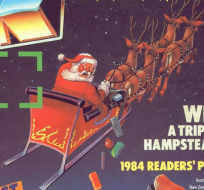


No.9 DEC 85p

BANDERSNATCH!!

Screen Shots Inside
GAMES AND USEFUL STUFF FOR:
Atari, BBC, CBM 64, Oric, Spectrum, Vic-20



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1984 READERS' POLL

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One billion uses for the world's most famous stuntman will take the action-adventure series to television before the camera ever comes on-line. Meet the modern-day Tom Mix, who's also a stuntman and a former FBI undercover cop. The story is based on the television character played by the actual stuntman himself. This is the only show ever to feature a stuntman who

also cost anchors his scenes with camera.

Trapped in a time warp, Lee Majors, who leaves, John Barry, creates a world for the show.

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ACTION! 100% MAJOR
ACTION! 100% MAJOR
ACTION!

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Millions of fans and about the world's largest movie stars have their own heroes. The Duke brothers, Bo and Luke, and their cousin, Daisy, are all in 100% and John Dillinger is the same guy and the same story. The Duke brothers are the same guy and the same story.

Millions of fans and about the world's largest movie stars have their own heroes. The Duke brothers, Bo and Luke, and their cousin, Daisy, are all in 100% and John Dillinger is the same guy and the same story.

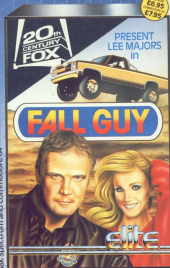
Kodak on Film

As Kodak's new film that makes all of the world's movies. The film is made of the same material as the film that is used in the world's most famous movies. The film is made of the same material as the film that is used in the world's most famous movies.

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Watch out for the new Atari games, available now from all good stockists, or by mail order from PO Box 478, Slough.

FROM NOWHERE THE SPECTRUM +!

DEPART VIGNEMENT (inspired by Uncle Sam) Climb on BBC Radio 4's *Clippings* programme (Sat, Oct. 12). It's acknowledged that Sinclair managed to pull a fast one with their new ZX Spectrum+. No one had an inkling that the new ZX, in its smart, hip, OL-style casing was set to invade the market. So naturally BBC 4 asked if they had learned anything from the OL days. In short, did Sinclair feel like a bunch of dorks?

"It's not quite what a dork is," a company spokesman replies. "If you mean sales — well yes, I suppose we did. Of course, this [the Spectrum+] is an extension rather than a new product. Nevertheless, we grudgingly admit it would never, never happen again. This time, our rivals have been taken totally by surprise — they're all reeling from their losses in that of something new to compete. We've had a lot of criticism from them."

They think you haven't been playing fair?

"That's right. We now have a great advantage. Sinclair computers now span the price range — so you can start off with the basic Spectrum, and keep on upgrading — for example, the Microdrive expansion kit is compatible with the new machine. It's a lot better than something like the Amstrad, where you have to buy everything at once. It's a bit



Sinclair Confess: "We Were Wallies Over The QL"

like an old-fashioned train set — you start with the very basic and increase the value of the system as you go on, not leaping through the range."

But the QL is incompatible with other Sinclair software and peripherals!

"...Um, yes."

So you won't be dropping the Spectrum standard?

"No, the production of the new machine will be stepped up, with the production of the older falling off. But this does

not precipitate a fall in prices."

Are you worried about the onslaught of MSX?

"MSX steps into a fairly lived up to its potential. The second wave may have more impact."

It also seems that Sinclair have got their distributors set together this time. Even as the Spectrum was announced, main branches of WH Smiths and Dixons were already stocked. So was it Sinclair's intention to stagger their release by releasing the "+" just before Christmas?

"Yes. The last quarter is very important for this industry. It covers 10% of the output of Christmas, the important half of the year. We've currently got 82% of the market, whereas Commodore, our biggest rival, has 28%. We aim to have 80% by Christmas Day."

But will the new Spectrum revolutionise the whole Spectrum market (generally considered to be its "winter days") with the original Spectrum now over two years old? Bill Goulding, editor of Sinclair User, has reservations. "It's a nice idea," he told BBC 4, "but a shame about the price." Effectively, he considers that parents are just paying an extra £50 for a decent keyboard, when there are already several keyboards on the market for the original Spectrum.

"All it really means is that the Spectrum+ can be used for sensible word processing now, which makes it attractive for the business market." Bill feels that the existing Spectrum market is very much a hybrid one in which the parents prefer to buy their own add-ons (i.e. keyboards).

The pricing of the Spectrum+ puts it squarely in the Commodore 64 marketplace, a machine Sir Clive admits he hopes to take sales away from — but, at the same time, it negates the price-edge that the Spectrum has always had over its U.S. rival. — **RODNEY WILSON**

BROTHERNET ROW FLARES

FOLLOWING our revelation of the existence of BrotherNet 880 K, James the Labour Party aide of the jobless (Marshall 880) we present an exclusive undercover shot taken recently inside the North Korean Embassy.

The occasion — allegedly — was the signing of a "Peace Pact" between the representatives of Kim Il Sung, beloved dictator of the land north of the 38th parallel, and the representatives of Arthur Scargill, leader of the Labour Party.

Whilst the various shock troops of the prosperous Moscow-backed regime will shortly become available for firing post duty in the trouble-free industrial north of England, though on the insistence of Neil Kinnock (Deputy Leader of the Labour Party, they will leave their T-66 main battle tanks behind in return, the Labour Party, using the matchless facilities of BrotherNet, will undertake to keep the reactionary Washington-backed forces of the Seoul regime hyperarmed by specially developed software, including *Blade* (aka, *Heritage of the Mustang Motors*, *Jack Far-Goat*, *Hampstead* and other greatest hits of the 84 collection).

Pictured under incredibly sinister lighting conditions are Sir L.J. Dr. Jeremy Bray, Shadow Spokesman for InfoTech, and an unnamed North Korean agent.

ATARI RIDES AGAIN

128K ON BOARD RAM and an all new graphics chip called Mega are the features of a top secret new range of Atari computers currently under development.

The new machines will eventually replace the existing 800K series, which is currently being shown in price in order to take Atari back some sort of profit together while the new range is brought to completion.

Mega replaces the older GTIA chip (which was itself able to produce 256 shades of colour), but it also promises allegedly include the ability to generate coloured sprites. The older Payer/Atari system that spins Atari's model could generate only four Payers and eight Maxims.

Prising it will be to "highly competitive". Watch this space.



GARBAGE IN GARBAGE OUT

By The Shadow

All THE year falls, the starlings congregate and The Shadow wearily resigns himself to the usual: Great debates, strange rumors fill the night, the road. "It's said that all it's not well with mighty M&A — even that fatigued it who closed the doors—may not, after all, be wholly, that is, entirely, compatible? Feeling from the shade ... and trying hard to hide his indignity — the Shadow (who spent some time during 1944-45 on the Burma Railroad) investigated, and found that said rumors have wide credence among software companies, a lot of which it seems developed early M&A games on Sony

HiBits, and are now wanted that over-30-minute change made to the MSX spec since their vision that ... we can't go on ...

And while we're on the subject, someone at Textile explains some pretty weird claims in their recent ad. "I'm a Textile RS-18" it begins, going on to list all the good bits it's got from other machines, the implication being that none of the listed rivals has them all. So far so good. "64K memory like the Commodore 64" is acceptable (and, as is "a printer interface like the Cricet Acorn"). But what about the same device's alleged "built

in power supply" (Or "found output through the TV, just like the Sinclair Spectrum"? Surely some minute here?) ... Delivering instead of the crankiness above. The Shadow's heated back, opened a cold Gribble and lit a paper ...

Relax, Mister, we probably won't publish the photo — you know, THAT photo (but a casual visit Gribble would not) can resolve and guarantee the return of said healthy pig ... "That ain't Tony Groucher!" I ain't seen being more fly on submitted fat-faced walk-at a rival mag's recent back: not to be outdone, The Shadow's looking for "Yes, Tony Groucher, All ... (It's Not My Right)" (in dialogue with fishing LEDs ...

Paul the Keyhole and Shilo, to wit a "valuable" price from the Big M Mystery Software Head, just tell The Shadow the make of computer owned by Lemmy of the well-known

heavy metal ensemble Motocross: seems of Lem's got himself taken by the D & D bug, and spends all night deliriously instead of whatever it was Lemmy usually does at night (the leather clad folk here continues to spend his days in bed) ... Thought for the month, how does Lemmy tell the boys apart?

And finally, a long but not permanent farewell to The Shadow ... a recent bout of bookings has removed the poor old fellow from the Software scene ... In the meantime, all you moles, toadles, slime-sneakers, gongs, nets, spies, hackers and Just Plain Folks out there leave your opinion to Y'all's Y'all's and Lemmy in writing of address on The Street or the Mainline (M&A) of this address ... but fear not: one day The Shadow will return ...

On the First day of Christmas the Editor said to me "You're Great ..."

GIVING IT MORE STICK



FORWARD of our little black boxes for sticking on the back of Spectrums, here's a little little number from Kensington, makers of the most popular Spectrum joystick in the three universes. It takes eleven minutes to build, too. It's a general-purpose joystick

interface, and allows you to use not just Kensington's own joystick, but also standard Atari models; it's replaceable Cursor buttons with joysticks.

It seems awfully cleverly made — one's turned out something of this sort before,

FITTER GLITTER CRITTERS

WHAT DO Zan-Zan Gator, Harry Hiram and Bob Newhart have in common? (1) They're all in the databanks of the West Los Angeles Veterans Medical Group. Or ... that is, their pens are. And what's the other big business in the States. BLAVING also had a turnover of \$3 million last year

— the 45,000 units of colliforms probably having better health care than a large percentage of the city's human population).

The three-story hospital and 13 sets take a system terminal Alpha Microsystems computer to run. But on the system's inauguration, President Richard Galtart



HE GETS PAID FOR DOING THIS

THE MAN under incredibly heavy manures here is Pete Stone. The contract he's signing is on behalf of his company, Palace Software. The product he's going to distribute is an alley-dodging anti-rain adventure called *Kick your ZZO* (review upcoming). The people

who made it are the Ram Jam Corporation. The other people in shot are Palace Software staff and a few gaming liquidity investors. The picture was taken by a photographer. You are reading this in *ENIGMA*. Just don't say we don't give you the facts.

Automata "Too Good For Industry" Row Flares

THOSE CHEERYFOLK from Automata UK are sitting on their most software release until the micro-industry tears them apart.

"Automata are too good for this industry," complained an embittered Christian Penfold, founder director of the outfit. He went on to explain that wholesalers just don't seem to be supporting Automata's product as much as they could. Their latest release, *Decor vs Maching*, the first "computer video", is apparently not reaching the punters. Penfold adds, "Furthermore, no-one's buying mail order these days. Automata's next product will be something truly wonderful, but we're just not going to release it until we've gladly paid their socks up."

So don't say you haven't been warned. Pinner and Uncle Groucho are officially an endangered species. The World Wildlife Fund will be contacted. Hold the front page.

was "disappointed to find that no information systems existed" (Popload). The death prompted Sedham to pioneer his own package. Inevitably doesn't regret it. This year Sedham is marketing his pet pack on Windows Systems Inc. for Alpha Microsystems.

Big K thought this is great idea and we've decided to go ahead and put the top in our April. We're made of a qualified water-borne, so we're going into animal ecology and life-saving. So if your pet photographer has gone berserk, your heart has developed spots on its belly, your budget can't quite reach middle C, or your pet's needs have become collar too heavy — let us know. We'll fix it.

"Computers, video... (uh-huh, when I was a boy all I did was stay in and watch TV...")



PSYCHEDELIC GURU IN COMPUTER SHOCK

ANYONE out there remember Timothy Leary, author of the earlier "acid-head" maxim "Turn on, tune in, drop out"? The man is back out in stroke the again, and now he's advocating turning on... to home computing.

Sam Leary, "The ultimate psychedelic drug is computer software!," he predicts that in three or four years every home computer will have a personalized operating system. Said operating system "Will be there to externalize everything about your own personality," Herman....

Whatever the man means, it would be unwise of us to suggest an anti-narcotic jangling, and it is after all always pleasant to welcome a newcomer to the home computer field.

Here it is....



THE SPECTRUM STRIKES BACK!

ANYONE out there ever noticed the limitations of small mouse will be pleased to know that Imperial Life, a major insurance company, now depends on a Spect for many of its management reports.

The report system was written in BASIC by John Rothart,

PREPARE YOURSELF for a sequel to the highly successful Quill sales. Quill's new releases, their excellent Adobe type fonts and are becoming an even more feasible writing tool than before. Quill 2 will feature advanced text and GRAPH commands to create drawings and allow you to write in the computer's own font. This, that means that you can actually get to grips with those built-in programs. A most exciting development indeed. Hopefully, this will mean a speedy demise for the horrendous "Have a nice day" Lisa line.

QUILL UNQUELLED

It might seem hardly the most audacious use of our pet faces, the term "Quilled" is written in hand if ever there was one.

Quill, writing to the launch of a Quill graphics kit, is called the illustration. A separate designer which will enable you to include full screen graphics in your Quill documents. You're not to use a pointing device but instead, that the document will be located into the illustration area or previously as a standard grid. Graphics will be created by manipulating two word cursors and then load with the correct colors. Fully detailed results are processed using this method, we are sure the authors don't mind, or drawing at every point.

The new Quill will occupy about 3K of the Spectrum's memory. Illustrate (quill) less at 9K. This effectively means that any transferring your document just onto an external 3K or 6K floppy, and full screen "table" styled graphics will cost around 250 bytes... we get planning! Software as then on the old Quill will be transferable although they may need trimming owing to the new Quill's larger kit.

The illustration will set the around a further (containing of a bouquet and of say) and comes at the original Quill kit upgrade by post.

an insurance analyst who got into mouse as a hobby. He found that the do department, being traditional were too busy to make his needs, so he then Microvision, a printer, and a lot of banking, and the humble table plots his new fonts, and stock exchange reports on up to 600 programs.

Just a hobby? Don't give us that, John.

ON-LINE News



TAKE IT EASY, EDNA

THESE follows a bulletin which has caused tears of sheer pride to well as bathed the resplendent winged apostles of Dame Edna Everage. Edisoft have brought Australian written software to the British market. The company have been successful distributors of British and American software in Australia since 1980.

The expansion (or reversal) of their operations is heralded by the release of Space Age 2001. SoftwareTown is destined for the IBM PC clone, and is available on disc or cassette (with text loader). Space Age 2001 retails at £7.95.

Dame Edna comments: "This is a truly wonderful moment for the Australian Empire, darling. My dreams will be truly cast when our very own, bestest handwriting, the Wombat 4880, at last becomes a British household name, like me."

COMPUTER CHAT SHOW CRASH HORROR!

INTERNATIONAL teleconferencing is the name of the concept. The idea is simple, an international microcomputer network allowing technical and business users, and as less serious people to share thoughts, words and words, using standard phone lines and the RS232C interface standard.

The technology was tried out recently in an experiment sponsored by those farsighted MSX people. It involved linking Toshiba and Mitsubishi MSX machines based in the South of France with a Sanyo

in Paris, which went on to connect with two MSX machines, NEC and Sincis in London and a Tandy TRS100 portable in San Francisco. The result of this bizarre managerial? Well, the two-MSXs had no trouble communicating, but the French connection just didn't work due to the fact that MSX machines aren't designed for the RS232C standard. This requires an evidently unrelatable track box stuck on the back, breaks really and not a little embarrassing seeing as how the whole basis of MSX is inter-machine compatibility.

MSX CORNER

MSX is coming at us from all sides but can you tell us any you know anyone who's involved? BIG X tries to keep track of the latest results to the Cause.

■ MR MICRO has thrown in some of its lot with MSX and announced five games: Acrophobic, Crazy Golf, Cakes, Zeta Mind and Phoenix. All will be priced at £6.95.

■ CENTURY COMMUNICATIONS claim first place in the race to produce the first micro-station (look to MSX, MSX — the introduction (Century 816, based in Britain for the first-time user and covers the whole range of MSX machines from the different manufacturers, all of them!). The book comes in two forms, standard (pages, covers, etc.) and one that includes a cassette of MSX BASIC programs — the latter available through the big retail chains only. Price is £7.95 for the book and £12.95 for the book and cassette package.

OUT OF THE BOX
MSX SPOTTER'S GUIDE
COLLECT THE SET!
No. 94785 YASHICA PC-64



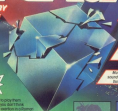
Yashica's MSX entry is a 64K computer with 314 8044 for BASIC and 188 video RAM. It has two joystick ports, a cartridge slot and a Centronics Parallel printer interface. Sound is handled through 3 independent channels covering up to 8 octaves. The display is 32 characters per line, screen display is 256 x 192 and there are 18 colours.

A (MSX) READER SERVICE

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BY IAN LIVINGSTONE



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and win the £25,000
prize!

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sound effects
built-in

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High quality
full-colour, stationary
moving graphics

Eureka!



THEY'RE BACK TO OWN

**DEVELOPED BY
IAN LIVINGSTONE**

The six years for "Eureka!" and Ian Livingstone, whose "Eureka!" series has sold over 2,000,000 copies. He's deemed as some of the best video game designers in the world. Ian Livingstone, who has written the program. Ian's the one who knows the answers.

"Eureka!" was programmed by Ian Livingstone and Ian Livingstone (Ian Livingstone and Ian Livingstone). It took the equivalent of 20 years to make. Ian Livingstone, who has written the program. Ian's the one who knows the answers.

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3 printers,

A range of daisy wheel and dot matrix printers.



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joystick

They put the conf in

a vast range of software

There's something for everyone and for all interests... thought-provoking, amusing, entertaining



home,

leisure and practical interests...



