296 A5 40 01 01 0F 07 25 48 =362
33304 01 01 00 21 40 2A 8A 01 =280
33312 7A 00 40 20 01 01 7A E0 =566
33320 50 20 01 01 7A 20 40 01 =333
33328 16 01 7A 3F 40 01 16 01 =296
33336 4F 26 40 19 02 01 4F 72 =402
33344 40 0D 02 01 4F BA 40 05 =414
33352 01 01 4F DA 40 03 03 01 =370
33360 4F B2 40 05 01 01 4F D2 =617
33368 40 02 01 01 4F D5 40 02 =426
33376 01 01 4F 6F 40 03 01 01 =261
33384 4F 8F 40 02 01 01 4F 66 =471
33392 40 05 02 01 4F A6 40 03 =384
33400 01 01 4F C8 40 01 01 01 =348
33408 4F C6 50 19 01 01 4F 46 =533
33416 50 03 04 01 4F 26 50 02 =287
33424 01 01 4F A9 50 08 01 01 =340
33432 4F 8B 50 06 01 01 4F 2E =431
33440 50 02 03 01 4F B3 50 0C =436
33448 01 01 4F 3A 50 03 04 01 =227
33456 4F 9D 50 02 01 01 4F 94 =547
33464 50 04 01 01 4F 35 50 02 =300
33472 03 02 46 C3 50 01 01 02 =354
33480 46 07 50 01 01 02 46 15 =252
33488 50 01 01 02 46 1C 50 01 =263
33496 01 02 46 70 50 01 01 10 =283
33504 46 81 40 01 01 11 46 85 =485
33512 40 01 01 0E 46 6E 40 01 =325
33520 01 0F 46 0E 50 01 01 10 =198
33528 46 81 50 01 01 11 46 85 =501
33536 50 01 01 00 C1 40 63 8A =576
33544 01 57 00 40 20 01 01 4D =263
33552 20 40 20 05 01 4D C0 40 =467
33560 01 0C 01 4D DF 40 01 0C =391
33568 01 4D 40 50 05 06 01 4D =311
33576 E5 50 1B 01 01 4D 48 50 =567
33584 18 01 01 4D 7E 50 02 02 =313
33592 01 4D BF 50 01 02 01 4D =430
33600 32 48 03 01 01 4D B6 48 =458
33608 03 01 02 44 22 50 01 01 =190
33616 02 44 DE 50 01 01 02 44 =444
33624 13 48 01 01 02 44 97 48 =396
33632 01 01 02 44 3C 50 01 01 =214
33640 10 46 01 50 01 01 11 46 =256
```

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33648 1E 50 01 01 0E 46 C5 40 =457
33656 01 01 0F 46 E5 48 01 01 =390
33664 0E 46 DA 40 01 01 0F 46 =453
33672 FA 48 01 01 00 81 40 8A =655
33680 8A 01 7A 00 40 20 02 01 =360
33688 7A 40 40 01 16 01 7A 5F =491
33696 40 01 16 01 7A C1 50 1E =513
33704 02 01 7A 4B 50 0A 04 01 =295
33712 7A 41 50 02 04 01 7A 5D =489
33720 50 02 04 01 6D DA 40 01 =479
33728 01 07 45 63 50 01 01 05 =263
33736 45 9C 50 01 01 10 45 01 =393
33744 50 01 01 11 45 1E 50 01 =279
33752 01 11 45 0E 50 01 01 10 =199
33760 45 11 50 01 01 01 6D 0F =293
33768 50 02 01 04 45 2F 48 02 =277
33776 01 05 45 2E 48 01 01 07 =202
33784 45 31 48 01 01 02 47 A7 =432
33792 50 01 01 02 47 B6 50 01 =418
33800 01 02 47 F0 48 01 01 02 =390
33808 47 0F 48 01 01 02 47 BA =419
33816 40 01 01 00 27 50 C9 8A =524
33824 01 4F 00 40 20 02 01 4F =258
33832 53 40 0D 01 01 4F 7E 40 =431
33840 02 14 01 4F E0 50 20 01 =439
33848 01 4F 60 50 01 04 01 4F =341
33856 C0 48 19 05 01 4F 71 48 =559
33864 08 03 01 4F 40 48 01 04 =232
33872 01 4F 40 40 04 08 01 4F =300
33880 A4 40 05 05 01 4F E9 40 =615
33888 01 01 1A 46 24 48 01 01 =208
33896 0E 07 64 50 01 01 0F 07 =225
33904 C4 50 01 01 10 07 F9 48 =622
33912 01 01 11 07 FD 48 01 01 =353
33920 0E 07 49 40 01 01 0F 07 =182
33928 C9 40 01 01 07 45 29 48 =456
33936 01 01 02 44 C1 50 01 01 =347
33944 02 44 55 48 01 01 02 44 =299
33952 AD 48 01 01 02 44 A1 48 =550
33960 01 01 02 44 84 40 01 01 =270
33968 00 5A 40 FC 8A 01 4F 00 =624
33976 40 20 01 01 4F 20 40 02 =275
33984 17 01 4F 3E 40 02 17 01 =255
33992 4F E2 50 1C 01 01 4F 25 =531
34000 50 19 02 01 4F 62 48 14 =377
34008 03 12 46 8F 48 01 01 01 =309
34016 4F C9 40 0B 02 01 4F D6 =651
34024 40 08 02 05 45 C8 40 01 =413
34032 01 0E 44 39 40 01 01 0F =221
34040 44 B9 40 01 01 0E 44 2E =447
34048 40 01 01 0F 44 AE 40 01 =388
34056 01 0E 44 E9 40 01 01 0F =397
34064 40 49 48 01 01 10 44 96 =449
34072 48 01 01 11 44 9D 48 01 =389
34080 01 10 44 A2 50 01 01 11 =346
34088 44 BD 50 01 01 00 00 E6 =569
34096 C7 50 06 06 85 00 E6 C8 =854
34104 50 06 06 85 00 78 3C 50 =485
34112 3C 35 00 00 A0 F1 40 00 =578
34120 06 00 00 87 EB 40 00 06 =446
34128 00 00 01 00 19 00 30 DA =292
34136 40 04 00 01 00 1E 00 3C =159
34144 C5 40 03 00 03 00 1E 00 =297
34152 37 82 40 03 00 01 00 1E =283
34160 00 32 8E 40 0C 00 03 00 =271
34168 1E 00 37 B2 50 03 00 C8 =498
34176 C6 40 00 09 00 00 C8 08 =479
34184 50 09 09 05 00 FF F3 40 =665
34192 00 05 00 00 FF 73 50 05 =460
34200 05 05 00 FF F6 40 00 08 =583
34208 00 00 50 3B 48 00 07 80 =346
34216 00 03 00 3C 00 5A 02 50 =235
34224 1C 00 01 00 1E 00 32 E5 =338
34232 40 08 00 01 00 1C 00 32 =151
34240 FA 40 08 00 78 CD 40 00 =711
34248 09 80 00 82 9C 50 00 00 =503
34256 B4 D0 40 00 08 00 00 03 =463
34264 00 1E 00 32 02 50 0C 00 =174
34272 03 00 1E 00 32 12 50 0C =193
34280 00 E1 9B 50 9B 95 00 00 =764
34288 B4 64 50 6A 64 05 00 78 =691
34296 4C 40 00 0D 80 00 3C 53 =424
34304 40 00 0D 80 00 78 44 40 =457
34312 00 0E 44 40 00 6E 48 40 =392
34320 00 0E 48 40 00 B4 55 40 =479
34328 00 0E 55 40 00 64 5D 40 =420
34336 00 0E 5D 40 00 01 00 1E =202
34344 00 32 84 50 02 00 03 00 =267
34352 1C 00 32 FA 48 03 00 01 =404
34360 00 1E 00 32 69 40 03 00 =252
34368 8C BC 50 00 00 8C 52 40 =694
34376 00 07 00 00 64 78 40 00 =291
34384 07 80 00 B4 2A 48 30 2A =519
34392 05 00 BE C4 48 05 05 85 =606
34400 00 01 00 1C 00 31 59 40 =231
34408 03 00 01 00 1D 00 30 4E =159
34416 40 03 00 01 00 1E 00 32 =148
34424 09 48 02 00 03 00 1C 00 =114
34432 30 97 48 06 00 03 00 63 =379
34440 00 63 A3 50 1A 00 B4 34 =600
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CHOPPER MISSION

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34448 40 00 09 00 00 96 C7 40 =486
34456 C7 C2 00 00 FF 6F 48 03 =834
34464 03 85 00 FF AF 48 00 03 =641
34472 80 00 FF 83 48 00 07 00 =593
34480 00 FF C2 50 01 16 02 08 =562
34488 12 00 11 01 10 07 13 01 =79
34496 43 48 4F 50 50 45 52 20 =561
34504 4D 49 53 53 49 4F 4E 16 =568
34512 0B 05 11 00 10 07 27 44 =163
34520 27 20 54 4F 20 44 45 46 =473
34528 49 4E 45 20 4B 45 59 53 =568
34536 16 0E 05 27 53 27 20 54 =318
34544 4F 20 53 54 41 52 54 16 =531
34552 15 02 10 06 48 69 67 68 =429
34560 65 73 74 20 53 63 6F 72 =771
34568 65 20 30 30 30 30 30 30 =421
34576 20 62 79 20 41 41 41 16 =500
34584 00 01 53 43 3A 16 00 0D =244
34592 54 49 4D 45 3A 16 00 18 =407
34600 4C 49 56 45 53 3A 00 16 =467
34608 0A 0B 11 00 10 07 12 01 =80
34616 47 41 4D 45 20 4F 56 45 =548
34624 52 16 0B 08 11 00 10 07 =163
34632 12 00 13 01 43 4F 4E 47 =333
34640 52 41 54 55 4C 41 54 49 =614
34648 4F 4E 53 16 0A 0D 12 01 =304
34656 11 00 10 07 54 49 4D 45 =343
34664 20 55 50 16 0C 0B 12 01 =261
34672 11 00 10 07 42 4F 4E 55 =348
34680 53 20 31 30 30 30 24 25 =381
34688 1B 23 01 50 41 55 53 45 =445
34696 52 49 47 48 54 4C 45 46 =597
34704 54 20 44 4F 57 4E 20 55 =545
34712 50 20 20 20 16 0B 08 12 =235
34720 00 10 07 50 52 45 53 53 =420
34728 16 0B 14 4B 45 59 16 0B =319
34736 0E 12 01 16 02 09 10 05 =87
34744 12 00 11 00 4E 45 57 20 =301
34752 48 49 47 48 20 53 43 4F =549
34760 52 45 16 05 05 55 73 65 =484
34768 20 35 26 38 20 74 6F 20 =470
34776 73 65 6C 65 63 74 20 6C =780
34784 65 74 74 65 72 2E 16 07 =623
34792 07 30 20 74 6F 20 65 6E =557
34800 74 65 72 20 6C 65 74 74 =804
34808 65 72 2E 16 0A 0D 10 07 =329
34816 2D 2D 2D 16 0E 03 16 0A =206
34824 0D 21 FF 93 11 00 94 01 =614
34832 30 00 ED B0 AF 32 3C 5C =838
34840 CD 7B 92 11 B5 B6 01 62 =905
34848 00 CD 3C 20 CD 8E 02 7B =769
34856 FE 1E 28 07 FE 16 CA 7B =932
34864 90 18 F1 21 0D B0 06 06 =595
34872 3E 30 77 23 10 FC 3E 06 =600
34880 32 09 80 3E 01 32 19 80 =453
34888 21 16 80 06 03 36 39 23 =338
34896 10 FB CD 7B 92 CD 96 92 =1242
34904 21 24 80 22 05 80 AF 21 =572
34912 1E 80 06 07 77 23 10 FC =593
34920 ED 5B 05 80 2A 03 80 CD =839
34928 26 92 06 47 CD 02 92 CD =819
34936 DA 91 CD 96 91 21 16 80 =1046
34944 06 03 7E FE 30 20 06 23 =510
34952 10 F8 C3 21 8F 2A 1B 80 =832
34960 E9 3A 1F 80 E6 01 C2 D6 =1089
34968 8E 3A 1F 80 E6 02 C4 63 =886
34976 8F 21 22 80 34 7E FE 05 =775
34984 20 D0 36 00 01 30 00 2A =385
34992 05 80 3A 1F 80 EE 04 32 =642
35000 4F 80 CB 57 20 04 ED 42 =788
35008 18 01 09 22 05 80 21 21 =267
35016 80 34 7E FE 33 20 99 36 =850
35024 00 CD 8E 02 14 20 91 7B =669
35032 21 7E 87 BE 28 1F 23 BE =780
35040 28 54 23 BE CA 6F 89 23 =834
35048 BE CA B1 89 23 BE CC F4 =1379
35056 88 C3 68 88 CD 8E 02 7B =1043
35064 FE 21 C8 18 F7 2A 03 80 =931
35072 E5 CD 56 92 E5 06 03 C5 =1101
35080 7E FE 38 20 06 CD D4 91 =1036
35088 C1 18 0B CD F3 89 28 02 =855
35096 18 F6 23 C1 10 E9 E1 22 =1006
35104 03 80 E1 11 FF 93 CD 4B =1055
35112 92 06 03 C5 CD 40 92 23 =802
35120 C1 10 F8 C3 68 88 2A 03 =937
35128 80 E5 CD 4B 92 E5 CD 4B =1292
35136 92 06 03 C5 7E FE 38 20 =820
35144 06 CD D4 91 C1 18 0B CD =1001
35152 F3 89 28 02 18 F6 23 C1 =920
35160 10 E9 E1 22 03 80 E1 11 =881
35168 FF 93 06 03 C5 CD 40 92 =1023
35176 23 C1 10 F8 C3 68 88 2A =969
35184 03 80 E5 2B E5 06 02 C5 =837
35192 7E FE 38 20 06 CD D4 91 =1036
35200 C1 18 0D CD F3 89 28 02 =857
35208 18 F6 CD 4B 92 C1 10 E7 =1136
35216 E1 22 03 80 21 24 80 22 =621
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35232 23 23 11 FF 93 CD 40 92 =904
35240 CD 4B 92 CD 40 92 C3 68 =1140
35248 88 2A 03 80 E5 23 E5 23 =837
35256 23 06 02 C5 7E FE 38 20 =708
35264 06 CD D4 91 C1 18 0D CD =1003
35272 F3 89 28 02 18 F6 CD 4B =972
35280 92 C1 10 E7 E1 22 03 80 =976
35288 21 84 80 22 05 80 21 1F =524
35296 80 CB 96 E1 11 FF 93 CD =1330
35304 40 92 CD 4B 92 CD 40 92 =1051
35312 C3 68 88 CD C1 91 FE 00 =1232
35320 C8 CD CC 91 C9 21 2E 85 =1167
35328 CD CC 8B 21 35 85 CD CC =1176
35336 8B 21 3C 85 CD 49 8B 21 =815
35344 43 85 CD CC 8B 21 4A 85 =988
35352 CD CC 8B 21 51 85 CD C8 =1200
35360 8C 21 5A 85 CD C8 8C C3 =1136
35368 91 88 21 63 85 CD C8 8C =1091
35376 21 6C 85 CD C8 8C 21 7E =978
35384 85 CD CC 8B 21 85 85 CD =1185
35392 CC 8B 21 8C 85 CD CC 8B =1197
35400 21 93 85 CD CC 8B 21 9A =1048
35408 85 CD CC 8B 21 75 85 CD =1169
35416 C8 8C 21 A1 85 CD CC 8B =1215
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35424 C3 91 8B 21 AB 85 CD C8 =1215
35432 8C 21 B1 85 CD C8 8C 21 =1061
35440 BA 85 CD C8 8C 21 C3 85 =1225
35448 CD CC 8B 21 CA 85 CD 2C =1165
35456 8D 21 CF 85 CD 83 8D C3 =1186
35464 91 88 21 D6 85 CD C8 8C =1206
35472 21 DF 85 CD C8 8C 21 E8 =1199
35480 85 CD 49 8B 21 EF 85 CD =1160
35488 49 8B 21 F6 85 CD CC 8B =1172
35496 21 FD 85 CD CC 8B 21 04 =1004
35504 86 CD E9 8D 21 0C 86 CD =1097
35512 E9 8D 21 14 86 CD E9 8D =1140
35520 21 1C 86 CD E9 8D C3 91 =1114
35528 88 21 24 86 CD C8 8C 21 =917
35536 2D 86 CD C8 8C 21 36 86 =945
35544 CD C8 8C 21 3F 86 CD 2C =1024
35552 8D 21 44 86 CD CC 8B 21 =957
35560 4B 86 CD CC 8B 21 52 86 =1006
35568 CD 49 8B 21 59 86 CD CC =1082
35576 8B C3 91 88 21 60 86 CD =1083
35584 C8 8C 21 69 86 CD C8 8C =1157
35592 21 72 86 CD C8 8C 21 7B =982
35600 86 CD C8 8C 21 84 86 CD =1183
35608 C8 8C 21 94 86 CD 49 8B =1072
35616 21 9B 86 CD CC 8B 21 A2 =1065
35624 86 CD CC 8B 21 A9 86 CD =1223
35632 CC 8B 21 8D 86 CD 83 8D =1128
35640 21 B0 86 CD 2C 8E 21 1F =798
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35656 88 34 7E 23 BE C0 2B 36 =828
35664 00 23 23 E5 5E 23 56 D5 =727
35672 23 23 23 E5 4E EB CB 41 =915
35680 28 0E CB 51 28 03 11 FF =655
35688 93 18 11 11 6F 93 18 0C =499
35696 CB 51 28 05 11 6F 93 18 =628
35704 03 11 FF 93 CD 40 92 E5 =1066
35712 CD 71 92 36 46 E1 7D E1 =1163
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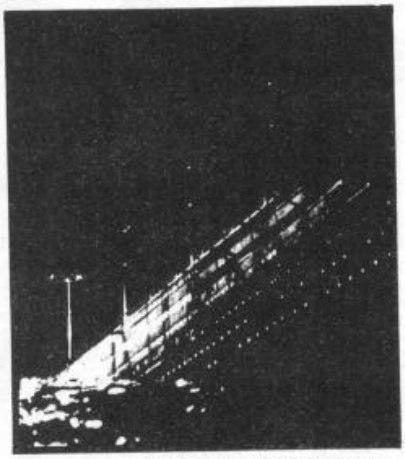
35728 18 2B 2B BE 20 09 23 23 =411
35736 CB C6 CB CE 2B 18 0A 23 =922
35744 BE 20 06 23 CB B6 CB CE =1009
35752 2B 23 CB 4E D1 28 02 E1 =835
35760 C9 CB 46 4E EB 28 0A 2D =882
35768 CB 51 20 0A CD F3 89 18 =935
35776 05 2C CB 51 20 F6 EB E1 =1071
35784 73 23 72 C9 34 7E 23 BE =868
35792 C0 2B 36 00 23 23 E5 5E =682
35800 23 56 D5 23 E5 23 23 CB =871
35808 46 4E EB C5 E5 2B 3A CB =1110
35816 79 28 11 CB 51 28 05 11 =524
35824 FF 93 18 03 11 BF 93 CD =989
35832 40 92 18 5D C5 CB 51 28 =848
35840 05 11 FF 93 18 03 11 77 =587
35848 93 CD 40 92 CD 4B 92 C1 =1181
35856 CB 51 28 05 11 87 93 18 =652
35864 03 11 7F 93 CD 40 92 18 =733
35872 38 CB 79 28 11 CB 51 28 =761
35880 05 11 BF 93 18 03 11 FF =659
35888 93 CD 40 92 18 23 C5 CB =1021
35896 51 28 05 11 87 93 18 03 =452
35904 11 7F 93 CD 40 92 CD 4B =986
35912 92 C1 CB 51 28 05 11 77 =804
35920 93 18 03 11 FF 93 CD 40 =862
35928 92 E1 CD 71 92 C1 CB 79 =1352
35936 28 04 36 46 18 08 01 20 =233
35944 00 36 45 09 36 45 E1 7E =606
35952 23 46 23 CB 4E 28 04 CB =668
35960 8E 18 18 FE 00 20 06 CB =685
35968 C6 CB CE 18 07 B8 20 04 =858
35976 CB 86 CB CE CB 4E 28 03 =1070
35984 E1 E1 C9 CB 46 56 2B 2B =1096
35992 28 1C 34 E1 CD 4B 92 CB =974
36000 52 20 1F CB 7A 28 05 CD =720
36008 F3 89 18 16 E5 CD 4B 92 =1081
36016 CD F3 89 E1 18 0C 35 E1 =1124
36024 CD 56 92 CB 52 28 03 CD =970
36032 F3 89 EB E1 73 23 72 C9 =1305
36040 34 7E FE 32 C0 36 00 23 =763
36048 CB 46 E5 D1 28 03 23 18 =813
36056 03 23 23 23 34 7E 23 BE =511
36064 C0 2B 36 00 EB 4E CB 41 =870
36072 28 04 CB 86 18 02 CB C6 =808
36080 11 05 00 19 5E 23 56 23 =297
36088 46 EB CB 41 28 0E CB 49 =903
36096 28 05 11 97 93 18 08 11 =409
36104 BF 93 18 03 11 FF 93 C5 =933
36112 D5 CB 41 C5 28 03 CD F3 =1169
36120 89 CD 40 92 C1 CB 49 28 =1061
36128 03 23 18 03 CD 4B 92 D1 =700
36136 C1 10 E4 C9 34 7E 23 BE =1041
36144 C0 2B 36 00 23 23 E5 5E =682
36152 23 56 23 E5 EB 11 FF 93 =1039
36160 CD 40 92 23 CD 40 92 2B =908
36168 EB E1 34 7E FE 17 28 04 =959
36176 EB 2D 18 13 36 00 21 7C =534
36184 50 ED 5F E6 03 28 08 47 =764
36192 C5 CD 4B 92 C1 10 F9 CD =1286
36200 F3 89 EB E1 73 23 72 EB =1339
36208 11 CF 93 CD 40 92 23 CD =1026
36216 40 92 CD 71 92 36 46 2B =841
36224 36 46 C9 34 7E 23 BE C0 =920
36232 2B 36 00 23 23 E5 5E 23 =525
36240 56 D5 23 E5 EB 11 FF 93 =1217
36248 CD 40 92 23 CD 40 92 E1 =1090
36256 D1 7E FE 00 20 07 23 23 =698
36264 CB C6 2B 18 08 23 BE 20 =733
36272 04 23 CB 86 2B 23 CB 46 =727
36280 2B 2B 28 07 34 EB CD 4B =700
36288 92 18 05 35 EB CD 56 92 =900
36296 CD F3 89 23 CD F3 89 2B =1248
36304 EB E1 73 23 72 EB 11 E7 =1207
36312 93 CD 40 92 23 CD 40 92 =1012
36320 CD 71 92 36 45 2B 36 45 =753
36328 C9 34 7E 23 BE C0 2B 36 =893
36336 00 23 23 E5 5E 23 56 23 =549
36344 E5 EB 11 FF 93 CD 40 92 =1298
36352 EB E1 34 7E 23 BE 20 0B =906
36360 2B 36 00 23 23 5E 23 56 =382
36368 EB 18 04 EB CD 4B 92 CD =1129
36376 F3 89 EB E1 73 23 72 EB =1339
36384 11 DF 93 CD 40 92 CD 71 =1120
36392 92 36 07 C9 34 7E 23 BE =811
36400 C0 2B 36 00 23 23 E5 5E =682
36408 23 56 23 7B FE C2 20 02 =761
36416 CB C6 FE D9 20 02 CB 86 =1243
36424 CB 46 28 0A D5 E1 CD 71 =1079
36432 92 36 A7 13 18 0C D5 E1 =764
36440 01 04 00 09 CD 71 92 36 =532
36448 47 1B D5 E1 E5 7E A7 28 =1098
36456 06 CD CC 91 E1 18 19 01 =835
36464 04 00 09 7E A7 28 06 CD =557
36472 CC 91 E1 18 0B E1 23 7E =995
36480 A7 28 05 21 1F 80 CB FE =861
```

```
36488 E1 73 23 72 EB CD 71 92 =1188
36496 36 68 23 36 50 23 36 50 =496
36504 23 36 50 23 36 68 C9 C5 =760
36512 D5 E5 DD E5 CD B5 03 DD =1502
36520 E1 DD E5 E1 06 01 CD 63 =1211
36528 92 E1 D1 01 1A 00 09 C1 =809
36536 10 E5 C9 06 FF 21 00 05 =745
36544 C5 7E D3 FE 23 E5 21 27 =1124
36552 00 06 01 CD 63 92 E1 C1 =875
36560 10 EE AF D3 FE C9 06 06 =1107
36568 C5 06 47 CD 02 92 2A 03 =672
36576 80 E5 11 E4 80 CD 26 92 =1119
36584 CD BB 8E E1 11 14 81 CD =1130
36592 26 92 CD BB 8E C1 10 E0 =1151
36600 21 09 80 35 FA 0A 8F 06 =632
36608 02 21 44 C5 CD 63 92 C3 =945
36616 48 88 3E 4F CD 89 92 11 =854
36624 2F 87 01 12 00 CD 3C 20 =498
36632 CD 4D 8F CD D0 90 C3 14 =1197
36640 88 06 0A C5 ED 5F E6 7D =1036
36648 CD 89 92 06 01 21 20 4E =638
36656 CD 63 92 C1 10 ED 3E 60 =1054
36664 CD 89 92 11 5B 87 01 10 =748
36672 00 CD 3C 20 CD 4D 8F CD =927
36680 D0 90 C3 14 88 06 0F C5 =921
36688 21 10 07 11 05 00 06 0E =98
36696 DD 21 01 00 CD 9F 8E C1 =954
36704 10 ED C9 21 60 00 11 01 =601
36712 00 06 30 DD 21 0A 00 CD =523
36720 9F 8E 21 1E 80 34 7E FE =924
36728 05 28 06 21 1F 80 CB 8E =588
36736 C9 06 0C C5 21 50 00 11 =546
36744 04 00 06 20 DD 21 01 00 =297
36752 CD 9F 8E C1 10 ED 3E 57 =1101
36760 CD 89 92 11 41 87 01 1A =732
36768 00 CD 3C 20 21 18 80 7E =608
36776 D6 30 A7 28 06 47 3E 01 =609
36784 CD DC 8F 2B 7E D6 30 A7 =1166
36792 28 06 47 3E 0A CD DC 8F =757
36800 2B 7E D6 30 A7 28 0D 4F =730
36808 06 0A AF 81 10 FD 47 3E =722
36816 0A CD DC 8F F1 21 19 80 =1005
36824 34 C3 48 88 E5 C5 F5 CD =1331
36832 76 91 06 01 21 1C 25 CD =573
36840 63 92 F1 C1 10 EF E1 C9 =1360
36848 11 6B 87 01 13 00 CD 3C =544
36856 20 06 64 C5 21 40 00 11 =449
36864 02 00 06 20 DD 21 01 01 =296
36872 CD 9F 8E 3E 0A CD 76 91 =1046
36880 C1 10 E8 2A 03 80 23 23 =684
36888 23 E5 CD 71 92 36 46 E1 =1077
36896 06 19 C5 E5 11 F7 93 CD =1073
36904 40 92 06 01 21 20 4E CD =565
36912 63 92 E1 11 3F 93 CD 40 =966
36920 92 E5 06 01 21 20 4E CD =730
36928 63 92 E1 C1 10 DC 21 09 =941
36936 80 34 CD 50 90 C3 43 88 =1007
36944 21 3D 85 7E D6 0A 77 21 =729
36952 44 85 7E D6 0A 77 21 A2 =865
36960 85 7E D6 0A 77 21 E9 85 =1001
36968 7E D6 14 77 21 F0 85 7E =1011
36976 D6 0A 77 21 40 86 7E D6 =914
36984 05 77 C9 CD 7B 92 11 9C =972
36992 87 01 12 00 CD 3C 20 06 =457
37000 05 21 7E 87 C5 E5 CD B4 =1110
37008 90 06 01 21 50 C3 CD 63 =763
37016 92 CD 8E 02 1C 28 FA 1D =842
37024 D5 21 96 01 11 0A 00 CD =629
37032 B5 03 D1 E1 73 23 C1 10 =977
37040 DB C3 14 88 C5 11 AE 87 =1093
37048 01 05 00 CD 3C 20 C1 21 =529
37056 7E 87 11 05 00 19 10 FD =577
37064 06 05 7E D7 23 10 FB C9 =855
37072 11 0D 80 21 0A 87 06 06 =348
37080 1A BE D8 28 02 18 05 13 =522
37088 23 10 F5 C9 CD 7B 92 11 =988
37096 B3 87 01 53 00 CD 3C 20 =695
37104 06 1A 3E 5B 90 D7 10 FA =810
37112 11 06 88 01 03 00 CD 3C =428
37120 20 06 03 21 14 87 C5 E5 =655
37128 0E 78 CD 68 91 06 01 21 =628
37136 40 1F CD 63 92 CD 8E 02 =894
37144 7B FE 04 20 10 21 1A 80 =616
37152 7E FE 01 28 E8 0E 47 CD =943
37160 68 91 35 18 DB FE 13 20 =850
37168 10 21 1A 80 7E FE 1A 28 =649
37176 D4 0E 47 CD 68 91 34 18 =827
37184 C7 FE 23 20 C8 21 1A 80 =907
37192 4E 3E 40 81 5F D7 06 01 =650
37200 21 50 C3 CD 63 92 E1 73 =1098
37208 23 C1 10 AA 21 0D 80 11 =605
37216 0A 87 01 06 00 ED B0 C9 =766
37224 E5 3A 1A 80 21 C2 59 16 =779
37232 00 5F 19 71 E1 C9 21 12 =710
37240 80 86 FE 3A 38 08 D6 0A =862
37248 77 2B 7E 3C 18 F4 77 3E =797
37256 57 32 8F 5C 11 0A 80 01 =528
37264 09 00 CD 3C 20 C9 21 20 =572
37272 80 34 7E FE 78 C0 36 00 =926
37280 21 18 80 7E 3D FE 30 30 =722
37288 08 C6 0A 77 2B 7E 3D 18 =589
37296 F4 77 3E 57 32 8F 5C 11 =814
37304 13 80 01 06 00 CD 3C 20 =451
37312 C9 AF E5 06 08 4E 81 24 =862
37320 10 FB E1 C9 E5 21 1F 80 =1114
37328 CB C6 E1 C9 21 1F 80 CB =1222
37336 CE C9 21 23 80 34 7E FE =1035
37344 1E C0 36 00 3A 1F 80 EE =731
37352 08 32 1F 80 CB 5F 28 08 =563
37360 11 00 00 21 FF 00 18 06 =335
37368 11 04 00 21 20 00 CD B5 =472
37376 03 C9 2A 03 80 CD 71 92 =841
37384 78 77 23 77 23 77 01 20 =580
37392 00 09 77 2B 77 2B 77 C9 =653
37400 CB 1C CB 1C CB 1C C9 CB =1097
37408 14 CB 14 CB 14 C9 CD 40 =936
37416 92 23 CD 40 92 23 CD 40 =900
37424 92 CD 4B 92 CD 40 92 2B =1030
37432 CD 40 92 2B CD 40 92 C9 =1074
37440 06 08 E5 1A 77 13 24 10 =459
37448 FA E1 C9 CD 1B 92 01 20 =1084
37456 00 09 CD 1F 92 C9 CD 18 =821
37464 92 01 20 00 A7 ED 42 CD =754
37472 1F 92 C9 C5 E5 01 01 00 =806
37480 A7 ED 42 20 FB E1 C1 10 =1187
37488 F2 7C 0F 0F 0F E6 03 F6 =890
37496 58 67 C9 21 00 40 01 00 =490
37504 18 75 54 1E 01 ED B0 3E =731
37512 47 21 00 58 54 1E 01 01 =308
37520 FF 02 77 ED B0 C9 3A 19 =1073
37528 80 FE 01 20 03 21 44 81 =648
37536 FE 02 20 03 21 1B 82 FE =735
37544 03 20 03 21 04 83 FE 04 =464
37552 20 03 21 8D 83 FE 05 20 =631
37560 03 21 1C 84 FE 06 20 03 =491
37568 21 B1 84 5E 23 56 ED 53 =877
37576 03 80 23 5E 23 56 ED 53 =701
37584 1B 80 23 7E A7 28 42 47 =660
37592 23 E5 11 08 00 21 2F 93 =516
37600 19 10 FD EB E1 7E 32 1D =959
37608 80 23 4E 23 46 23 C5 46 =648
37616 23 4E 23 22 07 80 E1 C5 =739
37624 E5 C5 D5 CD 40 92 E5 CD =1488
37632 71 92 3A 1D 80 77 E1 23 =853
37640 D1 C1 10 ED E1 CD 4B 92 =1306
37648 C1 0D 20 E3 2A 07 80 18 =666
37656 BA 3A 09 80 C6 30 21 2E =706
37664 87 77 3E 57 32 8F 5C 11 =705
37672 17 87 01 18 00 CD 3C 20 =480
37680 CD B2 91 CD 87 91 C9 55 =1299
37688 AA 55 AA 55 AA 55 AA 38 =991
37696 BA 54 38 10 38 28 6C 7F =673
37704 BF 7F BF 7F BF 7F BF FF =1400
37712 FF 3F F8 07 F8 00 00 FF =1076
37720 FF 7F DE 40 33 0C 00 FF =986
37728 FF FC 1F E0 1F 00 00 FF =1048
37736 FF FE 7B 02 CC 38 00 FF =1149
37744 FF 00 00 00 00 00 00 A1 =416
37752 D1 A1 D1 A1 D1 A1 D1 A1 =1480
37760 D1 A1 D1 AB D5 6A 3C 3C =1189
37768 6A D5 AB D1 A1 D1 A1 30 =1278
37776 18 0C 06 03 0C 18 30 00 =129
37784 00 81 C3 66 2C 18 10 FF =765
37792 BF DF 6E 3C 18 18 30 30 =728
37800 18 18 3C 76 FB FD FF E0 =1209
37808 F0 F8 FF EF D8 B0 E0 07 =1605
37816 0D 1B F7 FF 1F 0F 07 DF =818
37824 AF DF AF DF AF DF AF 00 =1369
37832 00 BE 3F BE 00 00 00 00 =443
37840 00 7D FC 7D 00 00 00 01 =503
37848 03 B7 37 B7 03 01 00 3C =488
37856 56 AB D7 AE D7 6E 34 00 =1023
37864 00 00 07 09 3F 7F 62 00 =304
37872 00 00 E0 90 FC FE 46 38 =1000
37880 38 10 FE 10 38 28 6C 00 =546
37888 00 00 00 00 00 00 00 00 =0
STOP
```

MORSE SAGA



by Duane Moore

If ever you find yourself in a dinghy up to your wellies in water in the middle of the Atlantic Ocean, that's the time you'll regret not typing in this program. Is it dot, dot, dot, dash, dash, dash or dash, dash, dash, dot, dot, dot? Well, it's glug, glug, glug for you shipmates!