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pre-school and beyond

and

a 64KB

Plus excellent sprite graphics and



About the only thing the Commodore 64 doesn't have a

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That Was The Y

OSWELL'S 1984 drenched with hope and promise and a lot of new staff. As it wore on it proved to be a rough ride that nobody had expected. **RICHARD BURTON** checks his diary for the year ...

JANUARY

Oric announce the new Atmos — death-trial for the Oric-1 ... First hints of Amstrad entering computer market ... Commodore unveil 284 and 384 at Las Vegas ... Jack Trammell resigns as Commodore Big Boss ... Sinclair 85 list off U.K. — the long wait begins ...

FEBRUARY

Apple announce Macintosh — user-friendliness takes on new meaning ... Coleco's Adam due in Britain in 'first half of 84' ... BBC take over marketing and distribution of Dragon computer ... Rumblings at Atari — Philips said to be interested in joint-venture deal ... Eian changes its name to Ioffe (several months later) ... Lync 48K goes to mail order sale only ... QL '28 day delivery' extends to beginning of March, then end of April. Letter goes out to mail order customers ... Crash of the Month: Computers for All chain goes under.

MARCH

Atari pull out of electronics — television takes off ... Imagine announce price cut to £136 for games ... Plus! Plus, already 9 months late, announced delay till September, then change name to Interspace (several months confused) ... Acorn announce 8502 second processor for BBC ... Sinclair Microdrive appears in shops ... Imagine troubles begin — Marshall Covenanth reject six games, Megagames advertised as 'under development' ... QL: Sinclair agree to compensation for customers who are still waiting ... BBC K No. 1 goes on sale — punters cheer, companies quake, earth moves ...

software companies start rush from video games to computer games ... Spectrum targeted in Britain ... QL: the dreaded 50K struggle is revealed ...



Apple, Big 20 computer cut from video games computer game ...

APRIL

Imagine changes mind about price drop ... Mastertronic launch £1.99 games — budget software arrives ... Amstrad announces CPC484 ... Commodore hints at C16 ... Apple announce K ... Jet Set Willy appears, returns straight to No. 1 ... Big U.S.



Jet Set/Wilfredo's exploits ...

MAY

Boots, British Home Stores drop Dragon 32 ... MSX Invasion gets green light for Britain ... Sinclair drop ZX Printer ... Palace Software start move towards game-of-the-month titles — The Evil Dead announced ... Vectrex video game system gets drop priced ... QL: first batch of 100, drop priced, machines out ...

JUNE

Ultimate launch Sabre Mail ... Mafkie announce Aquarius 2 ... Commodore show Plus1 and C16 at Chicago CES ... U.S. Gold launched — Smash Mail runs into chaos — Tank software invasion starts ... Angus Press Software Group buy Quickdrive ... Acorn announce Plus-1 expansion unit for Electron ... Atari announce third video game system, the 7800 (overbody vinyls, again) ... Ladies of the Month: Dragon calls in Receiver ... Computers (Lynch) go into liquidation ... Carseal Software calls in Receiver ...

JULY

Wamer Communications sells Atari to Jack Trammell ... Burdard SA buys Dragon, moves production to Spain ... Amstrad goes on sale — on schedule ... Mastertronic take over marketing of Carseal games ... ACT announce 16-bit £1,000 P1 range ... Crash of the Month: Imagine insolvent, lay off two thirds of staff then call in Receiver ...

AUGUST

Sinclair plan to scrap 18K Spectrum in the Autumn ... Oric hits cashflow problems, seek advertising agency — and loses ... Atari slash hardware and software prices ... Activision sees Microdrive over Cuthbert in the Jungle — and wins ... Legend announce Mafkie follow-up — The Great Space Race ... Plover Imagine directors fail to keep Megagames out of Receiver's hands ... Acorn announce range of business micros ... QL: first machine returned for ROM failure ...

MSX '84: first machine good to customers ...



e Year That Was

Crashes of the Month: Retail Software goes into liquidation... Retailer go into receivership... long-delayed Spectrum keyboard...
 Commodore 64... Atari 5200...
 Maxis & Sparta move into software game... Malibu House... finally... bring out Star Trek...
 Softtek form The Edge to produce "megagames"...
 Wang Software buy out of Retail Software name... QL... on sale over the counter for first time... Acorn unveil ABC business range... Crash of the Month: Digital Fastlane go into liquidation... Channel 5 Software take over marketing of their Mysterious Adventure series...

SEPTEMBER

Commodore put down VC 20 in favour of C16... Atari see 52000... retail hardware prices again... Maxis & Sparta move into software game... Malibu House... finally... bring out Star Trek...
 Softtek form The Edge to produce "megagames"...
 Wang Software buy out of Retail Software name... QL... on sale over the counter for first time... Acorn unveil ABC business range... Crash of the Month: Digital Fastlane go into liquidation... Channel 5 Software take over marketing of their Mysterious Adventure series...

SEPTEMBER: "Commodore VC20 the fastest of the C64..."



OCTOBER

MSX officially launched in Britain... seven machines, some on sale before Christmas... Atari announce new 16-bit and 32-bit machines for 1985... Sinclair spring Spectrum... surprise via 121-button public... Sinclair series its existence on BBC Radio two days before official announcement... Ocean buy Imagine name... plan to use it on new range of "prelude" games... Sinclair snatch Manchester for QL conversion... Worries over MSX compatibility surface...

OCTOBER: "The officially launched... MSX pending introduction..."



NOVEMBER AND DECEMBER

As of writing these months have yet to happen... magazine production is a funny thing. All you can be sure of is that very few leaves will be left on the trees in November and December! That and the fact that a lot of computers and software will be around during these months.

1984 INS

Sinclair's QL
 Amstrad CPC484
 Dico Atlas
 Commodore 16
 Commodore Plus/4
 MSX
 Apple Macintosh
 Acorn III
 Acorn ABC range
 Mastertronic
 U.S. Gold

1984 OUTS

Imagine Software
 VC20
 Spectrum 128
 128-bit
 Intuition
 Macroe
 Habitat Software
 Grand Software
 Computers Loyal
 Fisher

1984 TRENDS

Olympic-inspired games
 Graphics software
 American software
 Budget software
 Games endorsed by retailers
 Games based on TV series and movies
 Multi-screen games
 Flight sims
 Improved graphics
 Cash prizes for solving adventures
 Games/graphics/adventure designers
 "Anti-glory" graphics
 Books on computers
 Computer magazines
 Core characters
 Reports and follow-ups
 "Star status" for megagames
 Atari's Intuition QL
 watching
 Banning C64s from Russian military use
 Disc drives
 Fast-loading systems for C64 cassette games



The FERRET

Tony Takoushi

He walks along, a shadowy figure in a filthy raincoat, with a snap-brim fedora on his bonce, a Microwriter in his pocket and his midriff festooned with bugging gear. He is TONY TAKOUSHI, and what he doesn't know about the Software Scene ain't worth knowing . . .

THE ATARI home video has a classic game in the 88 coin cartridge *Star Raiders*. Now it can be revealed who wrote this masterpiece was back in good old 1979. It was a German by the name of Gern Bubenzer. I like to know if anyone out there knows where he is . . .



From the Imagines Times, an underground mag from that trippiest of strips . . .

SPECTRUM owners take note. If you are planning to buy a copy of the arcade game *Cosmos* from Starzone Software then buy it quick as Cosas has threatened legal action against Starzone and the game has been withdrawn from the market. Cosas has the rights to *Cosmos* in the UK and is planning to release its own version for the Spectrum.

Jeff Miller's classic game *Chameleon* is one of the best VIC 20 games ever written. Jeff chose the title *Chameleon* after seeing the film *Chameleon* which starred Harrison Ford.

PALACE SOFTWARE — a stellar topic is working its way into *Richard Littlefield*, the programmer of the *Earl Dead*. With the launch of the game at the London Computer & Video Expo meant the game could not be shown to the press. When the game was finished Littlefield had run over by a "processer" car driver as he tried to deliver the master tape to the publishers. Sheer coincidence or . . .

Imagines — Where are they now? There is life in Liverpool after the Imagines crack. In fact many of the programmers and musicians are now well placed in other software houses and art studios. John Gooch is now at Imagine Software, Mega-Game programmer John Giddens and Ian Wainwright have set up graphic design studios called *Design Design*, whilst others have gone to Concept Software and *Peripherals* of Poitiers.

Imagines proposed its own in-house magazine, copies of which fit into over the head, couple of issues for your delectation, all in the best possible taste . . .



Accusations in *Shady Off Street* by *Imagines* magazine, are the first time responsibility in the computer game scene.

Don't forget, if you have *Reviews*, send them.

Also from Imagines Times

Ultimate — Remember how it that *Ultimate* will be releasing a game along the lines of their own standard arcade adventures. The title will be something like *The Staff of Kuzma* . . .

THE VERY is life these days, even with the stringent security adopted by Commodore. Having experienced first-hand their security checks at Green and Slough, assure you they are thorough, just thought out and even *Hoodie* would have problems escaping. He does stealing anything however, at the Commodore show in June at the London Show, this exhibition hall was locked up every evening. Admission could only be gained by a signed note from one of the Commodore hierarchy. Out of the first evening, a *Fingert* video was stolen . . .

While I'm on the subject of Commodore, it appears Jack Tramm (ex Commodore chief) came over to the UK with one of his sons (either Sam or Len . . . I think). Don't visit the Atari headquarters in Slough. This despite an official cancellation (in the computer press) of a Press Conference to see to have before announce Atari systems for the future.

After the hour of his leaving Commodore, Tramm took to his friends. I appear to have the dubious honour of a game being named after him. Recently released in the UK and due for release in the US is a game called *Jack Attack*. The game involves Jack 'stealing' off high-ups of banks and widening the rapists below him . . .

THE MECHANICAL Protection copyright clearly are those wonderful people who assure songwriters get their royalties for their songs. So what, you ask? Well after some initial research I seems there are plans to recover money due from some of the UK's top software houses as they are using names in their games and not paying for the privilege. And just how much is the society asking for the software houses? Why, a mere one pound for the master tape and between two and five pence (depending on the amount of music used, five pence being the maximum) background music for each tape produced. I have a feeling we may well be seeing many more original compositions in the future.



One of these men has an obsession with comics, but which one?

The good news — For those of you who wish you could run Commodore-64 games on the Spectrum there is now hope. If you have a copy of the *Pyramid* (Commodore 64 format) from Fantasy Software then try loading it into a friend's Spectrum. It loads in Spectrum file on the 64 tape format. You will be greeted with the following: "*Wozzy Pyramid!*"

The bad news — It won't run!



The screen above? From a VERY pretty game — and a right royal romp. Move over *War*.



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HOW TO ENTER

How do you get to Hampstead? The answer is not 'by bus'. Bus, in fact, does not go to Hampstead, one obtains it by reaching an exceptional level of social status. That's the message of Melbourne House's new adventure game... and the theme of our dining competition. How much do you know about social climbing? Presented here are ten thought-provoking statements about this trendy location, each with three possible responses which might be used to fit the gap. Which one most aptly or accurately completes the statement

— A, B or C? Under each statement number in your entry coupon write the two letters of the alternative you select for that statement.

Having completed all ten statements in this way, complete the coupon with your full name, age (21 under 18) and address, and post your entry in a sealed envelope to: BIG K HAMPSTEAD COMPETITION, 25 LITTLE STREET, LONDON N16 2EP. All entries must arrive by Monday, 31st December, 1984, the closing date.

IMPORTANT

Before sending the envelope containing your coupon, copy out for the outside back of the envelope the two letters (A,B,C) of your first-choice alternative in exactly the same order as they appear on your coupon. YOUR ENTRY IS NOT BE CONSIDERED UNLESS YOU DO THIS.

Write the name of your computer on the back of the envelope. Do not enclose any correspondence or matter other than the entry coupon.

RULES

There is no entry fee for this competition and the only difference between our BIG K and most other computer game titles is the prize.

All winners entries will be awarded, and the village will award the first prize to anyone that manages to reach across the ground with and judgement to move any thing from the table alternative most aptly or accurately complete the ten statements. Following entries will be awarded to the most accurate choice of words. No entry fee may win more than one award. If a professional is aged under 18 years then parental consent must be supplied before the prize can be awarded.

Prizes must be accepted as offered — transport fares alternative routes, taxi or otherwise is the cost of the trip. Travel expenses for a return journey to the prize location will be covered by post, no alternative is allowed.

Entries by post, no alternative is allowed. Entries arriving after the closing date will not be considered, and no responsibility will be accepted for any entries lost or damaged in the post. Alternative is an online manual complete flight, street, alternative for complete travel with the software and data set for desktop.

Members of the Editor's office will find an affidavit of the Editor's office before the competition. No correspondence will be entered into. Every winner must give the rules to his/her legal adviser.

The competition is open to all readers in England, Scotland and Wales other than employees (and their families) of Melbourne House Publications Ltd, Melbourne House Publications Ltd, or Melbourne House K.

Winners will be notified and the result published in a later edition of BIG K.

1. Social progress depends most on...
A. what you eat B. where you go C. who you know
2. What is most important that you should be...
A. an opportunity B. polite C. dedicated
3. One is best to be... in achieve success
A. ruthless B. brave C. dishonest
4. The Hampstead alternative
A. coffee B. music C. wholemeal bread
5. Instead to partake of an after noon drink one should eat for...
A. mineral water B. creamed cucumber C. tea
6. The social climber can phrase...
A. drop a name B. produce a cigarette lighter C. wedge a drink
7. The Hampstead alternative...
A. strong B. gall C. only himself to blame
8. To attend Hampstead one requires...
A. just one quality B. seven talents C. no knowledge of foreign languages whatsoever
9. Do no account should one have one's...
A. credit worthiness B. resources C. address book
10. A Hampstead Man always has a good...
A. job B. bank C. career

BIG K HAMPSTEAD COMPETITION

1	2	3	4	5	6	7	8	9	10

I am entering this competition. I agree to abide by the rules and to accept the published result, as final and legally binding.

NAME _____ AGE _____
(if under 18)

ADDRESS _____

MY COMPUTER IS _____

PLEASE CUT NEATLY AROUND THIS LINE

IS THIS A KEYBOARD THAT I SEE BEFORE ME?

FIN FAHEY finds Oxford Digital Enterprises' *MacBeth* bites him in his 'O' level sore spot.

A MIDSUMMER SPOKE'S DREAM OR MUCH ADD ABOUT ZERO

Scene 1: You are in a forest.

EXIT: *Sound.*

You can see: Lots of trees, green things and stuff.

Enter Park and Macbeth.

PARK: Good my lord, what makes this weary destination? For thy frame doth seem it, as if by leader banner heralded.

MACBETH: Thou know'st thy right. For each day a thousand players own the boards in most lawful treatment of my bloody deed. Would that the tale were told by an idiot! Yet 'tis most heavily related and the weary work to truly absorb the atmosphere. Yet the topic is not, but from learned Oxford issues areas of further delivery.

PARK: Aye, 'tis said abroad, it's not a game of which thou speak'st, and yet one equipped with words or skills that, from a

castage of war and lonely emotion, the strong player may let poor events the like of which Scotland's not as early prey to?

MACBETH: A long sentence, but thou speak'st truth. The very judgment of time itself now in every sentence have gone not unacknowledged. 'Tis somewhat, and besides enough is there to it for us.

PARK: Macbetha! Even thy love of reality, yet others do gain require.

(Enter a drained and weary Programmer.)

PROGRAMMER: Haste, haste! Let's this blood-dust creep quickly! 'Tis the dead O! For the year's seasonal backlog let not procrastination be made!

(Exit, absent-mindedly dropping a floppy disk.)

MACBETH: Now, doth fortune

brave the fated! No, Right Park, this slight work, of laborious deed, doth hold an account more instructive of thy own advantage.

PARK: What favour dost we have to that? Moreover 'tis a chance most delicate.

MACBETH: Why, the who are added. For thou wouldst Alford's folk do grasp eagerly at a circumstance. To market shall I take!

PARK: 'Tis strange! Fy! Fy!

MACBETH: 'Tis thy play, and charity doth become a king. Thy game is every headed shall be this.

PARK: *(softly)* With condition the marketing shall be thy domain.

MACBETH: 'Tis done.

(They shake hands.)

Macbeth goes to pick up his...

DISMEMBERED VOICE: You can't carry that stuff!

MACBETH: We are outside! Quoth the wickets, be this health, and and health. Kebab'd will it be for more is a health memory! Aye 'tis this we'll lay out, 'tis do!

(Runs on sword. Exit.)

PARK: O, suppose please! These conditions have dropped thy fate, upon it make, not employed if this. All points to Park falls. 'Tis an ill wind!

(Picks up disk and goes to exit. Sound.)

DISMEMBERED VOICE: You can't go that way!

(Picks ita down on a bedstead and weeps.)

End of Show

K K K

MACBETH CBW 84

As far as I know, this is the first adventure crack at the moment hand, and a very intriguing it to too. Macbeth consists of four major adventure segments, each of which is the size of many single packages I've seen. And that's not all. Each adventure is followed by a posthumous section in which thanks are given. I'm reassured to help the player gain insight into the characters' motives.

As you might gather from this, the interface is definitely educational. Creative Sparks, who market Macbeth, supply a 188-page accompanying book containing the play text, notes on the characters and the actors, and a run-down on the CDW team itself. This letter is abbreviated.

As thoughtful as you're thinking, it's worthier for being seen in letters. But not for one thing: the original source material really couldn't be better suited to an adventure game. For another CDW have managed to inject a fair amount of humor into the proceedings, although they do

seem to have a dubious understanding with irony.

Each game depicts one of the dramatic moments in the play. The first sees Macbeth as a guide — you have to save Scotland from robbers and foreign invaders. In the next, you become Lady Macbeth. Ticky this one, you have to get the castle ready to entertain King Duncan, but his wife is a false sense of security and then persuade Macbeth to see the poor guy off without getting caught. Finally, you'll Macbeth!