Unless you learn to crack the code — morse code, that is. This program has two modes. Firstly, messages — type in a message and your Speccy will blip it back to you. Secondly, letters — your Speccy will blip out a letter and you have to type it in. If you haven't a clue where to start, panic not 'cos you'll find a table of the morse codes in the program.

Right, dash it off if you don't want to go dotty — or end up at the bottom of Davy Jones's locker!

```
  1 POKE 23658,8: REM caps lock
  2 CLS : PRINT AT 0,8;"MORSE C
ODE TUTOR"
  4 PRINT  OVER 1;AT 0,8;"_____
__________"
  6 PRINT AT 2,0;"Written by Du
ane A. Moore 1985"
  8 PRINT AT 4,2;"(0) LISTEN TO
 YOUR MESSAGES."
  9 PRINT AT 6,2;"(2) WORK OUT
MORSE GIVEN."
  10 PRINT AT 5,2;"(1) PRINT MOR
SE AND LETTERS."
  18 PRINT AT 7,2;"(3) ABORT TO
BASIC."
  19 REM get what you want
  20 INPUT "CHOICE ";a
  22 IF a=0 THEN  GO TO 34
  24 IF a=1 THEN  GO TO 66
  26 IF a=2 THEN  GO TO 74
  28 IF a=3 THEN  STOP
  34 CLS : PRINT AT 0,4;"LISTEN
TO YOUR MESSAGES."
  36 PRINT AT 1,4;"ENTER TO RETJ
RN TO MENU."
  38 INPUT "MESSAGE ";a$
  39 IF A$="" THEN  GO TO 2
  40 PRINT AT 3,0;"MESSAGE IS ";
LEN a$;" CHARACTERS LONG"
  42 PRINT AT 5,0;"MESSAGE:-";a$
: PRINT
  44 FOR b=1 TO LEN a$
  46 PRINT  BRIGHT 1;a$(b);
  48 IF a$(b)=" " THEN  PAUSE 6:
GO TO 62
```

MORSE SAGA

```
  50 LET d=9908+CODE a$(b)
  51 IF d<9973 OR d>9998 THEN  G
O TO 62
  52 RESTORE d: READ c$: READ e
  53 FOR f=1 TO e
  54 READ g
  56 IF g=1 THEN  BEEP .05,20: P
AUSE 3
  58 IF g=2 THEN  BEEP .2,20: PA
USE 3
  60 NEXT f
  62 NEXT b
  64 GO SUB 9972: GO TO 34
  66 CLS : PRINT AT 0,3;"MORSE C
ODE AND THE LETTERS"
  68 PRINT AT 2,2;"A  .-";AT 3,2
;"B  -...";AT 4,2;"C  -.-.";AT 5
,2;"D  -..";AT 6,2;"E  .";AT 7,2
;"F  ..-.";AT 8,2;"G  --.";AT 9,
2;"H  ....";AT 10,2;"I  ..";AT 1
1,2;"J  .---";AT 12,2;"K  -.-";A
T 13,2;"L  .-..";AT 14,2;"M  --"
  70 PRINT AT 2,23;"N  -.";AT 3,
23;"O  ---";AT 4,23;"P  .--.";AT
 5,23;"Q  --.-";AT 6,23;"R  .-.";
AT 7,23;"S  ...";AT 8,23;"T  -";
AT 9,23;"U  ..-";AT 10,23;"V  .
..-";AT 11,23;"W  .--";AT 12,23;
"X  -..-";AT 13,23;"Y  -.--";AT
14,23;"Z  --.."
  72 GO SUB 9972: RUN
  74 CLS : PRINT AT 0,4;"WORK OU
T THE CODE GIVEN"
  76 PRINT AT 1,4;"ENTER TO RETU
RN TO MENU"
  78 PRINT AT 3,2;"THE COMPUTER
WILL PICK A      LETTER AT RANDO
M, THEN BEEP IT. YOU MUST GUESS
THE LETTER."
  80 LET a=9973+(RND*26)
  82 RESTORE a: READ b$: READ c
  84 FOR d=1 TO c
  86 READ e
  88 IF e=1 THEN  BEEP .05,20: P
AUSE 3
  90 IF e=2 THEN  BEEP .2,20: PA
USE 3
  92 NEXT d
  96 INPUT "YOUR ANSWER ";f$
  98 IF f$="" THEN  RUN
 100 IF b$=f$ THEN  PRINT  FLASH
 1;AT 11,6;"CORRECT-WELL DONE":
FOR a=0 TO 30: BEEP .05,a: NEXT
a: GO TO 74
 102 PRINT  FLASH 1;AT 11,5;"WRO
NG-THE ANSWER WAS ";b$: FOR a=0
TO 30: BEEP .05,a: NEXT a: GO TO
 74
9972 PRINT AT 21;"   PRESS ANY KEY
TO CONTINUE.   ": PAUSE 0: RETUR
N
9973 DATA "A",2,1,2
9974 DATA "B",4,2,1,1,1
9975 DATA "C",3,1,2,1
9976 DATA "D",3,2,1,1
9977 DATA "E",1,1
9978 DATA "F",4,1,1,2,1
9979 DATA "G",3,2,2,1
9980 DATA "H",4,1,1,1,1
9981 DATA "I",2,1,1
9982 DATA "J",4,1,2,2,2
9983 DATA "K",3,2,1,2
9984 DATA "L",4,1,2,1,1
9985 DATA "M",2,2,2
9986 DATA "N",2,2,1
9987 DATA "O",3,2,2,2
9988 DATA "P",4,1,2,2,1
9989 DATA "Q",4,2,2,1,2
9990 DATA "R",3,1,2,1
9991 DATA "S",3,1,1,1
9992 DATA "T",1,2
9993 DATA "U",3,1,1,2
9994 DATA "V",4,1,1,1,2
9995 DATA "W",3,1,2,2
9996 DATA "X",4,2,1,1,2
9997 DATA "Y",4,2,1,2,2
9998 DATA "Z",4,2,2,1,1
9999 REM END OF DATA
```

W O R M

by Robert Stockton

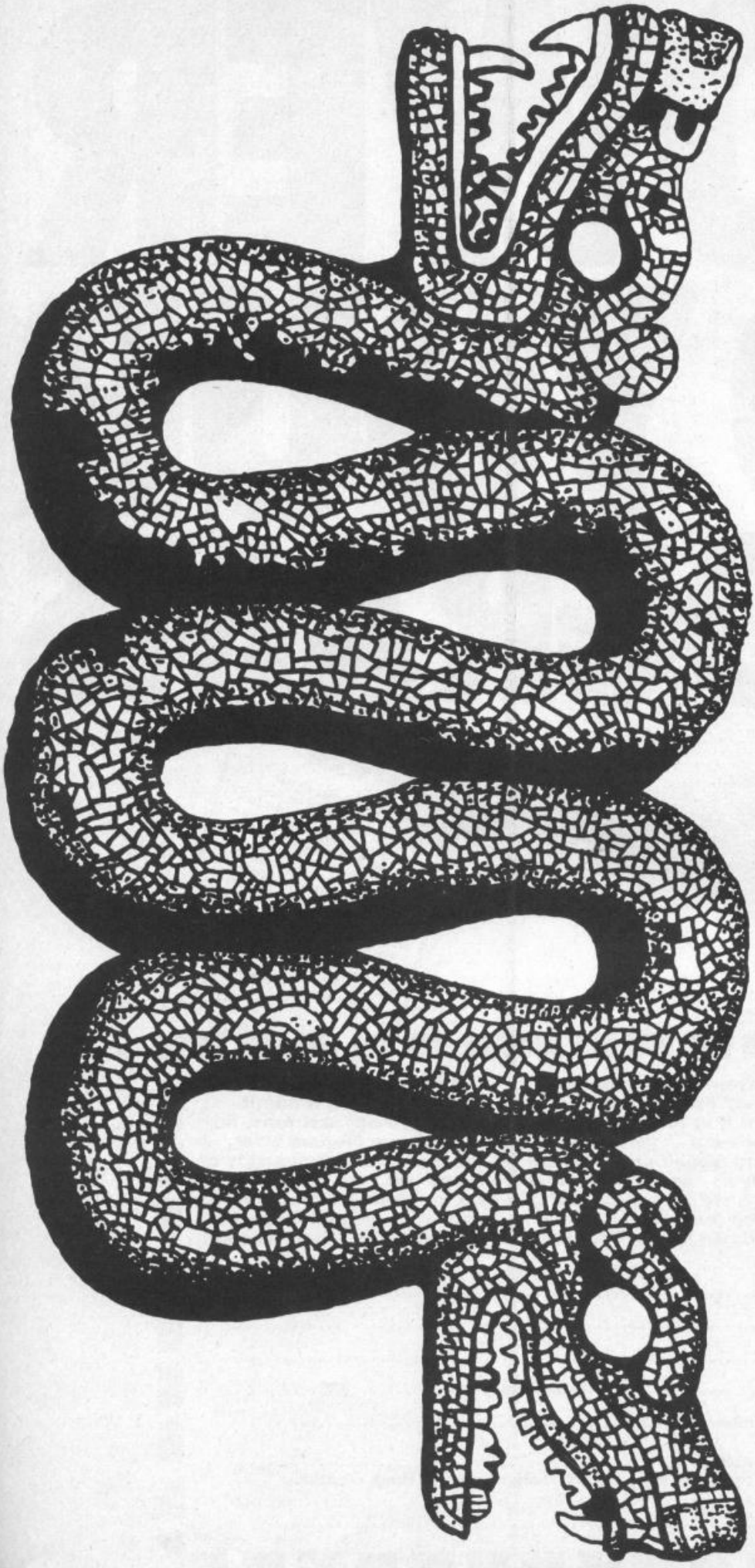
The worm has turned! Or rather it's your turn to guide him through the garden so he can eat the flowers and grow. The game features multiple screens with a bonus 'eat the pie' screen after you've cleared the three previous ones. You'll find full instructions in the game — if you look at lines 3155 to 3230 you'll see the neat way that they're printed to the screen.

Now if you think that games in Basic are pretty worm-eaten, think again. This beats all the machine code versions of the same game that we've seen at *YS* and just goes to show that you can still write games in good ol' Basic and not have to say you're sorry.

```
  0>REM SNAKE
        BY RUBERT
          STOCKTON  1985
  1 GO SUB 6000
  2 GO TO 3000
  4 POKE 23658,0
 10 REM ****SET UP VARS****
 40 LET LEV=0
 60 LET S=0
 65 REM **SET UP SCREEN VARS**
 70 LET A$=CHR$ 10+CHR$ 2+CHR$
9+CHR$ 2
 80 LET X=10: LET Y=2
 90 LET AM=INT (S/100)+10
100 LET H=0: LET V=-1
110 LET CX=2: LET CY=1
120 LET LEV=LEV+1
125 LET START=LEV
130 IF LEV/3=INT (LEV/3) THEN
GO TO 4500
140 LET B$="
150 LET C$="63 26 36 2"
160 IF LEV>10 THEN  LET LEV=1
165 REM ****PRINT SCREEN*****
166 INK 4: PAPER 0: BORDER 0: C
LS
170 LET X$="
          "+B$(LEV)+"
                "
180 FOR A=1 TO LEN X$-31: PRINT
 AT 10,0;X$(A TO A+31): BEEP .01
,A/2: NEXT A
206 LET E=0
210 PRINT AT 21,0; INVERSE 1;"S
CORE=";S;AT 21,15;"LEVEL=";LEV
212 RANDOMIZE USR 3582
215 IF LEV>60 THEN  LET LEV=60
220 PRINT AT 21,0; INK 5;"
225 RANDOMIZE USR 3582
227 PRINT AT 21,0;"
                "
230 FOR A=2 TO 20
240 PRINT  INK 5;AT 21,0;"
T 21,30;"
245 RANDOMIZE USR 3582
250 BEEP .01,A
255 NEXT A
260 PRINT AT 21,0; INK 5;"
310 FOR A=1 TO AM
320 PRINT AT RND*17+3,RND*28+3;
INK 5;"
330 IF A>59 THEN  GO TO 350
335 BEEP .1,A
340 NEXT A
350 FOR A=1 TO AM
360 LET R=RND*17+3: LET T=RND*2
7+3
364 IF ATTR (R,T)=VAL (C$(LEV))
 THEN  GO TO 360
366 PRINT AT R,T; INK VAL (C$(L
EV));B$(LEV)
370 IF A>59 THEN  GO TO 400
375 BEEP .1,-A
380 NEXT A
400 REM **PRINT AND MOVE MAN *
410 PRINT  INK 7; BRIGHT 1;AT X
,Y;"
440 IF INKEY$="p" THEN  LET V=0
: LET H=1
450 IF INKEY$="o" THEN  LET V=0
: LET H=-1
460 IF INKEY$="q" THEN  LET V=-
1: LET H=0
470 IF INKEY$="a" THEN  LET V=1
: LET H=0
480 LET A$=A$+CHR$ X+CHR$ Y: LE
T X=X+V: LET Y=Y+H: BEEP .002,LE
V
510 IF ATTR (X,Y)<>5 AND ATTR (
X,Y)<>4 THEN  LET S=S+10: LET E=
E+1: BEEP .1,-20: PRINT AT 0,6;S
: IF AM=E THEN  GO SUB 1500
520 IF ATTR (X,Y)=4 AND START<0
THEN  LET A$=A$(3 TO )
525 LET START=START-1
530 IF ATTR (X,Y)=5 OR ATTR (X,
Y)=7 THEN  GO TO 1000
540 IF X>=21 AND (Y=16 OR Y=17)
THEN  GO TO 4000
560 PRINT AT CODE A$(LEN A$-1),
CODE A$(LEN A$); INK 7;"
570 GO TO 400
1000 REM *******THE END*******
1010 PRINT AT 10,11; INK 2; PAPE
R 6; BRIGHT 1;"GAME OVER"
1025 BEEP 2,-20
1040 FOR A=1 TO 500: IF INKEY$<>
"" THEN  GO TO 2000: NEXT A
1050 PRINT AT 10,10;"(I)NSTRUCTI
ONS";AT 12,10;"(P)LAY"
1060 BEEP .01,1
1070 IF INKEY$="p" THEN  GO TO 1
0
1080 IF INKEY$="i" THEN  GO TO 3
000
1090 GO TO 1070
1500 REM ****PRINT HOLE******
1510 PRINT AT 0,0; INK 6;"THI
S WAY >                < THIS WAY"
1520 PRINT AT 21,16;"  "
1530 LET E=E-1
1540 RETURN
3000 REM ******INSTRUCTIONS*****
3020 INK 6: PAPER 0: BORDER 0: C
LS
3030 DATA "          SNAKE","
"
3040 DATA " ","BY ROBERT STOCKTO
N"
3050 DATA "THE OBJECT OF THE GAM
E IS TO EAT"
3060 DATA "ALL THE FOOD ON EACH
SCREEN"
3070 DATA "BUT IF YOU HIT YOUR T
AIL '  OR","THE NASTIES YOU DIE
"
3080 DATA "AS YOUR TAIL GETS LON
GER THE   ","GAME GETS HARDER"
3100 DATA "THE KEYBOARD CONTROLS
 ARE"
3110 DATA " "," Q-UP"," "
3120 DATA "O-LEFT  P-RIGHT"
3130 DATA " "," A-DOWN"
3140 DATA " "," "
3150 DATA "GOOD LUCK"
3155 RESTORE 3000
```

Lines 3155 — 3230 These lines print up the instructions. But note the novel way it's done — by POKEing the system variable CHARS to make them appear pixel line by pixel line.

```
3160 FOR A=0 TO 19
3170 READ A$
3180 FOR X=8 TO 0 STEP -1
3190 POKE 23606,X: PRINT AT A,0;
A$
3200 NEXT X
3210 NEXT A
3220 IF INKEY$<>"" THEN  GO TO 1
0
3230 GO TO 3220
```



```
4000 REM ****FINISH SCREEN****
4010 FOR A=1 TO 20
4020 RANDOMIZE USR 3582
4030 NEXT A
4040 PRINT AT 0,17;"  "
4050 FOR A=0 TO 9
4060 PRINT AT A,16; INK 7;" ";AT
 A+1,16;"◎"
4070 NEXT A
4080 PRINT AT 11,16; INK 6;"◎ =
BONUS 200"
4090 BEEP .004,LEV
4100 FOR A=1 TO 60 STEP 3
4110 BEEP .01,A
4120 NEXT A
4130 LET S=S+200
4135 PAUSE 1: PAUSE 40
4140 GO TO 70
4500 REM ****BONUS SHEET*****
4510 CLS
4515 PRINT AT 10,3; INVERSE 1;"P
RESS DOWN TO EAT THE PIE": BEEP
.5,1: PAUSE 3
4520 PRINT AT 0,0; INK 5;"
"
4530 PRINT AT 21,0; INK 5;"
"
4540 FOR A=1 TO 20
4550 PRINT AT A,0; INK 5;" ";AT
 A,30;"  "
4560 NEXT A
4570 PRINT AT 10,3;"
                    "
4700 LET T=25
4710 LET Y=5
4720 LET T=T-1: LET Y=Y+1
4730 IF Y=27 THEN  LET Y=3: PRIN
T AT 1,27;"   "
4740 IF T<2 THEN  LET T=25: PRIN
T AT 20,2;"   "
4750 PRINT AT 1,Y; INK 7;"◎"
4760 PRINT AT 20,T; INK 3;"
"
4770 IF INKEY$="a" THEN  GO TO 4
800
4775 BEEP .002,2
4780 GO TO 4720
4890 PRINT AT 1,Y;"     "
4900 FOR A=1 TO 17
4905 BEEP .005,1
4910 PRINT AT A,Y+2; INK 7;" ";A
T A+1,Y+2;"◎";AT A+2,Y+2;"◎";AT
A+3,Y+2;"◎"
4920 NEXT A
4930 IF Y>T-2 AND Y<T+2 THEN  GO
 TO 4970
4940 PRINT AT 10,10;"HARD LUCK"
4950 BEEP 1,-20
4960 GO TO 70
4970 PRINT AT 10,9;"WELL DONE BO
NUS"
4980 FOR A=1 TO 60 STEP 5
4990 BEEP .1,A
5000 NEXT A
5005 LET S=S+500
5010 GO TO 70
6000 REM POKE IN UDG'S
6005 PRINT AT 10,10;"PLEASE WAIT
"
6010 RESTORE 9500
6020 FOR A=0 TO 15*8: READ x: PO
KE USR "a"+a,x: NEXT a: RETURN
9000 POKE 23582,11
9010 LET x=USR 5808
9015 PRINT #4;"9640 DATA 0";
9020 FOR a=USR "a" TO USR "p"-1
9030 PRINT #4;",";PEEK a;
9040 NEXT a
9050 LET 1=USR 4788
9500 DATA 60,106,213,171,213,171
,86,60
9510 DATA 60,126,223,159,191,191
,255,126
9520 DATA 60,126,219,255,153,195
,126,60
9530 DATA 0,0,128,64,252,246,27,
15
9540 DATA 0,3,7,15,14,6,3,1
9550 DATA 62,255,255,248,192,0,2
55,255
9560 DATA 0,128,224,240,112,48,2
24,192
9570 DATA 0,118,255,239,127,219,
252,103
9580 DATA 0,108,186,254,206,246,
222,140
9590 DATA 96,247,157,251,46,255,
189,247
9600 DATA 16,16,16,16,214,254,12
4,56
9610 DATA 16,40,68,136,144,184,7
6,4
9620 DATA 8,62,8,127,8,62,8,20
9630 DATA 228,120,60,118,250,250
,254,124
9640 DATA 0,0,0,4,40,152,74,44,2
4
```

POWER TO YOUR PROGRAMS

WE'VE GOT IT TAPED!

Or rather Digi'T'ape has all the programs in this pull-out on tape. If you've worn your fingers to the bone and the bone to the marrow typing in listings, this'll do more for your hands than Fairy Liquid. And it's not only the listings here but all the programs that are marked with the Digi'T'ape sticker in the rest of the issue. Look out for the ad on Page 115.

And what'll it cost? Just £2.99. Which is a darn sight less than the alternative — clip-on hands and a shiny new brain.

Have you written a program recently? And how many people have played it? Ten? Five? Two? What, just your mum? Isn't it about time you sent it in to YS? Here we can offer you not just tens, not even hundreds but — just for you, John, once in a lifetime offer, look I'm doing meself out of pocket — thousands and thousands of potential players! And what's more we'll pay you very well. After all, how much did your mum last give you for writing a program?

So, fill in the form below and send it with your megaprogram on cassette to Gavin Monk, Your Sinclair, 14 Rathbone Place, London W1P 1DE.

Name .....

Address .....

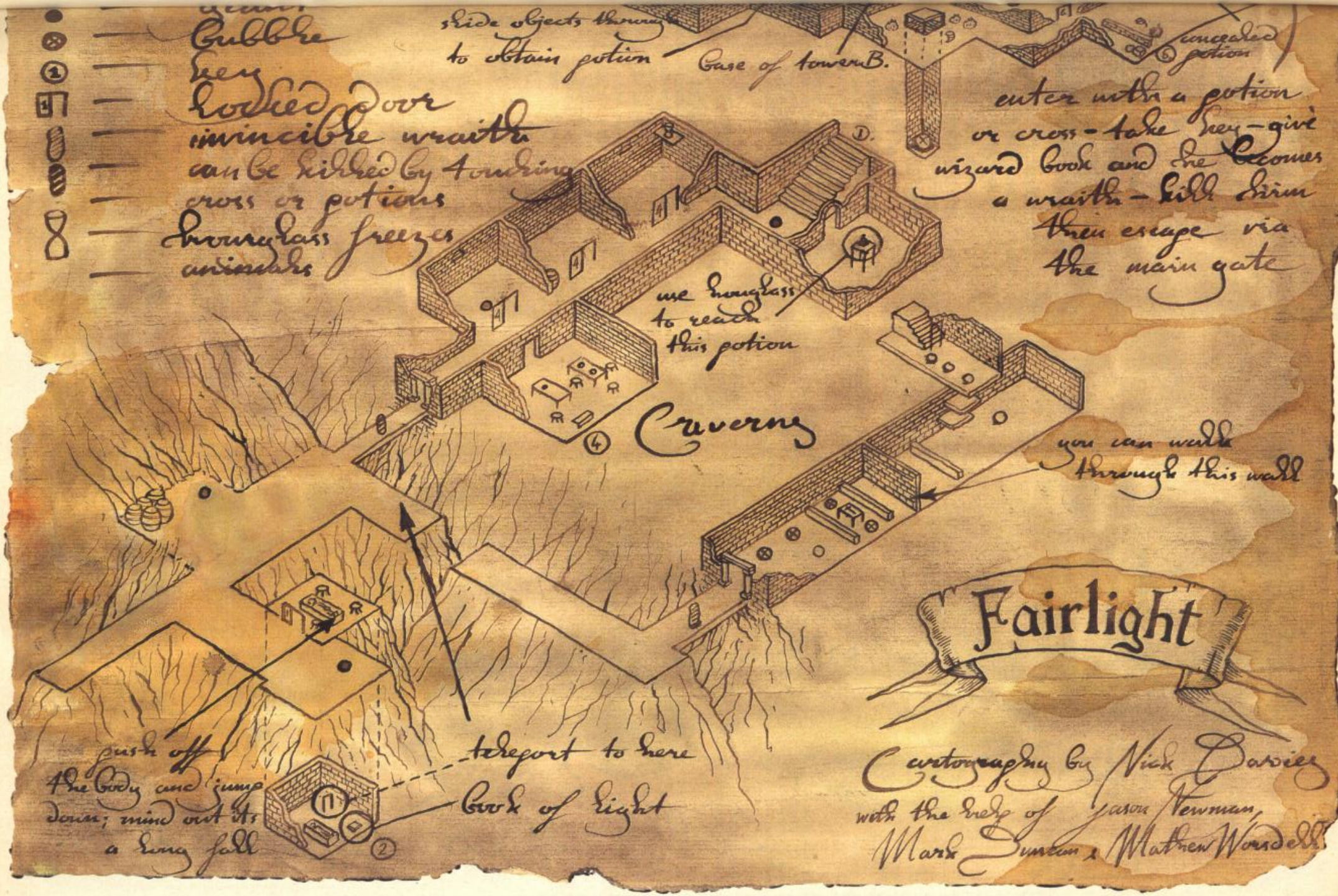
.....

..... **Postcode** .....

Telephone Number .....

My program's called .....
and it's completely original — 'cos if it ain't I daren't think what'd happen to me...

Signed .....


Bubble
key
locked door
invincible wraith
can be killed by touching
cross or potion
hourglass freezes
animals
slide objects through
to obtain potion
Case of tower B.
concealed potion
enter with a potion
or cross - take key - give
wizard book and he becomes
a wraith - kill him
then escape via
the main gate
D.
use hourglass
to reach
this potion
Caverns
you can walk
through this wall
Fairlight
push off
the body and jump
down; mind out it's
a long fall
teleport to here
Book of Light
Cartography by Nick Davies
with the help of Jason Newman,
Mark Symtem & Matthew Worsdell

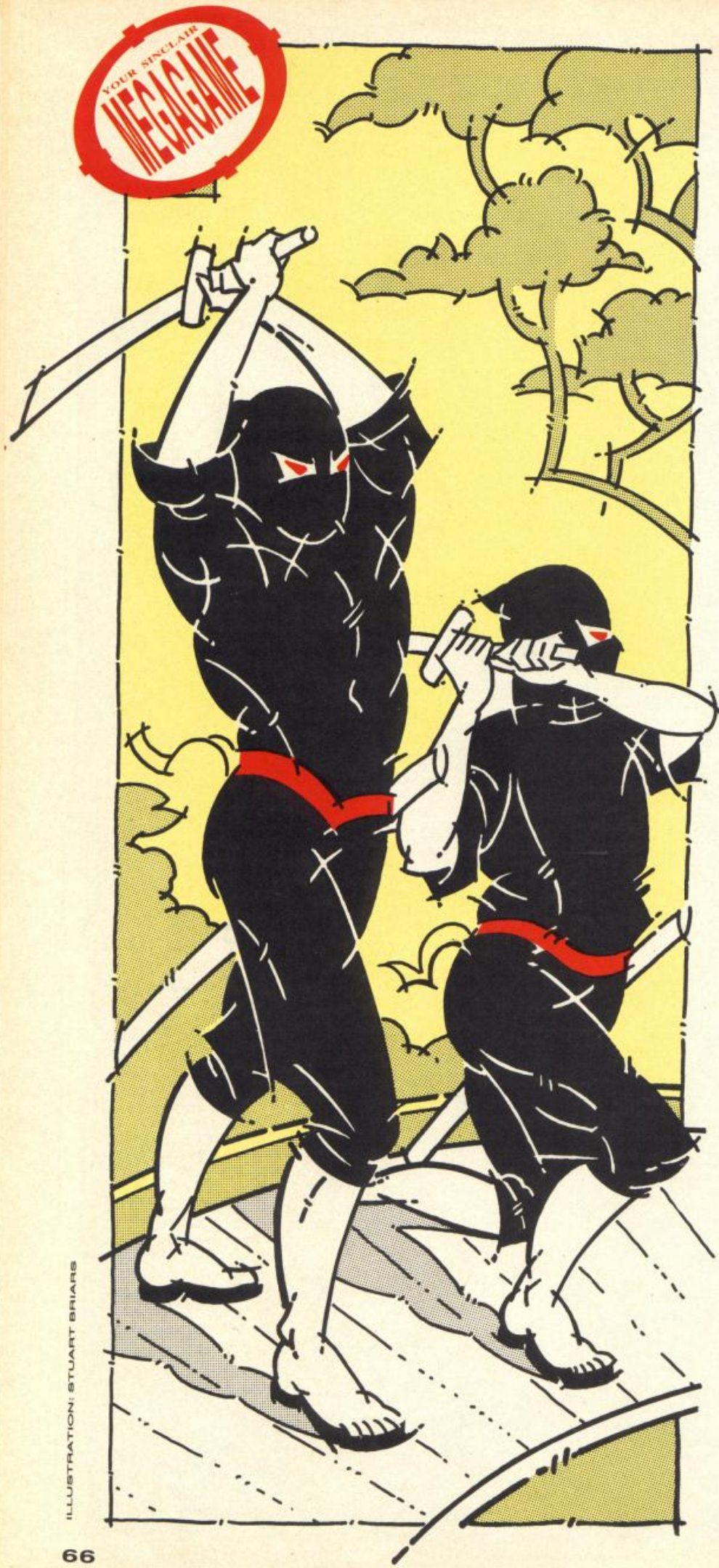


ILLUSTRATION: STUART BRIARS

KUNG FU KILLER

SABOTEUR

It's a race against the clock, as you take on some of the fiercest Kung Fu fighting Ninjas the Spectrum has ever seen. Would-be anarchist *Sue Denham* dons her fighting togs and battles through the endless maze of Durell Software's smash game *Saboteur*.