After this the scene moves to the wicket. The ingredients for these great scenes of which I remember as being quite unorthodox (love of haphazardness) have to be gathered. Finally we're off to Dunsmuir castle with the army at the gate, helpfully equipped to slay it. You have to resist the urge and butcher MacDuff before he performs the same service for you.

Very little of this action is actually in the play. For example, the initial battle scenes are told several hours by a "recounted" segment in the original. As a

result it tends to fill out the plot in the same way as the epic Pelicans' first version.

The analysis programs are very much linked to the academic side of things, but I found them interesting. They're not your fluff-free fare concentrations though, but multiple-choice sections which get pretty close to parodying the point.

Given the richness of adventure software in general, Macbeth is surely a step in the right direction. I really don't mind being seduced by a program, as long as I don't notice it happening, and that's what this does. But what's the next step? The prospect of Hamlet, my personal favorite is worth waiting. In the mean time, this should keep me up for a few more nights. — P.P.

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Addictiveness: EXCEL

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UPFRONT

WHEN IMAGINE crashed earlier this year, they went down fighting . . . for their famous Megagames. The only one of these to achieve near-completion was its Bandersnatch. Our Man With The Snap-brim Fedora previews the game — which may yet see the light of day — and unravels other great software mysteries of our time. You read it here first . . .

by TONY TAKOUSHI

WELCOME to what I promise will be the Post-test review

pages in the games industry. Each month I will be reviewing all the newest and tastiest software around — as often as I can, before it's around!

This month's reviews cover two Spectrum and two Commodore 64 games. For the Spectrum there's the famed Bandersnatch (originally from Imagine) and Moon Patrol from Airtsoft with Asterball and something oh-so-similar to Jetpac on the 64 (more of this anon).

There has been tremendous interest in the megagames from Imagine, only one of which has had any appreciable work done on it — the being Bandersnatch for the Spectrum. After all the hoopla that you deserve to know what the fuss was all about . . .

The concept of a megagame was produced by getting all the programmers at Imagine to list what they thought a megagame should have. The final report detailed the use of much artificial intelligence, large well-defined graphics and many stages of play. The game was designed to be 128K long and as the Spectrum could not handle this much code a hardware add-on was designed. This was a 64K ROM designed to slot in the back of the Spectrum. A company in Taiwan called PCH was approached to produce 100,000 PCHs. PCH costed these at one million pounds, (a sum Imagine did not have), so began the search for funds.

As the while John

Glavin and Len Weatherburn were writing Bandersnatch, the Imagine was around up the games were shelved and now both programmers have left Imagine. The game itself revolves around a character called 'Vol who lives on a planet in another galaxy. There are no points scored in the game, the aim being to pass through life (do you get points every time you cross the road?). There are many rooms to pass through, with lifts helping you on your way. In fact, it is *Minor 2848* or *Minor Minor* (is you) — derived except that 'Vol is very large and beautifully animated. The various stages include levels like the Mine Shaft where a large worm, about a third of the screen in length, wiggles along with each segment being fully animated.

An example of the hoped-for artificial intelligence occurs when you enter a room.

Characters are standing around talking to each other in speech bubbles. You can see other features for yourself in its accompanying screen shots . . .

Late news: at going to press time we found that Sinclair Research has acquired Bandersnatch as a Q1 game, to be released next year after wholesale re-writing. This should mean that the Q1's 128K of RAM will make the ROM (single unnecessary . . . watch this space.

TODAY'S BALL

Andrew Spencer ceased quite a while before his iconic international Soccer for the 64 — now he's all set to repeat his success with Asterball.

This is a superb translation for the

BANDERNATCH
THE GAME THAT LAUNCHED



THOUSAND WRITS

Commodore64, featuring all the facets of real basketball and yet manageable to be very playable and addictive in its home-micro format. The game starts with a choice of team colours and difficulty level of play. The players hoop out on to the court and a tip-off gets play under way.

There are 200 seconds to each half, with the scoreboard showing scores of home and away teams, and a 30 second time limit allowed for each team to attack its opponent's basket.

The players are well animated. They can also leap into the air to block or shoot the ball. If the ball goes out of bounds a throw-in is awarded and when five team fouls are

reached free shots are given against the offending team's basket. A nice touch is that when a basket is scored the crowd go into a frenzy and applaud loudly... overall my verdict is: Excellent.

MYSTERY JETPAC

The other C64 game to fall into my review palms this month looks for all the world to be Jetpac—the last name being that Tim Stamper (MD of Ultimate) assures me that his company has not, repeat not, written Jetpac for the 64.

All the same I've been playing the game and it really does look like a direct 64 conversion from the Spectrum format... all of which set me thinking. Not too long ago there was an emulator programme being written by a top programmer (no names, no pack drill), that would supposedly convert Spectrum games to the Commodore 64. I have a

wakey feeling this game Jetpac rip-off could well have been produced under such a converter. If anyone out there knows if this emulator exists (or not) then do let me know... small fee for hot info...

The original Jetpac from Ultimate has you controlling an astronaut who has to assemble a rocket and fill it with fuel while picking up jewels, gold and diamonds. Trying to stop you are various alien forms which either as you fly from planet to planet recharging your ship.

This particular version plays somewhat slower than the Spectrum original and there are a couple of other differences—these being the use of gauges at the bottom of the screen to show the fuel level of the rocket and a fuel gauge for the Jetpac worn by the astronaut.

All the attacks waves are graphically similar (how I love those goggles-eyed ball balls on level two!) and if an alien touches you one of your five lives is lost. The mystery remains, however.

MOONING AROUND

With the take-over of Atari by Jack Tramiel various projects were immediately shelved. The conversion of

top Atari games to the Spectrum format is, however, being continued and they will be officially released as soon as the copyright holders give their seal of approval.

Moon Patrol will shortly be released on the Spectrum. It is a close-copy of the arcade version. Under your control is a moon buggy that must cross 20 sectors as it battles its way to Moon sector 2. There are a variety of alien forms trying to stop you and you can fire straight up at the aliens and directly ahead to destroy the bombs they are dropping on you.

As you get closer to sector 2 you must use gun bursts on the lunar surface firing missiles at you whilst negotiating the ever increasing centers.

My initial reaction to this game was... disappointment—the scrolling landscape moved rather slowly. But as I got into the game this became less of a bother. The game is challenging, skillful and addictive. It will be selling for £10.00 from all major software distributors.

Next month? Just recently there was the first 100-screen game from Softc called Quo Vadis Wolf, the next issue of Big K will feature an EXCLUSIVE review of the biggest arcade adventure EVER WRITTEN on a home micro. It has over 1000 locations (is giving you an idea of the playing size that makes it around 8 feet high by 3000 feet long), and is called CAD-CAM Warrior



BECOME LONE WOLF...

... sole survivor of a devastating attack on the monastery of Kai.

A great cloud of black, winged beasts has swept down and engulfed the monastery. All the Kai Lords, whose secret skills you were learning, have been killed.

Raising your face to the sky, you swear revenge on the Darklords of the West. But first, you must warn the King of the Invasion, retrieve Sommersword and then use it to beat off the attackers. There are now two exciting LONE WOLF adventure games. Each one requires you to assume the mantle of Lone Wolf, make all his decisions for him, and actually fight his combats move by move. You really are Lone Wolf.

You are going on a journey, a quest. You create your own adventures, choose your own tactics and make your own decisions.

You swear

THE LESSONS OF COMBAT AND ENDURANCE

When you were training with the Kai Lords, you acquired many secret skills and disciplines. Now, you may need to use them. You may need to improve some, and disregard others.

"Combat Skills" may be needed to defeat the enemies you encounter on your way to reaching the beleaguered King, and whilst saving your country. You will need "Endurance" to survive. Each decision you make can alter the course of your adventure. So choose wisely, for you will often be totally surprised by the effect your choice may have on your survival.



THE SURVIVAL DISCIPLINES

Over the centuries, the Kai Lords had mastered the skills of the warrior. As you proceed through your

adventure you may find that you are becoming more and more proficient. If you, too, have mastered these skills they may save your life!



You can learn how to hide undetected amongst rocks and trees of the countryside. In a city, you can look and sound like a native which may help you to find shelter.

Learn how to communicate with animals and move objects by sheer concentration alone.

You can develop a "Sixth Sense" that warns you of imminent danger; it may also reveal the true nature of a stranger.

"Tracking" may help you choose the right path and decipher prints or tracks of creatures in the wild.



The discipline of "Healing" can restore your "Endurance" after being wounded in combat.

THE "COMBAT" SKILLS

When you entered the Kai monastery you were taught to fight with daggers, spears, warhammers, axes and swords.

The evil Darklords, though, have the ability to attack using "Mindforce". Lone Wolf can learn the discipline of "Mindshield" and also "Mindblaze", the old Kai Lord's ability to fight, using the forces of the mind alone. You, Lone Wolf, control the combat, you decide whether to fight or not, and you alone can manipulate the moves.

THE EQUIPMENT TO SURVIVE

You set out with just an axe, a leather pouch of gold crowns and a map of Sommerland which you

THE LONE WOLF ADVENTURES

The creators of LONE WOLF are Joe Dever and Gary Chalk. In 1982, Joe won the Advanced "Dungeons and Dragons" Championship in America.



Gary has had 17 years experience of war games, and is the originator of the highly successful "Cry Havoc" and "Starship Captain".

Together they have created two unique adventures combining the skills of mental and physical dexterity.

And there are more to come. The presentation is visually exciting, and involves you totally in every action and reaction.



Discover the LONE WOLF adventures "Flight From the Dark" and "Fire on the Water". Now, available individually in a special gift box, including a cassette and illustrated book for £8.95. (Software only £6.95 each.)

revenge

have discovered amongst the smoking ruins of the monastery.



You are about to begin the most incredible adventure of your life.

WE CHALLENGE YOU TO DEFEAT THE DARKLORDS IN THE LASTLANDS

LONE WOLF

Available from leading software stores.
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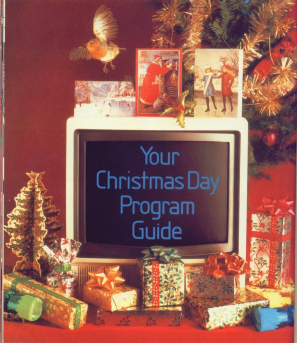
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Your Christmas Day Program Guide

Acornsoft announce tidings of great joy for both BBC Micro and Electron owners: eight brand new programs for Christmas.

Each one makes an ideal stocking filler.

They're all available at your local Acornsoft stockist. For the address or to order by credit card simply ring 0933 79000.

Or you can send off for our catalogue by writing to Acornsoft, c/o Vector Marketing, London Road, Wellingborough, Northants NN8 2RL.

Alternatively, however, you could always take a chance and drop a line to Father Christmas.

ACORN **SOFT**
Software for the BBC Micro and Electron

9.00 Firebug

A fast moving arcade-type game in which you are a fireman, trying to rescue some oil drums and take them to the safety of a water tank. Your opponent is the firebug who runs around lighting fires which move slowly towards the drums and fire extinguishers, destroying them if contact is made.

10.00 Maze

A gripping graphics game where you enter a top secret installation with the aim of stealing secrets from a rival company. The security system, however, has many levels each consisting of a maze of corridors patrolled by armed robot guards. Complete with full colour 3-D graphics, sound effects and a high score table.

12.00 Elite

A superb 3-dimensional graphics game that's light years ahead of any other. You are a space trader who roams the universe, making your living from buying and selling cargo in your Cobra space craft. On your travels, you will encounter aggressors who are eager to put an end to your dealings. Be warned, only the fittest will survive.

1.00 Crazy Tracer

A crazy adventure in which you guide a paint roller round the edge of a maze of rectangles, while avoiding the monsters which are trying to stop you by crushing the roller. Beware - as the game progresses, so the number of monsters chasing you will increase.

3.00 Go

Go is a board game for two players which originated in China 3000 years ago and is now more popular than Chess in the Far East. It requires strategic insight, intuition and a strong calculating mind. If you wish, you can also challenge the computer at differing degrees of difficulty. A velly good game indeed.

4.00 Watch Your Weight

At last, a weight-loss program designed especially for you. With it, your computer becomes an expert wholly conversant with and sympathetic to your needs, and will help you choose an appropriate and individual weight-loss plan. The program also includes a calorie counter and a series of apposite menu suggestions to help stimulate your imagination when you just can't think what to eat.

5.00 The Complete Cocktail Maker

With everything from a Black Russian to a Betsy Boss, this program contains data sufficient to concoct a staggering 320 different cocktails.

6.00 Paul Daniels' Magic Show

Stun and amaze your friends with your astounding feats of magic. This program contains ten tricks to be performed by or with your BBC Micro/ Electron. Hurry though - it's bound to disappear fast.

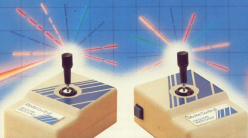
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- Set of 2 precision joystick controllers.
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PYJAMARAMA
Spectrum 49K

There are occasional target moments in a game where you're not at the controls, and this always has to do with the game's interface. Pyjamarama is a strange mix of quantitative and qualitative elements, and the occasional moments where you're not at the controls are a bit of a nuisance. I was looking for a game that was a bit more like a puzzle, and this was a bit of a disappointment. It's not a bad game, but it's not a great one either. The interface is a bit of a nuisance, and the occasional moments where you're not at the controls are a bit of a nuisance. I was looking for a game that was a bit more like a puzzle, and this was a bit of a disappointment. It's not a bad game, but it's not a great one either.

KKK

There's a lot of things that you can do in this game, and it's a bit of a nuisance. I was looking for a game that was a bit more like a puzzle, and this was a bit of a disappointment. It's not a bad game, but it's not a great one either. The interface is a bit of a nuisance, and the occasional moments where you're not at the controls are a bit of a nuisance. I was looking for a game that was a bit more like a puzzle, and this was a bit of a disappointment. It's not a bad game, but it's not a great one either.

DUNE RIDER
SBC

It's a bit of a nuisance, but it's a game that's worth playing. I was looking for a game that was a bit more like a puzzle, and this was a bit of a disappointment. It's not a bad game, but it's not a great one either. The interface is a bit of a nuisance, and the occasional moments where you're not at the controls are a bit of a nuisance. I was looking for a game that was a bit more like a puzzle, and this was a bit of a disappointment. It's not a bad game, but it's not a great one either.

K



BATTLEZONE
Spectrum 49K

One of the things that you can do in this game is to play a game that's a bit more like a puzzle. I was looking for a game that was a bit more like a puzzle, and this was a bit of a disappointment. It's not a bad game, but it's not a great one either. The interface is a bit of a nuisance, and the occasional moments where you're not at the controls are a bit of a nuisance. I was looking for a game that was a bit more like a puzzle, and this was a bit of a disappointment. It's not a bad game, but it's not a great one either.

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BATTLEZONE
SPECTRO ACTION FRONT
QUICKSILVA



Hill

MacGibbon



It's not that I want my freedom time. I just don't want to be angry. Would you mind bringing me a little bit of the work?



We'll make, going to bring the sun to the sun god. You can't see the sun. You can't see the sun. You can't see the sun.



48K SPECTRUM £7.95
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After Midnight – two adventure games that herald a new dawn

A new concept – all graphics, 3D, and 360° scrolling

Sports simulations

that leave the rest standing

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Due to the complexity of its award-winning graphics and mind-boggling game play, Interview is a multi-task game using the revolutionary fast load system on tape.

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It has these features:

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and all good computer shops.



GH0STBUSTERS™ THE COMPUTER GAME.

BY DAVID CRANE



© 1984 GLOBE PICTURES

Yes, Ghostbusters is a computer game, too.

The game play follows the film with incredible accuracy (even down to the chart-topping music score).

Your task is to rid the world - and in particular New York City - of a cataclysmic plague of ectoplasmic nasties.

Play it well and we give you a Ghostbusters franchise - with your own secret account number (use this number and the money it brings you, to buy the same ghost busting gear they had in the film. (Don't worry - we'll give you some money to get started.)

You will have earned it. And you can use it to go to unreamed-of levels. Don't try to use someone else's number, we'll find out.

From then on, it's you against the ghosts. All the way to the Temple of Zuul.

Where the final battle begins...

Designed by (USA) David "Pitfall II and Decathlon"

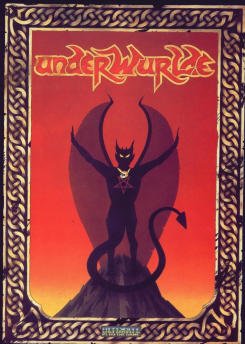
Crane and running on Commodore 64 cassette and disk and Spectrum. Coming soon on other systems.

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48K SINCLAIR ZX SPECTRUM



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48K SINCLAIR ZX SPECTRUM



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BEACH HEAD
Spectrum 88K

K

ELDERLY
AMERICAN

It's nice to know that the dear 'ol Yankers can continue to have as much fun as they left school early in their first software session. Beach-head is as well thought-out as the average

throughout in the average. This always makes me proud. There are seven stages to this game, each of which is a little more difficult than the last. It's a little like the old-timey "Tennis" game that you find in all the old-timey "Tennis" games. You have to do it for a while, and you'll get a little more out of it. It's a little like the old-timey "Tennis" game that you find in all the old-timey "Tennis" games. You have to do it for a while, and you'll get a little more out of it. It's a little like the old-timey "Tennis" game that you find in all the old-timey "Tennis" games. You have to do it for a while, and you'll get a little more out of it.

Price: \$18.95
Formal cassette
Spectrum 88K
Psychology K
Addictiveness K

Price: \$18.95
Formal cassette
Spectrum 88K
Psychology K
Addictiveness K

ZOMBIE ZOMBIE
Spectrum

After falling around with this for about half an hour, I'm left with a lingering feeling of bewilderment. Zombie Zombi is definitely for those who enjoy strategy.