There have been a fair few martial arts games released or due for imminent release on the Spectrum of late — System 3's *International Karate*, Melbourne House's *The Way Of The Exploding Fist*, Imagine's *Yie Ar Kung Fu* and US Gold's *Bruce Lee* to name but a few! But none is quite like the latest offering from Durell Software.

The scenario for *Saboteur* thrusts you into the part of a sabotaging Ninja warrior, sneaking around an enemy warehouse that's much more than it seems at first sight. Your task is to search out a floppy disk from one of the many computer terminals scattered around the computer complex and escape with it. But before you go, you've got to leave a little present for your pursuers — a time bomb. Which doesn't leave you too much room to negotiate a safe path home!

The game itself comprises 118 different screens, which all go to make up the four-level warehouse — there is the warehouse itself, a computer complex, and two layers of labyrinth-like sewers; the latter areas have a tendency to look the same, which can be a great problem for those who have an aversion to making maps of the best route to safety.

All the weapons a self-respecting Ninja could want, can be found by stumbling across them on your adventures. But you can only hold one weapon at a time and, once you've used it, you'll have to search round for another. Points are awarded for killing the guards — by weapons or skilful use of martial arts — but your real adversary is time ... and the final objective of stealing the floppy disk and getting clear of the warehouse before the fuse burns down.

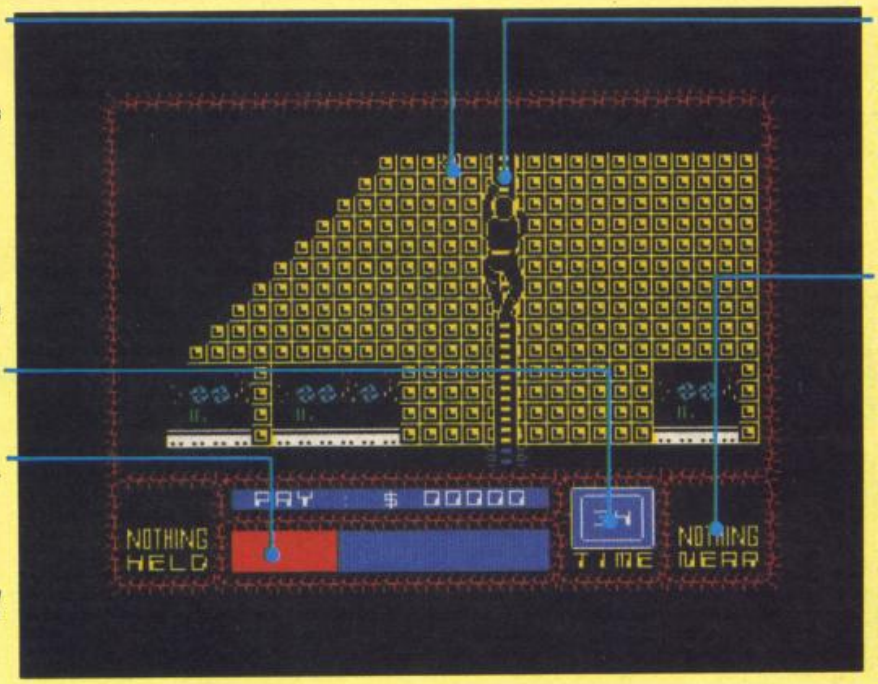
Overall, the game is addictive and great fun. There are nine levels of difficulty — but on the easiest level, you can work out the structure of the game and prepare yourself for the terrors of playing at the higher levels. Map-makers will be in their element when they first start playing the game, but it will be the rugged Kung Fu fighters who will out in the end.

Saboteur manages to combine the good graphical representations of the other Kung Fu games with the solid background of an action-packed story. One to be recommended.

These items look a bit like the cameras that follow you round in supermarkets making sure you don't steal the wares. But, don't be fooled — they're actually quite deadly laser guns that fire at you should you hesitate in your mission.

This box tells you how much time you've got left to find the disk and, once found and the bomb set, how *little* time you've got to escape! Your time limit is linked to which of the nine playing levels you choose at the beginning of the quest.

This box gives you an indication of your life energy — when it turns completely blue, you're dead! Stand still for a few moments and, gradually, your energy is built up to normal — but keep an eye on the clock, as well as any enemy guards and dogs that may be in the vicinity.



The Ninja is able to climb up the ladders, which is quite useful as your adversaries are limited to patrolling the flat. You do not, however, build up your life energy when you are on a ladder, and you're not completely out of danger from attack by one of the warehouse's defenders.

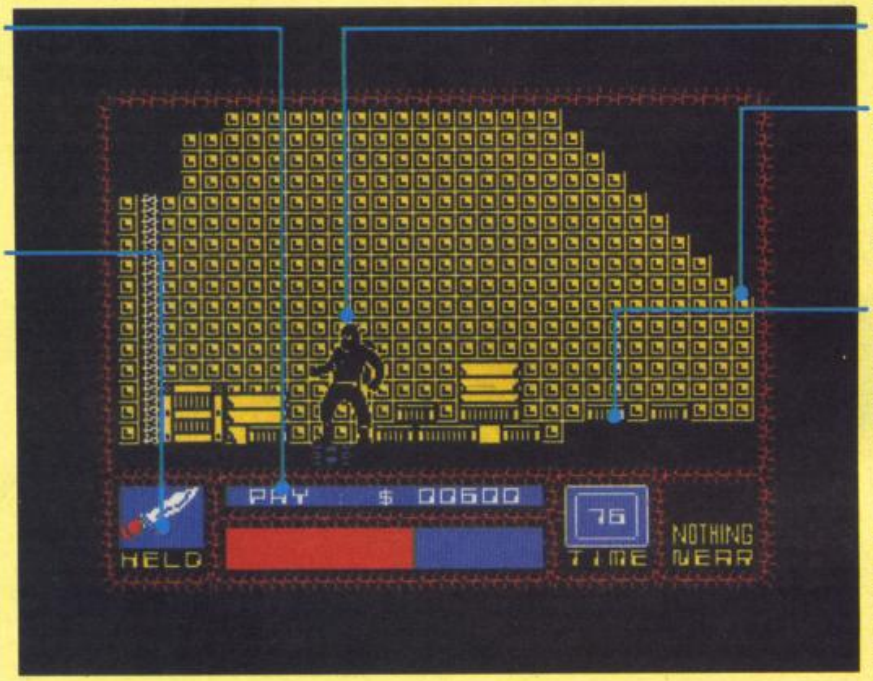
Keep your eyes on this box as it'll flick up the icon of a weapon when one is in the vicinity. But if, as is often the case, you're in a hurry you may miss finding the all-important bomb which you'll need if you're going to put paid to the enemy warehouse. Picking up or exchanging a weapon is done by pressing the 'Fire' button.

As the lead character in this story, you can move up and down ladders with ease, duck down, jump and crouch, kick and punch your opponents, and throw weapons with surprising accuracy. Not bad for a beginner, eh?

Here you can see how much blood money you've earned from your death-dealing antics. Killing a guard with a weapon will up your cash flow by $100 — but using a few Bruce Lee kicks to do the same job will get you $500.

The weapon you are holding — be it a dagger, grenade, pipe, shuriken or whatever — is shown here. It doesn't seem to matter what weapon you use to kill the guards as they all seem to have the desired effect.

The enemy guards (although looking like rejects from the *Village People!*) not only carry an endless supply of weapons, but also are keen Kung Fu adepts. Martial arts enthusiasts may hang around for a friendly bout, but for your first few games it's recommended that you dispatch them as quickly as possible.



On the easier playing levels, all the doors around the warehouse are kept open. Once you opt for the more difficult playing levels you will find many areas are closed off to you until you unlock the doors using the computer terminals.

The Ninja has no problems falling any distance from a ledge or a hidden hole in the floor — except for the fact that you don't know what sort of trouble you might be falling into!

It is possible to kill the dogs — by firing off your weapon and ducking at the same time — but the programmers frown on this activity and you won't get a penny for carrying out this dastardly deed. But you might live a bit longer....

Travelling around between the different areas of the game is done by shuttle — which is reminiscent of the vehicles used at most modern airports. The Ninja merely walks inside to start the journey and strolls off at the destination point — and not a ticket-collector in sight!

The sewers are dark and unfriendly, especially when a guard or dog comes bounding out of the gloom intending you no good at all. If you are going to make a map of any area of *Saboteur*, you could do worse than start with the sewers.

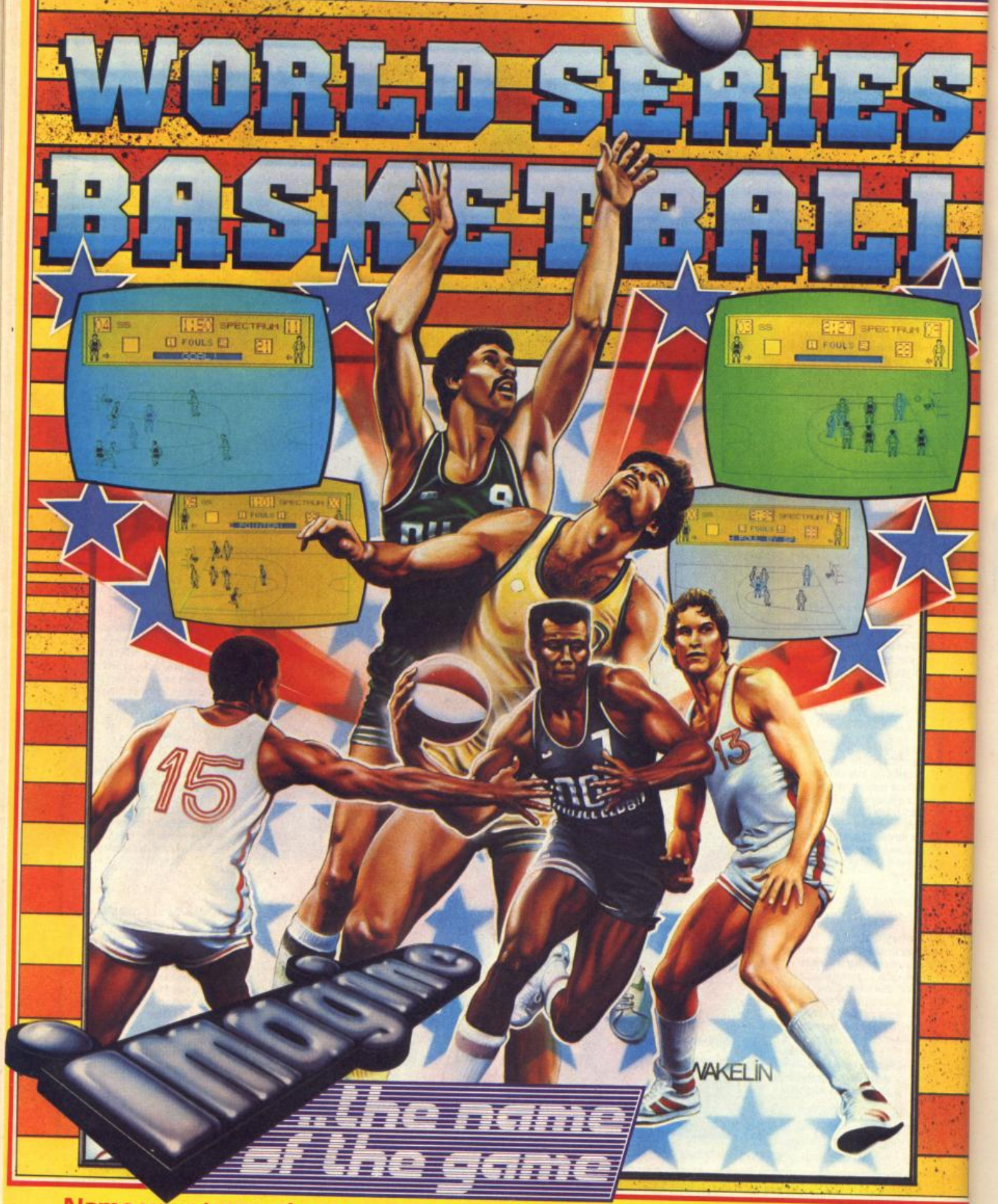
FAX BOX

Game	Saboteur
Publisher	Durell Software Ltd
Price	£8.95
Joystick	Protek/Kempston
Keys	Up/down/left/right/fire — definable.

Graphics
Playability
Value for Money
Addictiveness
9

ZX SPECTRUM £7.95

WORLD SERIES BASKETBALL



the name of the game

Name your team, choose your colours, lace up and run'em off the court – pass ... fake ... jump ... shoot in off the backboard ... GREAT BASKET! Simulating all the excitement (including FOULS!) of the Basketball Challenge. Play head to head or against the computer – REACH FOR IT!

Imagine Software is available from: Boots, WHSMITH, John Menzies, WOOLWORTH, LASKYS, Rumbelows, Greens, Spectrum Shops and all good dealers.

Imagine Software (1984) Limited · 6 Central Street · Manchester · M2 5NS · Tel: 061 834 3939

PROGRAM

TIME TRAVEL

COPYRIGHT 1985. JOHN MAMO-MASON, WILLIAM SIMPSON. ALL RIGHTS RESERVED.

WRITER: MAMO - ARTIST: WILLIAM SIMPSON - LETTERER: ANNIE HALFACREE

THE TIME MACHINE
THAT'S IT. TIME TRAVEL. I'LL WRITE A TIME TRAVEL GAME PROGRAM. THAT'LL SHOW THEM.
I THINK I'LL USE THE SPECTRUM THAT I REBUILT. IT'LL GIVE ME A CHANCE TO SEE IF IT CAN WORK FASTER, NOW THAT IT'S FINISHED.
WAIT A MINUTE, THAT'S NOT RIGHT, LET'S TRY THIS.
Finish
< > (Y/N)
AN $ = "N"
GOTO 450
datread
TAB (2:25)
CHR$ (130)
>
DAMN, THOUGHT I HAD IT, BUT AT LEAST I'M GETTING CLOSE.
NEARLY FINISHED, NOW ALL IT HAS TO DO IS WORK.
Program: Time Travel >
OKAY, NOW ALL I'VE GOT TO DO IS PUNCH IN THE NUMBERS IN THE CORRECT SEQUENCE AND SELECT WHERE AND WHEN I WANT TO GO.
I THINK I'LL SEE WHAT LONDON LOOKS LIKE, IN... ONE HUNDRED YEARS TIME.
Program: Time Travel
Load: H:G. Wells
>
NOW, EVERYTHING'S SET... ALL I'VE GOT TO DO IS PUSH THE 'ENTER' BUTTON.
Program: Time Travel
Load: H.G. Wells
Enter destination
London 2086 A.D >
ALL OR NOTHING.

OH WELL, LOOKS LIKE NOTHING.
WHAT THE...
...HELL...
...IS GOING ON...
...AROUND HERE.
OVERLOAD
TO BE CONTINUED.

Fifty New Commands . . . Named Procedures . . . On-Screen Windows . . . 64 column text . . . Multi-tasking . . . Toolkit Commands . . . Three Fonts . . . Full Screen Editor . . . Special Effects . . . And More

IMPROVE YOUR ZX LIFE!

Isn't it about time you stopped fighting ZX Basic? So, alright, it's got some superb features and it's a doddle to use. But there's still times when you can't quite squeeze what you want from it and there's even more times when the daunting task of changing and correcting your programs makes you want to tear your hair out. Now there's an alternative — Mike Leaman's *YS MegaBasic* gives you everything you've ever wanted in addition to all the standard features of your Spectrum!

YS MegaBasic is no ordinary extension to ZX Basic — it completely transforms your computer! All the old ZX Basic features are still there but with *YS MegaBasic* loaded, you've got an extra fifty commands at your disposal as well as improved editing facilities and a machine code 'front-panel' for testing any machine code subroutines you're using. Obviously, *YS MegaBasic* uses up RAM normally available for your programs — but even with it loaded, you've still got a hefty 22K free to play around with and it's not everyday that you write Basic programs that big! Besides, with the added capabilities of *YS MegaBasic*, your programs will be able to do more in fewer lines.

GET A LOAD OF THIS!

YS MegaBasic does away with ZX Basic's keyword system — keywords are typed letter by letter though, of course, you can use abbreviations. There is a full screen editor to make alterations much simpler and allow you to copy and move statements between lines!

The Spectrum's screen is transformed by up to ten separate on-screen windows — each of which can be scrolled, panned, inverted and recoloured independently. You can choose from three different fonts and fit

SEE WHAT YOU GET!

Here are just some of the features *YS MegaBasic* adds to ZX Basic. Remember you still have everything ZX Basic has — *YS MegaBasic* has all that and more . . .

○ ZX Basic	● MegaBasic
PROGRAM DEVELOPMENT	
○ Single keypress keywords	● Keywords typed in full but abbreviations possible.
○ In-Line Editor	● **EDIT** Activates improved line editor. The new control keys allow full screen editing.
○ **LIST, LLIST**	● **DELETE** Delete block of lines.
	● **AUTO** Automatic line numbering.
	● **TRON** Trace program execution.
	● **TROFF** Turns Trace off.
	● **SPEED** Set tracing speed.
	● **KEY** Program function keys.
	● When a program is running, control keys call up the front panel, reset *YS MegaBasic* without losing the program and halt the program.
SCREEN HANDLING	
○ 32x20 characters	● **MODE** Selects character size 64x20, 32x20, 16x10 characters.
○ 1 font	● **FONT** Selects from 3 character fonts.
○ 1 direction	● **DOWN** Print down the screen.
○ 1 size	● **SPRINT** Print in any magnification.
○ 1 window	● **WINDOW** Define up to 10 windows.
○ 8 colours	● **STIPPLE** Patterns large characters.
	● **VDU** PRINT character codes to screen.
	● **PRINTER** Redirect screen output to printer or user-supplied routine.
GRAPHICS	
○ **PLOT**	● **CHANGE** Manipulate attributes.
○ **DRAW**	● **SWAP**
○ **CIRCLE**	● **FADE**
○ **INVERSE**	
○ **OVER**	● **GET** Move screen display
○ **BRIGHT**	● **PUT** to and from memory.
○ **POINT**	
○ **ATTR**	● **SPRON** Control up to 8 on-screen sprites — each sprite has its own shape, colour, direction and speed.
	● **PAN** Scroll windows in any direction
	● **SCROLL**
	● **INVERT** Invert whole screen or window.
	● **DEFG** Define UDG.
PROGRAM CONTROL	
○ **FOR . . . NEXT**	● **REPEAT . . . UNTIL** Named procedures with parameters.
○ **GOSUB . . . RETURN**	● **POP** Drop last REPEAT or ENDPROC address.
○ **IF . . . THEN**	● **PUSH** Place an address on the REPEAT/procedure stack.
○ **GOTO**	● **BRANCH** GOSUB at end of every line.
	● **MTASK** Alternate between two sections of program.
	● **RSTART** Trap Basic errors.
	● **BRON** Disable/Enable BREAK key.
	● **BROFF** Turns above command off.
SOUND	
○ **BEEP**	● **PLAY** Play notes or white noise.
	● **SON** Play sound in background while the program continues to run!
	● **SREP** Repeat sound continuously.
MACHINE CODE INTERFACE	
○ **PEEK**	● **DOKE** POKE 16-bit value.
	● **CALL** Call machine code and pass Basic variables to Z80 stack.
	● **MON** Activate machine-code front-panel where you can examine and alter memory and Z80 registers, fill and run machine code programs.

CREATE ELECTRONIC ART ON YOUR OWN TV SCREEN WITH THE SPECTRUM DOODLER!

Carrods Graphic Design, Cambridge

Software designed in conjunction with Sinclair Research

Draw straight on to your screen!

The Spectrum Doodler is a lightpen that enables you to draw straight on to your own tv or monitor screen. Pen reaction is instant and requires no programming knowledge. Software is displayed on 'pull-down' menus with icon symbols so that you can easily select the feature you require by simply pressing the pen against the screen.

16 colour palette with flashing option!

Using a palette of sixteen colours you can choose the line thickness most suitable for your work.

14 options including text!

Besides line thickness, there are modes to enable you to create instant squares, circles and triangles. You can fill in areas with colour textures, repeat stock patterns or make your own design using a special layout grid. Draw free hand – point to point or continuous line ribboning. There is also the facility to add text to your design.

Store your work on cassette or microdrive!

The Doodler Software allows you to save complete or incomplete pictures for rework or for use with your own programs at a later date.

Auto trim feature!

The pen has a trim feature that automatically sets the pen's accuracy to the tv or monitor screen you are using.

Robustly made, fun to use!

The lightpen is robust and comes complete with software on cassette which can be duplicated on to microdrive cassette. There is an instruction manual that's simple and easy to understand and an interface box for connection to your Spectrum computer. You can even write your own software for the Doodler if you wish.

To get your own Spectrum Doodler just send a cheque or postal order for £29.90 with the completed coupon. Free post and packing in UK only.

I enclose a cheque/postal order for £ _____ (includes P+P) for my Spectrum Doodler(s). Allow 28 days for delivery. Full refund if not completely satisfied.

Name _____

Address _____

_____

_____

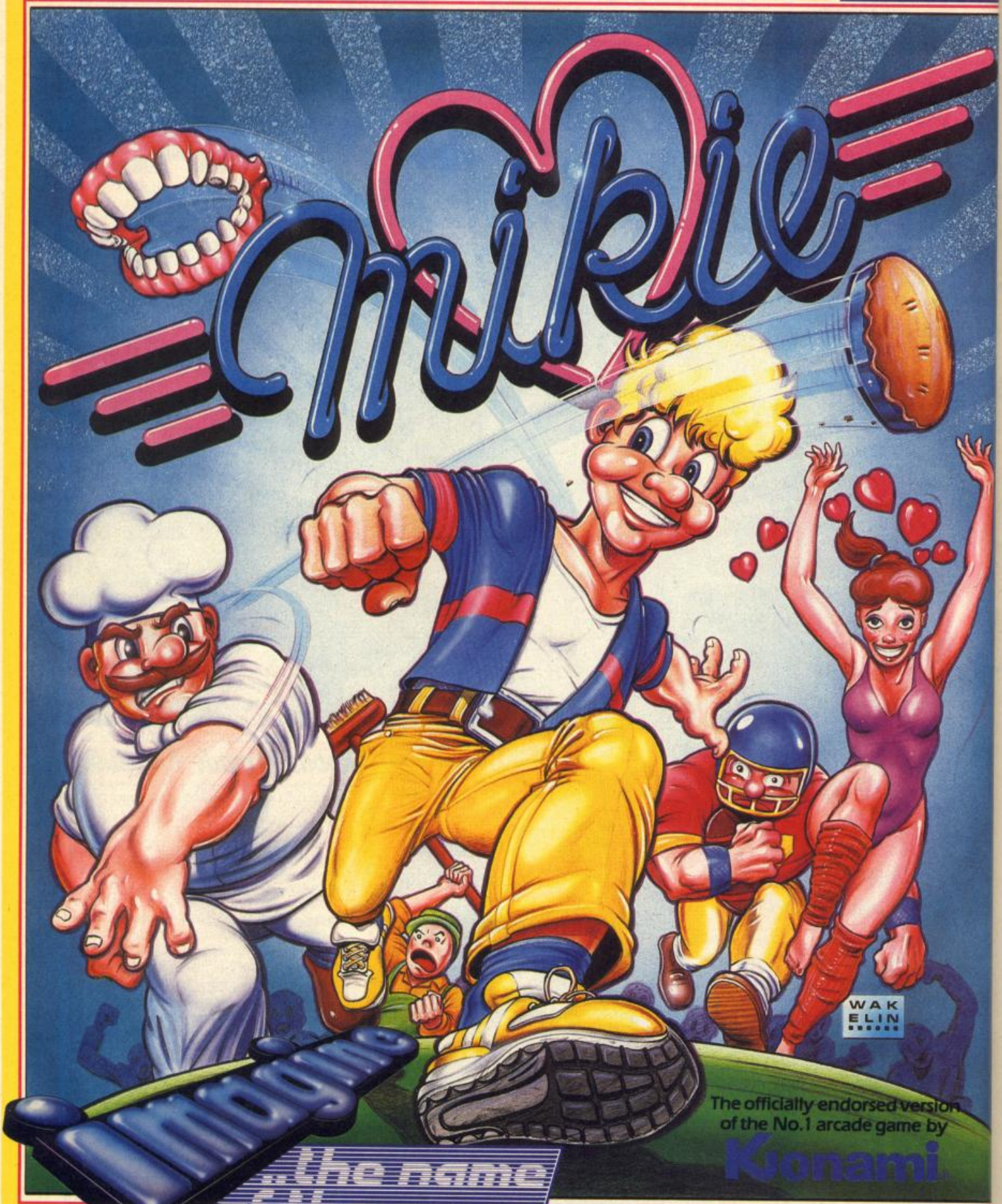
_____

_____ Postcode _____

F E Electronics
163 Huntingdon Road, Cambridge CB3 0DH

SPECTRUM Doodler LIGHTPEN

ZX SPECTRUM £7·95



the name of the game

Imagine Software (1984), 6 Central Street
Manchester M2 5NS. Tel: 061-834 3939. Telex: 669977

SPECTRUM 48K
7·95
SPECTRUM 48K

Mikie plays a knockout frantic farce in the classroom, locker room and the high school cafeteria. Hip-zap, door attack, throw balls and pies...but can you make him hand his love letter to his girl-friend?

MIKIE — He's the hottest cookie in school!

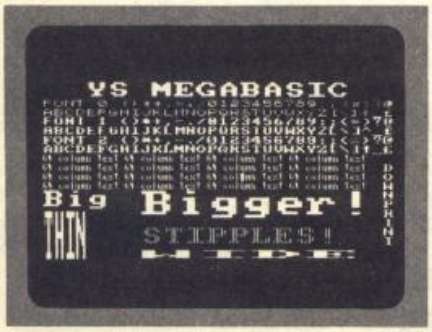
SPECTRUM 48
7·95
SPECTRUM 48

Imagine Software is available from selected branches of WHSMITH

IMPROVE YOUR ZX LIFE!

SCREEN SCENE

Here's just a sample of* YS MegaBasic*'s awesome screen handling abilities — we'd like to show you the super smooth sprites, the way windows can be panned and scrolled, the fantastic fade effect but this paper stuff just isn't up to it! So instead, look at the range of different character styles and sizes* YS MegaBasic *provides!




```
 200 PAPER 0: CLS
 210 PAPER 2: INK 7:MODE_2,4:STI
PPLE_255: PRINT AT 0,0;"  YS MEG
ABASIC  ";
```

Set double-height, double-width size with fully inked characters.

```
 220 PAPER 1:MODE_2,2: FOR I=0 T
O 2:FONT_I: PRINT "FONT ";I;" ";
: FOR J=40 TO 96:VDU_J: NEXT J:
NEXT I
```

Return to normal size and use the FONT command to select between the three different fonts. VDU is a useful shorthand for PRINT CHR$.

```
 230 PAPER 0:MODE_2,1: FOR I=1 T
O 4: PRINT "64 column text 64 co
lumn text 64 column text 64 colu
mn text": NEXT I:MODE_2,2
```

Go into 64 column mode . . . great for adventures and other textual programs!

```
 260 INK 2:SPRINT_0,96,2,2,"Big"
 270 INK 3:SPRINT_72,96,3,3,"Big
ger!"
```

Use the sized-print (SPRINT) command to generate huge letters.

```
 280 INK 4:DOWN_9,62,"DOWNPRINT"
```

You can also print downwards — great for labelling graphics!

```
 290 INK 6:SPRINT_0,114,1,6,"THI
N"
 300 INK 5:SPRINT_72,148,5,1,"WI
DE"
```

SPRINT again — this time by varying the X and Y magnification, the proportions of the printing can be changed — thin or fat, there's no problem.

```
 310 PAPER 6: INK 2:MODE_2,4:STI
PPLE_170: PRINT AT 16,18;"STIPPL
ES!"
```

By using MODE 4 characters, you can create stipple effects — only certain pixels in the characters are inked. In this line, a stipple of 170 and the colours red and yellow create the effect of orange lettering!

```
 999 LET A$=INKEY$: IF A$="" THE
N  GO TO 999
1000 FADE_INT (RND*127): GO TO 9
99
```

What does the fade command do? To find out, you're gonna need your own copy of YS MegaBasic*!*

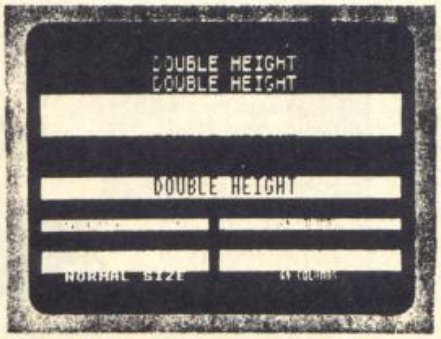
64, 32 or 16 columns on each line as well as magnify characters and print down the screen. *YS MegaBasic* makes special effects really easy — you can manipulate colour independently of the graphics on screen and save sections of the screen display to and from memory.

YS MegaBasic provides software sprites — predefined graphic shapes that move smoothly by themselves while your program is running. Yes, you can write arcade games and animated programs in Basic! And because designing sprites can be a chore, the *YS MegaBasic* package includes a free Sprite Designer utility to make it easy!

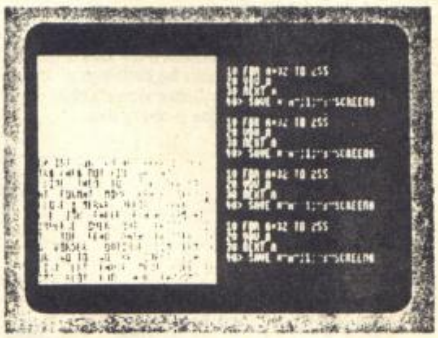
Your programs are also neater and easier to maintain — *MegaBasic* provides REPEAT . . . UNTIL loops, named procedures, proper CALLs to machine code routines, error trapping and, believe it or not, simple multi-tasking! You can set up a procedure which is called when each line of the program has been executed or you can use the MTASK command to alternate execution between two sections of the program.

And that's just a taste of *YS MegaBasic* magic — there's more to come. To get hold of your own copy complete the coupon opposite and rush it with payment to the address given. We'll deliver within 28 days. And before you ask, *YS MegaBasic* is microdrive compatible and can be transferred onto cartridge! C'mon, do yourself and your Spectrum a favour — one day you're gonna wish you had!

Available Only By Mail-Order From *Your Sinclair Magazine*.



Here, *YS MegaBasic* is showing off its multifarious character sizes and fonts. Each window contains text in three different sizes: double height, normal height and that used for 64-columns; double height and standard text can be output in three different fonts.



The screen format for the input/output of *YS MegaBasic*. Three windows are provided for input, LISTing and RUNning programs; under software control, each window's size and purpose can be changed to suit individual requirements.

YS MEGABASIC

PRIORITY ORDER FORM

YS MegaBasic *is only available direct from the* Your Sinclair *Mail Order department. Simply fill in this coupon and mail it with your cheque or postal order to YS MEGABASIC OFFER, PO BOX 320, LONDON, N21 2NB.*

QTY	ITEM	PRICE	TOTAL
.....	YS MEGABASIC	£9.95	.....

Name.....

Address.....

.....

.....

.....*Postcode*.....

Phone.....

Name.....

Address.....

.....

.....

.....*Postcode*.....

Phone.....

Please write neatly using block capitals — one of these is your return label! Please allow up to 28 days for delivery.

ROLLING STONE AGE

If you're on the look out for a simple, unsophisticated slice of arcade action, *BC's Quest For Tires* may be the game for you. *Steve Malone* gathers very little moss in his review of Software Project's new Neandertale!

Next time you get a puncture, don't blow your top. Just think what it must've been like One Million Years BD — Before Dunlop. You'll get some idea from playing *BC's Quest For Tires*, the prehistoric program from Software Projects. So, prepare for a distinctly bumpy ride.

The first thing that'll strike you about the game is that the graphics have a distinctly cartoonish feel about them.