The above advice is simply one of the many things that you'll find in this game. It's a little like the old-timey "Tennis" game that you find in all the old-timey "Tennis" games. You have to do it for a while, and you'll get a little more out of it. It's a little like the old-timey "Tennis" game that you find in all the old-timey "Tennis" games. You have to do it for a while, and you'll get a little more out of it. It's a little like the old-timey "Tennis" game that you find in all the old-timey "Tennis" games. You have to do it for a while, and you'll get a little more out of it.

Price: \$18.95
Formal cassette
Spectrum 88K
Psychology K
Addictiveness K

BACK
TRACK

BY GAMES AMERICA

DRAGON 32

BACK TRACK
Dragon 32

K K

Dragon software is usually an exciting stuff, and of late there hasn't been a lot of it, so I feel that this is a welcome addition to the line.

It's a little like the old-timey "Tennis" game that you find in all the old-timey "Tennis" games. You have to do it for a while, and you'll get a little more out of it. It's a little like the old-timey "Tennis" game that you find in all the old-timey "Tennis" games. You have to do it for a while, and you'll get a little more out of it. It's a little like the old-timey "Tennis" game that you find in all the old-timey "Tennis" games. You have to do it for a while, and you'll get a little more out of it. It's a little like the old-timey "Tennis" game that you find in all the old-timey "Tennis" games. You have to do it for a while, and you'll get a little more out of it. It's a little like the old-timey "Tennis" game that you find in all the old-timey "Tennis" games. You have to do it for a while, and you'll get a little more out of it.

Price: \$18.95
Formal cassette
Spectrum 88K
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Addictiveness K

ART DESIGNER
BSC Model 8
GOOD GRIFFE

K K

A good while ago I reviewed a little game called "Art Designer" which was a very nice and sophisticated little game. It's a little like the old-timey "Tennis" game that you find in all the old-timey "Tennis" games. You have to do it for a while, and you'll get a little more out of it. It's a little like the old-timey "Tennis" game that you find in all the old-timey "Tennis" games. You have to do it for a while, and you'll get a little more out of it.

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**ELECTION
TRAIL
CRM 64**



**Your Own
Elect-Ron
Simulator**

Do you wish to have your own political campaign? This is the game for you. You'll be in charge of the campaign, and you'll have to make decisions on how to spend your money. You'll also have to deal with the media and the voters.

The campaign is fought across a very detailed map of the United States. You'll have to visit various states and make decisions on how to spend your money. You'll also have to deal with the media and the voters.

**KK
KUNG-FU
Spectrum 48**

GRIEVOUS BODILY NIRVANA

For aspiring kung-fu masters, this is the game for you. You'll be in charge of your own kung-fu school, and you'll have to make decisions on how to spend your money. You'll also have to deal with the media and the voters.

**From: BPS-SYS/STY/RS/RS
Price: \$29.95**

**Graphics: CE
Playability: CE
Addictiveness: E**

CLASSIC ADVENTURE



Well here we are folks, the machine has been around for a couple of years now. It's time to take a look at the classic adventure games. These are the games that have made the genre what it is today.

Although I've said this before, a very classic game is one that is fun to play. It's a game that you can play over and over again, and you'll always find something new to do.

**From: AMSTP
Price: \$29.95
Graphics: CE
Playability: CE
Addictiveness: CE**

**From: COVERGATE
Price: \$17.95/29.95/49.95
Graphics: CE
Playability: CE
Addictiveness: CE**



**INTERDICTOR PILOT
CRM 64**



No exciting aircraft with a few shiny stars, this is a game for those who want to fly a starfighter. You'll be in charge of your own starfighter, and you'll have to make decisions on how to spend your money.

The game is set in a futuristic world where you'll be in charge of your own starfighter. You'll have to make decisions on how to spend your money.

KONG?

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200 DIM T: LET W=0
210 GO SUB 300: GOTO 240
220 DIM S: INK 0: DIM G=0
230 LET W=0: LET T=0
240 PRINT AT 0,0: INK 7: "SCORE"
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260 PRINT AT 0,0: OVER 0: INK 7
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WHERE IS KONG? for Spectrum T. Schofield

ALLEY SPECIAL

THE LAST

STARFIGHTER



Since *TRON* — and possibly *WAR GAMES* — the Western world has been desperately short of a good videogame movie epic. Now a contender has emerged: *THE LAST STARFIGHTER*. By those nice folks who brought you *DALLAS*, it's got everything: romance, out-looking alien creeps . . . and some of the very best digital starships ever to grace the big screen. *FALL RAMBALL* reviews the movie, while *JOHN CONQUEST* works out how it was all done . . .

DEEP in the infinite, a space-traveler takes his ship to look for the great alien space craft, replacing the classical computer screens of *TRON* with floating engines and points of light. As the ship sails, a humanoid figure is visible in the cockpit, giving a final salute to the passing planet. Nothing about this, it seems from a new Hollywood space genre, the *Last Starfighter*. Except that the space craft and the humanoid figure *aren't* actually real. They are neither machine nor actors, but computer-generated images.

Take another look at this scene, a movie-making feat. The space craft, the figure back on a familiar video planet, the figure of a young ship's captain, which is anthropomorphic, and the first view of the interstellar fleet figure — all of these were only a digital code stored in the



CONTINUED OVERLEAF

ARCANE ALLEY

THE LAST STARFIGHTER

members of a Cray X-MP super-computer.

The six-foot-tall, 13 million dollar computer, coded by Freeman and capable of 100 Megaflops (or 1 billion computations per second), craved almost all of the special effects for *The Last Starfighter*; nearly 300 scenes, about 25 minutes of screen time. The results aim to quote the film's producer, "Shoof-reel." Which is to say no sports reel — and the subject is anyone's fantasy — but it's a snugly effective. As for its anyone fantasy, or even computer from the (discontinued) images of galaxies long, long ago and far, far away, this is what it really like out there in deep space.

And it deep space, it seems, no-one can hear you scream. You feel enough? The Empire has struck back, Spock has been found. What possible business remains to liberate the intergalactic peace?

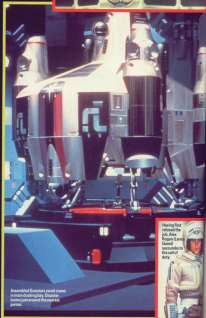
Uppermost

The question is hardly uppermost in the thoughts of young Alex Rogan/Lance Scott. Alex is a major nice guy athlete on his parents' Starlight sub-part in Nevada, while his girl friend Maggie ultra lives. Alex has only two problems in life: He wants to leave the mother-park. He is perceived as a nerd. While his friends are out having fun, Alex has to do the über-studious homework assignments on the video game that will control the computer war, fighting alienoids.

"You have been recruited by the Star League to defend the frontier against *Junk* and the *Kobal* armada," commands the micro-electronic, voice within. Having nothing better to do, Alex complies, reaching up toward space on what appears to be a run of the program space shoot-em-up called *Junkyard*.

One evening, a bizarre automobile, its science plane spelling the word *HYLOS*, pulls up outside the Starline park.

"Capturing the hero," announces the vehicle's driver, "I've found the fighter!" Climbing inside, Alex is soon being driven at impossible speeds. "You're the best, kid."



Assaulted Computers (and crew) manning the Starline home just ahead of the alien game.

Having first refused the job, Alex Rogan (Lance Scott) succumbs to the call of duty.

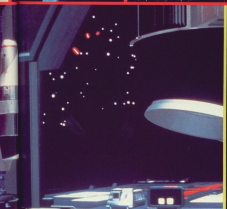




Alan Rickman slouches at Alan's Starfighter game. Just how useful this is, he doesn't realize.



The Starliner. The supreme space fighter, yet Alan's misadventure eventually.



Alan's favorite character, Orson's space hero. It's a shame he takes off the hat.

enthusias. Cameron (Robert Preston), a low-level, federal agent from the moon base — game player. Before he can protect Alan from the control transferred into a remote web and himself whisked off to Pluto where, against his wishes, our reluctant hero's fate will be sealed: the former against the latter awaits.

This promising scenario needs no more elaboration, and goes on to the first of the movie's dazzling effects sequences as Cameron's car speeds past the rings of Saturn.

The film's slow cutaway and dissolve, detailed ground-to-air shots (generated by the Cray 3.0M) begin to fill the screen. Star Lineage's James, Gene Stone, Kellen Lybman, some of those hardware designed by Bob Cobb (Star Wars, Raiders) fed into the computer until by word and transformed into 3D graphics sequences no less credible than the usual miniature models. "In traditional cinema you are led down by the mechanics of moving a camera around in the real world," says Cobb. "Now we can cover those best and generate forms that never existed."

Computations

Working at Digital Productions, who also did the computer animation for Ivan, Cobb saw his drawings turned into film. Each frame required 72 billion computations — in other words, just over a minute of Cray time. The final cost was \$ million dollars, and for the first time, a Hollywood blockbuster is being trumped for raw title, rather than how much, it got the studio back. With the Cray — a computer more often used for defense work at the Pentagon — the special effects budget was cut by two-thirds.

Digital Productions have been successful, also making an "computerized" special effects, into the movie business. By the end of the decade, they expect to be able to create computer-generated humans, rather than just hardware.

Their work on Ivan, distributed globally in 1988, was needed by the film's west plot and their characters. The last Starfighter episode and enjoyable film on the way, get regular the biggest studio group of all, and gets the job too. Alan Rickman's production, from down to Starfighter could be anybody's. Given the chance. And — wouldn't you know it? — Alan will be doing just that in UK, instead work.

CONTINUED OVERLEAF

THE LAST STARFIGHTER

THE ULTIMATE last-of-its-kind up-to-date has more computer capabilities than all previous models put together. 3004 frames are synthesized shots lasting over 25 minutes of running time. And it's not just quantity — each frame has from 3 to 5 million polygons in each frame, some sequences in which all existing records for complexity and detail.

Digital Productions, the creators of this milestone in computer graphics, set out on this Clay 1.8, at the time the most powerful off-the-shelf computer available, but turned to its for the very first Clay 3-MP super-computer to leave the factory, which was four times as powerful. So advanced is the Clay that the top of the line Digital Equipment computer, the VAX 11/780, is used as a front-end processor.

The 3-MP houses 200,000 transistors, which are clocked by 88 million cycles, at 30 MHz. It has 16,000 cache and 16,000 cache and 16,000 cache. To push all that takes a lot of power: 100,000 watts per or take a couple, which in turn means a monitor from cooling system to keep

the system circuit boards at a constant 800°F. The Clay is a 10-foot, with a cycle time of 80 milliseconds of a second and is absolute expensive. If you fancy the sound of it, you'll have to take \$12 million out of your Clay account.

Thousands of objects were drawn on paper, top, bottom, front and back views, then digitized with an interactive camera, cross-hairs on a glass color board which a soft gives off a continuous stream of color signals with the recording raster surface being an antenna. The surface is then overlaid with polygons, the vertices between them being recorded, while curved ones are broken up into lots of smaller flat ones that add up to the right shape, which the computer will average out. The Spherizer, for best's sake, the most detailed object in the film, has 800,000 polygons and took months to create.

The next stage involved a vector monitor in which the object can be manipulated through a (left-right), a (up-down) and a (forward-back) movement, plus a black and white line drawing form. The movement of the monitor can then be passed in real time. Motion is created by designing key frames and letting the

computer draw many frames apart they are. Effects such as lens flares, radial shadows and time-space warpage occur at the same time. Then the camera can be tested and changes made either by adding in more key frames or modifying the existing ones.

When the animation has been polished the scene is transferred to a super monitor for color and lighting. Graded colors, even on a super-computer, can't be generated fast enough to view in real time. First time round the polygons are assigned values, specified by three numbers representing the blend of primary colors. This is done between the screens of two low-intensity red, green and blue screens. Graded colors are created by specifying the degrees of extreme differences, with the computer then stepping the transition between them.

A new kind of help by calculating how much each object has moved since the one before. The Clay is very very good at perspective and can determine quickly how from each of the millions of polygons it is and how it is oriented, and give each one of them through observation, it then decides how each individual polygon should

be lit, depending on its angle to any light or lights, the shape of the surface it is part of and the material it's made of, metallic, matt or ceramic.

Finally the 3-MP super-computer the frame. Avoiding the color of each pixel. As it calculates there is across the color values in a frame buffer and the image is complete, which takes about 120 seconds. Finally the film recorder reads off the contents of the buffer.

The end result is an astonishing 10 million super-still computers being made of anything short of perfection, despite attempts to build-in features. First generation is more important, for the motion is very different from the model animation will be seen used to span them being able to do things which would be incredibly difficult, if not impossible, any other way.

Peter Design Group, Digital Productions' parent company, released 'The Total Force' by Digital Touch Motion in 'Shan-Mach' series (see list of titles from this column). But new computer film-making is here to stay — at \$2,000 a second. Which, believe it or not, is competitive with other methods.

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Joystick fire: Jab



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MERRY XMAS SANTA

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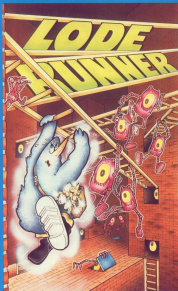
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Available on the 48K Spectrum

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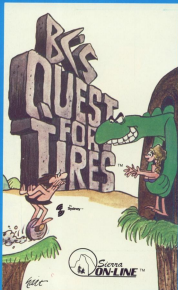
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of utility

THE EXTENDED SPECTRUM

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SYSTEM SOFTWARE—As we all know, the computer industry has a wide variety of programming tools, in many different media and in the world's light. It's a smattering of hand work and late night sessions, one a hot keyboard and some light year energy from England and Harvard, say, a new Multitasking course adventure release. But for those interested in stretching themselves, some of these tools work better; they will be used to some benefit of good. But why get beyond the mainstreamed by Sinclair BASIC? One may well ask. Quite simply, no machine, and particularly to BASIC interpreter. All the needs of the budding programmer, and for a lot of requirements like made games, just have to get things.

There are a whole number of packages which just add a few extra commands to BASIC interpreters as programmer's utility. These generally give you the sort of goodies you've seen in other programs. There's a new line number command in the Spectrum, and for this you'll have to wait a while. The one good for many other "basic" commands. There, to give a comprehensive list of programs being being released. Map, to give you extra variables have been added, and Black Decks, to

you can get rid of more than twelve variables, to name but a few.

Super Toolkit, from Newline, has all of these plus such things as a Crunch command, to get all those useless spaces and Bfils out of your program before running. It checks up to 65,535 locations, so does. From the BBS Software, which includes an Auto Line numbering routine. Slightly better facilities are in CP Software's Spectrum Extended BASIC, only to commands in this case, and the only one unique to this package is Find, which will look for a specific string text in your program. CP Hardware also do Supercode, a machine code editor, incorporating a hundred 0F-the-bit machine code routines. These include an impressive range of scrolling effects, high resolution diagonal scroll, low resolution shrive and ripple scrolls, and many others. There are four sound effects generators too, but the truly impressive thing is that you can emulate CP hardware in your own BASIC and machine code programs, an amazing bit of prowess. Each routine has a full in-program documentation and a demo mode shows you what they can do. It's a job to be good-like.

From off-the-shelf machine code is reading your own. If you've decided that BASIC's too slow for your program design, then you'll probably want to write in machine code. Some people save quite happy programming this by using the BASIC POKER, but for really effective development you'll need an

assembler. Assemblers allow you to put BASIC code in assembly language, a much more compact and efficient form, even though it's a lot more obscure looking than BASIC. A good assembler will allow you to specify addresses and constants as meaningful labels which make the code a lot easier to follow. In such a symbolic assembler, the JP instruction equivalent of BASIC GOTO would be written as JP LOOP instead of giving an actual address, say JP 5400.



But before actually using one of these things, you may need to know what it's all about. To help you, there are a number of tutorial programs, and some of these actually allow you to get up and test code. Sinclair's *Review BASIC* offers a tutorial on the internal structure of the Z80 plus lessons on each assembly instruction. There are illustrated with simple moving graphics. There is an experimenter section where you can watch the effects of your own code on memory and registers. Sadly, this one doesn't cover the entire instruction set.

More complete is *New Generation's Machine Code Editor*. This comes on two

discettes and covers everything. Encouraging, you can write your own code and run it as an adaptive BASIC interpreter. Although this is rather harder work than Sinclair's, I think it gives a closer feeling to using an actual assembler.

Denis St. Lawrence has a new claim. This has much more graphical information than the other two, but unfortunately it describes an imaginary chip which resembles the Z80 in many respects. I think that this may be somewhat confusing, but so long as it's clear in mind the transition to the real chip shouldn't be too hard. So how do you get down to some real making... Sinclair has written the *Z80 Assembler*, which offers full symbolic instructions. Lines of code are entered through a BASIC, and editing is simple, with a should be an easy one for beginners to enjoy.



'Futurequest's Editor' Assembler, which offers hard, has a rather better editor than the Spectrum, but thinking responses aren't all that good to me. This latter program is very tolerant about the format in which you enter code.

Very different from these two is Denis Lawrence's *Sinclair Macro Assembler*, and I certainly wouldn't recommend this to beginner's. It's a very professional product, but using it is more like learning a

THE EXTENDED SPECTRUM

Continued from previous page

new computer language than anything else. It doesn't use 260-character sets directly; they have to be set up as coordinate definitions such as in high-level languages like Fort or Pascal. This makes it very powerful, since it's just like building your own interpreter. But, as I say, not for everyone.

An indispensable tool when developing machine code is some sort of Monitor. A Monitor provides easy ways of getting assembly moving it, changing it, searching it for particular values, that sort of thing. You can also usually get dumps of I/O register values and step through a machine code program.

The Zeus assembler has a reasonable monitor with it, but Spectra-6 is a more extensive version as a separate product. This also offers your Disassembler code, which means to translate machine code back to its assembly format. Useful for looking at the ROM, but maybe you'd like better off buying one of the Spectrum ROM disassemblers. Two levels which also give expansion's notes. Peterborough's Edition? Assembler has no attached monitor, and you have to buy them separately, although both programs can be loaded at the same time. Again, there's no disassembler.

Assembly language isn't the only way of getting fast code. Scope 8, from ISP, is a simple language aimed at producing fast machine code optimization. The makers call it a medium-level language, so it's mid-way between BASIC and assembler. It's not really closer to machine code, but it's certainly a lot easier to use. Once you've written code in SCOPE it's relatively simple to program to machine code routines, which can be used without Scope being present, so you develop commercial products, or prototypes of your games to your friends without fear of committing crime.

The process of boiling down machine code is known as compilation, and it's possible to do in BASIC. The only BASIC computer we had available to look at was Saffell's. This is certainly fast. Even running a few simple tests, it took roughly about 150-200 times faster than interpreted BASIC. It does

have some serious drawbacks. Though, for one, there's quite a few BASIC compilers it can't translate, leaving you with arithmetic and arrays among them.

More seriously, compiled programs don't run without Saffell's run-time routines being present. Unfortunately, the company is being quite openly about this, and are claiming that if you develop your programs and compile it with their program, then they'll suddenly acquire a share in it. Whatever the legal position, it's serious in a rather obvious form, and it's certainly a disadvantage using Saffell's compiler for commercial development. The final approach to fast code is to use Fort. This high-level language is closer to machine code than BASIC, and



for most purposes can be up to ten times faster. Not spectacularly fast, but it can make a difference. The speed saving is good, but it's not really the central point about Fort. The language takes a fundamentally different approach to BASIC, and one which provides a much sounder design discipline. It would certainly be easier to write good machine code after generating Fort.

Fort is known as a 'procedure oriented' language. This means there's someone complaining about there not being a command in BASIC to do something. If it's not there in Fort, then you just write your own command, which is compilation to the language's vocabulary. Although you can theoretically do this in BASIC by using subroutines, compiled procedures are a much faster and easier to use. Fort is easier to structure too.

There are at least four versions of Fort available on the Spectrum. It's hard to decide between them, but Melbourne House's Advanced Fort is the only one recognized by the independent Fort license Group. Similar also do a Fort

what to my relatively unstructured world seemed much the same. In both terms of speed and usability. Both versions have minimal printed documentation, which they rely on their going out and acquiring a Fort manual. The writing about Fort is rather boring, so in a fan of the latest Spectrum Age, you don't market any of your programs since they don't run without someone else's product.

While on the subject of languages, Logo has been doing experiments in teaching language. Particularly for younger children. Unfortunately, the version I looked at, developed by CP Software, really isn't too impressive. Logo's high-resolution graphics are terrific, and the user commands are 'horrible', so in essence a small, but interesting on the screen. The CP Interpreter turned out to be written in BASIC, so every command is interpreted twice. Really? I can't imagine anyone, adult or child, having the patience to work through that manual, let alone use it. Something of a waste, but another good example. Another, from Spectrum, that represents yet another direction in new languages, and especially one aimed for artificial intelligence and linguistic purposes. It's very well known after some and is written in languages like BASIC, or even Fort, because a program in Prolog it stands for PROLOGGING IN LOGO. It's mostly a way of organizing data, not of setting up a flow of commands. Well, I forget the point, I want to see more about it in some. Similar. Minor Prolog's documentation isn't too either.



Drifting back to the problem of generating programs, if you're an adventure game writer, you haven't really got one. The Duff, from Saffell, and Dream's Dungeon Builder can best be used to generate the adventures of any complexity.

We've reviewed them before, and they're both good value. Dungeon Builder has the edge in user-friendliness, and can be used to add graphics to adventures, while Duff has a more mechanical approach. Both Saffell and Dream are perfectly happy for people to use their games or proceed with their packages. Right on!

Overlooked alternatives? If all the products reviewed are taken, but not before realizing that this is far from being a complete survey, so if you've discovered an alternative, wonderful or unimpressively evaluated, or unimpressively evaluated software in the Spectrum, let us know.

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POLE POSITION



FRANKIE, I'M not one for subtle colour.

For me an adventure must start in atmosphere before I'll give it the time of day. Unfortunately this preference for gaudiness paying often obscures the all important art of puzzle solving. Dragons can breathe and breathe overcast but heavy atmosphere will fog the map every time. Look at *Avalon* the delightfully animated meg-quest from Hewson Consultants. I've become so entranced in its authentic games that I'm quite unable to make any headway! Once in, I'll just wander aimlessly through the woods and play hide 'n'

seek with the golden grail! The thing has no equilibrium.

Set in the aftermath of the Roman Empire, it tells of the adventures, soon from battles between Maxus and Magnus and his devil cousins, the dark lord of Chaos. As you might expect, your task is to guide Maxus toward this climactic battle with the shadowy and negotiating your two barbed swords on eight levels in the process. Quite a task when you realise that entrance is gained to a room only after an impressive head-butt to the appropriate door. Something of an adventure liberation from creator Steve Turner

"I'd originally planned to write *Avalon* years ago," Steve tells me, "but no one was interested in the story-board because 3D games were the in-thing. I think that if I'd gone ahead with it then I might well have become a millionaire, because that was about time animated programs suddenly took off. I'd always thought that a game which combined the scope and puzzle-solving element of adventures with arcade-style movement would be something else to play!"

He was right. But it also proved something else to write. An unexpected nine months, in fact. Still, the result is both engaging and

frankly difficult. Indeed rumour has it that even certain head honchos from Hewson are unable to progress beyond the first Gorbustan level! Can it be possible that *Avalon* is just SOO complex for its ordinary market?

"No, I don't think so!" he declares cheerfully. "Standard text-adventure are probably more complex! I guess it's possible that some people will find it just as an arcade game and they might well have problems on the final levels. Yes, there are few objects down there which must be used in sequence to create another object which you'll need to complete the adventure. But the first couple of levels hardly contain any problems at all! They're only there to introduce people to the style of movement. To enable them to get used to the joystick. It gradually gets more complex the deeper you go."

IRON HEAD

He ain't kiddin'! In fact, I rather think that you can take Steve's description seriously with a pinch of salt — as he admits (when pressed) that *Avalon* still takes him around TWENTY hours to complete! And he won't do! The thing is tough. No question.

"I spent a lot of time researching the game," he explains. "All the place names are real and even the architects are genuine. The iron head on Maxus's staff actually exists in the British Museum. Go along and see it! I've tried to make the game as deep that even after maps are published and help given there will still be plenty of things for people to enjoy. I wonder how long it will take



Nice Game

people to fill the spaces in *The Queen of Dreams*? We can't be killed, you know? I think that adventures will like the way the puzzles take off on the last few levels. The arcade element is still there but it's not as important as Marble has become powerful enough to trash everything in sight. I will enjoy playing it more than anything else I've done."

Apparently *Marble* is already slated for a sequel in '83. He best adventure will be done ground and will involve a search for the legendary seven crosses of England. Should be good.

Uncle Festus tackles those irritating Dark Problems...

TRAGEDY of sequels, the climax to the *Ker* trilogy. The final scenes, dropped onto the disk the other day, even as I was making valiantly through the Temple of Yvan. You'd have thought they could have left a decent interlude (up 15 minutes) between such games. *487 Skill Time*, *Speed*, a *Ker* *Severus* from England. *Real* *Yorkshire*, will no doubt rise to the challenge. Thanks for your tips on part I. Tim, they have been duly noted. *Severus's* head man, the skipper Ian Andrews, tells me that their next adventure will be quite unlike any of the *Ker* games. "It will be something TOTALLY unique!" he declares. We wait with bated breath.

Nicholas Murray, a *Book* *lover* from down under (Walter, Australia to be precise), writes in to say that he's trapped on *Am's* ancient *Exposure* Island. Considering the age of that page he may well have been there for years! Apparently a n' obviously task is awaiting up the mountain, DR. Nick, just find the Landing Light, replace the bulb with the glass in question and then tick

the watch. The resulting light will distract the hawk and enable you to slip past. This will only work once though, so have your position before you try anything!

Finally, a word to Richard Howard, a smartass from St. Helier, Jersey, UK. Dick, as you've treated *The Mulet*, We'll let's see how long it takes you to crack *Shard*, *Melbourne* *Harner's* latest mega-game? The first solution is via a *Oracle* from *Keston's* *Adventure* *Bin*, ok? Mark, your monstrosity *SHRE* *LOOK* *COOL*? I bet one, though, have absolutely no intention of playing the thing following my total inability to even remove the cellophane wrapper. Mega-games? Publishers snobs 'nuf? Have a nice Christmas gang ...

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THE FINAL MISSION (Cromwell Software) 48K Spectrum £3.50

TEMPLE OF YVAN (Cromwell Software) 48K Spectrum £3.50

RAFFINAGE ISLAND (Artic Computers) 48K Spectrum £7.95

SHRELLAN (Melbourne House) 48K Spectrum £1.95

Steve James, author of *Shards*, offers his advice to struggling developers:

"Always give a friend a copy of your game, and mail copies to yourself. It's that simple away without opening it. That's an easy way to prove your copyright, that way you'll never have any problems should you need to go to court. Once you've done that, send your game off to all kinds of publishers and see what offers you get.

"Don't accept the first offer. Remember, what you're doing is choosing a distributor, not selling a game. Having got some offers, shortlist them and take a look at their advertising sheet. Do they use full page adverts? Could they sell your game to people? Take special care with the contract. A reasonable arrangement is one document between the ad-

vertiser and the publisher. And watch out for clauses which cause you to forfeit all your royalties should the game contain an error! I've nearly got caught out by one of these when choosing a distributor for my first game, *3D Space War!*

"Royalty rates vary considerably. I get 20% but that's only because I write exclusively for *Hexagon*. That's 25% of the distribution

cost, not the retail cost! Some smaller companies offer more but have you seen their name on a full colour ad? Watch up the pros and cons. Finally, always be prepared to listen to people. If your publisher doesn't like something in your program, be prepared to change it. I've never changed sections of my games. Run now. Good luck with your game!"



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C·H·A·R·T·S

GAMES TOP 20

KEY **N** - NEW ENTRY **R** - RE-ENTRY **L** - BIG LEAVE

THIS WEEK'S
LAST WEEK'S

1	1	DALEY THOMPSON'S DECATHLON (Ocean)	Spectrum/Commodore 64	£7.99
2	2	FULL THROTTLE (MicroMega)	Spectrum	£6.99
3	10	MONTY MOLE (Greenin Graphics)	Spectrum/Commodore 64	£6.99/£7.99
4	4	TORNADO LOW LEVEL (Vortex)	Spectrum	£5.99
5	8	BEACH HEAD (US Gold)	Spectrum/Commodore 64	£7.99/£9.99
6	N	L AWALON (Hewson)	Spectrum	£7.99
7	8	MATCH POINT (Polar)	Spectrum	£7.99
8	7	L LORDS OF MIDNIGHT (Beyond)	Spectrum	£9.99
9	3	L SABRE WULF (Ultimate)	Spectrum	£9.99
10	5	JET SET WILLY (Software Projects)	Spectrum	£5.99
11	R	L FOOTBALL MANAGER (Addictive)	Spectrum/Commodore 64/BBC	£6.99/£7.99
12	N	KOKOTINI WULF (Elite)	Spectrum/Commodore 64	£5.99/£6.99
13	N	L SHERLOCK (Melbourne House)	Spectrum	£14.99
14	N	AMERICAN FOOTBALL (Argus Press)	Spectrum	£9.99
15	9	DECATHLON (Activision)	Commodore 64	£9.99
16	12	RAPSCALLION (Bug-Byte)	Spectrum	£6.99
18	R	L PSYTRON (Beyond)	Spectrum	£7.99
19	N	CHARTBUSTER (Alligata)	Commodore 64/BBC	£9.99
20	20	JACK AND THE BEANSTALK (Ther)	Spectrum	£5.99

SPECTRUM TOP 20

1	DALEY THOMPSON'S DECATHLON (Ocean)	£7.99
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3	TORNADO LOW LEVEL (Vortex)	£5.99
4	AWALON (Hewson)	£7.99
5	MATCH POINT (Polar)	£7.99
6	LORDS OF MIDNIGHT (Beyond)	£9.99
7	SABRE WULF (Ultimate)	£9.99
8	JET SET WILLY (Software Projects)	£5.99
9	MONTY MOLE (Greenin Graphics)	£6.99
10	BEACH HEAD (US Gold)	£7.99
11	SHERLOCK (Melbourne House)	£14.99
12	AMERICAN FOOTBALL (Argus Press)	£9.99
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14	RAPSCALLION (Bug-Byte)	£6.99
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2	BEACH HEAD (US Gold)	£9.99
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HARDWARE

Commodore 64

LOVE it or loathe it, you can't ignore the Commodore 64. There are certainly a lot of better computers in the world, at about \$1700 a time, that fill speed tables, and can grow into a useful system with slow, printers and modems all available as add-ons. Commodore claims that it is equally useful in the home and in the office, though I find it too slow for any serious computing. The keyboard isn't really up to the kind of bashing that most working people have to take, and the 63 column screen rules out 80-column word-processing. It uses the 6502, a special version of the vintage 6502 eight-bit processor and boasts 64K of memory.

For in any book the 64 passes the most important test of all: there are lots of other users out there. This means book, magazine and software publishers will continue to support owners for a while yet. With a 64 you won't have to be left high and dry.

Sprites and the 3rd chip sound controller give the 64 some powerful hardware features. Personal addicts can choose from a wide range of add-on printers, video drives, and modems for the Commodore. Independently produced add-ons include MSX interfaces that can

connect the 64 to music equipment, speech synthesizers, light rifles and loads of other goodies.

Against: although the 64 has some tasty features like sprites, three graphics and a fairly good sound synthesizer, the 6502 is incapable of supporting them, and there isn't much of the built-in memory left once you use graphics. This means that to get a 64 to do anything interesting you have to learn machine-code, or pay out for a BASIC extension. That might be painful, but reading the manual makes a visit to the dentist seem like fun. Believe me, if you can get information out of the supplied manual, you should apply for a job with IBM.

Loading games from cassette is very slow. Newer games are special fast loaders; I loaded to get around this. The video controller that speed either. I find that the 64's TV output tends to give a poor picture, and curing this with a color monitor can set you back £200.

Price/Value: Hacker.



Sinclair Spectrum

SINCLAIR'S SPECTRUM is the Model T Ford of home computers. It comes in any colour so long as it's black! Now facing its third Christmas, the old Spectrum magic is beginning to wear a bit thin. However, at £260 for its machines, you could do a lot worse.

For basically a million-pot owner, you can't be wrong. This huge user base means that software users and hardware makers can't afford to ignore the Spectrum. Software makers have equated the hardware to the IBM; recently the pace of software development may have slowed a little but the Spectrum has the widest software

range of all the home computers. There is something for everybody, and some of the software is simply brilliant.

Against: For all its good points, the Spectrum is a bit well served the edges. I found that a Spectrum tends to break down after a lot plays. Sometimes the machines just die, but a lot of people that might "dead boot" rubber keyboard tends to wear out.

Manufacturers might be technically clever, but they are no substitute for a real disc drive. I'm not impressed by the need to pay extra money for a joystick and cartridge port, and again there isn't much decent software available on each type.

No sane person would use the Spectrum for any serious purpose such as word-processing or running a business. To build a Spectrum up to specification approaching that of, say, an Atari 8000, can set you back around £600.

Price/Value: One of the Boys.



MSX

MSX SEEMS to be the flavor of the month, but not everyone agrees. Britain's microcomputing magazine thinks that you can ignore it and it will go away.

For: MSX is a good idea, allowing users to build "mix and match" systems, similar to computer-to-5 rigs using parts from different manufacturing ranges. All MSX machines use the same BASIC, which is one of the better versions of the language, and there is already an impressive software range for the machines.

The computers are all nicely designed, and come with proper keyboards and stylish cases that look terrific on coffee tables.

MSX-DOS is very similar to MS-DOS, the system used by the IBM-PC, so will give MSX users access to a larger software base.

Against: In many ways MSX is not all that it's cracked up to be. For a start, the different versions of BASIC are NOT identical. Software houses cannot guarantee that MSX software will run on every machine.

MSX computers are overpriced. These machines are no better technically than computers costing £100 less. What makes me sit is based on old technology. Which means an IBM-compatible is generally inferior from the one.

Price/Value: Halal! Custom-ers!

Amstrad

WHEN I heard that Amstrad was going to launch a computer I wasn't surprised. After all, Sans and JVC make hi-fi and computer kits. Amstrad makes cheap hi-fi so they had to make cheap computers? The real thing about the Amstrad move is that a single purchase buys a complete system. For the price of two, you get in Commodore you can count on the comfort of your home with a computer, built-in cassette and and a colour monitor.

Amstrad could have picked a snappier name than "CPX-464" for the machine. I suppose it means something to someone. Like most other fashionable computers the Amstrad uses the Z80, which is to misquote what Lindeberg says to be too round.

For an eight-bit computer to go, the Amstrad's specs. In most respects it is as quick as the 8080 model 80, it boasts 160Kbyte so-called 16-bit micros like the Sinclair QL and IBM-PC, and is



about four times as rapid as the Sinclair Spectrum. On its own these statistics don't mean much, but it will add up to a well thought PC.

Against: It's a shame you can't buy the monitor separately. An even bigger shame is that you can't upgrade from a monochrome monitor to a colour version. Instead you must pay for an adaptor allowing the monochrome version to use a colour monitor. If you already have a tape-recorder you have to pay for one you don't need. At the moment there can't be a great deal of brilliant software but some is on the way.

Price/Value: Move over, Fuji! Hello!

RE

The complete buyers guide!

Sinclair QL

SOMETIMES I think Olive Sinclair and Malcolm McLaren are the same person. Both have got me into, both have the art of hype down to an artform and they share a motto: "Cash for Trash." With the QL, the former's 128K RAM software, Motorola 68000 processor make most primary users waste.