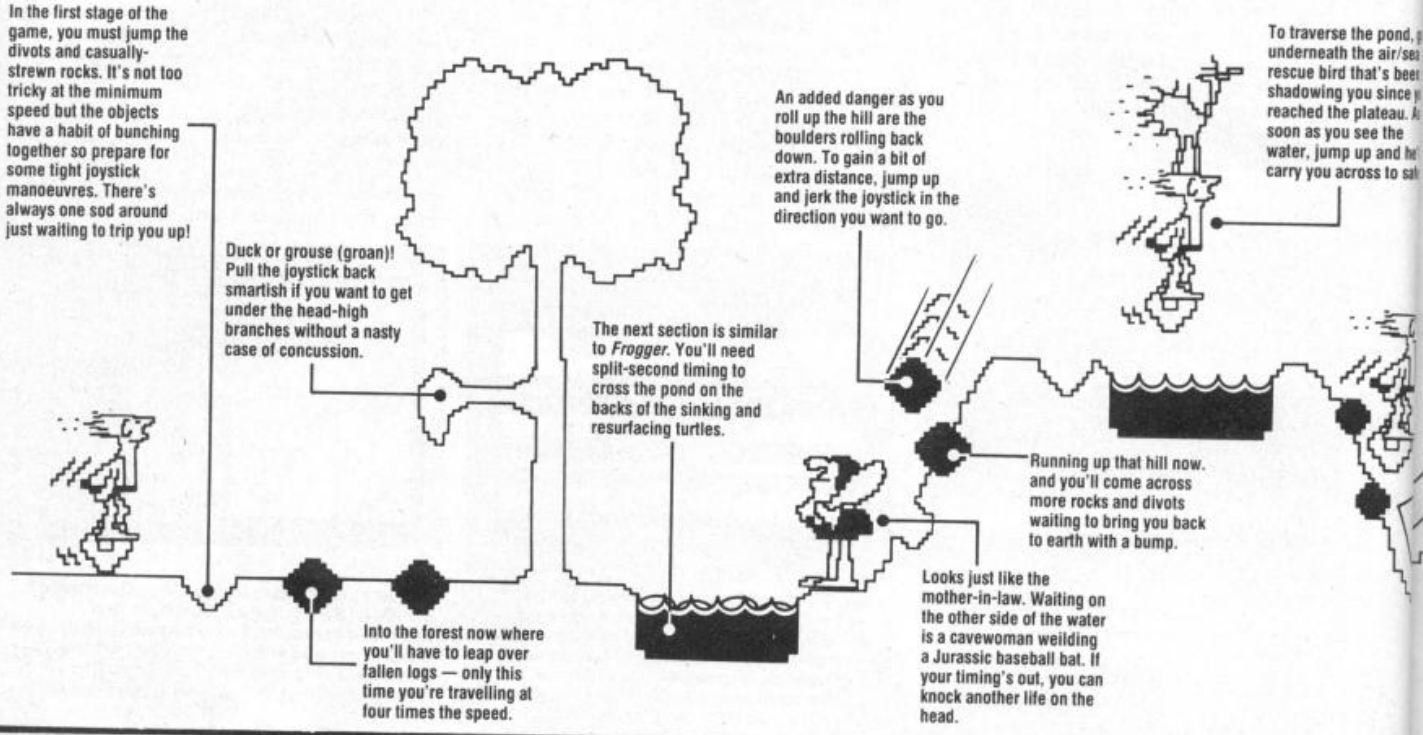


ILLUSTRATION: MARK WATKINSON

★ SPECTRUM WORD-PROCESSOR ★

"The Last Word . . ."

At last! A powerful and totally new word-processing program with the capability to radically extend the horizons of your 48k Spectrum/plus and line printer.

"TLW . . ." is practical, adaptable and simple to use. The program comprises 14.5k of Z80 m/c code together with a personal User Basic ara for additional print time control. Now check some outstanding advantages:

- ★ 80 (eighty) letters per screen line, or 60, or 48, or 40.
- ★ Justification of text up to 132 characters line length.
- ★ Dynamic 'Mail-merge'/text/data inclusion as standard.
- ★ Sixty tokens for printer output format control, etc.
- ★ Integral 27 function expression evaluator/calculator.
- ★ Text file definable from minimum (one byte) to 25k size.
- ★ Extensive microdrive and tape interface facilities.
- ★ Over 60 commands — with word count, timer, tabulation . . .
- ★ Thirty page, fully detailed instruction and reference manual with "open architecture" software data synopsis.

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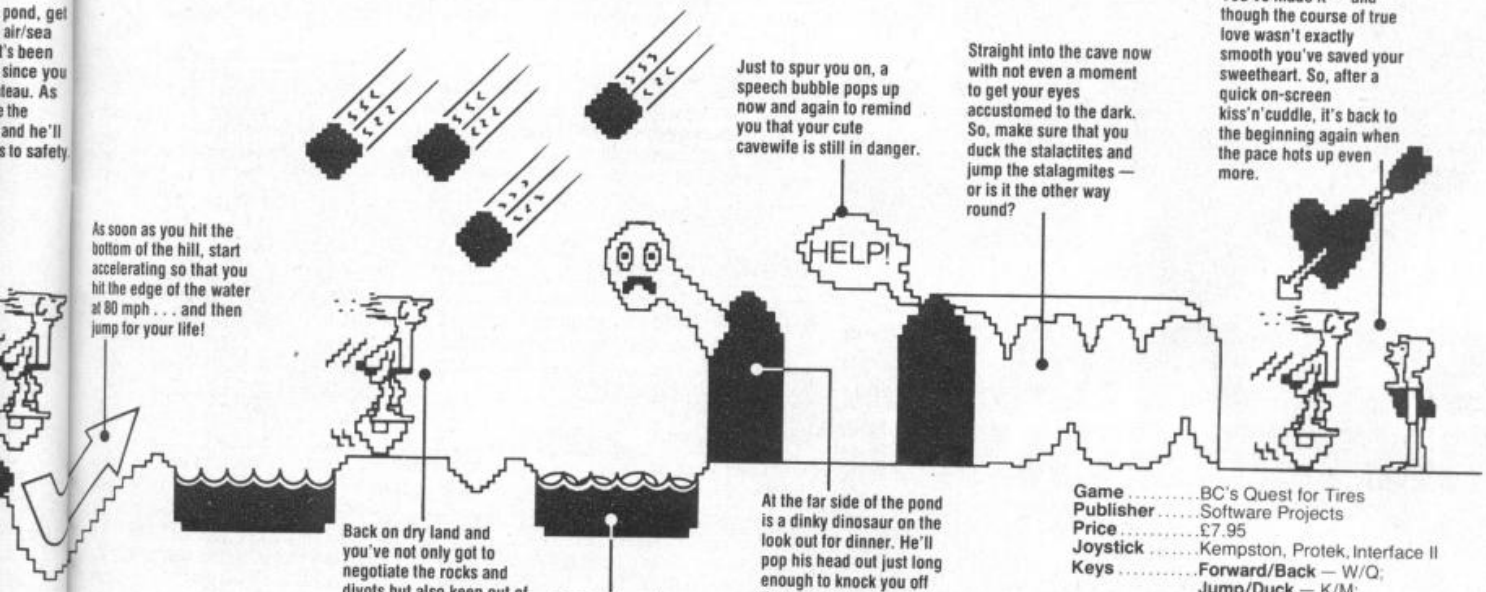
All in all this is a good, competently programmed arcade game. And it'll have you throwing the joystick around the room with frustration as Thor the hero falls flat on his face for the umpteenth time.

Where the game falls down is in the fact that there's just not enough of it. Two days of frantic joystick-jiggling or keyboard bashing (and it's addictive enough to keep you at it that long!) will allow most of you to get to the end. And once you've cracked it, it's back to the beginning again — only this time it's just that bit faster. The only trouble is that once you've been in at the finish, it doesn't have quite the same air of mystery about it — and then it's on to racking up the points.

Having said all that, this is pure and unadulterated (no added colour, no preservatives) arcade action — and it's still got plenty of natural fizz!



Game .....BC's Quest for Tires
Publisher.....Software Projects
Price.....£7.95
Joystick .....Kempston, Protek, Interface II
Keys.....**Forward/Back** — W/Q;
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THE COMPLETE QL SOFTWARE BUYERS GUIDE

At under £200, the QL has started to look a real bargain. If you've splashed out on one already or you're considering taking the plunge this Christmas, you'll want to know just how much software is available for the machine. The answer is still not much but things are starting to look up. *Graham Rydout* surveys the field.

THE LANGUAGE BARRIER

Very soon after its launch eighteen months ago, the QL was blessed with a wide range of languages and a couple of 68000 assemblers from Metacomco and Computer One. Now that range has been further complemented.

TITLE	PUBLISHER	PRICE	RATING
Assembler Development Kit	Metacomco	£39.95	6
QL Pascal	Metacomco	£89.95	9
BCPL Development Kit	Metacomco	£59.95	8
Lisp Development Kit	Metacomco	£59.95	8
QL C	Metacomco	£99.95	9

All of these come supplied with the Metacomco full screen editor that has now become the QL standard. So much so, in fact, that Metacomco have licensed it out to other companies for inclusion in their packages.

Assembler	Computer One	£29.95	7
Forth	Computer One	£39.95	8
Pascal	Computer One	£39.95	6
Assembler	GST (via Sinclair)	£39.95	9
Editor Assembler	Adder	£34.95	8
Gen QL Assembler	Hisoft	Coming Soon	

This list will give you an idea of the range of Assemblers and language packages available from companies other than Metacomco.

Mon QL (Microdrive)	HiSoft	£14.95	8
Mon QL (EPROM)	HiSoft	£39.95	10
QL Monitor	Computer One	£24.95	9
QL Monitor	QJump	£24.95	7

With only three disassembler/debuggers on the market, HiSoft comes out tops with MonQL on EPROM but the others are expected to follow suit shortly.

QL Monitor	Digital Precision	£18.05	2

This is a very simple package and suffers greatly from a severe lack of features — not one I'd recommend.

C Compiler	GST	£59.95	7

This isn't a complete implementation of the language but it's well suited to the beginner.

Supercharge (compiler)	Digital Precision	£59.95	

I haven't yet seen the finished version of this compiler but it promises to be a product that everyone can make use of. It's written by Simon Goodwin of Zip compiler fame (take a look at *Your Spectrum* 3) and it claims to convert almost every SuperBasic program into fully multi-tasking 68008 code.

SuperBasic extension	QJump (via Sinclair)	£24.95	9
SEE (EPROM)	HiSoft	£39.95	9

Of these two SuperBasic extensions, QJump's leads the way but HiSoft's SEE has some very useful facilities. It gives the QL true windowing capabilities and as it's on ROM you don't have to keep loading it in.

Microdrive Toolkit	Compware	£9.99	5
Microdrive Toolkit (with source code)	Compware	£34.99	5

The toolkits change the QL's microdrive commands into functions so that values can be returned and errors such as 'drive full' trapped.

Keydefine	Psientific Software	£9.95	10

This is a complete key redefinition package that'll let you use the redefined keys in almost every QL package. You could, for example, define the P key so that when you press it with the Caps Lock held down, the current document from within Quill could be saved and then printed. Freebie programs provided are a fast copier (a multi-tasking directory lister that lists directories from within other programs) and a printer spooler.

ICE (EPROM)	Eidersoft	£49.95	9

ICE (Icon Controlled Environment) gives the QL a full Icon based Desktop Manager and Front End to QDOS. It removes most mundane file handling tasks and I can thoroughly recommend it.

WD Utilities	WDSoftware		6
(Microdrive)		£7.50	
(5¼")		£10.00	
(3½")		£12.00	

WD Utilities are a complete set of SuperBasic procedures providing a menu driven system to manoeuvre files.

Cartridge Doctor	Talent	£14.95	9

If you're frequently visited by the 'Bad or Changed Medium' error message, you'll welcome this program. It's a fully automatic set of routines to recover corrupted and deleted files.

Q Doctor	Adder	£14.95	5

If you prefer doing things the hard way, *Q Doctor* only allows you to load and edit sectors from the microdrive. Unfortunately, there are no similar products yet available for disk users.

GraphiQL		£34.95	6
M-Paint	Medic	£49.95	8
Paint Master	Shadow Games	£14.95	7
Tascopy	Tasman	£12.90	8
Sprite Generator	Digital Precision	£24.95	6

Graphic printers are a personal choice. *GraphiQL* suits highly detailed work but is extremely difficult to use. For dedicated artists only! *M-Paint* is a coloured clone of Apple's *MacPaint*. Simpler to use but a shade less accurate on detailed work. Least sophisticated of all, *Paint Master* is none the less the most appropriate for your average QL user. Its ability to compile a drawing into a SuperBasic program that then copies it makes it practical if you want simple illustrations within your program. All have simple screen dump programs but *Tascopy* copies all or part of the screen in a variety of shades. *Sprite Generator* does just that but it's a complex to use package that isn't worth the asking price.

DOWN TO BUSINESS

The high reputation of *Archive*, *Abacus*, *Quill* and *Easel* is based on their quality — it's not just that they come with the QL. Other companies haven't released similar packages because most people are happy with what they've got. Doubtless improvements could be made but I expect

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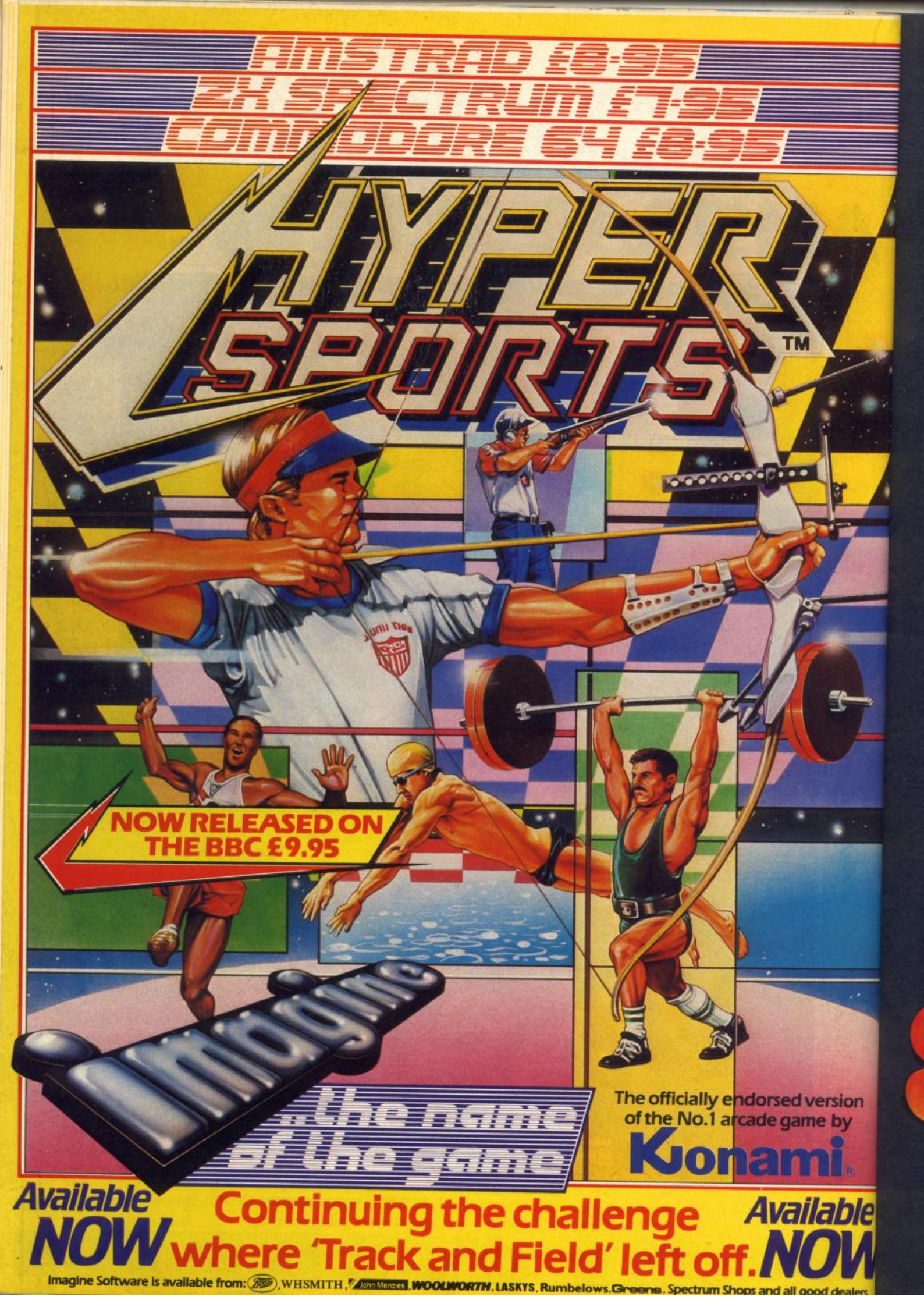
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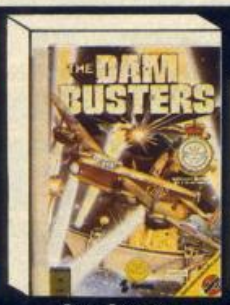
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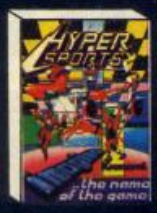
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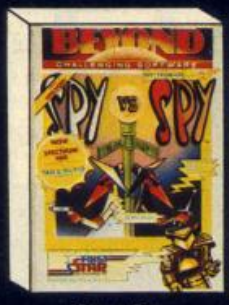
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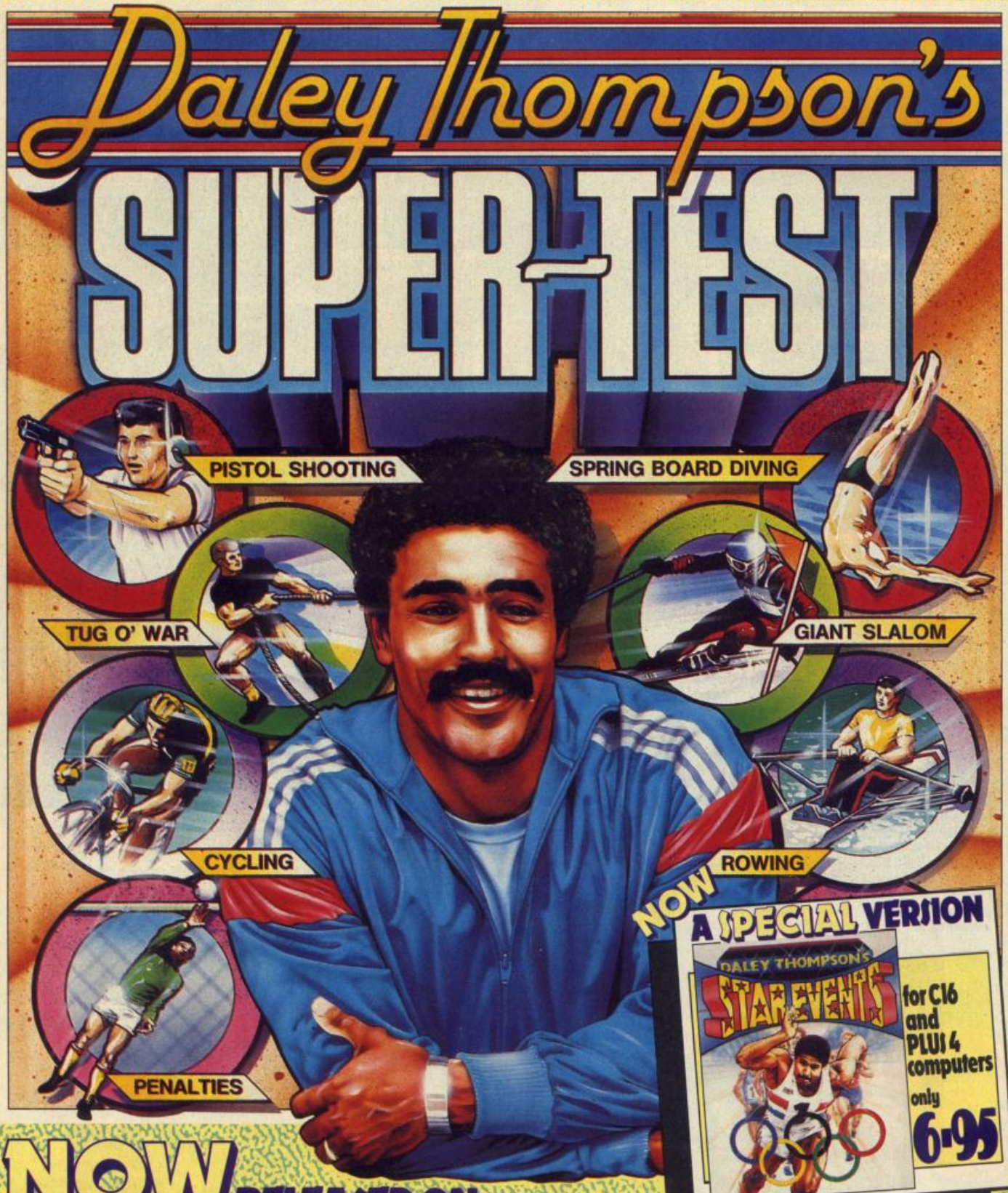

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these'll come from Psion rather than an independent house.

TITLE	PUBLISHER	PRICE	RATING
Q-Spell	Eidersoft	£19.95	8

Pore spillars will welcome *Q-Spell* — a full-spec spelling checker for Quill. But be warned! Extra memory's needed to check your document with Quill still in memory.

Home Finance	Buzzz (via Sinclair)	£24.95	8
Self Employed and Cash trader	Quest	£69.95	7
Small business and Accounts	Sagesoft	£89.95	8
Payroll	TR		8

Of the accounting packages aimed at home users *Smallbusiness* is the most professional. It has Integrated Purchase, Sales, and Nominal Ledgers. Transferred from the IBM PC it just goes to show that the QL can compete in the business world. *Payroll* provides a perfect complement and deals with data for up to 75 employees.

Decision Maker	Triptych	£39.95	8
Entrepreneur	Triptych	£39.95	8
Project Planner	Triptych	£39.95	8

The Triptych products help solve various problems and educate you in the process.

Equate (Microdrive and disk)	Flite	£39.95	7

For mathematicians, *Equate* can solve most problems — polynomial, linear, simultaneous equations, differentiation, integration, curve fitting and various graphical problems.

QL Gardener	Gordian Computing Services	£24.95	

QL Gardener is a database with information on over 1100 plants. Just a shame that the package won't dig or even weed your garden for you!

QL ADVENTURES

When you consider the QL's large memory and excellent graphics you'd expect plenty of adventures. But only three quality games exist, and they're all text only.

TITLE	PUBLISHER	PRICE	RATING
Lost Kingdom of Zkul	Talent	£19.95	8
West	Talent	£19.95	6
The Pawn	Magnetic Scroll coming soon		10

The Talents were released early on in the QL's history and they're still looking good. *Zkul* is based on the popular Dungeons and Dragons format and plays very well. *West* is set in the desert wilds — complete with menacing Indians. Few reservations about this one! *The Pawn* is extremely high quality, similar to that of the Level 9 adventures. It's set in the magical world of Kerovnia during a period of social upheaval and includes a very complex command interpreter that can understand commands as complex as "Get all except the cases but not the violin case then kill the man eating shrew with the contents of the violin case. Remove the shrew's tail and use it to tie the pole and the noose together!" See what I mean? This game's by far the QL's best adventure yet.

A WINNING STRATEGY

If you compare this list of strategy games for the QL with the selection for the Speccy, it looks pretty paltry. Still, there are some good 'uns here.

TITLE	PUBLISHER	PRICE	RATING
Chess	Psion	£19.95	9

Computer chess takes on a new dimension with a full 3D board display that makes impressive use of the QL's graphics.

Match Point	Psion	£14.95	9

Match Point is converted from the Spectrum and improved graphics make the game more playable.

Area Radar Controller	Shadow Games	£14.95	2

This is a very poor aircraft control simulation written in SuperBasic.

Bridge Player	CP Software	£14.95	5
Backgammon	Digital Precision	£12.95	5
Reversi	Games of Skill	£12.95	(Coming Soon)

Aimed at novices, *Bridge Player* and *Backgammon* are of little value to the experienced. Coming soon is *Reversi* — a full version of *Othello*.

Cosmos	Talent	£14.95	7

Patrick Moores, stand by your QLs. This is an astronomy package that allows you to display star and solar patterns as seen from any place on Earth at any point in time. From the star map you can choose any star with the cursor to find out extra data.

ARCADE ACTION

This list of arcade games for the QL may produce a snigger from Speccy owners — it doesn't exactly rival the selection on offer to them. Still, it's growing all the time!

TITLE	PUBLISHER	PRICE	RATING
QL Cavern	JMF (via Sinclair)	£12.95	7

A massive 50 screen *Jet Set Willy* clone with 395 gems to collect. Good value, with a good many improvements over the standard platform game.

Meteor Storm	Arrakia (via Sinclair)	£12.95	4

A bog standard version of *Asteroids*.

Booty	Firebird	£9.95	(Coming Soon)

A locks and doors classic on the Speccy that sells for £2.50. Microdrive problems push up the price on the QL. Looks impressive!

EVA	Westway	£12.95	9

A *Jetpack*-style game with very large sprite graphics. The most annoying feature is the almost continuous sound.

Star Guard	Shadow Games	£14.95	5
Galactic Invaders	Shadow Games		5

Shadow Games range from the reasonable to the pathetic. This pair come on the one cartridge and are just copies of *Arcadia/Invaders*.

Night Nurse	Shadow Games	£12.95	3

This uses Digital Precision's *Sprite Package* (see The Language Barrier) and it just goes to show that commercial games cannot be produced with it. Shame.

Quazimodo	Shadow Games	£12.95	7

Reasonable I suppose, very colourful and should satisfy if this is your thing. I'd back it!

Space Paranoids	Shadow Games	£12.95	4

Another *Arcadia* style game — hardly worth loading up.

Zapper	Eidersoft	£10.95	6

Similar theme to *Paranoids* but slightly better value.

Master Blaster	Compugem	£9.95	8

Excellent shoot 'em up that puts the rest to shame. Very smooth animated graphics and a wide range of aliens.

Cuthbert In Space	Microdeal	£14.95	7

Microdeal has a very varied quality range. *Cuthbert*'s aimed at the younger game's player and the hidden strategic elements make it more than a quick shoot out.

Lands of Havoc	Microdeal	£19.95	8

A well packaged 2,000 screen arcade that plays very well but could've made better use of colour.

Crazy Painter	Microdeal	£12.95	8

You can hardly call this an Arcade copy — it's so different. Crazeee!

Hopper	Microdeal	£14.95	7

Standard version of *Frogger* — as good as any. 'Bout time it hopped it.

QL Flight	Microdeal	£19.95	(Coming Soon)

A flight simulator that's due for release soon.

Hyperdrive	English Software	£14.95	8

The QL's official *Pole Position* — rather disappointing considering what could've been achieved. It's on a par with the Spectrum version.

LET US KNOW...

We've tried to make this guide as comprehensive as possible but a list like this can never truly be complete. If you own a piece of software, or if you produce one, that's not included here, tell us about it and we'll pass the info on to Your Sinclair*'s software hungry QL readers. The address to write to is* Your Sinclair, *14 Rathbone Place, London W1P 1DE.*

WORD RAP

Tasword II is the undisputed king of Speccy wordprocessing. Now it's got serious rivals courtesy of Softechnic's *The Writer* and OCP's *Word Manager*. *Max Phillips* tries the challengers ...

Bit of a turn up for the books this — two new Speccy wordpros both claiming to be so good, users will junk their faithful *Taswords* and pay out for the upgrade. *Tasword* has been the top Speccy word processor since it came out and, since it's given away in the Sinclair microdrive kits, most microdrive owners already have a copy. But *Tasword* is far from perfect — it operates at near comatose speeds and simple things like inserting text are quite awkward! So the opportunity to do something better has always been there and Softechnics and OCP's challengers have been a long time coming ...

THE WRITE APROACH

Let's look at *The Writer* first, simply because I like talking about well written, professional programs — and this is, quite simply, one of the most professionally produced business programs ever to load into a Spectrum. *The Writer*'s writer has taken a serious look at wordpros on business micros and brought a lot of their features and style to the Spectrum. In particular, it owes a lot to the number one wordprocessor in the world — *WordStar*, a long-running package, for CP/M and MS DOS micros, that'll set you back more than the price of a Spectrum with Interface 1 and two microdrives!

The Writer uses a quite pleasant 64 column display with a status line at the top which tells you your document name, the page, line and column you're on, the state of the Speccy's shift keys and whether you're in insert or overtype mode. Underneath this is a 'ruler line' showing the current margins and tab stops. As you enter text, it's formatted according to your current settings — justified, centred or whatever. If you edit a paragraph, it'll remain untidy until you use the reform key (Symbol-Shift/Y) to replay it out according to the current settings. If that ain't straight out of *WordStar*, what is?

While most common editing commands are on Symbol-Shift and Extend mode keys, all the complex editing functions are called up by pressing EDIT. A menu appears at the top line and you can move a little arrow using the cursor keys to select the item you want. A 'dialog box' will pop up over your text where you can choose the commands you want or enter new settings using the little arrow and the Enter key. This system is a doddle — you hardly need the complete help screens that can be called up off microdrive while you're editing! However, once you know the package, there's no quick way to execute these commands. The little arrow always reappears where it was last time you finished with a menu, so you spend a lot of your time driving it around the screen!

All these programs have around 20K free for text — about 3000 words. *The Writer* manages to keep its speed up admirably with all but the longest documents. One nice touch is a proper keyboard buffer — the Speccy remembers your keystrokes even while the program is busy so it doesn't matter if things slow down a bit.

PRINTS AND THE ROYAL MAIL

But *The Writer* really gets good when you come to print your documents. It offers a superb mail-merge facility — you can generate personalised mailshots by combining a form document with names, addresses or whatever held in a data file. For example, you could mail all the members of your club with a standard letter that begins Dear *what-ever-your-name-is*, and so on. *The Writer* lets you SET variables in the document so that, for example, you only have to enter today's date and all the letters will have the current date on them. You can do calculations so that, say, each letter you send has the correct charges at the bottom depending on which items each person in the data file has ordered. Finally, you can do 'conditional printing' so that certain sections of text only appear if certain conditions are true — you could use this, for example, to add to a warning paragraph onto letters for club members who haven't paid their subs.

This kind of powerful word processing is an everyday thing in business computing but since there aren't many office-bound Speccys, its appeal will be limited to people with such pastimes as running a business from home, running a club and so on. More useful for most of us is true background printing — you can continue to work (at full speed) while printing out a finished document.

The Writer also has a communication program to allow files to be moved between tape, microdrive and other computers connected to Interface 1 RS232. The files can be in *The Writer* format, plain ASCII text or in *WordStar* format. This'll let you move documents between other word processors and micros. Unfortunately, the program is more awkward to use than *The Writer* and the so-called '*WordStar* compatible' option is a bit of a con.

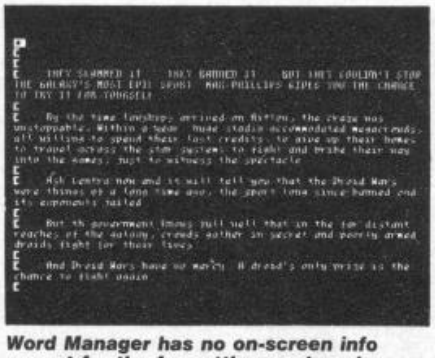
Although it handles the basic conversion, it doesn't translate *WordStar* formatting information such as page breaks and underlining into the relevant *The Writer* codes. And if you follow Softechnics's manual and use CP/M's PIP program to send the *WordStar* file to the Speccy, you can get the conversion done anyway by adding [Z to the PIP command (read your manuals guys!). Going the other way, *The Writer* sends the wrong sort of carriage returns to the *WordStar* machine. So, either way, you've got to re-edit the file once it's been transmitted. You might as well do the job yourself using ordinary microdrive commands — *The Writer* is about as *WordStar* compatible as *Tasword* and *Word Manager!*

The other utility you get is a program to convert *Tasword II* files to *The Writer* format — it's about as awkward as the communication program although it does do its job.

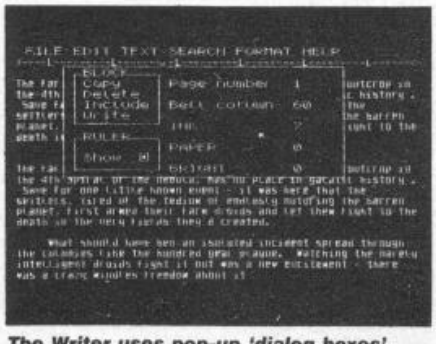
The Writer is damn impressive — our pre-release version shows only one serious bug — if you hold the down arrow down all the way to the end of the document and keep it down, the keyboard buffer packs up and you'll have to switch off. There are others — try replacing 'a' with 'aaaaa' — but nothing you can't work around. However, for all its features, it has one major flaw — you can't alter the line spacing of your text! Softechnics swears blind that you'll be able to before it's released — so it might be a while before it hits the streets!

THE LAST WORD?

Meanwhile, OCP must be kicking itself over *Word Manager*. True, it has some welcome features — it's the only one of the three that doesn't seem to slow down at all with very long documents and there's a word count and a 'swap words



Word Manager has no on-screen info except for the formatting markers in the left margin. The character set isn't exactly beautiful either ...



The Writer uses pop-up 'dialog boxes' for more editing operations. These are very easy to use at first but get tiring once you know what you're doing.

over' command. But, even ignoring the bugs in the review version, it just doesn't compare with Softechnics's offering. It gets off to a bad start with a poorly designed 64 column character set and a flaky keyboard reading routine. There's no on-screen info apart from symbols in the left margin which indicate the formatting of the text on that line — although the border changes when you set Caps Lock or whatever. Unlike *The Writer*, which gracefully scrolls sideways to show you lines up to 127 characters in length, *Word Manager* wraps long lines round onto the screen, making the first 64 characters brighter than the rest of the line. Yuk!

All the commands are either the top key row (there's a Figs Lock so you don't have to hold Caps Shift down to use the cursor keys and so on), Symbol-Shift keys or Extend Mode keys. Their layout is confusing and you have to leave your text and return to the main menu to see the help screens! *Word Manager*'s menus are fussy about capital and lower case letters even though you can't tell if Caps Lock is on or off and so on.

Text formatting is peculiar to say the least — paragraphs aren't formatted until you press Return at the end. To reformat after editing, you have to reformat the whole document from the main menu. If you don't want particular bits reformatted, you have to enter 'T' at the start of the paragraph you want left alone before you 'justify' the text. And while we're talking about silly things, the word count is only reliable if you first 'de-justify' the text from the menu, look at the word count and then 'justify' it again!

When it comes to printing, *Word Manager* can manage page numbers but not headers and footers like *WordStar*. There's a limited mail-merger option that works with OCP's *Mailing List Manager* and *Address Manager*. You can also 'slow print' text while you're editing another document. This will only work if you're printing a short document (it's kept in memory along with whatever else you're working on) although it failed to work at all on our version.

FINAL WORD

The best thing about these two new packages is seeing properly presented business programs on the Speccy. Both of them have all the basic facilities of real word processors and, like *Tasword*, can be installed for virtually any interface/printer combination. Both have proper length manuals although the copies we saw needed a fair bit of work before they were easy to read and use. If anything, the only thing that lets them down is that they've not been completely designed from the point of view of being easy and quick to use in anger. *The Writer* is very good but it isn't quite there yet!

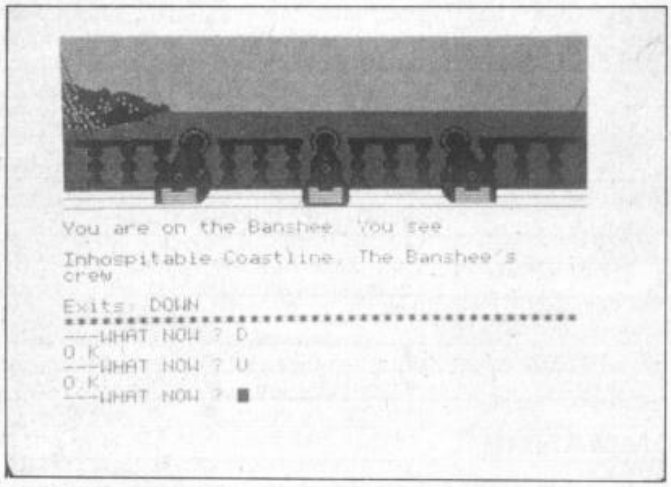
When it comes to choosing, I've no doubt that *The Writer* will take over from *Tasword* as the best Speccy wordpro. Indeed, some of you old Tasworders should wander down to your dealer and take it for a test drive. However, since it needs a bit of sorting out, it may be a while before you have the opportunity. *Word Manager* has little appeal in comparison unless you already use OCP's database products. So, sorry about the claims guys, but for the meantime at least, *Tasword II* is King!

BIG THREE AT A GLANCE

	Tasword II Tasman Software (0532) 438301	**The Writer** Softechnics 01-240 1422	**Word Manager** OCP (0753) 888866
Tape	£13.90	£12.95	£12.95
Microdrive	£15.40	Can transfer	Can transfer
Opus disk	Can transfer	£19.95	Can transfer
• BASIC FEATURES			
Max. text length	20480 bytes	20290 bytes	22782 bytes
Max. line width	64	127	128
Insert/Overtype	YES, open up text, insert then reform		
Text reform	MANUAL	MANUAL	MANUAL (on whole document only)
• ON-SCREEN INFO			
Formatting	•	•	•
Column	•	•	
Line	•	•	
Page		•	
Word Count			•
64/32 column switch	•		•
• CURSOR MOVEMENT			
Character	•	•	•
Word	•	•	•
Paragraph		•	•
Top/bottom of text	•	•	
Page		•	
Start of line		•	•
End of line		•	
• DELETION			
Character	Left	Left	Left or right, switchable
Word		•	•
Line	•	•	•
Paragraph			•
• BLOCK COMMANDS			
Copy	•	•	•
Move	•	NO (can copy then delete!)	•
Delete		•	•
Write to storage		•	
Include from storage		•	No (can merge text then block move!)
• SEARCH/REPLACE			
Search	•	•	•
Ignore case		•	
Whole word only		•	
Auto replace	•	•	•
Manual replace		•	
• FORMATTING			
Full justify	•	•	•
Ranged Left			
Ranged Right	•	•	•
Centred	•	•	•
Bold	•	•	•
Underlined	•	•	•
Auto-indent		•	•
Margin Release	•	Left-only	
Line Spacing	•		Single or Double
Variable Tabs	No tabs	•	Only 1 tab
Right tabs		•	
Decimal tabs		•	
Access to other printer functions	8	14	
Force Page break		•	•
Header/Footers		Left, right, centre alternate	
Page numbers		Arab, Roman, alpha, anywhere in header or footer	Arab, top or bottom of page
• PRINTING			
No of copies	1 only	Can set	Can set
Draft print		•	
Partial print	Start line — End line	Start page — End page	Cursor — Marker
Background Print		• (not tape)	YES

YS ADVENTURES

The Grim Reaper works his fingers to the bone playing the latest adventures. Can you grim and bear it?



SEAS OF BLOOD

Adventure International/ £9.95

Yessir! *Seas Of Blood* is just the sort of thing a depraved, bloodthirsty cavalier like myself is looking for! When you get this one slotted into your tape deck, the first thing that comes up on the screen is 'found blood!' More! Give us more!

And more you'll certainly get. Forget the goody-goody nonsense, and get stuck into this mega-number from Messrs Livingston and Jackson of Fighting Fantasy book fame. You take the part of a vile, blood-spilling pirate who has nothing better to do than sail the Inland Sea getting into scrapes and pinching other people's riches.

You start off on board your good ship the Banshee with your evil smelling crew. You must 'Sail North' (or 'South', or wherever the fancy takes you) until you come across a port or another ship. You'll have more fun meeting a ship, though, 'cos it's tally ho and into the fray!

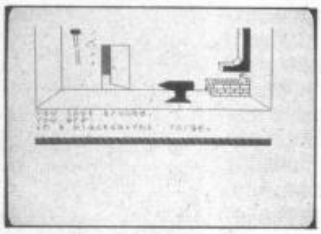
The combat routines are great fun and quite similar to those used in the original books. Whenever you encounter the enemy, two sets of die (one for you and one for the opposition) start spinning on the screen to determine the outcome. After a few throws one or other of you will end up as food for the sharks!

When you come across a port, you can 'Go ashore' or 'Go (name of port)' and engage the natives in a battle of the die, or should that be a battle to the death? At the start of the game most of them give up without much of a struggle, but later on you'll find they're very unwilling to give up their gold!

As far as the pics and descriptions are concerned, this game's pretty standard Adventure International fare. It's programmed by Gremlin's Mike Woodroffe and Brian Howarth and looks very similar to their earlier creations — *Robin Of Sherwood* in particular. Remember how you found your way around Sherwood Forest by keeping a close eye on the display? Well, you can do the same thing here, should you find yourself lost in the inevitable jungle.

The trouble with this game though, is that it ignores everything it doesn't understand — that wouldn't be too bad, but it also ignores some things that it does understand! For example, if you type 'Wear helmet' (and you haven't picked it up), the program replies 'You can't do that yet', so you 'Get helmet' and then find that 'Wear helmet' is ignored! If you check the inventory you'll find you're actually wearing it.

This is a real bloodthirsty megaromp that no pirate should be without. The blurb claims 300 graphic locations but a lot of these are just stretches of empty ocean. By the way — you certainly ain't gonna find it easy to map. Stick to the shore till you've found your way about. Stick to this game me hearties and you'll have a ho, ho, ho and a bundle of fun.



QUEST FOR THE HOLY GRAIL

Mastertronic/£1.99

Hmmmm! Haven't I seen this game somewhere before? Wasn't it back in 1905 or thereabouts? Well, at least it'll probably be cheaper now it's being distributed by Mastertronic.

Cheaper it may be but good it's not. It's full of naff jokes and everytime you make a move you're a gonner. I mean, what's so funny about being cut off in your prime by being shot at with great green lumps of snot! Ugh!

You play the part of Sir Tappin who's in search of the Holy Grail but I reckon you'll soon get tired of tappin' those keys. The graphics aren't that hot either, and they're even the same for different locations occasionally.

It'll take you ages to get anywhere in the game 'cos the program kills you off at every opportunity. Still, it is cheap. Perhaps that's all that matters ... perhaps!

RUNESTONE

Firebird/£7.50

Runestone's a *Lords Of Midnight* clone — it's got sleepless nights and aching fingers written all over it. In some respects it's better than its predecessor in others it's not.

What about the story? Yes, you guessed it — nasty orcs are marching down from the north (they always come down from the north) and knocking the stuffing out of the friendly, heroic folk they come across. As usual, there's a mega-nasty looming in the background called Kodimir and you've got to get out there and give him what for!

You control three heroes, an elf called Eliador, Rorthron — oops! sorry, I mean Greymarel the wizard and a warrior called Morval. These three must sally forth and discover the Runestone, a mystical gem that'll help you to destroy the evil Kodimir.

Know what I mean when I say it's a *Lords Of Midnight* clone? But although *Runestone* only allows you to control three characters it does offer you all the usual text input facilities you'd expect from a rip-roaring adventure.

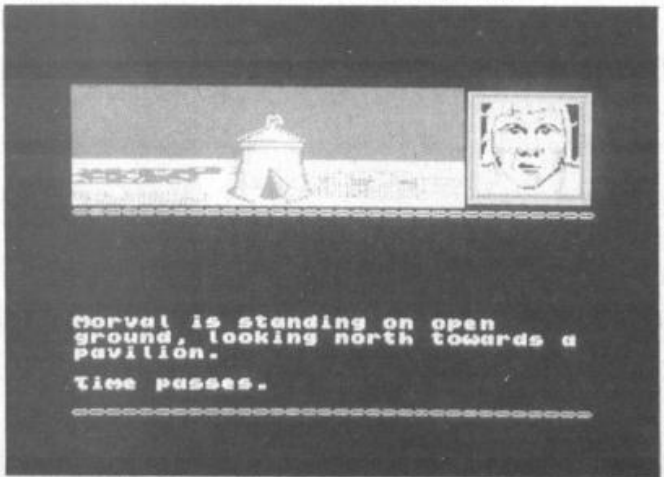
While you're busy typing in commands like 'Tell Skrimnal to get lost', something you'll want to do pretty often, 'cos he's a right pain in the hauberk, the graphics will depict the landscape in the direction you're facing. You can only move in four directions, though, but at least the movements are smooth.

The piccies aren't as pretty as Mike Singelton's ones but they do the trick, and, if you want to treasure them forever you can always use the COPY command to dump them to your ZX printer. That's if you haven't already donated it to the local museum.

You can even have a quick natter with the characters and better than that you can give 'em a poke in the eye. There are some great combat sequences and you'll have even more fun if you rush on in there without a weapon. I had a great round of fisticuffs with Skrimnal the Sly, who deserved everything he got!

All this and you can cast spells! Or rather Greymarel can. One slight problem — he forgets the spells at the start of the game. Maybe a quick box round the lughole will jog his memory!

There ain't no doubt about it, *Runestone*'s a smasher — you'll get to plaster a load of nasties and see the countryside. That can't be bad for only £7.50.



48K SINCLAIR SPECTRUM

"CYBERUN" recommended retail price £9.95 inc VAT.
Available from W.H.SMITHS, BOOTS, J.MENZIES, WOOLWORTHS and all good software retail outlets. Also available from ULTIMATE PLAY THE GAME, The Green, Ashby-de-la-Zouch, Leicestershire LE6 5JU (P&P are included) Tel: 0530 411485

THE NEVER-ENDING STORY

Attic Attack

'Tis a dark and stormy night and all around is gloomy as you curl up to read your copy of YS. *Strange things begin to happen when suddenly you're plunged into a world where . . . Read on and leave the real world behind.*

The Never Ending Story is the never ending success that grew from a best-selling book into a blockbuster film and finally into Ocean's latest adventure. And what a mega-game it is too — it loads in four separate parts, has windowing graphics, over a hundred locations, and some very strange characters.

Our epic hero spends his time hiding away in the attic. Well, wouldn't you if your parents christened you Bastian Balthazar Bux. But Bastian doesn't just run away and hide up there — he skips off to another universe. There he finds Fantasia, a world facing extinction. Predictably, the job sorting out the mess falls to him . . .

Thing is, bits of Fantasia keep disappearing, swallowed by 'The All Consuming Nothing'. At the start, a lad from the plains, Atreyu, is chosen by his people to dash off and face all manner of danger and devilry in the search for someone who can save the world. That someone, of course, is Bastian, sitting in his attic reading all about Fantasia and its inhabitants. How Atreyu manages to track him down is up to you.

The display is one of the game's main attractions. On loading, a horizontal format picture of a vast plain beneath an evening sky appears across the top of the screen. Other images, such as little illustrations of what you're carrying and cameo pictures of your location, flash on and off against this backdrop. Every so often, you're treated to a snap-shot of Bastian in his attic, reading his Fantasia book.

And if you're wondering what The Fantasians look like, well, take a look at their piccies on the screen. There are plenty of them — some pretty weird! You'll encounter rockbiter, Teenweeny, and Nighthob at the start but they'll promptly disappear for the duration of the first episode. There're also Gnomes, Giant Tortoises, and Sphinxes — not to mention your faithful steeds, Artax and Falkor the Luckdragon. All the characters have a significant game role, though you won't get much chance to talk to them.

Mind you, the lack of an 'Examine' option is a far more serious loss. Even if everything you carry is illustrated, attribute problems and limited graphics resolution make some things unrecognisable — it'd certainly help if you could call up descriptions of the more obscure objects.

This drawback apart, the game's well designed and gets the best from the words it does understand. The responses are helpful, specifying

MORLA

Morla squats in the heart of the swamp country, a cross between a tortoise and Mount Everest. He's a slow coach so you won't really find him that useful — still, he taught us a lot! Pay him a visit and he'll pass you a hint too.

ARTAX

Your faithful but heavy-footed steed. He's waiting patiently in Atreyu's home village. But you might as well leave him where he is if you're planning a trip to the swamps.

FALKOR THE LUCKDRAGON

You won't get far without him. He looks like a giant Irish Setter, but can whisk you away into the wild blue yonder. He's an absolute must for getting across otherwise impassable locations.

ILLUSTRATION: NICK DAVIES

any unacceptable words rather than just saying 'You can't do that'. You won't need to enter anything complex to solve the puzzle either — though that doesn't mean they're easy. You'll find yourself having to tie objects and problems together that occur at quite distant locations. This exercises the fingers as well as the brain cells!

Never Ending Story's opening puzzles me — it's just so easy! You're unlikely to die unless you're dogged with real bad luck. Don't be put off, though. As time goes by you'll find yourself more and more up against it. Spook City, for example, has death waiting around every corner, so make sure you save the game at every opportunity — unless you want to keep going back to square one!

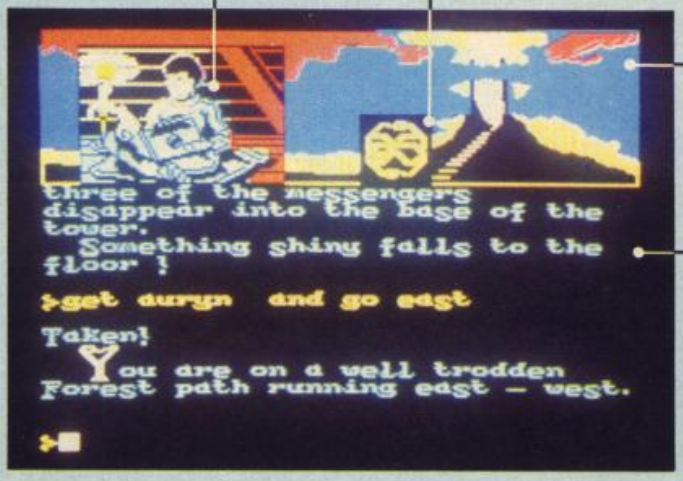
This is definitely a hot-shot Christmas bonus if you're tired of sitting in the attic all day!

ENGYNOOK

Weird name, but then these Fantasian gnomes are pretty weird! This one spends his time peering through a telescope at the Southern Oracle — perhaps she sunbathes topless or something!

Guess who! Bastian Balthazar Bux — reading YS of course (well, he'd better be).

This is Auryn, the medallion, — if you're going to get anywhere in the game, you'd better make sure you keep your grubby mitts on it.



You're gonna have to get used to this landscape as it doesn't change throughout the game. It's there as a backdrop for all the other illustrations.

Well, scroll on! You'll see your inputs and the responses to them here. And the character set's not too much of a strain on the old mince pies.

Auryn and Falkor, the Luckdragon, aren't at the start of the game's second section. Well at least you won't be taken for a ride! Things start to get pretty tricky now!

Here are the objects you're carrying. There's a limit to how much you can lug about, so make sure you have the right things at the right time.

No, not a plucked chicken, it's a piece of leather. Then again some of the objects you pick up are mighty tricky to identify from the graphics.

Take a breather — you've had a nasty shock — luckily the game halts the display and waits for you to recover. Just press Shift to continue.

Help! This is what happens if you get too close to the All Consuming Nothing! Now don't say you weren't warned.

Fax Box

Game ..... The Never-Ending Story
Publisher ..... Ocean
Price £9.95

Atmosphere	
Ingenuity	
Size Factor	
Value for Money	9

Omnipotent Objects

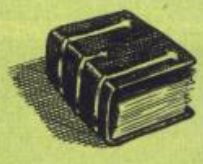
Without giving too much away, here's a quick guide to some of the objects you'll need if you're going to save Fantasia and escape from the attic.

Auryn. *This silver and gold medallion symbolises the life-energy of Fantasia. You'll stumble across it right at the beginning of the game, which is just as well as you'll need it to command Falkor the Luckdragon.*

Horn. *Another essential item and again it's a doddle to discover it. Give it a good blow, but try not to get carried away — think of the neighbours!*

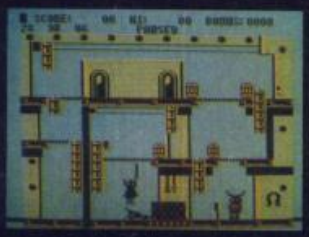
Crystal. *Engynook the Gnome badly wants one for his telescope but don't expect to find it lying around in the open.*

Leather. *You'll spend quite a while wondering what this is for. You can't wear it, cut it, or do anything exciting with it.*



Ancient Book. *Some objects aren't in themselves useful but can still help solve other puzzles. The book tells you how to enter the Ivory Tower — though with a little bit of brain-power you could figure it out for yourself.*

Apple. *Well? Should you eat it with all that talk of poisoned apples? One thing's certain — you won't get a good nights sleep until you find out!*



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I am Death - in all your adventures I am with you.

I am there when you come to a dead end - and when someone deals you a death blow. For a while I shall help you but you must send me your hints and tips. Ask the postman to put them under Death's Door, YS, 14 Rathbone Place, London W1P 1DE. Prepare to meet thy doom!

DEATH SENTENCE...

How long does it take you to crack an adventure? And just how much truth is there in the blurb on the cassette inlays that says things like, 'This adventure could take you months to solve!' and 'A year's worth of entertainment for only £15!'? Well, Martin Mulrany of Grangemouth writes in to say, "I'd just like to comment on your statement in *Your Spectrum* 20 about Graeme Smith completing *Red Moon* in only one week — 'a record for Level 9 adventures'. I completed *Lords Of Time* in well under a week after its release!" Hmmm ... so, what's your quickest completion time on a game? And did you feel cheated when you'd done it?

Talking of the shortest time that you've ever completed an adventure in, write in and tell me just how many you've finished. Are you up there with John and Patricia Black who've completed no less than twenty on their overheated Speccy — including *Robin of Sherwood* and *Valkyrie 17*, one of my all-time faves. Or perhaps like last month's El Supremo, John Wilson of Rochdale, you find it easier to tot up the games you haven't yet completed! Are there any games you get stuck on, John?

Following last month's shenanigans with the characters from *Sherlock*, David Graham has spotted some very odd goings on in the game. He writes, "I was in Basil's house in Leatherhead, I opened the safe in the presence of Chief Inspector Straker and Doctor Watson. I'd brought them along as a safeguard 'cos the last time I tried it alone Basil shot me. This time he still shot me — with a policeman present! Now who in his right mind would shoot someone if he was trying to prove that he didn't kill Mrs Jones or Mrs Brown. It's all a bit strange, methinks!" Methinks so too. And how many of you have one of the early versions of the game in which Dr Watson got a trifle over-chummy with Holmes and kept sitting on top of him.

Mind you, if you think that's bad what about the infamous bug that appeared in *Legion*, a game from Software Projects. It was in this immortal classic that you could go UP but you couldn't get back DOWN again. When I rang the company for help all I heard on the end of the line was a scream of despair followed by some very Ancient Celtic incantations — none of them over four letters!

A SNOWBALL'S CHANCE

The illustrious Harvey Lodder has written in with umpteen clues but we'll start with his tip on *Snowball*. To put out the fire in the control room, he says, you need the fire extinguisher from the snowplough. And if you're in trouble with the sharks in Waxworks, just try SWIM — sounds easy, doesn't it? *(Sounds flippin' obvious! Ed)*

Gregory Timmis is crying out for help with *Sherlock* so look him up in the list and drop him a life-line. Even better if you're incarcerated in the Goblin's Dungeon in *The Hobbit* as he'll be able to help you. That must surely be one of the biggest prisons in the world if you can judge by the number of people still stuck there. Well, for all those of you doing porridge, Greg has your free pardon. Before you go, try breaking the trapdoor that you'll find underneath the sand. If you enter Break Trapdoor and then press Symbol/Shift 2 repeatedly, you'll be presented with Thrain's Key that unlocks the side door in the Lonely Mountain.

Calling Spidermen everywhere — Stuart Galt'll get you out of a sticky situation. Try ripping the picture in the penthouse and taking the paper. Then take the exotic chemicals, go to the lab and MAKE WEB. Then use the web to stop the fan.

Alexander Kruczkowski has some very bizarre clues for *Erik The Viking* — buy the tabby cat for 2oz of gold/silver then tie the bell to it, open the slab door and cut the beard with the clippers. Hmmm, come back *Monty Python*, all is forgiven!

Finally, when you come to scour the lists of names, pay special attention to poor old K R Hill — he's stuck fast in *Wrath Of Magra*. Now I rate this game but we never seem to receive any letters about it. Is there anyone out there who's been playing it and would like to spill the beans? Just drop me a parchment at *Your Sinclair*, 14 Rathbone Place, London W1P 1DE.

KINGS OF THE CASTLE...

Knight's Quest, Planet of Death, Magic Castle
Christer Andersen, Rorlokken 49, 2730 Herlev, Denmark

Final Mission, Mountains Of Ket, Temple Of Vran, The Castle, The Prisoner, Tower Of Despair, Twin Kingdom Valley
James Wilson, 26 SpotlandTops, Cutgate, Rochdale, Lancashire, OL12 7NX

System 15000, The Hobbit, Snowball, Inca Curse, Waxworks, Urban Upstart, Super Spy, Espionage Island, Planet of Death, Velnors Lair and many more
Harvey Lodder, 35 Shelley Avenue, Bullbrook, Bracknell, Berkshire, RG12 2RP

Inca Curse, The Thompson Twins Adventure
Toby Blake, 25 Holm Park, Inverness, Scotland, IV2 4XT

Final Mission, Temple Of Vran, Planet Of Death, Kentilla, Sherlock, The Hobbit, Urban Upstart, Valhalla, Subsunk, Golden Apple and many more
John and Patricia Black, 137 Legahory Court, Craigavon, N Ireland, BT65 5DF

Planet Of Death, Spiderman, Gremlins, Pyjamarama, The Hobbit, Sherlock
Stuart Galt, Tigh-Na-Creag, Pier Road, Rhu, Dumbartonshire, G84 8LH

ON THEIR DEATH BEDS...

Spiderman — Help!!
Christer Andersen, Rorlokken 49, 2730 Herlev, Denmark

Eureka— How do I get the hollow log out of the swamp without being trodden on? *Erik The Viking* — any help appreciated
C Southouse, 32 Chestnut Drive, Polegate, East Sussex, BN26 5AN

Final Mission — I would welcome any help and advice.
Carl Barker, The Post House, Sparsholt, Winchester, Hants, SO21 2NR

Quest — How do I get in the castle?
Simply Desperate G A Tillins, 15 Gloucester Road, RAF Wyton, Huntingdon, Cambs, PE17 2HD

Sherlock — How do I get past Tricia's door and get to Old Mill Road?
David Walton, 22 Green Lane, Lower Kingswood, Tadworth, Surrey, KT20 6TB

Mission 1, Project Volcano — How do I get past the droid in the lift on floor 1?
Michael Williams, 15 Hardwick Ave, Chepstow, Gwent, NP6 5DJ

Ship Of Doom, Valhalla — Helppppp!!!
Benjamin Ellis, 7 Wallace Street, Dumbarton, Scotland, G82 1HH

Hunt For The Sun God — I can't cross the river or enter the temple.
Andrew Melvin, 44 The Causeway, Burwell, CB5 0DU

Spiderman — How do you clear the mist, Kill Electro, and take the gem from Sandman?
Edgar Wright, 40 Southover, Wells, Somerset, BA5 1UH

Heroes Of Karn — Too many questions to print!
Andrew Gordon, 5 Cairnlee Terrace, Beildside, Aberdeen, Scotland, AB1 9DE

Kentilla — How do I get into Tylons Castle. What use is the Conch?
A N Manson, 13 Riselaw Terrace, Edinburgh, EH10 6HW

El Dorado — Any help appreciated.
Stephen Martin, 21 India Drive, Inchinnan, Renfrew, PA4 9LF.

Final Mission — I can't pass the guardians of gates 2 or 4.
Andrew McCubbin, 3 Kenilworth Drive, Airdire, Lanarkshire, Scotland, ML6 7EY

Mordon's Quest, Eureka — Any help appreciated.
Susan Kinsey, 14 Kensal House, Ladbroke Grove, London, W10

Urban Upstart — I cannot get in the Town Hall, and what do I do when I'm in there?
Alan Pitt, Church View, Ormesby St. Margaret, Gt. Yarmouth, Norfolk, NR29 3P2

Spiderman — I can't get Mysterio
John James, 41C Barras Lane, Spoon End, Coventry, CV1 3BU

Twin Kingdom Valley — Lost in the little twisty passages.
Stewart Robinson, 184 Nuncargate Road, Kirkby-in-Ashfield, Notts, NG17 9EA

Hampstead — I keep getting mugged.
Mr G A Harris, 11 Woburn Drive, Hale, Altrincham, Cheshire, WA15 8LZ

Eureka — Help, help, help, help!!!
James Webb, 21 Ballycraggan, Puckane, Co Tipperary, Ireland

Hampstead, The Planet of Death — Any help appreciated with Lord Fish and the Forcefield.
Toby Blake, 25 Holm Park, Inverness, Scotland, IV2 4XT

The Fourth Protocol — Cannot answer Plumb's questions correctly.
Clive Lemon, 14 Greenfield Close, The Mount, Liphook, Hampshire, GU30 7QF

The Hobbit — Stuck in the Goblin's Dungeon.
Christopher Coventy, 28 Woodlea Close, Bromborough, Wirral, L62 6DL

The Hobbit — How do I Kill the Dragon?
Richard Weeber, 20 Barry Close, Chadwell-St-Mary, Grays, Essex, RM16 4SU

The Wrath of Magra — How do I get out of the Valley (stage 1)?
K R Hill, 1 Lake Cottages, Lake Lane, Barnham, W Sussex. PO22 0AJ

Sherlock — How do I stop Lestrade arresting the Major?
David Graham, 34 Maryfell, Sedbergh, Cumbria, LA10 5AW

Sherlock — Can't get to Old Mill Road.
Gregory Timmis, 129 Sunnycroft, Burton, Stoke-on-Trent, ST3 4BB

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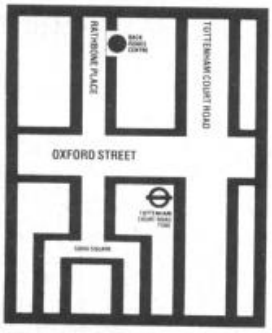

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Dragged back for another term, Eric continues his one-man fight against the Education system. All his old adversaries are there, plus escapees from the Biology room and, even worse, girls! Lucky he stocked up on stink bombs over the holidays!

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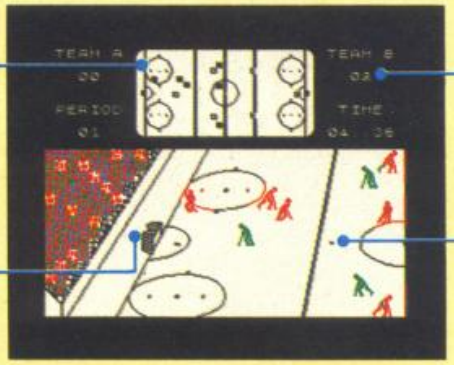
WINTER SPORTS

Get your skates on for Electric Dreams' gaggle of games that came in from the cold. Our own Highland games expert *Dougie Bern* flexes his frost bitten fingers to report on *Winter Sports*.

A compendium of eight games for Damart wearers, *Winter Sports* comprises of Slalom, Giant Slalom and Downhill Skiing, Ice Hockey, Bobsled, Biathlon, Ski Jump and Speed Skating. All will test you at the various skills, either against a mate or the computer through individual to team skills. So if you thought ski gear was just for breakdancing, think again. Settle down with a hot toddy and let's get on the piste.