For those basic to everything you want from a machine of the world's most powerful programming language, though it may

not be fully debugged yet, the QL has what passes for a real keyboard, even if it doesn't feel as good as those on more expensive machines. The local area network will appeal to local area computer users. Underpassion's Sinclair mirror, the QL has been needed to a liberal dose of user error.

The QL comes together with four software packages, which are not wonderful, but are enough to get you started. Some

of the QL's features are imperfect implementations of very advanced facilities, for example "windows" and "multitasking".

Against: The QL is slow, even though it uses the 68000 chip running at a snippy 13.5MHz. The 68000 is a junior member of the ultra-wonderful 68000 chip family, and is a powerful processor capable of addressing vast quantities of Ram. However, although it may be a 32-bit processor internally, it uses an 8-bit bus. This is a bit like

reducing a motorway to a single lane of traffic, and makes the QL a sheep in wolf's clothing.

Any new machine suffers from lack of software, but the QL has been around for some months now and there is still hardly any software, and the only knowledge on games. This is because the QL uses microdrives and doesn't have a cassette port. The microdrives can't hold much data either and spare cartridges are not easy to get hold of.

Price Value: Sinclair Pangers and Money Matters.

Atari 600d and 800d

ATARI MICROs have been consistently underrated by the UK press and public alike. This is probably due to the curious pricing policy of the machines in the UK. But now they are as cheap as any and the Atari 600d, is selling at around £95. Much of what applies to the 600d applies to the 800d, besides in the 800d, it uses the same 6801 processor, has the same graphics and runs the same software. But it has a

full 68k memory whereas the 600d, has a measly 128k.

For unlike almost any other range of computer, any Atari computer can run on any Atari computer software. Atari did this ages before anyone heard of MSX. This means that the amazing games available on cartridge for the Atari 400d and 800 will run on the 600d, and 800d.

Graphics and sound have been standard on Atari computers for years now, and Atari was the first manufacturer to use sprites. It's not so much a ques-

tion of the Atari being a little bit of date, more that the competition has taken a long time to catch up.

I really like the Atari computers which include a graphics tablet and a track ball.

Against: the cartridge software is very good but the cassette software can be both expensive and boring. Not only that but I found that the cassette loading can be unreliable. This doesn't matter in the UK where everyone is so rich they can afford floppy disc drives. Down



here in the UK all peripherals seem expensive, especially compared with the cost of the actual main computer unit. So the Atari hasn't had the same kind of sales to create a lot of excitement in the UK, though the low low prices could change that. **Price Value:** Space Saver.



Acorn BBC model B

AS ADVERTISED on the television right after night, hardly an episode of "Tomorrow's World" goes past without a few plugs. The Beeb has a large following in the UK, but is unheard of in the rest of the world. Its success is due to two factors: the good care of the British Broadcasting Corporation, and a government that handed them out silly-silly to schools. If it was simply called the Acorn Printer, it would have been forgotten ages ago. A 640k and 3k of ROM isn't worth mentioning, but Acorn have made a creditable attempt at pushing the hardware to its limits.

For everything in the BBC is a powerful computer. A standard keyboard with function

keys, sensible ports — and, maybe the best version of BASIC in the developed world — combine to make it a serious proposition for businessmen and home users alike.

Generally there are some excellent games software for the Beeb, and there is also a great deal of educational, engineering and scientific software for the machine. There are also two very good word-processors. A lot of fancy add-ons are available for the Beeb, including MIDI interfaces, modems, extra ROMs and a robot adaptor. It is even possible to add second processors L200 and 6601. The Beeb is also one of the very best machines around.

Against: the Beeb is expensive for what it is, so are the Acorn add-ons. Adding a disc can be very expensive — you need a chip which costs nearly £700, making the effective price of the full spec Beeb ... £250.

Price Value: Guardian Review.

Acorn Electron

CONCEIVED parents anywhere love the Electron. It has everything written all over it. Being an Acorn, the Electron isn't cheap, in fact you have to be holding a tin full of money to get £200 for a model with just 20K of RAM.

For, programming the Electron is similar to programming the BBC. Certain software written for the Beeb can transfer to the Electron.

Against: expensive with a small memory. Inevitably expect to

see a printer port and a pair of parallel ports included in the basic machine. To add these on seems to cost an arm and a leg. This seems to be part of Acorn's policy of simply not making any concessions to the customer. On the whole Electron software is cheap.

At times the Electron appears to be no more than a wannabe Beeb. It isn't quite BBC-like enough. If Acorn had given it a better spec, then the Electron would have hit sales of the flagship model B.

Price Value: Teacher's Pet.

Oric Atmos

HEAVY METAL fans will love the Atmos because it is COOL. Not only is this beauty big on the desktop front, but it has built-in sound commands like SRODD, ZAP, PING and SUXRODD. The demands black and red colour scheme of the case will blow up any headbanger's danger.

Designed to become one of life's also-rans the Atmos certainly isn't a bad little machine.

For the Atmos does have a lot of memory space for a 48K machine. The keyboard is fairly good and capable of being a P/adding from doublet spaced ones. Also the Atmos has a

built-in parallel printer port so it can fit into a system printer or like Oric four-colour printer.

Against: Oric had a second choice with the Atmos. But amazingly, the top operating system was actually made less reliable in the new machine. Software houses haven't exactly fallen overboard to produce software for the Oric machine and a lot of what does exist is boring.

Price Value: Headbanger.



tír na nòg



GARGOYLE GAMES

£9.95

48K ZX SPECTRUM

Tír Na Nóg - the land of youth, the other world.

Tír Na Nóg - the kingdom of the síthe, the home of Dagda's cauldron.

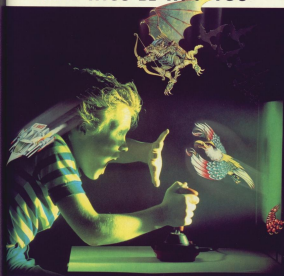
Tír Na Nóg - a vast and complex adventure, in a magical Celtic landscape.

Tír Na Nóg - a most stunning visual experience, with state-of-the-art film animation.

Tír Na Nóg - a true computer movie.

ALSO FROM GARGOYLE:
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But if you want to have less trouble fighting your controls, and more power for fighting the forces of darkness... only Wico® is worthy of your hand.



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IN THE KNOWN UNIVERSE



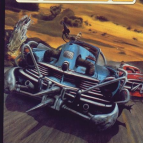
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BATTLECARS

FOR 48K SPECTRUM



Tower of Despair

FOR 48K SPECTRUM



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KALAM

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Available on Amiga, Atari, IBM PC, Commodore 64
Available on Amiga, Atari, IBM PC, Commodore 64



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First sight, first target. Against a backdrop of 3D laser graphics, you'll have to shoot your way through a maze of enemies. Includes the most advanced graphics ever! Lazer Bopx will make you a real warrior. Available on Amiga, Atari, IBM PC, Commodore 64.
Available on Amiga, Atari, IBM PC, Commodore 64



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Use your strategy to solve a complex puzzle. Includes the most advanced graphics ever! Anchorage will make you a real strategist. Available on Amiga, Atari, IBM PC, Commodore 64.
Available on Amiga, Atari, IBM PC, Commodore 64



WEST

Control the western warrior game to solve a complex puzzle. Includes the most advanced graphics ever! West will make you a real warrior. Available on Amiga, Atari, IBM PC, Commodore 64.
Available on Amiga, Atari, IBM PC, Commodore 64



FROGZILLA (M)
 A challenging puzzle game with a frog as the main character. Includes the most advanced graphics ever! Frogzilla will make you a real frog. Available on Amiga, Atari, IBM PC, Commodore 64.
Available on Amiga, Atari, IBM PC, Commodore 64

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Game Title	Points	Game Title	Points
ANCHORAGE	100	KALAM	100
LAZER BOPX	100	WEST	100
FROGZILLA	100	ANCHORAGE	100
KALAM	100	LAZER BOPX	100
WEST	100	FROGZILLA	100

Simply tick the box next to the game you wish to receive:

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 FROGZILLA
 KALAM
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Midnight



Enough of sleeping the Morn'g from Ernie's! Here's a party that starts with the true indicators of life in the Suburban Zone. Ever get your late-night visceral growling? That gnawing from your stomach to feed sustenance — but how to get back without descending those sensitive belts that you've been awarded as parents? Easy enough if you avoid the creamy "butterfat" (hey, to the depressed, or you already know) and don't step on the cat. But it's a long way up — and there's a lot of cats. . . .

CONTROLS:

Left cursor: Walk left
Down cursor: Walk right
Up cursor: Jump

Feast

```

1 GET MESSAGES : MIDNIGHT FEAST
2 GET AUTHOR : DAVID REED
3 GET MACHINE : ORIC-1/8086
4 CUCUMBER BUNCHED
5 PRINT@MMS(20) MESSAGING DATA ...
7 GET MESSAGES
8 GET@MMS 20000 * DISTRIBUTION VALUES
9 GET@MMS 20000 * USER PROFILES
10 GET@MMS 30000 * DIARY MESSAGES
11 GET@MMS 20000 * PERSONAL TABLE
12 GET@MMS 20000 * BOOK VALUES
13 GET@MMS 21000 * PIVOT TABLES
14 GET@MMS 30000 * STAR NAME
15 GET@MMS 23000 * ORAC MESSAGES
16 GET@MMS 25000 * ORAC TEST
17 GET@MMS 21000000000000 * START MENU
18 PLOT@MMS,OR,74 PLOT@MMS,OR-1,73
19 GET@MMS THE MAIN MENU ***
20 GET@MMS
21 IF NOT @MMS THEN ***
22 GET@MMS-8000-INT-INT+GET@MMS 100
23 GET@MMS CHECK NEW AND NEWS
24 GET@MMS PLOT@MMS(20000) GET@MMS 150,100,170
25 GET@MMS(10000) * START DRIVER
26 GET@MMS(400) * ORAC MESSAGES
27 GET@MMS(1) * NEWS ITEMS
28 PLOT@MMS,OR,80 PLOT@MMS,OR-1,80
29 IF NOT @MMS THEN ***
30 GET@MMS PLOT@MMS(400)
31 GET@MMS(1) * NEWS ITEMS
32 PLOT@MMS,OR,74 PLOT@MMS,OR-1,73
33 GET@MMS THEN ***
34 GET@MMS PLOT@MMS
35 GET@MMS * NEWS OF
36 GET@MMS-8000-INT-INT-1
37 PLOT@MMS,OR,80 PLOT@MMS,OR-1,80-8000
38 GET@MMS CHECK NEW AND NEWS
39 GET@MMS(400)
40 GET@MMS(400,80) NEWS@MMS,OR-1,80-
    CUCUMBER,NEWS
41 GET@MMS(1) PLOT@MMS(21000) PLOT@MMS(20000)
42 GET@MMS(400) PLOT@MMS(400) PLOT@MMS(1) PLOT@MMS
43 GET@MMS(400) PLOT@MMS(1)
44 GET@MMS NEWS
45 GET@MMS(21000000000000) GET@MMS(21000000000000)
46 GET@MMS(21000000,OR,74) PLOT@MMS,OR-1,73
47 PLOT@MMS,OR,75 PLOT@MMS,OR-1,74-2
48 GET@MMS(400)
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MIDNIGHT FEAST (for Oric-1)

By David Reed

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2190 PLOT 8,9,"ABRAHAM"  90° PLOT 3,8
89
2200 PLOT 8,11,"ABRAHAM"  90° PLOT 3,1
90
2190 PLOT 8,13,"ABRAHAM"  90° PLOT 3,1
90
2200 PLOT 8,9,"ABRAHAM"  90° PLOT 23,
90
2210 PLOT 8,11,"ABRAHAM"  100° PLOT 23,
1,90
2220 PLOT 8,13,"ABRAHAM"  120° PLOT 23,
8,90
2230 PLOT 8,15,"CHRISTOPHER"  120° PLOT 23
2240 PLOT 8,18,"CHRISTOPHER"  140° PLOT 23
2250 PLOT 8,20,"CHRISTOPHER"  160° PLOT 23,
14
2260 PLOT 12,22,"CHRISTOPHER"  180° PLOT 23,
18

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2270 PLOT 4,25,"CHRISTOPHER"  180° PLOT 23,25
2280 PLOT 4,25,"CHRISTOPHER"  180° PLOT 23,25
2290 PLOT 4,25,"CHRISTOPHER"  180° PLOT 23,25

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2300 PLOT 4,25,0
2310 RETURN
2320 PLOT draw head
2330 CLR WINDOW 0:0:0:0
2340 PLOT 4,28,"CHRISTOPHER"  180° PLOT 23,25
2350 PLOT 4,28,"CHRISTOPHER"  180° PLOT 23,25
2360 PLOT 4,28,"CHRISTOPHER"  180° PLOT 23,25
2370 PLOT 4,28,"CHRISTOPHER"  180° PLOT 23,25
2380 PLOT 4,28,"CHRISTOPHER"  180° PLOT 23,25
2390 PLOT 4,28,"CHRISTOPHER"  180° PLOT 23,25
2400 PLOT 4,28,"CHRISTOPHER"  180° PLOT 23,25

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2410 PLOT 4,28,"CHRISTOPHER"  180° PLOT 23,25
2420 PLOT 4,28,"CHRISTOPHER"  180° PLOT 23,25
2430 PLOT 4,28,"CHRISTOPHER"  180° PLOT 23,25
2440 PLOT 4,28,"CHRISTOPHER"  180° PLOT 23,25
2450 PLOT 4,28,"CHRISTOPHER"  180° PLOT 23,25

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2460 PLOT 4,28,"CHRISTOPHER"  180° PLOT 23,25
2470 PLOT 4,28,"CHRISTOPHER"  180° PLOT 23,25
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2490 PLOT 4,28,"CHRISTOPHER"  180° PLOT 23,25
2500 PLOT 4,28,"CHRISTOPHER"  180° PLOT 23,25

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2510 PLOT 4,28,"CHRISTOPHER"  180° PLOT 23,25
2520 PLOT 4,28,"CHRISTOPHER"  180° PLOT 23,25
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2800 PLOT 4,28,"CHRISTOPHER"  180° PLOT 23,25

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100%

Midotaur's Maze

Continued from
page 47

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127DEFPROC
220
270
275
280DEFPROCour (M, D)
290CALL 25, 25, 25
295CALL 25, 25, 25
300CALL 25, 25, 25
305CALL 25, 25, 25
310
315
320
325DEFPROCOUR_HORIZONS
330CALL 25
340CALL 25
350CALL 25
355CALL 25
360CALL 25
365CALL 25
370CALL 25
375CALL 25
380CALL 25
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950CALL 25
955CALL 25
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985CALL 25
990CALL 25
995CALL 25

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ENTER WAIT= TO GOON=EXIT
SCREENPROC
1671
1681
1690DEFPROCEND
1695
1700CALL 25
1705CALL 25
1710CALL 25
1715CALL 25
1720CALL 25
1725CALL 25
1730CALL 25
1735CALL 25
1740CALL 25
1745CALL 25
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1995CALL 25

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be sure in Grutebe careful that you are not eaten by a Hircouar. Extra points are given when you reach the exit and more points can be gained by rolling into the Great area."

190PRINTTAB(3,275); "Controls are the Z, X, /, & keys."

191PRINTTAB(7,201); "DO YOU WISH TOGO?"

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20200CALL 0

2030CALL 0

2040CALL 0

2050CALL 0

2060CALL 0

2070CALL 0

2080CALL 0

2090CALL 0

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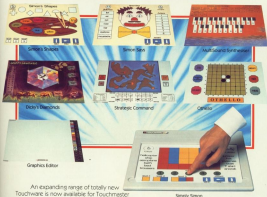
2970CALL 0

2980CALL 0

2990CALL 0

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8/2



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CLASSIC GAMES OF OUR TIME

No 8: MISSILE COMMAND (ATARI)

ABM vs. MIRV AT

THE DAY OF JUDGEMENT

SO IT ARRIVES, the moment we all dread: Armageddon high above the panic-stricken inhabitants of Planet Earth, the atmosphere is being ripped apart by thousands of gleaming projectiles. Four minutes left in which to construct a fall-out refuge of old paperbacks and try in a few warm coats for the nuclear winter...

And not for this is a well-thought fantasy (of sorts, less underground, carefully measured) "strategic" action system. Hundreds of space-age war radar screens and atomic electronic programs join the fray. This is Missile Command, central control center for the widely flung net of Anti-Ballistic Missile sites. Before long the incoming warheads are just so many expanding clouds of debris in the far-voidness of the upper atmosphere. Signs of relief? No, this. Because here comes Russian orbit...

Galosh

Of course we all know there are no ABM systems in the world, having a ring of rather obscurely Galosh sites in the atmosphere. They were all turned to the SALT I agreement, good thing too. That proved no deterrent to games designers, and around 1976 the scales began to reassemble in a hundred versions of "Got it, I've been MIRVed" and "Good. Three cities taken out!" And so the language of the strategic planners found its way to the level.

Surprisingly, few people found the subject matter of MissCom too forbidding, mainly because it was the best game around. Pre-MissCom Command games, if we can think that far back, were nearly all variations on the classic Space Invaders scenario, including Galaxian/Arkanoid, and many others. As any tale line,

in these, lots of little misaligned wriggly things descend from the screen-top, usually dropping bombs, killing oil, flower-pots and other paraphernalia on the way. The player is equipped with a little speed-of-light laser gun which can be aimed left/right. Controls, on the arcade variants at least, are three push-buttons.

I hang on these older games because Missile Command was something of a fundamental departure from this formula. Earlier games were basically one dimensional — only the player's horizontal co-ordinates which counted. Missile Command targeting ranges over the entire screen. Both X and Y axes come into play, and that's a whole new ball game.

When the game opens, you are equipped with one or more ABM sites, providing a few identical sites, all this at the base of the screen. Enemy missiles come in at any angle from above and to destroy one, an ABM must be exploded in its path. The player moves a cross-hair around the screen, and when the first-button is pressed, the ABM sets out for the correct cross-hair position, where it detonates — a "fire and forget" system.

Trackball

Push-button control just wasn't good enough for the two-dimensional movement involved, so Atari introduced an entirely new user interface, the trackball. Nothing more than a plastic sphere mounted on a base of thousands, the trackball was the first version of the desk-top "mouse". It's a brilliant simple idea, and the smoothness of movement you get playing MissCom must have contributed hugely to its popularity.

So back to the action,

Wouldn't be so bad if the incoming mail was single warhead, but in line with modern ICBM technology, the missiles are frequently MIRV's (Multiple Independent Reentry Vehicles). This means that if you let them get too low, they split

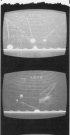
into a number of independently targeted warheads, which are an absolute pig to kill. Up goes the megatonish count. Other satellites have a nasty habit of trailing across the screen and MIRVing.

Worse — for the same sake satellites — are the MIRV's (Manoeuvrable Re-entry Vehicles): these little devils dodge your counter-explosions and force you to waste defense missiles, using them up. As thousands of both types of incoming missiles, however, are paid out on the basis of missed ABMs and living cities. If there are no living cities, you, and presumably civilization as we know it, have lost.

Defender

You have to defend your ABM sites as well as the cities, and this is where the original couldn't game and the computer variants differ. In the arcade there were three sites, with a separate fire button for each, which made life more complex. If a missile site was taken out, it stayed taken out until the end of the frame — More variants generally have only one site, and if it's napped it usually only means that defensive operations are suspended for a second or two.

Simply, right down to the elegant trackball, is probably the key to MissCom's success. But is there more? Does this game fulfil some inner need in people, a response to the feelings of impotence brought on by the prospect of all-out nuclear warfare? For Missile Command, for a short period of time, gives us the illusion that we can protect ourselves. Truly, we can be heroes, just for one play...



Welcome to the End of the World. Above are various stages in the final episode. Notice where missiles (and this, incidentally, my, my) show up.

FIN FAHEY



Multi-user Forth



IF WASN'T good, there I was with 3000 widgets hardwired in to the back of a BBC, all doing different things and all clamoring for attention at the same time. Everything was going wrong. In the beginning were a few widgets, providing the essentials in life: strong, black coffee every half hour, gin and tonic intravenous drips, all driven from BASIC and everything was fine. Then along came more and more ambitious projects until finally, around the time of the great flea heart rate monitor, BASIC slowed to a crawl and finally keeled over onto its back with its legs in the air. Obviously a new approach was required so I switched to coding in assembler. After about an hour of fevered key-plunking I keeled over on my back with my legs in the air. This was serious. But wait. What was that? Was it a bird? Was it a plane? Was it Superman? No, it

was some other lunatic in blue tights and the legend 'Skywave' emblazoned across his chest coming over the horizon at Mach 5 screaming "This is a job for Multi-Port 83" in a voice that shook the very foundations.

I tried to explain to him that I was very busy and would be mind going and sticking his head down a sewer, but he was very persistent, so, for the sake of a quiet life I sat down and listened. After a few minutes I was interested enough to ask for a demonstration. He stood up, pointed dramatically at the BBC and screamed 'SKYWAVE' loud enough to eat. There was a blinding flash of lightning followed by a deafening clap of thunder and when I climbed down from the ceiling the VDU had cleared and a new message was displayed:

MULTI-USER FORTH

Standard Configuration

Multi-User FORTH is a standard FORTH 83 configuration onto which is bolted a host of goodies which make the most of the unique features of the BBC, not least of which is the above mentioned multi-tasking.

As I said before FORTH is an interesting and very flexible language, sort of half compiled, half interpreted which means it's fast, like a compiled language but at the same time you can execute routines by direct command line in BASIC which makes it very interactive. It things about the creation of 'words'. Unlike other languages which have an unchangeable set of key-words, FORTH has a set of resident words and commands and then gives you the means to create your own words to do just about anything you want. The demonstration game was a good example. All the subroutines were first defined as words then all these sub-words lumped together into one word 'OTHELLO'. Typing 'OTHELLO' at the keyboard set the whole game off just as though it were a keyword. Try this in BASIC and all you get is an error message telling you you're an idiot.

Multi-Tasking

Skywave's multi-tasking setup is VERY powerful and, more important, simple to use, capable of handling up to 28 tasks at once — depending on available memory — each with its

own clock. Not only can you set them all off at once but you can make any of them start off by themselves after a preset interval or in their file format with just a simple command. Naturally if you're running a lot of programs at once or accessing discs it's going to slow down a bit but FORTH runs faster than a rat up a drain-pipe anyway so you've not a lot to worry about.

Built-in Assembler

This version of FORTH also has a built in 6802 assembler which can be used to define words containing sections of machine code if you need even more speed but be warned it's like trying to speak Russian backwards, largely because of the Reverse Polish Notation (RPN) for those not in the know RPN is a kind backward maths. The reason for this is FORTH's extensive use of a first in last out stack for speed. For arithmetical operations you get something like:

2 3 +

which means nothing more than add together 2 and 3 then display the answer on the screen. What happens is that first the 2, then the 3

get pushed on top of the stack, then the '+' tells it to grab the last two numbers off the stack, add them together and bang the answer back again. The '+' tells it to put the top item off the stack and display it. FORTH is like that the whole way through — arguments come before the word rather than after it — and at first it's a bit like putting the reins on the wrong end of a horse, difficult and fraught with danger, but after a while it becomes second nature.

Disc Extension

The guy who wrote this is David Hubbard who Spectrum users will probably know for his Z801-FORTH. This time he's gone well over the top. Multi-user FORTH uses a full 19K ROM and he still didn't have enough space, so there's also an extension available on disc. It should contain, among other things, a multi-tasking debugger although this he not sure you can't write it.

Electron users will be pleased to hear that they've not been ignored on this one, there's a similar ROM for them. All they need now is a socket to put it in.

FORTH is an interesting language. Skywave's implementation even more so. The reason for this, as the title suggests, is its facility for multi-tasking, which is just another way of saying it does a lot of things at the same time. Of course you can do that from the BBC's assembler using interrupts if you like but Multi-user FORTH does it a lot easier. How? I shouldn't have asked. Our muscle-bound friend in the corner made another of his dramatic gestures and the world exploded again in a flash of light — I wish he wouldn't keep doing that — and a manual the size of a small suitcase dropped into my lap alongside a demonstration game of Othello written in the language. "Put out to yourself" he boomed, like a silly question. . . . I tried the game first, it beat me three times on the first try I ignored it — maybe it would go away — and turned my attention to the manual.

Three weeks later . . .

ZIP CODE

Waiting for the Crimbo Crunch!

THERE isn't much time to make any pre-game adjustments, so hardware and software manufacturers are scrambling to complete their Christmas preparations and go out and grab their share of the pie.

For a lot of companies, Christmas 1984 is do-or-die: If they managed to hang in this long, they must survive the Christmas season with substantial profits. If they are in the hole, strong sales can pull them out. If they're breaking even, weak sales can blow them out of the box.

And nobody's really strong — just ask Matty Goland, the man who, in 1978, bought his company a growing firm called Atari.

Revamped Adam

This winter is likely to be the last, proving ground for Coleco's Adam. Now in its third revamped form and backed by massive promotion and advertising campaigns, a massive Adam failure would sound the death knell for Coleco, a giant — and 1984's second — toy and recreation concern.

It could also be the last season for the IBM PC. The Justice had yet to set the world on fire, and IBM recently did a major retooling on the standard down PC. They bucked up the memory and added a real keyboard — the improvements and price reductions indicate IBM may have sold the machine at a loss in order to compete with Commodore and Apple.

Junior's stuck between a rock and a hard place. It is priced like an Apple II or a swept-up C-64, yet it is stuck

with IBM's "businessonly" image. It simply isn't very appealing to anyone who isn't a businessman or a teacher — and these types would rather have a "real" computer like a PC, a Mainframe, or an Apple II with all the bells and whistles.

Instead, the ongoing flood of computer magazine failures like U.S. Computer magazine market, like the software field, is plagued with far too many publications. Has managed to take in its subscriber base and every magazine dedicated to the PC's owner: If you possess a Junior, you have to read one of the many PC-oriented magazines to keep up with your machine.

Two companies are not particularly dependent on Christmas sales: Apple, and, oddly enough, Atari.

Apple's still got a very solid base in the U.S. market (and the one it, which has enjoyed fairly respectable sales). For those with more money and/or heavier needs, Apple's Macintosh is still selling like hot cakes.

In fact, now that IBM has standardized both their PC and PCjr, at 2995 \$MM, Apple has managed to lay their hands on a fortune of 2995 \$MM — this October, they dropped the price of the 128K Mac to an all-time lowest selling, at a somewhat higher price, \$1297 "The Illiac". Business software manufacturers jumped for joy . . . as IBM got frustrated.

128K Mac owners need not worry — in mid-October, Apple will be offering 3000 \$MM upgrades to \$119, and they're throwing in two specially-awaited programs into the deal for free.

Atari's not sweating year's end. They're continuing to produce 2000's of and 800 \$K's, and

have dropped the price to \$29.95 and \$159.00 respectively. They are not slumping/hard-core — you cannot produce unprofitable machines if you're forced to dump Atari's entire production has been committed to just a handful of huge chain toy and department stores.

Just a few weeks ago, it looked like Atari wasn't going to survive a major cash flow crisis. But with costly financing and savvy organization, Atari is talking about profitability by year's end.

Atari Pull Fat From Fire

Once again, Atari is pulling its fat out of the fire. The potential hardware sales are going to support a ton of software, so gamers should not count Atari out just yet.

Who really's ahead for the survivors? After Christmas, the Japanese launch their third U.S. invasion following Pearl Harbor and the compact cat — the eagerly-awaited MEX machine. This powerful, inexpensive system is supposed to give Commodore and Atari a serious run for the money . . . and maybe the Apple II sees, as well.

Commodore must be particularly steamed. Their C-64 is such a continuously strong seller, they have been unable to get a more powerful unit on the market. The C-64 is a real winner but its standing still in the water. Its components, bigger in better, and today's Pearl. If Big Deal could be next year's sitting duck. Just ask Coleco.

There's a trend towards unit-free game packaging. If square, either in an Atari-style interchangeable format, or in a sort of revised Atari-style format. They will share the desired real focus, the ease of getting the good message through their shelves look like Toy-Five.

The most eagerly-awaited game? It comes in the form of an expansion of the M-10000, an extremely long running 20th Century series. The feature of the game is that after Atari's Atari came into power 20 years ago to produce the James Bond movies. The game comes from First Star Software, in a good move with Warner Software. The price, of course, is Warner Communications' post-Atari M-10000 into the field.

The top games are out now for the M-10000, including a number of popular titles like Frogger, Pac-Man, and Tetris. And, the more Atari comes an "original" game by the Atari's nothing more than an extremely clever adaptation of Commodore's called Stampede, from Atari of the Unicorn (great name, hey?).

Mouse

Mouse Stampede is a lot of fun. Commodore has the best of mouse in the market, to see you move the cursor and to allow the same kind of control as well as the traditional mouse, but it's a bit.

So what's the deal? Well, the latest ruling game is the Fox and Rabbit, or, more likely, both from Electronic Arts. The former is a role-playing game, the latter an adventure thriller, and the latter is a game from U.S. of America. This steadily-increasing popularity is helping the last machine to gain some of the same kind of popularity as to be a bit more successful. As provided by the Los Angeles Olympics.

And the other side of the coin? The Digital Machine's simulation game is still going strong. Microsoft's Flight Simulator is hanging in, the Apple's Computer Games and Microsoft's Risk, James Bond, and Jerry's World. It's a good thing that the latter is still going strong. The One-On-One is also moving rapidly market (you'll find it in the store) but it's not quite as good as the other one and to all the sports games. At least there are two going.

Commodore games are out of the box, but if it's sports you're looking for, you've got to look for it to get your hands on the other and get into the clearing house.

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 Special Effects by Graham
 Thorneby Martin Edwards
 Produced by Argus Press Software

Available for Amstrad, Spectrum and BBC

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Mid-evening
9.00 pm Quest for Eternity

Starting 'The Overlords of the Universe'

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Written by David Cookson
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Midnight Movie
11.55 Star Force Seven

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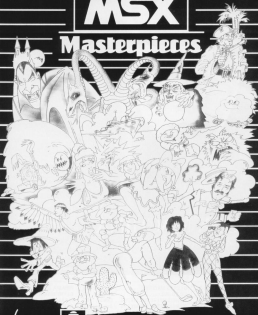
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WRITTEN AND DIRECTED BY MEL CROUCHER

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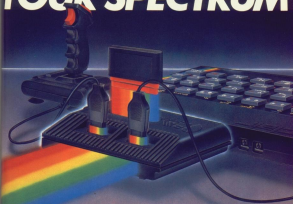
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YOU GET HOME ONE EVENING to discover a message on your answering machine. Something you'd thought hidden for good has snared its ugly head once again. Valkyrie 17 is active.

Over the next five nights a series of frantic phone calls convince you that the matter deserves further investigation. You receive a dossier on the activities of Valkyrie 17. Pieced together from fragmentary reports culled from the last forty years you slowly begin to put the whole thing together. Drakenfels, Heinrich and Reichsmuller. The badge pressed into your hand on the station at... And that last desperate call for help from the Glitz Hotel overlooking Lake Brantz.

Your cover is good. Very good in fact. You spend a few days stalling around and then head up towards Lake Brantz. You check in to the Glitz Hotel. It's the last lead you have. You seem to be getting nowhere.

Then on your way to the bar you sense a movement in the darkness. You feel a blow on your temple. And everything goes black...

Valkyrie 17 is an Adventure featuring both graphic and text locations. You will meet several different characters some of whom may help you while others see your demise as their sole purpose in life.

Included in the pack is a comprehensive dossier on Valkyrie 17. On the reverse of the cassette tape are the answering messages. And then of course there's the game itself!

LOADING TIME	8½ minutes.	MICRODRIVE	X, VCR FUNCTION
LOCATIONS	100+	FUN FACTOR	B
LEVEL	4		
SOUND	Beep Beep		

HINTS

Watch your back, try not to get killed and mind your language.