ICE HOCKEY

You can ping the puck against the computer or a friend. Try and find a friend — the computer plays a tough game! Each game is split over three five minute periods. The player graphics aren't hot — about ice temperature in fact. The teams come out more like the chorus from Holiday on Ice than a bunch of Paul Newmans in *Slapshot.* The pace is fairly genteel, but a basic simulation is provided — passing, rebounds and interceptions — but no bust-ups! Funny, that's what I remember ice-hockey for!



A bird's eye view of the rink shows player location and movement. Whether it's really useful to plan your tactics in the middle of a game is questionable.

Beware of the computer's attacks. Crafty and sneaky it'll go for goal even if it has to skate behind the posts.

Team scores shown here. When I played, it looked more like a cricket scoreboard — in favour of the computer! What a rinky dinky box of chips!

Playing the game's really simple. The computer automatic-ally switches the player you're controlling to the one with, or closest to, the puck.

● You only see part of the rink at a time. Not quite as bad as only being able to see the corner post at the Park Lane end.

BOBSLED

Try this wall of death and you'll soon be out of breath! Like other elements in this package simultaneous screens give you different perspectives on your best game tactics. A combination of speed and control is your best bet. Now load up and bob's your uncle!

Speeding down the bobsled track you'll see the walls whizzing by. Don't go too fast though, 'cos even if you don't tip the sled over you'll probably crash into the wall.

The faster you travel the further you go. And combining speed with accurate steering gives you the best chance of winning.

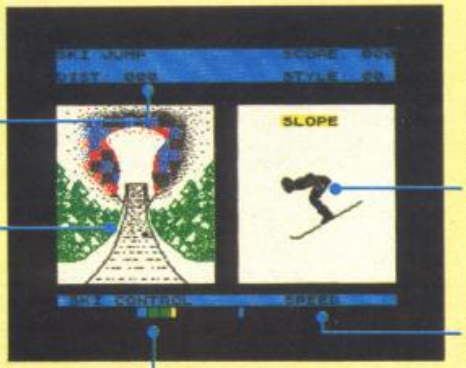
This overall view lets you stay on the straight and narrow or, in this case, the bend and curve. As you can see the course doesn't meander too much — probably a good job!

The steering controls let you put a bit of swerve on the sled and help you wind your way down the course. Keep off the Winter Warmer if you want to make it to the bottom in one piece.

Keep your eyes on the speed. The fast flash guys usually come to grief. Mind you in this frosty weather a fast flash is probably the best!

SKI-JUMP

Hardly a giant leap for mankind or computer games. But this one's not as easy as it looks. Speed and control are what you need to score those winning points for distance and style. To fly through the air with the greatest of ease ain't the simplest thing on a pair of skis. Get it wrong and the graphics tell a gruesome tale.



It'll take a while to master the jumping art. At first you'll be mainly wiping out and kissing the crystals — but don't despair! The distance indicator shows how far you've flown.

If the real thing's like this, let's leave it to the experts. I go more clammy than Klammer. A main thrill skill is to make sure you don't fall off before you get to the bottom!

Points for style depend on how well you hold your airborne position. You should use this display to maintain the smoothest of flights. Little bags are not provided for bumpy ones.

The faster you go the easier it is to fall so take it slowly at first. Optimise speed and control else it could be downhill all the way — in more ways than one!

The ski control shows you which way you're pointing those big bits of wood on your legs.

SKI-ING EVENTS

This part of the game gives you a trio of trips down the snowy sward. All the events, Slalom, Giant Slalom and the Downhill are basically the same. Different degrees of difficulty and slight variations in objective sort out one slope from another. Essentially, though, they're all downhill obstacle courses with poles and gates to be threaded with skill, speed and style. You're going against the clock to get into the Highscore Hall of Fame — so keep your turns as tight as those ski-pants! Alternative views are provided of your progress. There's also a control indicator — used with the speed indicator you can plan your shortest route.

BIATHLON

This is all about cross country cruisin' on slippery snow with the added delight of shooting targets. Basically you have to cover the kilometres against the clock — but to be a winner, speed and accuracy of shot are necessary. And you can't fire your rifle unless it's loaded — but a quick flick of the fingers will immediately re-arm you. The other variation to this game is that stamina, rather than adrenalin and bravery, is the key resource. One for slow-blooded Swedes!

SPEED SKATING

If all these Jean-Paul Killys give you the willys and the power surge of pumping thighs is more your scene then this section could be the one for you. It's against the clock, and you've got to skate — either against the computer or a slippery pal. Simultaneous views give you front and back elevation — but as the track is virtually circular with no obstacles or slopes then you could play this with one hand behind your back! The racers on the screen manage to skate like that. You can choose between five race distances ranging from 500 to 10,000 metres — each thigh sapping click is ticked off on the screen alongside the clock.

Graphics	
Playability	
Value for Money	
Addictiveness	7

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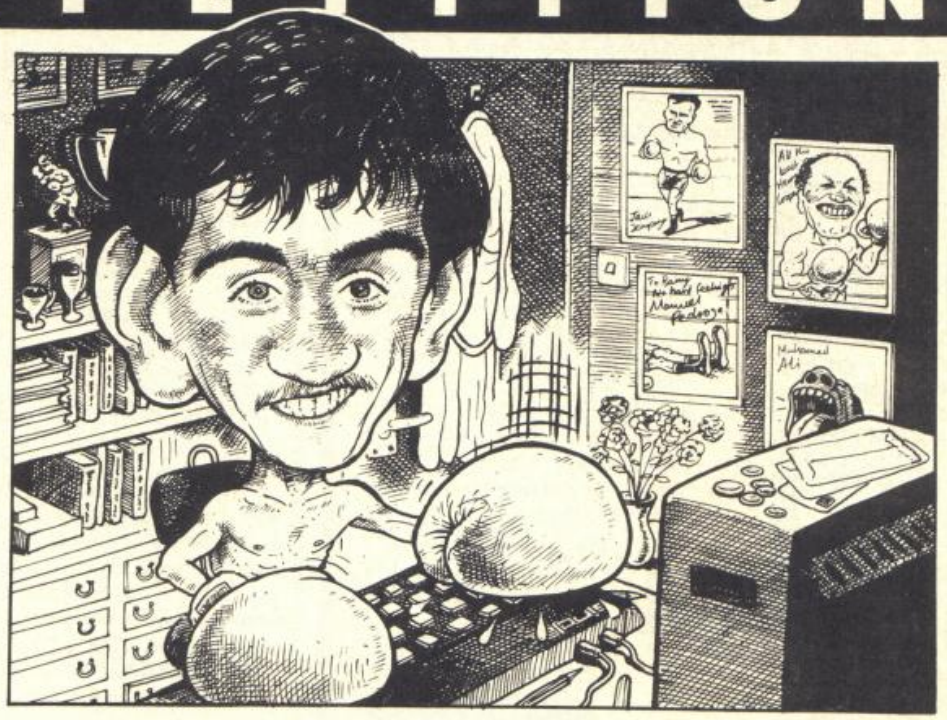
COMPETITION

OUT FOR THE COUNT



We're hand in boxing glove with Activision on this great compo. There are 60 copies of Activision's latest and greatest up for grabs but you won't need the luck of the Irish to win a prize — just a steady eye and a second class stamp.

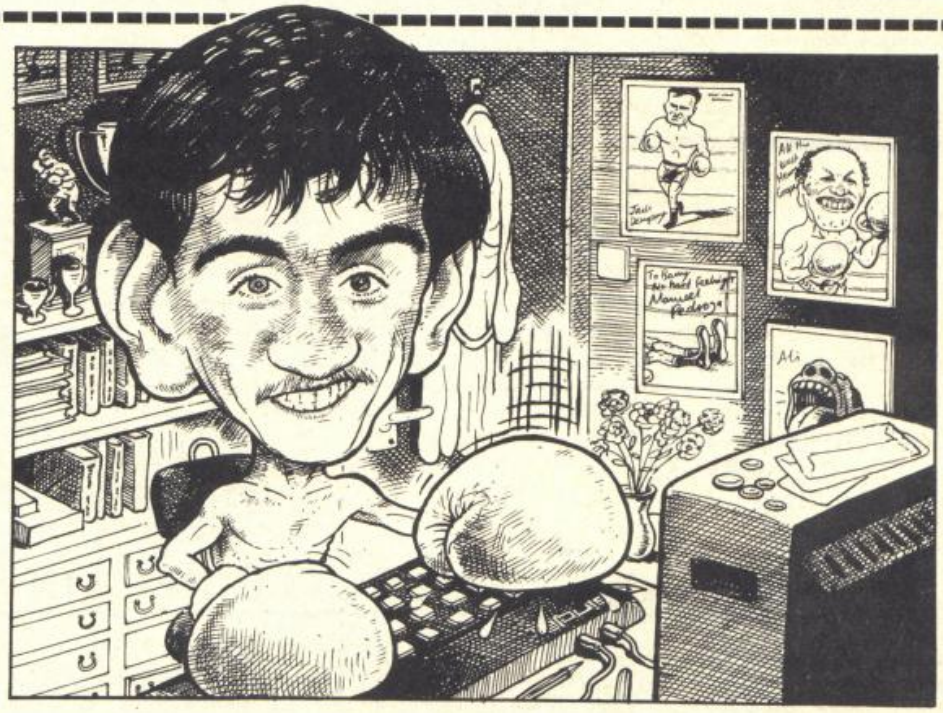
Enter Barry McGuigan, hero of all Ireland, lightweight champion of the world, one of the niftiest boxers ever to throw a punch and hacker extraordinaire. Hold on — hacker? Surely some mistake! Shouldn't that be hooker?

Well, perhaps so but that's not the only mistake in our piccy of Barry bashing away at his Speccy. Take a look at the two cartoons and you'll soon come up with a fair few differences between them. Just how many is what we want you to tell us! Put a ring round each of the spots where the two piccies don't match up, fill in the coupon and pack it off to us pronto at Barry's Boxing Compo, Your Sinclair, 14 Rathbone Place, London W1P 1DE.

And the reason for all this haste? Firstly, a chance to go a couple of rounds in the ring with Barry. Fortunately for you though, you won't have to don the gloves and cross the canvas 'cos you can trade punches with him in Activision's new blockbuster, Barry McGuigan's Boxing. *The company has come up with thirty copies of the game to give away plus thirty copies of their other latest sensation,* Hacker. *Now's your chance to win one of each without getting completely duffed over. No wonder poor old Barry's got his wires crossed.*

In fact, Hacker *is the ideal game for every YS reader. Now there's no need to drag yourself away from the mag to read all those boring old game inlay cards.* Hacker *comes with no instructions — whatsoever — nothing, nowt, zilcho! Just load it up and you're thrown straight into a world of intrigue, power struggles and impending catastrophe — all at the other end of your phone line.*

That's the challenge — now go for it. What are you — chump or champ?



Round one to me — I spotted ... differences between the two piccies

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Now clip out this coupon (or a photocopy) and send it to Barry's Boxing Compo, Your Sinclair, 14 Rathbone Place, London W1P 1DE. Please put the number of differences you spotted on the back of the envelope.

Queensbury Rules

Entries should reach us by no later than January 31st 1986. It's no good saying you coulda been a contender if you didn't get your entry in on time.

Each entry must have all the differences marked on the picture and the total should be written on the outside of the envelope.

The Editor's decision is final and no correspondence will be entered into.

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DROID WARS!

They slammed it ... they banned it ... but they couldn't stop the galaxy's most evil sport. *Max Phillips* gives you the chance to try it for yourself ...

The far flung colony planet Alioth, a tiny unwanted outcrop in the 4th Spiral of the Nebula, has no place in galactic history. Save for one little known event — it was here that the settlers, tired of the tedium of endlessly nurturing the barren planet, first armed their farm droids and let them fight to the death in the very fields they'd created.

What should have been an isolated incident spread through the colonies like the hundred year plague. Watching the barely intelligent droids fight it out was a new excitement — there was a crazy, mindless freedom about it. One that provided a release for the tension and bitterness many felt on finding their promised Edens were to become endless hells. Droid fighting became regular village entertainment and tradeships carried the craze throughout the outer worlds. Very soon, settlers exchanged the meagre living of their farmsets and were touring the planets, polishing up their own metal gladiators and preparing for the big fights.

By the time lawships arrived on Alioth, the craze was unstoppable. Within a year, huge stadia accommodated megacrowds, all willing to spend their last credits, to give up their homes, to travel across star systems, to fight and bribe their way to the games just to witness the spectacle. Ask CENTRA now and it will tell you the Droid Wars were a long time ago, the sport long since banned and its exponents jailed. But the government well knows that in the far, distant reaches of the galaxy, crowds gather in secret and poorly armed, low intelligence droids are walled in the arena and forced to fight for their lives. And Droid Wars have no mercy — a droid's only prize is the chance to fight again...

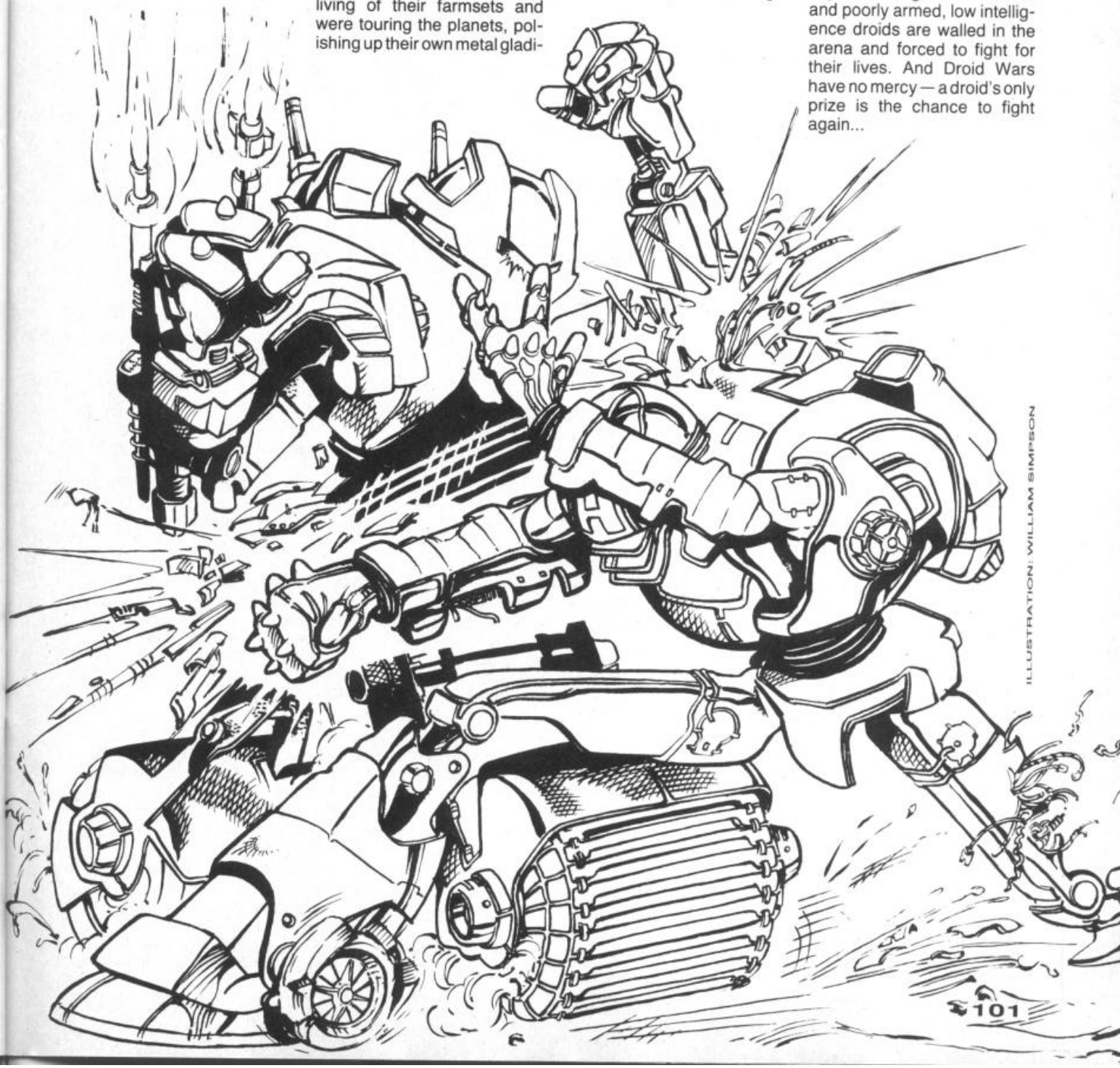


ILLUSTRATION: WILLIAM SIMPSON

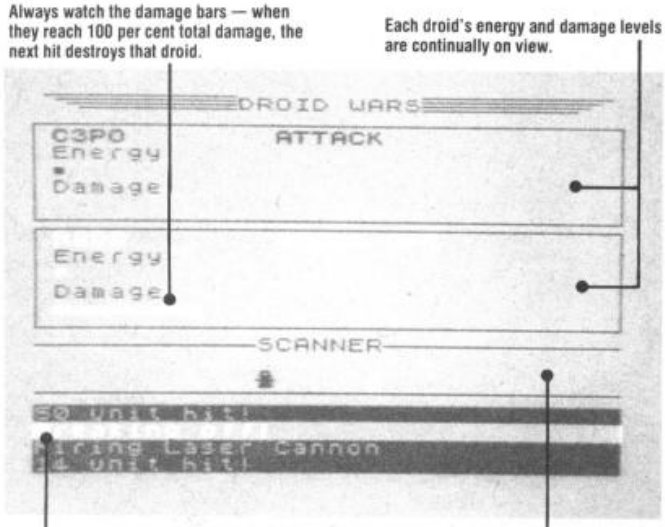
DROID WARS!

CHOOSE YOUR WEAPONS

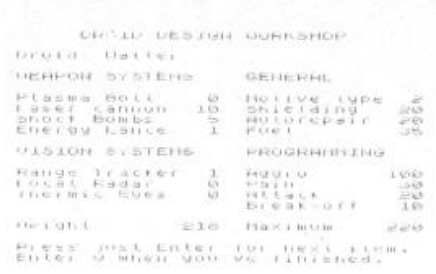
If you can't afford the trip to the other worlds or haven't the years to spare, you can at least experience Droid Wars by bashing in the simulation program here. Once it's running, press the R and B keys and design yourself two war droids using the available materials — and remember, depending on the motive unit you fit to your droid, you'll be limited as to the weapons and defences you can bolt onto it.

When your droids are ready, press F, sit back and watch the fight! May the best droid win but remember that lady luck will play her part. You can always fight the same designs again or go back and tweak their various features. And if you're feeling wimpish, you can hold down the mercy key during a fight and save the two gladiators. This is sometimes your only option — if two droids are evenly matched you may find they run out of ammunition and beat themselves into exhaustion. In the outer worlds, the droids are carried from the arena, repaired and replenished and then forced to fight again...

WELCOME TO THE ARENA



DESIGNING YOUR DROIDS...

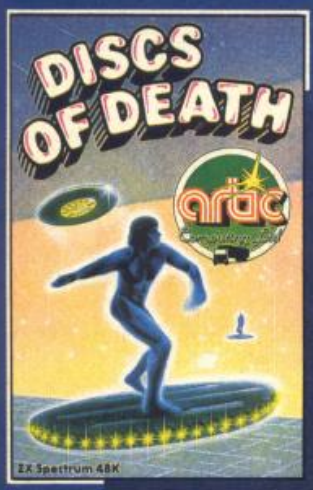


- Vanity Spot: All fighting droids have names — either that of their master or one of their own!
- The Plasma Bolt is the most dangerous and effective weapon available — it's so heavy droids rarely carry more than one but the results can be very effective! Range: 60, Weight: 5 + 80 per round.
- A Laser Cannon is the basic weapon of fighting droids — the short, rapid blasts of laser fire are both nasty enough and light enough to be a very effective weapon. Range: 40, Weight: 5 + 5 per round.
- Shock Bombs are a hit and miss weapon. Hurling them at your opponent often misses but is pretty unpleasant when it hits! Range: 25, Weight 3 + 5 per round.
- The Energy Lance is the only hand-to-hand weapon allowed — a drill is extended into the body of the opponent which is then energised. The results, on droids at least, depend quite where the lance hits. Range: 2, Weight 30.
- Long Range Trackers are the most effective vision system available and they provide extremely accurate targetting. Range: 100, Weight 20.
- Local Radar is the most popular vision system as it is reasonably capable while being quite light. Range: 50, Weight 10.
- Thermic eyes provide very limited if reliable vision. Range 30, Weight 5.
- Motive Unit. This is the most important element of your droid as it provides the basic framework for all other features. It's usual to pick this first and then set your other choices. There are four types available as shown below:

Type	Max Weight	Max Speed
1 HOVVERJET	180	12
2 WALKERS	220	8
3 SPEEDTRAX	200	8
4 MAXITRAX	240	6

- Shielding is essential if you don't want your droid to die in the first exchanges of a fight.
- Every modern droid is equipped with a certain percentage of self-repairing and regenerative circuits to allow it to work even when damaged. When a droid breaks off from an engagement, these circuits are put to work repairing any damage that has been done. What's more, if the droid is 100 per cent healthy, the circuits will top up the droid's energy supplies.
- Fuel is essential to a droid's survival — moving, seeing and fighting all use up energy and it's rare that any droid that starts with less than 50 units of fuel will live to fight again. However, you can use autorepair circuitry to keep the fuel topped up.
- Although fighting droids are of limited intelligence, they still need to be programmed for the fight. Programming can make all the difference between life and death. This first setting is how aggressive (from 0-100) the droid is and dictates how easily it is provoked into retaliation.
- Set your Pain threshold very carefully — too high and the droid will be dead before it has retreated — too low and it won't stick around long enough to shoot back!
- Attack Range also needs careful setting — too far away and weapons are unreliable. Once long range weapons are used up, a high attack range also confuses the droid!
- When it's had enough, a droid will attempt to retreat and recuperate. This setting is the time the droid will spend running away before it turns around and goes back in to the fray...

NEW RELEASES FROM "THE HOUSE"



DISCS OF DEATH

Can you retain the title of Disc Warrior Champion? Or will you, like so many before you, die by the disc. Excellent 3-dimensional graphics test your skill to the limit.

Pick of the week — Popular Computing Weekly 1/11/85

ZX SPECTRUM 48K
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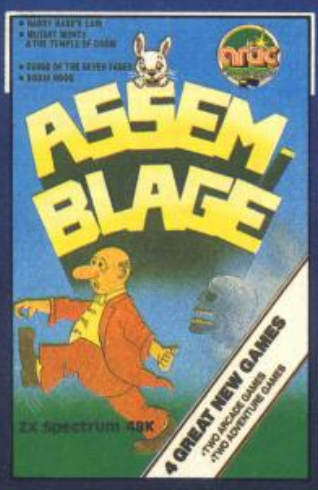

ASSEMBLAGE

Four new and original games on this big value tape! As Harry the Hare, can you outwit Farmer Giles to eat his carrots? Then explore the temple of doom as Mutant Monty. Then rack your brains over two excellent adventure games.

ZX SPECTRUM 48K
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ALADDIN'S CAVE

In this exciting arcade/adventure you must overcome the evil wizard by collecting objects and spells which allow you to transform into different lifeforms. Explore the strange caverns in your various bodyforms; as a man, a bird, a dolphin, a monkey or even a genie.

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INTERNATIONAL RUGBY

You can play for any of the Home International Teams – playing for the triple crown or even the grand slam! Includes every feature you would expect from this excellent arcade simulation rugby game.

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Flying at incredible speed, you must save the people of the 'black widow' from the tyranic aliens.

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BIG BEN STRIKES AGAIN

The world-famous reporter, Ben of the Chronicle, has been sent to the Houses of Parliament to piece together a big story that is about to break. To obtain his story he must approach the politicians, exhanging gifts for the leaked information. Can you recognise Maggie lurking in 'the house', or Geoffrey Howe, or the many other celebrities here to haunt you. The game includes a screen kit with which you can totally re-design your own screens!

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PING PONG

The officially endorsed version of the No.1 arcade game by **Konami**®

Imagine ... the name of the game

Imagine Software (1984), 6 Central Street
Manchester M2 5NS. Tel: 061-834 3939. Telex: 669977

You can almost feel the tension of the big match breaking through the screen . . . the expectant crowd is almost on top of you! You return the service with a ***Top-spin Backhand,*** *then a* ***Forehand Back-spin,*** *the ball bounces high from your opponent's looping, defensive lob . . .* ***SMASH!*** *. . . a great shot opens the score . . . but this is only your first point! Play head to head or against the computer in this, Konami's first and best table-tennis simulation.*

Imagine Software is available from selected branches of: Boots, WHSMITH, John Menzies, WOOLWORTH, LASKYS, Rumbelows, Greens. Spectrum Shops and all good dealers

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With over four years experience of providing practical software solutions for business and home applications, Gemini have put together their entire range of famous titles for the Spectrum and Spectrum Plus in ONE special pack, at a VERY SPECIAL price. Whether you're a cassette or microdrive user, this super value pack contains all the serious application software you're ever likely to need for your Spectrum, from home accounts and database management to a complete professional business accounting system.

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Each pack contains ALL 8 programs, demonstration data files, and clear and comprehensive manuals for EACH program. Gemini's previous retail price for all these programs individually was £179.60. Now they're all together in ONE COMPREHENSIVE PROGRAM PACK.

OFFICE MASTER

Tape: **£15** Microdrive: **£17.50**

includes P&P and VAT.

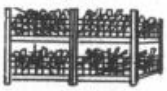
Database

Use this program for storing all types of information just the way YOU want to store it. You set up a computerised 'card index' system and add records and data to the file in the format that you choose. Advanced features include sorting and searching for specific records, mathematical calculations, printer routines, data summaries, etc. If you don't have a database, you certainly should!

Mailist

This is a specially designed database for storing names and addresses, and printing out in label format. Special search routines are included for selecting only names and addresses that conform to your criteria. The famous Gemini 'Searchkey' facility is included with this program, and data entry is simplified by an on screen label painting system. Just type in those names and addresses as though you were using a typewriter!

Stock Control



One of Gemini's speciality programs, this software will take the drudgery out of keeping stock records. Enter details of part number, description, unit quantity, cost price, selling price, minimum stock level, units in stock, order quantity and supplier details. Detailed reports include totals of stock at cost and sale price, cost of bringing stock up to level specified, gross margin, understocked items, etc. Full browsing facilities to make inventory management a pleasure!

Cash Book

This is a full and comprehensive cash book accounts system designed to REPLACE your manual ledger entirely. It will take you from the 'shoebox' situation of sheaves of invoices, cheque book stubs, petty cash vouchers and bank statements etc. to a properly constituted trial balance. You may then take your FINAL - ACCOUNTS package and produce profit and loss account and balance sheet ready for audit. A REAL money saver when it comes to your accountancy bill!

Final Accounts

Using the data file on microdrive or cassette prepared by the cash book program, this software will produce comprehensive end-of-year reports ready for audit by your professional adviser. The Gemini cash book and final accounts system is now in use by many thousands of businesses and as a 'classic' professional program has been translated for a wide variety of micros. Cash - book and final accounts alone warrant the purchase of this OFFICE MASTER program pack.

Home Accounts

Designed as a complete financial and budgeting package for home affairs, this program allows the user to set up a budget for items of household and family expenditure and compare actual expenditure with budget as often as required. A running total of surpluses and deficits is available both numerically and in bar graph form. A complete bank account routine is included, together with suggested expenditure categories which may be simply altered as required.

Easiledger

Consists of invaluable routines to allow the creation of any type of financial ledger system. Its usefulness lies in its ability to produce account balances instantly for debtors and creditors together with an audit trail of all entered transactions, with dates and references. A year-to-date summary is included of sales, purchases, receipts and payments over a 12 month period, and most importantly, a completely interactive bank account database is featured.

Graph Plot

At last, superb graphs, bar charts and pie charts on your Spectrum! With a complete data entry section and the ability to load and save files, this is really one of the fun programs to use. Represent numbers and data in clear diagrams with this package, and print them out on your printer to accompany reports, budgets, etc. Very highly recommended for the office, home and school. Also includes capability to provide mathematical function plotting.

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DROID WARS!

ENTER THE LISTS

Here's the Droid Wars listing — 100 per cent Basic action with no hex or Basic loaders to get in the way. Remember to save it in stages as you go in case you're attacked...

```
  20 GO TO 8001
 140 REM Kevinometer
 150 LET w=0: FOR j=1 TO 15: LET
  w=w+CODE r$(j)*V(j,5)+V(j,4)*(C
ODE (r$(j))<>0): NEXT j: LET a$=
STR$ w: LET a$="      "( TO 5-LEN
 a$)+a$: PRINT AT 18,11;a$: LET
a$=STR$ M(CODE r$(8),1): LET a$=
"  "( TO 3-LEN a$)+a$: PRINT AT
18,29;a$: RETURN
```

Lines 140-150 Check & display weight of droid.

```
 200 REM Scrolling Window!
 210  LET ss=1: LET a$=b$: GO SU
B 220: GO SUB 220: GO SUB 220
 220 LET l$(ss)=CHR$ 16+CHR$ r+a
$: LET ss=ss+1-4*(ss=4): PRINT A
T 18,0;: LET sc=ss: FOR z=1 TO 4
: PRINT  INVERSE 1;l$(sc);: LET
sc=sc+1-4*(sc=4): NEXT z: RETURN
```

Lines 200-220 Scrolling window. GOSUB 210 to clear, 220 to write new message.

```
 230 REM Move Droid & Display
 240 IF en=0 THEN  RETURN
 250  IF FN h()+M(CODE r$(8),3)<
dam THEN  LET a$="Motive unit fa
ilure!": GO TO 220
 260  LET spd=M(CODE r$(8),1)*M(
CODE r$(8),2)/CODE r$(20): IF di
r=-1 AND spd>ABS (p-op) THEN  LE
T spd=ABS (p-op)
 270 LET mv=SGN (p-op)*dir: IF m
v=0 AND dir=+1 THEN  LET mv=1-2*
(RND>.5)
 280  LET p=p+spd*mv: LET p=p-p*
(p<0): IF p>255 THEN  LET p=255
 300  LET en=en-1: LET w=w-1: LE
T np=INT (p/8): IF np=olo THEN
LET np=np+(np<>31)-(np=31)
 302 IF np=olp THEN  RETURN
 310  IF olp<>olo THEN  PRINT AT
16,olp;" ";
 320  PRINT AT 16,np; INK r;CHR$
144: LET olp=np: RETURN
```

Lines 230-320 Move a droid & update scanner.

```
 345 REM Scan arena
 350 LET ran=999:  IF CODE r$(7)
 AND FN h()+30>dam THEN  LET ran
=30
 355  IF CODE r$(6) AND FN h()+3
5>dam THEN  LET ran=50
 360  IF CODE r$(5) AND FN h()+5
0>dam THEN  LET ran=100
 370 IF ran=999 THEN  LET a$="B
lind!": GO TO 220
 380  LET en=en-1: LET w=w-1: LE
T a=ABS (p-op): IF a>ran  THEN
LET a=999
 390 LET ran=a: RETURN
```

Lines 345-390 Scan arena for opponent.

```
1100 REM Draw arena
1110  INK 0: PAPER 4: BORDER 4:
CLS : PRINT TAB 11;"DROID WARS"'
': LET a=5: FOR i=175 TO 169 STE
P -2: PLOT a,i: DRAW 87-PEEK 236
77,0: PLOT 168,i: DRAW 87-a,0: L
ET a=a+5: NEXT i
1120  PRINT  INK 1;" ";n$(f);" R
EADY"' INK 0;" Energy"''" Damage
"''' INK 2;" ";n$(s);" READY"' I
NK 0;" Energy"''" Damage";AT 14,
12;"SCANNER"
1125  PLOT 0,161: DRAW 255,0: DR
AW 0,-45: DRAW -255,0: DRAW 0,45
: PLOT 0,112: DRAW 255,0: DRAW 0
,-45: DRAW -255,0: DRAW 0,45: PL
OT 0,59: DRAW 95,0: PLOT 152,59:
 DRAW 103,0: PLOT 0,37: DRAW 255
,0
1130 GO SUB 210: IF mnu THEN  GO
 TO 2010
```

Lines 1100-1130 Draw arena.

```
1200 REM Init robots
1210  LET f$=d$(f): LET s$=d$(s)
: FOR i=22 TO 27: LET f$(i)=CHR$
 0: LET s$(i)=CHR$ 0: NEXT i: LE
T f$(21)=CHR$ 90: LET s$(21)=CHR
$ 150: LET s$(23)=CHR$ 1: LET f$
(23)=CHR$ 1: LET ef=CODE f$(11):
 LET es=CODE s$(11)
1220 FOR j=0 TO 2: INK 1: PLOT 8
,j+138: DRAW CODE f$(11),0: INK
2: PLOT 8,j+91: DRAW CODE s$(11)
,0: NEXT j
1230 LET olf=INT (CODE f$(21)/8)
: LET ols=INT (CODE s$(21)/8): P
RINT AT 16,olf; INK 1;CHR$ 144;A
T 16,ols; INK 2;CHR$ 144;
1250 GO SUB 210: LET a$=b$: GO S
UB 220: LET a$="      MORITURI T
E SALUTANT": GO SUB 220: LET a$=
b$: GO SUB 220: LET a$="  ENTER
to begin, M for mercy": GO SUB 2
20
1255  FOR i=1 TO 10: LET r=s: IF
 RND>.5 THEN  LET r=f
1256 NEXT i
1260 LET a$=INKEY$: IF a$="" THE
N  LET r=f: IF RND>.5 THEN  LET
r=s
1270  IF a$="M" OR a$="m" THEN
GO TO 2010
1280 IF a$<>CHR$ 13 THEN  GO TO
1260
1290 GO SUB 210
```

Lines 1200-1290 Initialise droids, place them in their starting positions and select who goes first!

```
1300 REM Swap over & unpack
1310  IF r=s THEN  LET r=f: LET
r$=f$: LET or=138: LET oo=91: LE
T o=s: LET o$=s$: LET en=ef: LET
 olp=olf: LET olo=ols: GO TO 134
0
1315 LET r=s: LET r$=s$: LET or=
91: LET oo=138: LET o=f: LET o$=
f$: LET en=es: LET olp=ols: LET
olo=olf
1340 LET mod=CODE r$(23): LET p=
CODE r$(21): LET dam=CODE r$(24)
1345 LET op=CODE o$(21): LET w=C
ODE r$(20): LET ar=CODE r$(10)/6
: INK r: RANDOMIZE
```

Lines 1300-1345 Swop over from one droid to the other and unpack array.

```
1350 REM ** 1st decisions
1360 IF en=0 THEN  LET a$="Exhau
sted!": GO SUB 220: LET mod=3: L
ET r$(26)=r$(15)
1370  IF r$(25)>r$(13)  AND  mod
<3 THEN  LET mod=3: LET r$(26)=r
$(15): LET a$="Breaking off!": G
O SUB 220
1380  IF r$(24)>r$(22) AND mod=1
 THEN  IF FN h()<=CODE r$(12) TH
EN  LET mod=2: LET a$="Provoked!
": GO SUB 220
1390 PRINT AT 2+(r=s)*6,13;M$(mo
d): GO TO 1300+100*mod
```

Lines 1360-1390 A bit of thinking at the start of each turn!

```
1395 REM Hunt mode
1400 LET dir=-1: GO SUB 240: GO
SUB 350: IF ran=999 THEN  GO TO
1910
1410 LET a$="Enemy sighted.":  I
F ran<=CODE r$(14) THEN  LET mod
=2: LET r$(25)=CHR$ 0: LET a$="B
```

ARE YOU THE DROIDMASTER?

At YS we're looking for the Droid Master — the designer who can come up with the ultimate fighting machine. All you have to do is design your best droid, fill in its details here and pop the whole coupon in the post to us. We're going to get hold of every Speccy we can muster and play off your droids in the biggest ever Droid War! And to show you how serious we are, we're offering an unrepeatable prize for the last droid left alive — two single tickets to the outer worlds complete with front row seats at the Wars! If that isn't enough, the winner will also receive the framed original of the droid cartoon on these pages!

This is your chance to demonstrate your abilities — to take on and possibly beat other YS readers. One of you and only one of you will be the Droid Master. Will it be you?

Droid Name .....

Plasma Bolt ..... **Motive Type** .....

Laser Cannon ..... **Shielding** .....

Shock Bombs ..... **Autorepair** .....

Energy Lance ..... **Fuel** .....

Range Tracker ..... **Aggro** .....

Local Radar ..... **Pain** .....

Thermic Eyes ..... **Attack** .....

Weight ..... **Break-off** .....

Your Name .....

Address .....

.....

.....

.....

Telephone .....

I understand that this is a simulation program and do not fight or condone fighting with droids.

Signature .....

Post this coupon (or a plasmacopy of it) to Droid Wars, YS, 14 Rathbone Place, London W1P 1DE.

DROID WARS!

```
anzaiiii!"
1420 GO SUB 220: GO TO 1910
```

Lines 1395-1420 Hunt Mode: Close in on enemy until within attack range.

```
1495 REM Attack mode
1500 GO SUB 350: IF ran=999 THEN
  LET mod=1: GO TO 1910
1505 LET wn=0:  IF CODE r$(4) AN
D FN h()>dam THEN  LET wn=4
1510 IF CODE r$(3) AND FN h()>da
m THEN  LET wn=3
1515 IF CODE r$(2) AND FN h()>da
m THEN  LET wn=2
1520 IF CODE r$(1) AND FN h()>da
m THEN  LET wn=1
1530 IF wn=0 THEN  LET a$="Weapo
ns failure!": GO SUB 220: GO TO
1910
1535  IF ran>W(wn,1) THEN  LET a
$="Out of range.": GO SUB 220: L
ET mod=1: GO TO 1910
1540  LET a$="Firing "+W$(wn): G
O SUB 220
1545 LET en=en-1: LET w=w-V(wn,5
)-1: LET r$(wn)=CHR$ (CODE r$(wn
)-W(wn,5))
1550  LET acc=W(wn,2): IF r$(5)=
CHR$ 1 AND FN h()>dam THEN  LET
acc=7000
1555 PRINT AT 16,olp; INVERSE 1;
CHR$ 144;AT 16,olp; INVERSE 0;CH
R$ 144
1560  IF FN h()>acc/(ran+1) THEN
  LET a$="Missed!": GO SUB 220:
GO TO 1910
1565 PRINT AT 16,olo; OVER 1; FL
ASH 1;" ";
1570  LET pd=W(wn,3)+RND*(W(wn,4
)-W(wn,3))
1580  LET esr=CODE o$(9)*(100-CO
DE o$(24))/100
1585  LET pd=5+pd*(100-esr)/100:
 LET pd=INT pd
1586 FOR i=1 TO pd*2: OUT 254,17
0: OUT 254,85: NEXT i : BORDER 4
: PRINT AT 16,olo; INK o;CHR$ 14
4;: LET a$=STR$ pd+" unit hit!":
 GO SUB 220
1587 LET z=CODE o$(24): LET o$(2
5)=CHR$ (CODE o$(25)+pd): LET o$
(24)=CHR$ (CODE o$(24)+pd)
1590 IF o$(24)>CHR$ 100 THEN  GO
 SUB 210: LET a$=n$(o)+" Destroy
ed!": GO SUB 220: LET a$=n$(r)+"
 Is The Victor!": GO SUB 220: GO
 TO 2010
1592  FOR j=oo-17 TO oo-15: PLOT
  INK o;z+8,j: DRAW  INK o;pd,0:
 NEXT j: GO TO 1910
```

Lines 1495-1592 Attack Mode: Pick the best weapon available and have a go at him!

```
1595 REM Chicken mode
1600 LET dir=+1:  GO SUB 240: IF
 r$(26)=CHR$ 0 THEN  LET mod=1:
LET r$(25)=CHR$ 0: GO TO 1910
1610  LET r$(26)=CHR$ (CODE r$(2
6)-1): LET dam=dam-ar: IF dam<0
THEN  LET dam=0
1615 FOR j=or-17 TO or-15: PLOT
 INVERSE 1;dam+8,j: DRAW  INVERS
E 1;ar,0: NEXT j
1620 IF dam=0 AND w+ar<M(CODE r$
(8),1) THEN  LET en=en+ar: LET w
=w+ar
```

Lines 1595-1620 Break-Off Mode: Run Away, make repairs and don't stop until break-off period is over.

```
1900 REM clean up & loop
1910 LET en=en-en*(en<0): FOR j=
or TO or+2: PLOT  INVERSE 1;8,j:
 DRAW  INK r;en,0: DRAW  INVERSE
 1;240-PEEK 23677,0: NEXT j: PRI
NT AT 2+(r=s)*6,13;M$(mod)
1920 LET r$(23)=CHR$ mod: LET r$
(24)=CHR$ dam: LET r$(22)=CHR$ d
am: LET r$(21)=CHR$ p: LET r$(20
)=CHR$ w
1930 IF r=s THEN  LET s$=r$: LET
 f$=o$: LET es=en: LET ols=olp
1940 IF r=f THEN  LET f$=r$: LET
 s$=o$: LET ef=en: LET olf=olp
1950  LET a$=INKEY$: IF a$<>"m"
AND a$<>"M" THEN  GO TO 1310
1960  GO SUB 210: LET a$=b$: GO
SUB 220: LET a$="        SAVED BY
YOUR MERCY!": GO SUB 220: GO TO
2010
```

Lines 1900-1960 Update arrays and energy bar and loop again.

```
2000 REM *** Menu
2010 LET mnu=1:  LET a$=b$: GO S
UB 220: LET a$=p$: GO SUB 220
2110 LET a$=INKEY$: IF a$="" THE
N  GO TO 2110
2120 IF a$>="a" AND a$<="z" THEN
  LET a$=CHR$ (CODE a$-32)
2130 IF a$="B" THEN  LET r=f: GO
 TO 3010
2140 IF a$="R" THEN  LET r=s: GO
 TO 3010
2150 IF a$="F" THEN  LET mnu=0:
GO TO 1110
2200 IF a$<>"Q" THEN  GO TO 2110
2210 PAPER 7: INK 0: BORDER 7: C
LS : GO TO 9999
```

Lines 2000-2210 Stick the menu in the window and fetch a command.

```
3000 REM ** Create/edit Droid
3010 INK 0: PAPER 6: BORDER 6: C
LS :  PRINT TAB 5;"DROID DESIGN
WORKSHOP"''"Droid: ";n$(r)'' INK
 r;"WEAPON SYSTEMS    GENERAL"''
3020 PRINT  INK 0;"Plasma Bolt
XXX  Motive type  X"'"Laser cann
on XXX  Shielding  XXX"'"Shock B
ombs  XXX  Autorepair XXX";"Ener
gy Lance  X  Fuel        XXX"'
3030 PRINT  INK r;'"VISION SYSTE
MS     PROGRAMMING"''  INK 0;"Rang
e Tracker  X  Aggro       XXX"'"L
ocal Radar     X  Pain        XXX"
'"Thermic Eyes   X  Attack      X
XX"'TAB 18;"Break-off  XXX"''"We
ight        XXX  Maximum     XXX"
3040 PRINT : PRINT "Press just E
nter for next item. Enter Q when
 you've finished."
3170 LET r$=d$(r): FOR i=1 TO 15
: LET a$=STR$ CODE r$(i): LET a$
="  "(1 TO (3-LEN a$)*(V(i,3)>9)
)+a$: PRINT AT V(i,2),V(i,1);a$;
: NEXT i: GO SUB 150
```

Lines 3000-3170 Draw editor screen.

```
3180  LET i=0
3190  IF i>0 THEN  GO TO 3250
3200  PRINT AT 2,7; FLASH 1;n$(r
);: LET a$="": INPUT  LINE a$: I
F a$="q" OR a$="Q" THEN  LET r$(
20)=CHR$ w: LET d$(r)=r$: PRINT
AT 2,7;n$(r): GO TO 1010
3210 IF a$<>"" THEN  LET n$(r)=a
$
3220  PRINT AT 2,7;n$(r): GO TO
3290
3250  LET v$=STR$ CODE r$(i): LE
T v$="  "(1 TO (3-LEN v$)*(V(i,3
)>9))+v$: PRINT AT V(i,2),V(i,1)
; FLASH 1;v$;: LET a$="": INPUT
 LINE a$: IF a$="" THEN  GO TO 3
270
3252 IF a$="q" OR a$="Q" THEN  L
ET r$(20)=CHR$ w: LET d$(r)=r$:
GO TO 1010
3255 LET a=0: FOR j=1 TO LEN a$:
 LET a=a$(j)<"0" OR a$(j)>"9": N
EXT j: IF a=1 THEN  BEEP .5,12:
GO TO 3250
3257 LET a=VAL a$: IF a>V(i,3) O
R (i=8 AND a=0) THEN  BEEP .5,12
: GO TO 3250
3260  LET t=CODE r$(i): LET r$(i
)=CHR$ a: GO SUB 150: IF w>M(COD
E r$(8),1) THEN  LET r$(i)=CHR$
t: PRINT ;0; FLASH 1;"OVERWEIGHT
": BEEP .5,12: FOR j=1 TO 50: NE
XT j: GO SUB 150: GO TO 3250
3265  LET v$=STR$ CODE r$(i): LE
T v$="  "(1 TO (3-LEN v$)*(V(i,3
)>9))+v$
3270 PRINT AT V(i,2),V(i,1);v$;
3290 LET i=i+1: IF i>15 THEN  LE
T i=0
3295 GO TO 3190
```

Lines 3180-3295 Collect a value, validate it and alter array if necessary. Quit to menu with the Q command.

```
8000 REM Init it bit
8001 PAPER 7: BORDER 7: INK 0: C
LS
8002 PRINT "YS Droid Wars"''"Ple
ase Wait!";AT 21,10;1985 Stran
ge Software"
```

Lines 8000-8002 Well, initialisation takes so long, there ought to be something to look at!

```
8010  LET r=1: LET f=1: LET s=2:
 LET mnu=1
8015 LET b$="
          "
8017 LET p$="?  Red   Blue    Fi
ght   Quit  ?"
8020 DIM l$(4,34): REM scroller
8025 FOR i=1 TO 4: LET l$(i)=CHR
$ 16+CHR$ 0+b$: NEXT i
8030 REM Mode display
8040 DIM M$(3,10): LET M$(1)="HU
NT": LET M$(2)="ATTACK": LET M$(
3)="BREAK-OFF"
8045 DIM W$(4,15): LET W$(1)="Pl
asma Bolt": LET W$(2)="Laser Can
non": LET W$(3)="Shock Bomb": LE
T W$(4)="Energy Lance"
8050 DEF FN h()=INT (RND*100)+1
```

Lines 8010-8050 Set up sundry items.

```
8100 REM Droid Array
8110  DIM d$(2,30): DIM n$(2,11)
8120  LET a$="": FOR i=1 TO 30:
LET a$=a$+CHR$ 0: NEXT i: LET a$
(8)=CHR$ 1: LET a$(20)=CHR$ 30
8130  FOR i=1 TO 2: LET d$(i)=a$
: LET n$(i)="- no name -": NEXT
i
8140  REM Awful Droid UDG
8145  FOR i=0 TO 7: READ a: POKE
 USR "A"+i,a: NEXT i: DATA 60,36
,126,60,255,60,126,126
```

Lines 8100-8145 Set up droid arrays and awful UDG character!

```
8150 REM MPD Visit
8160 DIM M(4,3): FOR i=1 TO 4: F
OR j=1 TO 3: READ M(i,j): NEXT j
: NEXT i
8170  DATA 180,12,30,220,8,50,20
0,8,50,240,6,65
```

Lines 8160-8170 Set up Motive Unit table.

```
8200 REM Designer Table
8210  DIM V(15,5): FOR i=1 TO 15
: FOR j=1 TO 5: READ V(i,j): NEX
T j: NEXT i
8220 DATA 13,6,255,5,50
8230  DATA 13,7,255,5,5
8240 DATA 13,8,255,3,5
8250 DATA 15,9,1,30,0
8260 DATA 15,13,1,20,0
8270 DATA 15,14,1,10,0
8280 DATA 15,15,1,5,0
8290 DATA 31,6,4,0,5
8300 DATA 29,7,100,0,1
8310 DATA 29,8,100,0,1
8320 DATA 29,9,255,0,1
8330 DATA 29,13,100,0,0
8340 DATA 29,14,100,0,0
8350 DATA 29,15,100,0,0
8360 DATA 29,16,100,0,0
```

Lines 8200-8360 Designer Table -- this holds all the validation stuff needed by the designer as well as the weights of each element.

```
8400 REM Weapons table
8410 DIM W(4,5): FOR i=1 TO 4: F
OR j=1 TO 5: READ W(i,j): NEXT j
: NEXT i
8420 DATA 60,2000,40,50,1
8430 DATA 40,1800,10,20,1
8440 DATA 25,1600,15,30,1
8450 DATA 2,7000,5,15,0
8500 GO TO 1100
```

Lines 8410-8500 Set up Weapons Table. What would happen if you changed that 60 into ...?

Are you on the hunt for hardware, searching for a software Swop or pursuing a pen pal? Well look no longer — put your message in *YS* and get your name in the mag for *free!*

HARDWARE

■ Spectrum Wafadrive with word processor. Hardly used. Worth £130, will accept £95 ono. ZX Printer £20. Currah MicroSpeech + tape £16. Tel. (0306) 882262 after 5 pm and ask for Robert.

■ Dk'Tronics Light Pen in original packing — £12. Two rolls of ZX Printer paper — £2. 50 magazines, worth £40 — £7. Tel. (0705) 482700 after 6 pm and ask for Matthew.

■ Help!!! Can anyone *please* tell me how to switch Eproms and RAM into the Sinclair ROM area (and any other place in the 64K). Diagrams and circuit drawings of the hardware described in *YS* no. 14, page 40/41 also wanted. Please write to Odin H. Sarensen,Kajerad Vaenge 33, 3460 Birkerad, Denmark.

■ ZX Spectrum with tape recorder, Protek switchable interface, joysticks and over £250 games. Would cost £470 new, all in vgc, sell for £250 ono. Tel. Larkhall (0698) 887959 and ask for Steven.

■ Stonechip add-on keyboard for Spectrum+. Just plugs in, no soldering required. Sell for £20 ono. Tel. (0454) 412831 and ask for Alan Tobias.

■ Swop Wafadrive, Currah MicroSpeech, Kempston Interface, *White Lightning, Glass, Starion, Melbourne Draw, HURG, Psytron, The Artist* for Microdrive+ Interface, Sprint, Printer. Tel. Luton 505319 and ask for Mr P Robinson.

■ 48K Spectrum, Interface 1, microdrive, six cartridges, 60 original games worth £300+, Interstate Joystick Interface, books and lots of mags. Will consider splitting. Sell for £230 ono. Tel. (0231) 60032 and ask for Mr M Passmore.

■ For sale — Stonechip programmable joystick interface, hardly used. Cost £24, will sell for £12 inc p&p (UK only). Tel. 01-363 1404 after 6 pm and ask for Simon.

■ ZX Printer and three rolls of paper — £40 ono. Lerm Tape Copier and microdrive 1. Offers? All issues of *YS* for sale. Tel. (0203) 396132 and ask for K A Whiting.

■ Spectrum+ with Interface 1, microdrive. Seven cartridges, tape recorder, 3-channel sound synthesiser, MicroSpeech and lots of software. Will take offers around £300. Tel. (0636) 76507 and ask for Stephen.

■ Teletype 33TAC with paper tape reader and punch, £50 ono. Paper rolls £3. Paper tape rolls £1. Tel. (0256) 27532 and ask for D V Rosam.

■ First two volumes *'Input'* magazine, complete with binders. Excellent condition, £18.95 inc p&p. A. Pointer, 12 St James Avenue, Broadstairs, Kent CT10 2RN.

■ Currah MicroSpeech unit at £15 and a Dk'Tronics Light Pen at £12. Both items as new. Buyer to inspect. Tel. 01-907 2253 and ask for Robert.

■ 48K Spectrum switchable interface, joystick, MicroSpeech, Lo-Profile keyboard, lots of games and mags all under one year old, worth £450, will sell for £200. Tel. 031-664 0687 and ask for Justin.

■ For sale Epson RX80 Printer, serial or Centronics input — £150. Also, Alphacom Printer £45, both as new and boxed. P&P extra. P Last, 4 Hillside, Marham, Kings Lynn, Norfolk. Tel. (0760) 337463.

■ ZX Spectrum+ and software, hardware and tape recorder, etc. Under three months old, most in boxes. All offers considered. Apply: Stephen Page, 10 Tynemount Road, Ormiston, East Lothian EH35 5JP.

■ 48K Spectrum, excellent condition including B/W TV, cassette player, Fuller Box sound unit, lots of original software and magazines only £160 ono. Tel. Bungay 4582 and ask for Andy.

■ For sale. ZX81 16K with new keyboard. £25. Write to Alistair Sellar, 24 Campbell Avenue, Edinburgh EH12 6DN.

■ 48K Spectrum, *Masterfile* and *Tasword Two* as new only £130. Contact Adam Raoof, 168 Minard Road, Catford, London SE6 1NJ. Suit small business or serious user.

■ 48K Spectrum, Interface 1, microdrive, joystick and interface. 16 great games and assorted books with tape recorder. If interested please contact Woking 61556 and ask for Amedeo.

■ Microdrive, Interface 1+ seven cartridges, £300 worth of software and mags and Kempston joystick interface. Will split, all in original packaging and all in excellent condition. £120 ono. Adrian Schofield, 12 Valley Park, Cumbria CA28 8BA.

■ Robotic Arm (Armatron), Redditch I/O port, documentation and software. Plugs directly into Spectrum. All axes works, but some inaccurate. Electronics okay, small hardware mod necessary. £60 including postage. Tel. (0889) 270109.

■ Brand new ZX Spectrum 48K with cassette player + over £100 worth of games, will sell for £110 ono. Tel. (0630) 5696 and ask for Roger.

■ For sale, Computer Data Recorder, brand new, good condition for £32.95. Separate 32K Rampack, good condition, worth £40 for sale at £21.50. Tel. 01-855 4733 and ask for Surinder Jhaj.

■ Half price Interface III, only £20. Backs up all tapes to microdrive or tape. Write to Mr A Bellamy, 181 Model Village, Creswell, Worksop, Notts S80 4BT.

■ 48K Spectrum with £80 worth of software plus Kempston joystick interface all for £100. Interface 1 and microdrive plus four cartridges £60. Tel. (0625) 877392 after 7 pm and ask for Dave.

■ 48K Spectrum, Speccy and peripheral storage case, software leads and manual. All in mint condition. £75. Tel. (0706) 356856 and ask for M H Choudry.

■ 48K Spectrum, reset bar, tape recorder, Quickshot II joystick, Ram Interface. Excellent condition — nothing has ever needed repair. Plenty of games and magazines, quick sale therefore £95. Tel. (0823) 71131.

■ New Brother HR5 and Kempston Centronics E, £80. Tel. Sidmouth 2016 and ask for Eric.

■ 48K Spectrum, Saga Emperor Keyboard, ZX Printer, joystick interface, five rolls paper £200 worth software, £55 worth books (four machine code) altogether worth £515. Sell for £260 ono. Tel. 01-708 1850 and ask for Jason.

■ 48K Spectrum with Currah MicroSpeech. Books, games, utilities, mags (including issues 1-14 of *YS*). Microdrive cartridges. cost over £330 accept £180 ono. Tel. (06286) 5713 and ask for Mr K Long.

■ For sale; Joystick + Ram Turbo interface £15, Currah MicroSpeech £14. MicroSlot £6. Saga Keyboard £25. Four Spectrum books at £1.50 each. Tel. Romford 61232 and ask for Stuart.

■ Swop green screen monitor (suitable for BBC) for any portable colour TV also ICL 7561 keyboard £10. Tel. (0705) 832850 evenings and ask for S J Castle.

■ Dk'Tronics Light Pen only £12. Currah MicroSpeech only £15. Both nearly new. Will swop for microdrive. Tel. 01-907 2253 and ask for Robert.

■ ZX81 16K, Printer, Keyboard, manuals and magazines. Fully boxed, lots of software (over 40 games and utilities) £100 ono. Contact F Deakin, 25 Albany Road, Redruth, Cornwall.

■ 48K Speccy, Interface 1, microdrive, three cartridges, programmable joystick interface, Quickshot I joystick, computer books and even software. All for £150. Good-o eh? Tel. (0603) 610127 and ask for Marcos.

■ VTX 5000 modem wanted swop for Tandy 8-level chess computer (cost £60+) and ZX Printer with five rolls paper. Tel. (04215) 63618 and ask for Tony.

■ 48K Spectrum and microdrive, games and books. £60 ono. Mr M J Lipscombe, 267 Wimpson Lane, Millbrook, Southampton.

■ Currah MicroSpeech only £15. Cambridge Computing intelligent joystick interface plus Altai joystick for £10. Tel. (0278) 427322 after 6 pm.

SOFTWARE

■ New titles for the Spectrum to swop. Send your list for mine. Write to Quentin Fefeure, Koning Albertstr 51, 1600 Sint Pieters Leeuw, Belgium.

■ *Psytron, Ghostbusters, Fighter Pilot, Hunchback II, Beach Head, Strontium Dog (The Killing)* and *Everyone's A Wally*. Swop any two for *The Artist, Spy vs Spy* or *JSW II*. Tel. Bristol 555163 and ask for Nick.

■ Swop *Full Throttle* and *Android 2* for *Pole Position*. Write to Michael Sellar, 24 Campbell Avenue, Edinburgh.

■ *Avalon* and *Danger Mouse in Double Trouble* for *YS MegaBasic* or swop the two games above + *Splat* and *Maziacs* for a Dk'Tronics Lightpen. Chris Wilkins, 25 Orchard Park, Laugharne, Dyfed SA33 4TH.

■ Swop *American Football, Sabre Wulf, Monty Mole, Ghostbusters, Combat Lynx, Mugsy, Starion* and *Shadowfire, Alien 8, Boulderdash, Spy vs Spy, Raid Over Moscow, Blockbusters, F. Bruno Boxing*. Tel. (0538) 702514 and ask for Dominic.

■ Swop *White Lightning* for *HURG*. Tel. Wydam 3973 and ask for Michael.

■ Swop suitable for Spectrum. *Tasword Two* or *Masterfile* for *Quill, Picturesque E/A* or *Monitor*. Write to Mr H P Boyle, Glebe House, Royal Lane, Hillingdon, Uxbridge UB8.

■ Swop *Bozy Boa, Hunchback, Wheelie, Mrs Mopp, 16/48* tape 2 for *The Quill* or *Snowball*. Jason Goodall, 334 Parkmill Close, Corringham, Essex SS17 7JR.

■ Will swop *Doomdark's Revenge* or any two of *Airwolf, Beach Head, Cyclone, TLL, Timegate, Harrier Attack* or *Night Gunner* for *Underwurlde*. Write to Plod, 34 Anside, Stapleford, Notts NG9 7EY.

■ Will swop *Tasword Two* or *Booty* for *Football Manager* by Addictive. Samantha Gibbs, Jubilee House, Wrangle, Boston, Lincs. PE22 9AE.

■ Will swop *Raid Over Moscow* for Softek *Full Floating Point Compiler*. Write to F Deakin, 25 Albany Road, Redruth, Cornwall.

■ I have many games to swop. Examples include *Hypersports, Glass, JSW II, Chuckie Egg II* and many others. Write to João Paulo, Rua Garcia de Horta, No 9 3esq, 2800, Almada, Portugal.

■ Swop *Shadowfire, Gift From The Gods, Starstrike*. Wanted: *Way Of The Exploding Fist, Yie Ar Kung Fu, Tripods* or *Rambo*. Any arrangements Tel. (0249) 13006 and ask for Neil.

■ Swop 13 games for Quickshot II joystick and interface. Games include *ZX Bug 2, Gnasher, Bullseye, Tank Trax* and many more. Write to Peter Tustain, 8 Acre Road, Cudworth, Barnsley, South Yorkshire S72 8RU.

■ Swop top Spectrum software for your software, or for a Dk'Tronics lightpen. Send your list for mine. G Shaw, 25 Redwood Avenue, Royston, Barnsley, S. Yorks. S71 4JP.

■ Will swop any two of *Moon Alert, Starstrike* and *Scuba Dive* for *Tir Na Nog* or *Wriggler*. Tel. 031-443 1836 and ask for Andrew.

■ Will swop *The Quill*, original with book for ditto *White Lightning*. Tel. Blackburn 663095 and ask for Bill.

■ Swop *White Lightning* for *Melbourne Draw* or *The Artist* or *Machine Code Tutor* or . . . Tel. (062693) 68047 after 8 pm.

■ Swop any two of *Pyjamarama, Brian Jacks Superstar, Lords Of Midnight, Hunchback, Pimania, Black Crystal* or *Jungle Trouble* for *Match Day* and *Bruce Lee* or *World Series Baseball*. Tel. (0532) 667433 and ask for Sion.

■ I have a fairly large amount of software that I'd like to swop with anyone. Send a list of your games to David Game, 33 Belle Cross Road, Kingsbridge, TQ7 1NL.

■ Will swop *Full Throttle, World Cup, Manic Miner, Jetman, Mugsy, Hunter Killer* and more. Want *Machine Code Tutor, Match Day, Starion, Dun Darach*, etc. Tel. Magherafelt 32192 and ask for Brendon.

■ Swop *Frankie, Gryon, Knightlore, Tapper, Spy Hunter, Alien 8, Skool Daze, Pole Position* and many more. Send your list for mine. Originals wanted. A Bellamy, 181 Model Village, Creswell, Worksop, Notts S80 4BT.

■ I would like to swop *Starion, Underwurlde, Dambusters*, and many others for *Jet Set Willy, Pole Position, Alien 8* etc. James Walker, ORD services, Berlin, BFPO 45.

■ Swop Wally series, *LOM, Skool Daze, Knightlore, Booty, TBATB, Penetrator, 4D Terrordaktil* for *Basketball, JSW II, Kong II, Zaxxon, Spy Hunter, Chuckie Egg, Decathlon, 911TS, Rocco, Gremlins*. Tel. 0283-712396 and ask for Andrew.

■ Will swop *Airwolf, Starstrike, Brian Jacks* and *Hellfire*. Any two for adventure games. Tel. (0630) 57780 and ask for Mark.

■ Swop most top ten games — over 1000 programs. Send your list for mine. Also want contact with other BetaDisk owners. Write to Thierry Kumps, Langeweg 193, B-1900 Overyse, Belgium.

■ Swop *Horace Goes Skiing* and *Centropods* for *Skool Daze*. Also swop *Chequered Flag* for *Stop The Express*. Andrew Parry, 3 Keffi Street, Holyhead, Gwynedd LL65 2BB.

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■ Swop any two of *Alien 8, Psytron, TLL, Time Machine, Alchemist, Ant Attack, Harrier Attack, Flight Simulation, Codename Mat* for *Quill, Pirate Adventure, Adventure Land*, etc. Tel. (0207) 230331 and ask for Graham.

■ Swop *Spy Hunter* for *Gift From The Gods* or *Herbert's Dummy Run* and *Atic Atac* for *Alien 8* or *The Rocky Horror Show*. Tel. Tunbridge Wells 33010 and ask for Steven.

■ Will swop software worth over £100 (all original, including *Starstrike, Backpackers, Cyclone* and many more!) for Centronics/RS232 printer interface compatible with ZX Spectrum. Tel. 0604 61633 after 5 pm.

■ Swop *O Level Chemistry* teaching programs 48K for utility programs. Tel. (0475) 674256 and ask for D Macdonald

■ Will swop *Sabre Wulf* and *Spectipede* for *Everyone's A Wally, Spy Hunter* for *Project Future, Daley Thompson's Decathlon* for *Jet Set Willy*. Tel. Nottingham 638171 and ask for Jason Duckmanton.

■ I'll swop *Lords Of Midnight* or *The Hobbit* for *Pole Position, Grand National* or *Graham Gooch's Test Match*. Tel. Carlisle 29175 and ask for Matthew.

■ I have 250 games to swop. Send your list and sae to James McLaughlin, 29 Carenlea Road, Ballymena, Co. Antrim, Northern Ireland BT43 6TS.

■ Will swop *Minder* for *White Lightning*. Write to Shaun Allaton, 61 Goldcrest Road, Ipswich IP2 0SF.

■ Have issues 11 to 16 of *YS*. Will swop for *A View To A Kill* or *Daley Thompson's Super Test*. Write to Paul Ledwith, 84 Eastern Avenue, East Romford, Essex RM1 4DT.

■ Will swop *Haunted Hedges, Spectral Panic, Voyage Into The Unknown* and *Election* for *Skool Daze*. Tel. (0582) 882841 and ask for Mark.

■ I would like to swop *Jewels Of Babylon* and *Alchemist* for *Shadowfire*. Also *Brian Jacks Superstar Challenge* and *Action Biker* for *Cauldron*. Tel. (0789) 204458 and ask for Jonny.

■ Will swop *Starion, Glass, Dummy Run, Dragontorc, White Lightning*, etc, for *Gyron, Pole Position* or any good Speccy games. Send your list for mine, Stu, 1 Poole Crescent, Crossgates, Leeds, W. Yorkshire LS15 7ND.

■ *Dynamite Dan, Monopoly, Nodes Of Yesod, Fourth Protocol*, etc. Will swop for *Bruce Lee, 3D Tank Duel*, etc. Originals only. Tel. Leeds (0532) 451286 and ask for Phil.

■ Have *Frank Bruno's Boxing*, all the Gremlin Graphics games. All the Wally series, the Ultimates and much more to swop. Tel. (0223) 833966 and ask for Michael.

■ Swop *Sherlock* for *IQ test*. Will also swop *Chess* and *Horace Goes Skiing* for *Rally Driver*. Write to Nick at 8 Essex Road, Leytonstone, London E11 1JR.

■ I have *Kong, Mr Wimpy, Tranz-Am* plus many more to swop. Your list for mine. Also I have rubber keyboard for sale. Any offers? Tel. 051-220 8110 and ask for Terry.

■ Will swop *Illustrator* for *Machine Code Tutor* (or *Astronomer*). Swop *Ghostbusters, Hobbit, Alchemist, 4D Time Gate, Molar Maul, 3D Tunnel, Ghost Gobble, VU3D* for? Any offers. Tel. (039287) 4794.

■ I have *Match Day, Cookie, Trashman, Sabre Wulf* or *Frank Bruno's Boxing*. Tel. 01-743 5211 and ask for Olly.

■ I'll trade my original 48K Spectrum/TS2068 word game, *Codemaster*, for your original Spectrum game or utility. David Hoshor, 7 Bard Drive, Apt B4, Hudson, Ohio 44236, USA.

■ Swop 300 titles inc. *Dynamite Dan, Highway Encounter, Nodes Of Yesod, Spy Vs Spy, Baseball, Raid Over Moscow, Bruce Lee, HyperSports, Starion, Spy Hunter, Boulder Dash, Shadowfire, Wizard's Lair*, and many more. Tel. (0652) 33061 and ask for Andrew.

■ Will swop any two of *JSW, On The Run, Pyjamarama, Automania, Backpackers, Tapper, Fairlight, Elite*. Tel. 01-435 3962 and ask for Daniel.

■ Spectrum software to swop. Send your list for mine. Don't waste time, send off now. Gordon MacMillan, 39 Bermuda Road, Invergordon, Ross & Cronarty, Scotland.

■ I will swop any two of *Starion, Ghostbusters, World Cup* or *Booty* for any of *The Artist* or *Zaxxon*. Write to Andrew McCubbin, 3 Kenilworth Drive, Airdrie, Lanarkshire, Scotland, M16 7EY.

WANTED

■ ZX Expansion Set. Swop for hardware and software including Currah MicroSpeech, Datapen lightpen, *Starion, JSW II, Beach Head, Ghostbusters* and more. Tel (0623) 511062 and ask for Gary. Tuesdays, Thursdays only.

■ I've only just bought Bug Byte's *Manic Miner*. Will give Cheetah Speech Synth to person with best POKEs that work. Write to Michael Foston, 222 Lethbridge Close, Lewisham, London SE13 7QS.

■ Dot Matrix printer and Interface for use with ZX Spectrum/Spectrum +. Must be in good condition and under £100. Tel. (0425) 54942 after 5pm and ask for Jeremy Laurence.

■ Will swop issue 1 of *Crash* magazine for issue 2 of *Your Spectrum* in good condition. Must have *Ant Attack* poster! Elian Terras, 9 Leslie Terrace, Prestwick, Ayrshire KA9 1LN.

■ Wanted; Dk'Tronics synth. Will swop for Interface 2 or £20. Tel. (0443) 2901 and ask for Karl.

■ ZX Printer with instructions, etc. in exchange for Currah MicroSpeech with instructions and boxed as new. Mr M Cleaver, 97 Arthur Street, Plane Street, Anlaty Road, Hull.

■ Wanted urgently — Currah MicroSpeech. Will swop for software including *Raid Over Moscow, JSW II, Softaid, Skooldaze, Jasper, Strontium Dog* and many more (original). Tel (0555) 870329 (anytime) and ask for Dougi.

■ ZX Printer wanted with or without paper William Mitchell, 9 York Street, Dufftown, Banffshire, Scotland AB5 4AJ.

■ Wanted — *Into Battle With* tape by The Art Of Noise (CTS 100). Will swop for *Sabre Wulf*, and *Fighter Pilot*. Tel. (0745) 822122 and ask for Eifion.

■ Wanted; Graphics utilities, lightpens, digital tracers, graph pads, etc. Own or commercial software. Games designers, *Screen Machine* and other Print 'n' Plotter software. Will pay + 1/3 MRP for hardware. Stephen Liddell, 33 Forth Avenue, Larbert, Falkirk FK5 4NJ.

■ Wanted: your reviews for forthcoming amateur publication. Also, any articles, artwork, etc. In fact, anything appreciated. Send work to Paul Rand, Donnini House, Comet Hill, Easington, Peterlee, County Durham SR8 3ER.

■ *Your Spectrum* issue 2 wanted. Willing to pay £2 for mint condition with map. Tel. Dersingham 40497 and ask for Nigel.

■ Will swop 10-15 games for Prism VTX 5000 or Interface 1, microdrive and cartridges. All originals. Tel. 021-772729 and ask for Conor.

■ Wanted: *Machine Lightning*. Will swop for software including *Knightlore, Gift From The Gods*, Artic *Assembler* version 2 and others. Tel. Beith (05055) 3312 and ask for Gordon.

■ Wanted: Issues 2&3 of *YS*. Tel. Braintree 41370 and ask for Mrs P. King.

■ Wanted: Interface 1 and microdrive. Price negotiable. Tel. Norwich (0603) 51437 and ask for Dave.

■ Is there anyone out there with Empires (Imperialsoft) interested to play by mail? Tel. (07373) 53942 and ask for Dave.

■ Machine code programs/magazine listings to produce screen dumps on the Brother HR5 with Interface 1 wanted. Will swop original games. *Potty Painter, Gulpman*, etc. Tel. Eastleigh (0703) 642661 and ask for Tony.

■ Football tables program, suitable for up to 24 teams and for updating. Will swop *Make-A-Chip, Survival, VU3D*, if good quality. Write to Nick, 8 Essex Road South, Leytonstone, London E11.

■ £20+ offered for *YS* issues 2, 3, 4 and 6. Must be complete and in 1st class condition. Ring Leeds (0532) 483699 after 7pm with *your* price.

■ Any interesting software such as *Prolog* or any of the Brainpower range. Have 100's of programs to swop. Write to Chris Gould, 3 Moorgate, Tamworth, Staffs B79 7EL.

■ Wanted: ZX Expansion set. Will swop games worth over £100, including *Alien 8, Trapper, Hypersports, Cauldron, Skool Daze, Video Pool, Chuckie Egg* and more. Tel. (0322) 527570 and ask for Graham.

■ Currah MicroSpeech or Datapen for cash or swop *Psytron, Booty* and *Raid Over Moscow* Tel. Bedford (0234) 740530 after 4pm and ask for Matthew.

■ ZX Printer (and paper if poss.) Will pay up to £10 for reasonable condition. Write to Andy at Littlewoods, Mountview Crescent, St Lawrence, Southminster, Essex CM0 7NR.

■ Wanted: Currah MicroSpeech, will swop software worth over £45 including *Ant Attack, Horace Goes Skiing* and *Chequered Flag*. Tel. (09853) 442 and ask for Clovis.

■ Wanted: Interface 1 with or without microdrive. Tel. Swindon (0793) 763247 and ask for Adrian.

■ Wanted: VTX 5000 modem. Will buy or swop for software. Interested? Write to Tim at 'Rozel', Maespica Road, Lower Cuintuirch, Swansea SA9 2PP.

■ Wanted microdrive. Will swop for *Doomdark's Revenge, Shadowfire, Underwurlde, Knightlore, Sabre Wulf* and *Eureka*.There's more. Tel. (0236) 25231 after 5.30pm and ask for David.

■ Currah MicroSpeech. Will swop for *YS* issue 2, *Match Day, Finders Keepers, 3D Star Strike* and *Raid Over Moscow*. Tel. Cornwall 890491 and ask for Mark.

■ Wanted: Freddie Mercury *Love Kills* single. Will swop for one of *Starion, Zaxxon, Match Day, Classic Adventure, Airwolf, Braxx Bluff*. Tel. (0326) 290459 and ask for Sean.

■ Wanted: *The Quill* and *The Illustrator*. Will swop *Nightshade, Spy Vs Spy, Dun Darach, Sabre Wulf, Strange Loop* and *HURG*. Tel. (0749) 72423 and ask for Matthew.

■ Wanted: Help on *Fourth Protocol*. Tel. (0924) 278750 after 4pm and ask for Toby.

MESSAGES, CLUBS & EVENTS

■ Magazine back issues. Fill the gaps in your collections of *Personal Computer World, Microcomputer Printout, Computing Today* and *Computer and Video Games*. Good to mint condition. Tel. 01-977 6198 and ask for Jonathan.

■ Codebuster, will you please fix your keyboard before I banish you from my planet. Also, hello to Baby, Clyde, Mrs and Mr Mac, Con, Eddie and Ginger Tops. Kipling.

■ Please help. I need any hints or tips for *Dun Darach* by Gargoyle Games. Write to James Campbell, Waverley, 52 Sherbrooke Avenue, Pollockshields, Glasgow G41 4SB Scotland.

■ Will swop *Ghostbusters* for issues 3 and 4 of *Your Spectrum*. Must be in good condition. Tel. (0302) 840853 and ask for Leslie. Issues needed urgently.

■ D'ya want software swops, help and tips plus free news letter? Join our free local club. For info write to Jason Roseaman, 56 Redlie Close, Stanford-Le-Hope, Essex SS17 8BB.

■ Issues 3, 4, 6, 7, 9, 10 and 11 of *YS* for sale, £4 each. Issues 12 onwards £1 each. Also, back issues of *Crash* available at £1 per issue. Mark Elliot, 40 Silverdale Road, Ecclesall, Sheffield S11 9JL.

■ Has anyone got POKEs or tips on *Scuba Dive, Automania, JSW II, Dynamite Dan, Dun Darach* or any new games. If you have any write to Andrew Slavin, 115 Lords Street, Cadishead, Manchester M30 5HJ.

■ Volumes 1 and 2 of *Input* magazine complete with binders in perfect condition. Open to offers, cash or games. Ian Hoyle, 311 Livesey Branch Road, Blackburn, Lancs BB1 4QJ.

■ *YS* issues 1-20 — the full set! All unmarked, offers over £20. Tel. 021-474 6202 and ask for Steve. Also, Tasword £5, programmable interface and joystick £15.

■ Speccy user would like to hear from anyone who uses Speccy for business purposes, exchange ideas, tips, etc. Philip Montjoy, 154 Stroud Road, Gloucester GL1 5JX.

■ Pete Cowley. I'm near solution. Soon have it cracked!!! PH.

■ P Binder: How are you Paul? Happy Christmas, I guess when this gets printed it will be close to Xmas, Write soon! My regards to your family, Skip and Robin. Sergio.

■ Italian radio station is looking for English hacker to aid with hints, tips and other ideas. Anyone interested should contact Bertocchi Leonardo, Radiosoftware, Via Montesuello 3/7, Genova (GE), 16129, Italy.

■ We've finally got our act together. Finsbury Park's Computer's In The Park club throws its doors open at the Brownswood Library, Brownswood Road, N4 at 8 pm on the last Tuesday of every month (no meeting in December).

PEN PALS

■ I am 14 and want a male or female pen pal to swop software, POKEs, maps, etc. Send your list for mine. Graeme Dawson, 20 Scalloway Park, Fraserburgh, Aberdeenshire AB4 5FD.

■ Pen pals wanted anywhere in the world. Interested in hacking, m/c programming, adventures, swopping games/progs/ideas (I have 500+ games/progs) and the Spectrum in general. I'm a 16 year old boy, responses can be any age and sex. Plese write to Odin H Sørensen, Kajerød Vaenge 33, 3460 Birkerød, Denmark.

■ Pen pal wanted (boy) to swop games etc. I am eleven and learning to program. I like computer games apart from adventures and enjoy playing golf and football. Kevin Santi, 9 Rae Street, Stenhousemuir, Larbert, Stirlingshire FK5 4QP.

■ I'm 14 and want a male *or* female about same age to swop beginners tips and hints. Tel. (0977) 83417 and ask for Ian. Please hurry — this offer ends soon!

■ 32 year old adventurer seeks pen pal to swop hints and adventures, etc. Tel. (0773) 608926 and ask for L Singleton.

■ Yup! It's me again! Any more pen pals out there? If you're around 15 and a computer fanatic write to Sergio Trigo, Rua General Silva Freire 151-4D, 1800 Lisboa, Portugal, Europe.

■ Want a Portugese connection? Write to Luis Fernando, Apartado 57, 4465 Sao Mamede De Infesta, Portugal. Swop programs, hints and POKEs. Send your list now!

■ Pen pal wanted. I'm 16 and like music, sport and computers. Boys 16-18 to reply. Swop hints and games. Samantha Gibbs, Jubilee House, Main Road, Wrangle, Boston, Lincs PE22 9AE.

■ Pen pal wanted, 14+. I own a Spectrum+ and I'm interested in swopping listings and games. Send your list for games to me. Paul Johnson, 350 Bocking Church Street, Braintree, Essex.

■ Pen pal wanted. Male or female. 15 or older. Swop tips, games. Please enclose a list of your software. Neil Hoskin, 19 Levens Way, Newbold, Chesterfield, Derbyshire S41 8HZ.

■ I'm 17 and would like a young lady pen pal to swop games programs and ideas and write about music and sport. Please enclose photo. Jose Luis Uoret Soler, c/Barranquet 11-4°, Villasoyosa, Alicante, Spain 03000.

■ Yorkshire lad (25!) wants pals to swop games, mags, hints, etc. I've got a huge collection of games. Write to Paul Rhodes, 7 Hillesley Road, Shawcross, Dewsbury, W Yorks WF12 7SA. Hurry!

■ Help! Lonely teenage boy seeks 13-15 year old female Speccy owner for games and music swopping. Write to Matthew Wenham, 68A Greenhill Road, Leics LE6 3RH.

■ Old (37) Spectrumer, mastered Basic, some m/c knowlege, would like to swop ideas and techniques with others. Write to Paul Cimatti, 7 Kings Road, Llandudno, Gwynedd, LL30 2BZ.

■ Pen Pal wanted to swop hints, tips and software. Interests include reading fantasy novels, Jean Michele Jarre. Any sex, 18+. Write to the Spellsinger, 1 Keats Avenue, Stafford ST17 9SP.

■ Quick. If there are any female Speccy owners left on this planet, write to Leigh Howells, 39 Frognall, Deeping St James, Peterborough PE6 8RR. Hurry before my Speccy completely takes over.

■ Wanted. Mad computer freaks with Dk'Tronics 3 channel sound synths to swop tunes and games. Write to Dribble and Pickle, 'Chanypore', Woodford Road, Poynton, Cheshire SK12 1DY.

■ I'm nearly 11 and would like a male pen pal of about the same age who's well into programming. Write to Richard Marshall, 58 Court Road, Eltham, London SE9 5NP.

■ To all intelligent life forms. Male user (16) into programming, photography and breathing seeks female penpal to exchange correspondance, tapes, pix, etc. Chris Sheldon, 8 Primrose Close, Wheaton, Aston, Stafford, ST19 9PX.

■ Hi, I'm a Portugese boy, and I want a pen pal of my age (15) who likes writing programs and hacking. I need POKEs for *Sabre Wulf* and *Son Of Blagger*. Write to Jose Alberto Roque, Carla Gare No 10, 6250 Belmonte, Portugal.

■ My name's Andrew and I'm 13. I'd like a pen pal who likes adventure games. Write to Andrew Fraser, 23 Douglas Row, Inverness, Scotland.

■ 13 year old male pen-pal wanted to swop games and info. Write to Ben Taxman, 17 Gwydrin Road, Mossley Hill, Liverpool L18 3HA.

■ I am 10 years old and like adventure games. I'd like to swop games. Write to Daemon Mills, 24 Walmsley Avenue, Southside, Rishton Nr Blackburn, Lancs, England BB1 4RE.

■ Pen pal wanted to swop software, POKEs, etc. I have over 300 games. Send your list for mine. Tel. (0452) 422201 and ask for Kevin.

■ Pen pal wanted. I'm 16 years old and want hints and tips on adventure games and game listings. I'm mad on fishing and crazy drawings. Nicholas Bell, 23 Lambeth Close, Chelmsley Wood, Birmingham.

■ I, Greta Attieh, aged 12 seek male pen pal from anywhere. I'm interested in games and dance. Write to Greta Bchara Attieh PO Box 60123, Jal-Eddib, Lebanon.

■ Pen pal aged 18+ wanted to exchange ideas and programs. Interested in Basic, m/c, mythology, sci-fi movies and music. Write to Antonie Attieh PO Box 60123, Jal-Eddib, Lebanon.

■ Lonely lady (45 ish), new to computers needs help with programming as well as tape/pen friends, male and female. Veronica Petter, 7 Weton Walk, Kingswood, Bristol BS15 1LH.

■ Lonely female, blue eyes, light brown hair (5'6"), seeks male pen pal (15+). Write to Janet, 38 Kiln Lane St Helens WA10 6AH. If possible enclose photo.

DIGITAL PRECISION

SUPERCHARGE is a state-of-the-art optimising full SuperBASIC compiler, to translate ANY SuperBASIC program automatically and directly into ultrafast machine code. This program, eagerly awaited by thousands of QL owners, is just as superb as the pre-release reviews in QL User and Sinclair User made it out to be. It is the only SuperBASIC compiler available, and is the result of 15 months and 3,000 man-hours of work by a dedicated team of programmers. SUPERCHARGE speeds up BASIC programs by factors varying from 20 to 200, and produces amazingly compact, relocatable, multi-tasking code which can be run directly (the compiler is required only for compilation – it need not be present at run-time). The only program of its kind. 102 page manual.

SUPERFORTH + REVERSI is a complete FORTH-83 Standard FORTH Compiler and Development System for the QL. It gives speed-up factors of 50× or more over SuperBASIC – amazing speed! SUPERFORTH produces relocatable multi-asking code (all job control constructs are provided). FORTH-83 is the most modern and most widely accepted version of FORTH, and SUPERFORTH (with its supreme flexibility, QDOS compatibility and many extra commands) is simply the fastest and best implementation of it around! What's more, SUPERFORTH is supplied with a full feature version of REVERSI (the ever-popular board game also known as Othello) written in SUPERFORTH. This REVERSI is probably the strongest home computer version ever produced – you don't need to go more than half way up its nine playing levels to beat, EVERY SINGLE TIME, Sinclair's QL Reversi and every other version of Reversi (including the previous computer world champion, MOI Spectrum Othello)!!! The entire commented source code of REVERSI is supplied – no student of FORTH could ask for a better programming example! Rules, strategies and instructions for Reversi supplied.
REVERSI is also available alone. 40,000 word manual.

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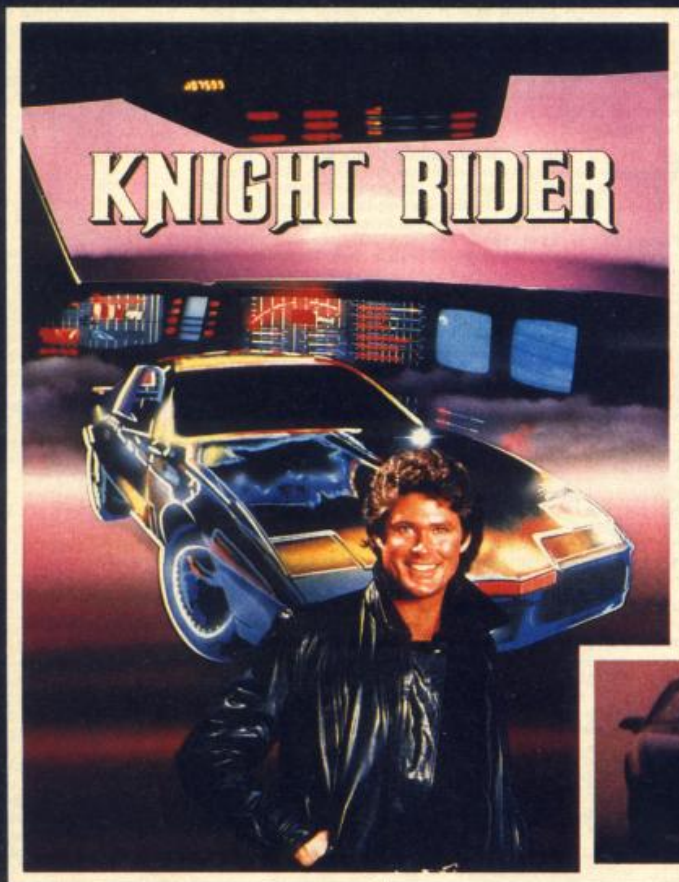

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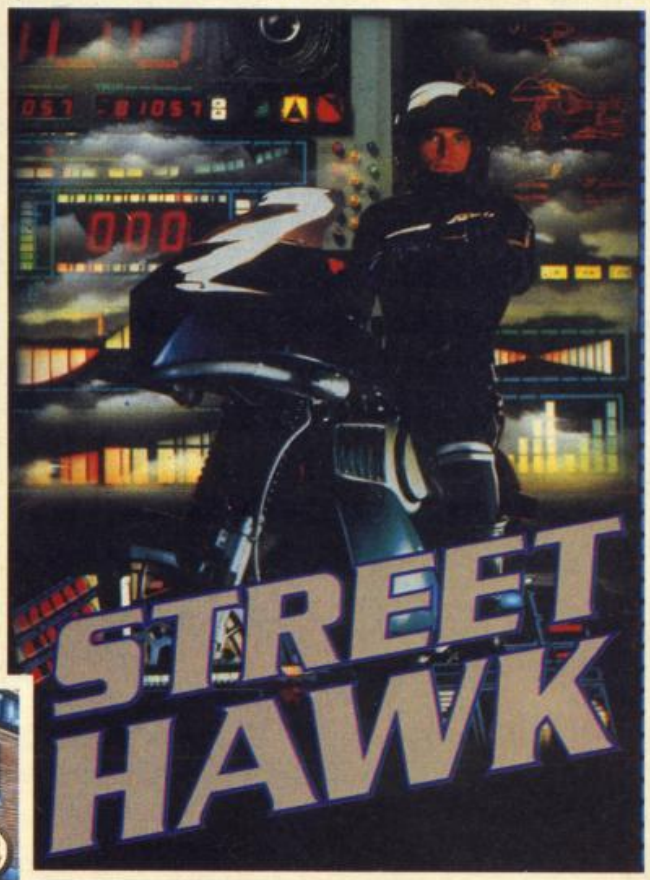
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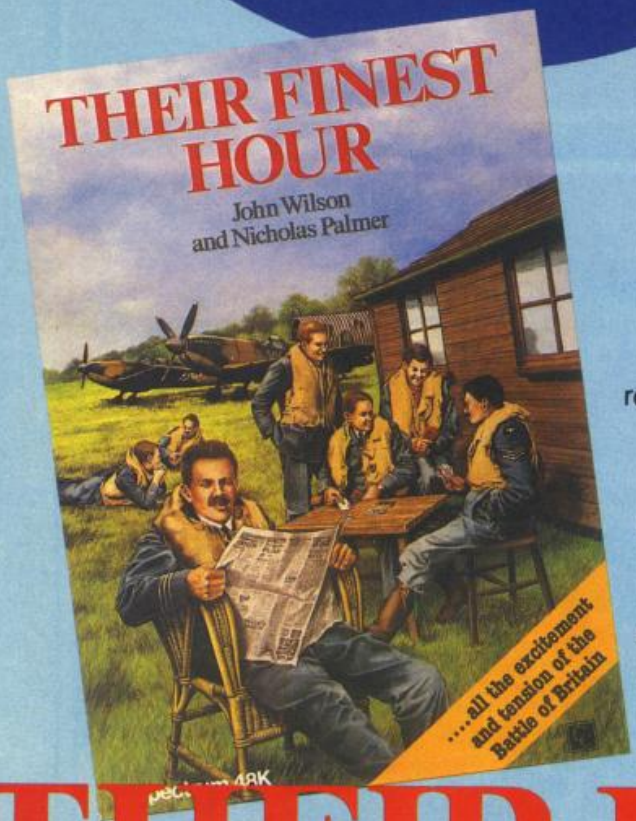

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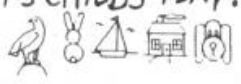

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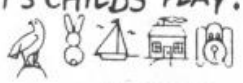

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BACKLASH

Fighting Talk — Iolo Davidson backs the winners.

You probably think that computers are new and exciting, right? You think it all started a couple of years ago and anyone not brought up on the new maths hasn't a hope of evading the scorn of fifteen year old whizz-kids should they dare sit down at the keyboard. Hah.

I have a friend, an ageing hippy, who knows no more about computing than what he once read in an old Fortran manual dug out of a trashcan behind UCLA at Berkeley, but he can impress the socks off any sub-teen arcade hero. He can't add on his fingers, but he has vision, he has depth of experience, and he knows how to lie. He's now revealed some of his methods to me which I'm gonna pass on to you — in translation!

Impressing people is easy if you remember the rules. The first is: conceal your real abilities. It's no good going on about how you used to program a Nascom in hex before it had a Basic, even if true. No one old enough to remember the Nascom will admire this achievement, and everyone else will think you're talking about some United Nations agency. Booooring!

You must gauge the level of sophistication of your target audience before you can employ an effective gambit, so the second rule is: let the others talk first. Then, if the discussion turns out to be about rugby you can make good your escape. Let the targets choose the topic of conversation, and it'll show you what's most likely to impress them. Fortunately, nowadays you can rely on any such conversation being dominated by computer games. That simplifies things.

Arcade gamers are inordinately competitive about their high scores, and conversation with them is littered with losing opportunities. It's vital that you never reveal your personal best score on any computer game. To do so is instant defeat, as there's bound to be someone who's done better, or knows someone who's done better, or who's prepared simply to lie. It's no good lying outright yourself, as that'll only lead to eventual stalemate. The escalation becomes obvious the sixth or seventh time round.

If you're pressed to make such a revelation you must avoid the question, while at the same time subtly revealing a hint of your underlying superiority. Here's a few sample phrases that'll help you skirt the issue:

"I played that for weeks in the arcades last year. I think the computer version is pathetic."

"YS published a POKE for that one that lets you score forty-two million without actually having to play."

"Isn't that the one with the bug that lets you score forever as long as you stand in the right place?"

"That game isn't available for my Macintosh."

Note that avoiding a direct answer is only part of winning. It's no good saying, 'My brother never lets me have a go,' nor yet, 'I don't think you can get that game on the unexpanded Vic.' These are the things that genuine losers say. Third rule: be subtle. Your average whizz-kid can deal with boasting, but is helpless when faced with intimation.

If trapped in the company of adventure gamers, the problem is similar. There's still no chance of making a favourable impression by simply revealing the extent of your ability at negotiating various dungeons, but it's also very difficult to lie without being exposed by someone who really knows the answers.

The best strategy here is to embrace the attitude that telling the details of your travels will spoil the game for those who've not yet finished it. You can, however, if coaxed persuasively, reveal an arcanely worded clue. This will fool even those who should know better, provided you're vague enough. This is the fourth rule: be vague, but have an excuse for it. A few samples that won't reveal overmuch:

'I think you'll find that you haven't been to all the rooms yet.' (Who has? Can they prove it?)

'If you ask the dwarf for the key, he doesn't seem to do anything, but it helps later on.' (Gets you credit for any random good luck.)

'Have you tried examining the ceiling in every location?' (Bet they miss one!)

'Not all of the objects are necessarily good things to have with you.' (Often true, hard to test.)

The one thing that you must never say is, 'I have better uses for my computer than playing games.' An instant loss of all credibility would result. This phrase is dangerous even in classroom situations unless you're certain that only the teacher can hear, and it'll do you little good with him. If you *are* the teacher, then I'm too late. You'll already have said this.

While you mustn't give the impression that you ignore games, you may affect to be so busy that you don't get to play as often as you wish. This is only a winning strategy if what makes you so busy is programming.

Never say you've just completed a program, because your interlocutors will want to know how it's doing in the charts. It's much easier to generate a great future for a program that you've only half finished. Plus, any gaps in your story can be attributed to groggyness brought on by all-night coding sessions (fourth rule).

If you're unsure of your ability to impress as a programmer (remember, Cobol doesn't count), then the next best bet is to let slip that you're working on an article for a computer magazine. You're not supposed to talk about it yet though, because the Ed is hoping to keep it exclusive.

Your audience may want to know what you've written before, which could be tricky, but luckily the pages of the computer press are known to be littered with pseudonyms. Just explain that your contract with Ocean means that your other published work has to go out under the name of Hugo Cornwall. Last rule: when you can't be caught, lie big.

My friend has allowed me to print these invaluable tips on condition that I plug his forthcoming book, *You Don't Have To Be A Kid To Be A Smartass*, due out real soon. He hasn't yet chosen the name of the author.

Editor Kevin Cox; **Art Editor** Martin Dixon; **Deputy Editor** Peter Shaw; **Production Editor** Teresa Maughan; **Editorial Consultant** Andrew Pennell; **Software Consultant** Gavin Monk; **Contributors** Stephen Adams, Dougie Bern, Steve Colwill, Steve Cooke, Iolo Davidson, Nick Davies, Sue Denham, Simon Forman, Ian Hoare, Alison Hjul, Steve Malone, Max Phillips, Rick Robson, Graham Rydout, Rachael Smith, Phil South, Chris Wood; **With special thanks to** Phoebe Evans, Mike Clowes, Andy Robson; **Advertisement Manager** David Baskerville; **Advertisement Executive** Neil Dyson; **Production Manager** Sonia Hunt; **Group Advertisement Manager** Chris Talbot; **Managing Editor** Roger Munford; **Art Director** Jimmy Egerton; **Publisher** Stephen England; **Published by** Sportscene Specialist Press Ltd, 14 Rathbone Place, London W1P 1DE. **Telephone (all departments)** 01-631 1433. **Telex** 8954139 BunchG. Company registered in England; **Typesetters** Carlinpoint, London; **Reproduction** Graphic Ideas, London; **Printed by** Chase Web Offset, St Austell, Cornwall; **Distribution** Seymour Press, 334 Brixton Road, London SW9. Telephone 01-733 4444. All material in *Your Sinclair* © 1986 Felden Productions, and may not be reproduced in whole or part without the written consent of the publishers. *Your Sinclair* is a monthly publication.

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