The Publisher/Developer assumes no responsibility for injury or other incidents or physical damage during the playing of Valkyrie 17. Furthermore the existence of these words affords your statutory rights.

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PART TWO

PLAYER MISSILES

Two months ago we covered the very basics of PM graphics, which will have been enough to let you do a bit of experimenting. This time we will continue by looking at the remaining PM 'embellishments', but first, a few words to reinforce the ground covered last time, and to allay any misgivings which may have arisen.

If you have been trying out your newfound skills, then you may be a bit concerned about the amount of memory gobbled up by PM graphics. Of course, if you've got a 48K machine, then you probably won't even have considered this, but us poor guys with only 16K can't afford this sort of wastage.

colours used to print, or just the shapes, which are given priority.

You can easily see the priorities by inspecting combinations of the player (PL) and playfield (PF) colors by using the GY909 register at location 0273, which is the shadow of PR04, at 0275. (Remember what was said about shadow registers?) Only the first 4 bits, 00-03, are used to specify priorities, and to get the desired effect, only one of these bits should be set at a time.

Figure 1 shows the effects achieved by setting each of the bits. Note that, as it is to be expected, the Background (dark) color shows for the lowest priority.

Corresponding to the color type of the edges encountered, is set of the appropriate register. For example, if you're 801 collides with a PL shape then bit 07 of register at 0304 is set if a collision with PLAYFIELD; then bit 00 of 0307 is set and so on. So... if you want to go in an explosive routine (after 801 collides with PLAYER 2, there's a very fine you meet either of them, you must check the value at location 0307, is set if bit 00 has been set. This value may indicate that some of the other 3 bits have been set, which means that a different collision or a multiple collision has occurred, and this may or may not matter according to your requirements. Erase and go.

Obviously you won't want to be stuck with a long string explosion, so you will favour the way set in the collision register some time. You can't just because it read only, instead you use a register called HT04, at 0375. Any value written into this register will clear all of the collision registers. Once the registers are cleared, HT04 will automatically be set to zero again.

MINIMISING RAM USAGE

The PMBASE (background addresses) figure two months ago are really only for 'baseline'; you can set a bit closer to the word size then. For instance, with 08-09, the nearest 16 boundary is at page 58, but the PM data for the 4th player will need a most mass of the display list. However, if you aren't using the 4th player, the display list will be safe enough. Remember though, even if you don't write data into this player, if you assign a colour to it and those 4 bits the screen, then the display list, which will have been interpreted as PM data, will show up on the screen.

Similarly, if you are only using the first two players in single line resolution, you'd get away with setting PR0450 to an odd (00) boundary rather than an even (16) one. This means, for example, that in OR 8 you could use page 44 instead of page 42. Considering the few 'baseline' addresses, you should soon be able to push this up to page 48.

If you want to use PM graphics to the full, with the minimum of RAM usage, the safest thing to do is to use the top 16 or 20 of the machine, reserving the space be-

hind the MEMTOP pointer. You won't be able to use the 'strange' techniques described earlier though.

3D MOVEMENT

Since we have already discussed the size register and changing a player's shape, let's take a bit of look at simulating 3D movement.

By adjusting one of the size registers and suitable 'shape tables', a player shape can grow from single pixel size, to a width equivalent to 32 pixels. (That's 8 0x02 character widths). Furthermore, by grouping players and/or missiles together as described in our PM shape list given in size list 4 (over the whole playfield area), things of shape for 32 characters across, then.

IN PASSING ...

I've always liked guns which I can see a shape on my TV screen (depending behind) and for screen 'shooters', and those 'shape' elements of it through various 'holes' in the screen.

To introduce a new technical term, you won't be earth-shatteringly astounded to learn that the shape which 'disappears' has a lower screen PRIORITY than the one that doesn't. In fact, to be absolutely correct, it is the

CRASH BANG WALLOP

What happens if two 'missile' meet, and you don't want things you can't just each other? Well... to complete the PM graphics package, AT&T have provided 'collision dictionary' as shown in table 1. These are 'read only' registers, and again only the first 4 bits are used.

When a collision occurs, a bit,

ADDRESS	NAME	PM SHAPE	TYPE OF COLLISION
03248	M0FF	MISSILE 0	PLAYFIELD
03249	M1FF	MISSILE 1	-
03250	M3FF	MISSILE 2	-
03251	M3FF	MISSILE 3	-
03252	P0FF	PLAYER 0	-
03253	P1FF	PLAYER 1	-
03254	P2FF	PLAYER 2	-
03255	P3FF	PLAYER 3	-
03256	M0PL	MISSILE 0	PLAYER
03257	M1PL	MISSILE 1	-
03258	M2PL	MISSILE 2	-
03259	M3PL	MISSILE 3	-
03260	P0PL	PLAYER 0	-
03261	P1PL	PLAYER 1	-
03262	P2PL	PLAYER 2	-
03263	P3PL	PLAYER 3	-

TABLE 1

APPLICATIONS OF PM GRAPHICS

If the mention of Player's message Graphics conjures up images of tiny spaceships and flying saucers flitting about the screen, then by golly this issue was not out of your mind. You can do a lot more than that with PM graphics.

For a start, it will give you at least 4 pens (colour or line), regardless of the graphics mode you are using. (Don't forget to set OS of the priority register, remember this, then by placing all the players and missiles code to side in queue-up/inhibit mode, you can cover the entire width of the playfield area to the full height of the screen, so I'm not talking about little splashes of colour either. This means that you can use players to form backgrounds or patterns, etc. Ideally, the combination of players in the inhibited mode is a lot handy to use the mode, but you can get even this to make large "high resolution" dot not very high resolution, by removing the priority lock to playfield corners, then applying the colour using the BAK colour to the size and shape of the missiles, so that the player colour shows through.

By using data from the computers' character set into the 4 players, you can put a 4 letter

word in OS1 or OS 2 style, into the border area of the screen, and don't forget, to using Display — for instance, you can "zap" off the points of a player along and form a shape and shift the rest of the player to a new horizontal position to form a new shape there.

All in all, the possibilities for PM graphics is a pretty far reaching one, and to show what you can make of it.

Finally, when you are telling your friends about the great program you are writing, using PM graphics and the term "Player Missiles" Oh yeah "So what?" You can let 'em have a look here!!

You will see that a 5th player has crept into fig 1. This can be achieved by grouping the 4 missiles together and to overcome the problem of diffused colour of missiles, you can set OS of the priority register. This shows the missiles from the great colour registers, and

never assigns the P03 colour register to all the missiles — and that's all it does. To reverse the OS player you will still have to move each missile separately.

Since this player has the same colour as P02, if a passes in front of an object with this colour, you won't be able to distinguish it, and I suppose you could just as well say that it passes behind the object, as I have shown in fig 1.

By the way, for those of you who haven't yet tested out colour registers, please remember that you still to specify P 3 of the Basic Programme Manual which gives the location of the colour registers. The next registers are at 82170 — 82176.

MULTI-COLOURED PLAYERS

That's 5 of the 8 bits in the priority register associated for the 4 missiles — that's all. If you remember, last time I

said that you could get multi-coloured players by overlapping missiles which have different colours. (Obviously, one of the players will have a higher priority, and if all of all players are '0', it will cover the points of the player behind it. However if some of its points are '10', then the colour of the lower priority player will show through, so if these points are also '10', then the colour of player's colour behind that will show through. This gives you a fair amount of colour by setting the OS of the priority register. This causes the colour of the pens of players OS 01 and P2, P3 to be normally OS 01 or the priority bit, and this will show a colour which is different to colour of the backgrounds. I give better doesn't it!

The last two high order bits of the priority register are concerned with the OTL graphics modes, but we won't go into that here. It should be noted that you do know a lot about it.

PRIOR & QPRIOR BAK PLS PL3 PF2 PF1 PFO PLO PL3 PL2 PL1 PLO D7
D6 D5 D4 D3 D2 D1 D0 SEE TEST 0 0 0 1

PRIOR & QPRIOR BAK PLS PLS PF3 PF2 PF1 PFO PL1 PLO D7 D6
D5 D4 D3 D2 D1 D0 0 0 1 0

PRIOR & QPRIOR BAK PLS PL2 PL1 PLO PLS PF3 PF2 PF1 PFO D7
D6 D5 D4 D3 D2 D1 D0 0 1 0 0

PRIOR & QPRIOR BAK PLS PF3 PF2 PLS PL2 PL1 PLO PF1 PFO D7
D6 D5 D4 D3 D2 D1 D0 1 0 0 0

fig 1

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our electronic eyrie high in the cloud-wreathed fastness of the Tower of Power, each of whom bears on his head a rattan basket containing readers' progs. Evaluating this material takes time, and time is one thing we never seem to have enough of . . .

So if you're getting edgy — relax. Don't do it. Somehow we'll get through it. Then your turn will come.

IMPLASH

"Micros have shot their bolt", says JOHN BEAR, the man who wrote the USA's current No. 3 best-selling computer book.

"Tell us about it", says JOHN CONQUEST, the man who interviewed him.

HOW COME when this guy about 40 and the States — that what America is doing today, we'll be doing in five or three years? What, little "yuppies" for a really short because of John Bear is to be followed, the twilight of the home computer is approaching. The British Age of the more a going way to the last Age of the west.

John Bear is the author of *Computer Myths* (Hachette, 26p), the No. 3 best-selling paperback book in America. Sub-title: "180 Things I Wish to Know Before I Bought My First Computer". It opened on its popularity and extensively reprinted and disseminated with computers in a no-holds-bar attack on the computer industry's mystique, methods, strategies, its own superstitions and its ill-repute. As most mainly at potential microcomputer buyers (Apple, IBM, Osborne, etc.) and American ones at that. Some of it isn't too elaborate in its more years, but there and enormous and arbitrary doses of demystifying commonplaces that make a welcome change from the Gee What? techno-babble of most computer books.

Bear's message to the world is that you don't have to get involved with computers at all, that you can live a happy computer-free life — and moreover, that the real value of computers will be in a thousand miscellaneous, often, taken-to-granted useful functions. He draws an analogy with diesel motors, when they were a terrific money saving gadget, people glibly to buy them just to watch them go round. Now virtually every home has several that go round instead of watching machines, however and other appliances.

"The story I tell in the introduction", says Bear calmly, by the way, is quite unlike his name — a small, neat, quiet, low-key man, "is absolutely true. I had the only computer for miles round

Manchester (Northern Cathedral), so I got a constant stream of questions. I didn't want to write a computer book at all, I already had a six-book contract, but I had to stop people asking me the same questions over and over. I started stopping as a comedian, but next episode and I like that I was going to reveal all my most interesting intellectual questions. So I spent six months putting it all in a book.

"It's interesting that though the book's selling very well, computer stores won't stock it because the owner don't like to advise I give an idea to get a good deal out of them — discounts and services, things like that. They say I don't want to get anything in my shop. People will leave me mad! My American publisher is doing an ad campaign based on that — Why is this book banned by computer shops?"

"Don't talk much about specific machines. That's deliberate. I'd have needed too much time and the book would be even bigger than it is. But it's a real problem. You won't get the truth from American computer magazines, even though they often get really angry with them.

"Computers have passed out in America? I'm sure they're still here a tremendous lot but now that's well over. There was a money that showed that over half the IBM range machines — Altair and Commodore and so on — aren't being used at all. They're in garages along with CB radios and other past fads. Spices were very big, but Americans got tired of the first generation of them and didn't wait around for the second, like the ones you see to have our hair which used to be interesting. The money used to be in games, but now companies like Broderbund

are moving into software that isn't glamorous — inventory control, things like that — but sales.

These days you can pick up a IBM for £12 and two Apples and Commodore in Safeways, but nobody's buying them. What people are buying are dedicated machines, for word processing and business. But there is still some excitement left. At the San Francisco show, the big companies had big stands right by the entrance next to each other. Digital and IBM's were simply absolutely deserted, but Apple had 500 to 1000 people all the time standing open-mouthed in front of the Macintosh. I love that machine and of course now they've announced the Fat Mac. But even so it was a supreme example of Don't Be The First To Try This. It's been Computer Whop-whop. I was released, oh, months ago, but the software's only just coming now. But there's always the falling line, not in micro. Main will be coming down, there's so much demand. College papers are full of value ads for them — students get special prices. A 1990-1991 Macintosh will be a recreational machine as well as everything else. Even now MacFint is something to do for fun.

"There was a survey which showed that most people thought that by the 1990s there'd only be three computer companies left.

Apple, IBM and Sony. I don't know why they include Sony. Their word processor is splendid but they can't have sold many."

BMK: "What's that, I've not heard of that?"

"Back to give Mr. Bear the BIG K line (i.e., too late too late.) "They're trying it out every five, ten? Well that makes sense, I don't think they'd get anywhere in America now. Well, like I always say, you should wait for the software first. I guess it's not possible to take over the market for how many big operations are there left who could do it. Some burned their fingers, everybody waited five years for AT&T and it was just another machine, nothing special. If the Japanese have got it wrong, what is possible as if they have, then it's going to be a slow process of attrition.

"The idea of compatibility is right though, that's the change. American computer price is really focusing on their days and they're very happy about the big companies. Don't mind lots of people claim to be IBM compatible, but they're not. IBM aren't IBM compatible! The PC, you will make 20% of IBM software and even then you can't really be sure it's going to work properly. They come up with all these elaborate solutions, but people don't want that kind of bother, not any more. Some 20% compatibility is more around than five per cent.

"The 187th Thing I Wish to Know about Me? If I were doing a game — and I may have the chance next year — instead of saying that you should choose your software before you hardware, I'd go on and the biggest first people buy a computer main software, and before they look at their actual needs. If I had ten minutes to talk to everybody in the world, I'd say do it the other way round. Most people, if they're being responsible, will never even get to the second stage. They'd realize that they don't need a computer at all before buying a computer or in buying things to do. The trouble is that they start doing this analysis while they're unpacking the boxes. Do your research first."

"Thank you. Oh Bear, and here's the photo I'm going to give American readers immediately and have another visit a December. Before it's too late.





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WHERE IS KONG?



WHERE IS KONG?

for Spectrum



PROGRAM

BAR SHOOTING



for VIC 20



PROGRAM

EARTH DAZZLING



EARTH DAZZLING

for BBC



PROGRAM

Midnight Feast

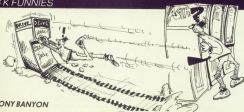


for One 1/Almos



PROGRAM

BIG K FUNNIES



BY TONY BANYON

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for BBC

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for Commodore 64

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for Spectrum

 PROGRAM



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BIG K No. 10 (Jan.) on sale EARLIER than usual. Run, don't walk, to your local newsagent!

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STRAIGHT FROM THE DRAGON'S MOUTH ... AND INTO THE FIRE

IMPACT is getting first computer, installed into the nearest electronics shop and asked for advice. "Oh, definitely the Dragon" said the monster behind the counter, firmly. "It's the best computer in creation." I believed him and parted with my cash. Imagine how I felt when I picked up a magazine a few days later and found it was the proud owner of an obsolete machine. I could have bought a IBM 486 or an Amstrad. KEVIN MARTIND, London, NW10.

● **Quality!** If you're going to make a first-time buy, for Heaven's sake do some research first. Read the magazines for advice and compare prices. However, now you've got the book, be consoled by the knowledge that Dragonware is still being produced. There are 150,000 Dragon owners in the country, and BIG K (at least) certainly won't stop catering for them.

Letterbase, The Archibald Software Club, 5-7 Fourcross Road, Maitland, NSW.

THE LOWEST PIRATES ON EARTH...

THESE SA lot more piracy have "Down Under" than in Britain. Most software is imported and there are few distributors. It's simply not available any other way. DAVID GODFREY, Geelong, Victoria.

GIT ON UP FROM DOWN UNDER

BIG K is the most colourful and informative computer magazine I've seen. The big drawback is that we receive it now months after its issue date. It makes one feel positive of Britain for having good software that Australia has. ALLAN RITTEL, Whittley Main, South Australia.

● **Looks like things are bubbling down under.** Not only have we received a copy of a number of magazines from Australia and New Zealand, but Sydney-based "Delight" have started operating within these very waters. There's also always Melbourne. How long will your work, Canberra, things could be bubbling up.

THIS IS A HEX PARROT

GETTING a new VPC 286 or IBM 64 hardware programme to work directly in Hexadecimal. We will also operate in hex and octal, and sometimes in T's and O's. We think it's hard to understand why many authors of IBM reference books and on going important addresses only in Hex, which is a hex a

SLUR

IS YOUR letter answers the same scenario as me who writes the replies to letters on Tony's nerve centre in Judo Jiv?

● **My sweetest son, John.** Know thy place. I am the all-knowing, all-seeing, all-wise, I just happen to have friends in high places. ...

BEAUTIFUL STREAMERS

IF YOU had an all-time drop-out chart, I'd nominate **Jet Vetter** as a lovely last-gamer. Meter: Laminated. Format: cassette. Price: £3.50. Synthesizer: Do what? Playability: light. Addressiveness: HLT. Overall: Nil.

● **Thanks, Paul.** All your comments and letters are being carefully studied, noted and recorded. Thank you very much for the splendid all-time loose chart.

KNOCK OUT

IF YOU've seen some of the Western World's most famous and the number one candidate for a bad name ever.

As Uncle Pop you must admit weeks of pain and discomfort whilst being pursued by what looks like mice and rats. You must also have accompanying bad news. To dispense of Uncle Pop's residents you must behead and let rot. They then "look for" some of the most "famous" in the world. **ALAN RITTEL**, Whittley Main, South Australia.

● **There's one person in this office who's found to get a second vote ...**

JET-VETTER

IN YOUR review of M.A.C.H. 3 I hope you'd stated that you were by name "unmarked military or command MACH3" per" is in fact an F-150 type aircraft.

Re-marking this out to either a jet or a tank, but I'm a member of the Air Training Corporation there are already collecting their correct names.

MICHAEL ALLEN

● **How looks like an F-15 like the box set, but M.A.C.H.3 looks the same as in what the makers said (see relation to the Hawker jet of the same name).**

SPORTING CHANCE

IS THERE any news of a second Olympic game for the BBC? I've already got **Mike Olympic** and think it's rubbish. PAUL COOK, Broadmarsh, Kent.

ARE THERE any athletic simulations like **Amstrad's** Desktop available for the Am 486/500? J. MORTON, Threding, North.

● **Can anyone tell us when is the next issue for the BBC Olympic 1988 events. December will be too soon for the 486, 500 and 514. The answer will be posted at 00.00. If might want to join Archibald's Software Club to keep me posted. Write to:**

usefulness factor of 2991
 (without course this is a high
 order value in which case our
 answer was 4165 B000 — a
 nice round figure. I think you'll
 agree)

CHRIS WART,
 Gwynedd, Cardiff.
 ■ Don't sympathise with all of
 you. It isn't just the weather
 system these schematics use. As
 far as we can make out, the
 best location is an obscure
 district of Albania, too.

ANDY — WALLCOON OF THE MONTH

AM I the only person in the
 whole wide 800 K readership
 world — the intelligent world
 that is — who has found
 himself trying to become the
 playmate Mink of The Day
 without joy? Or could the
 suffering be a very extreme
 form of claustrophobia?
 (I'm rational, I'm rational!) Is
 there a cure?
ANDY CLARKE,
 Warrington, Cheshire.
 ■ Yes, No, Goodbye Andy.

BESPOKE POKES (FRANK'N GOOD)

HOPE that forthcoming
 updates will help those Pokes
 get more out of their game.
 The following gives you 250
 lines:

"0000000 0
 0000000 000
 CALL 000000

The following enables you
 to load into the different
 screens by pressing the
 escape key:

"0000000 000
 0000000 0
 CALL 000000

DAVE SHARON,
 Stone-on-Trent, Staffordshire.

**We pay
 for progs,
 two**

EXEUNT THE DRAGON OR 50 WAYS TO SNUFF A DRAGON

1) KNOCK HIM ON THE HEAD, TED

ALLAN PHELLIPS wanted to know how to kill the Dragon in
 Twin Kingdoms Valley 890.8 (September issue). First of all
 rescue the Princess in a dungeon (on the way to the
 Dragon). You'll need the amulet which you can get by
 giving the Forest King a bag of gold. When you've rescued
 the Princess, he'll also give you a silver key. Use this to get
 into the Tower in the South West corridor. Inside you'll
 find a long staff. Hit the dragon with this and he'll die—
 and leave you the key.
DAVID L. JAMES, London SE15

2) STITCH HIM WITH A WITCH, MITCH ...

IN ORDER to kill the dragon you must first kill the witch
 who resides in a tower opposite the one in which the
 dragon is encountered. She holds a wizard staff which
 will kill the dragon. Killing the witch however is no easy
 matter ...

To kill the witch you must enter the gate in the clearing
 and take one of the doors on the side of the passage.
 Behind one of these lives a dwarf. Kill him by normal
 means. (1) Find the downstairs staircase leading to a
 gate. Unlock the gate to find a passage. Follow this up a
 staircase. You are now in a hut and the computer should
 prompt "The floor is weak". Wait for the colloquies. You
 will find yourself in a tunnel with a magic dagger. Give this
 to the witch and it will attack and kill her. Now you are free
 to take the staff and kill the dragon, and take the master
 key. Quite simple really!
M. NICHOLSON, Greenacres, Sheffield.

3) ... AND SET YOURSELF FREE!

IN ORDER to kill the dragon in Twin Kingdoms Valley gives
 a reward to the Forest King and he'll give you a metal
 amulet. Now go to the Forest King's dungeon and go
 South, West, South, East where you will find a witch. Give
 her the crystal ball, she'll give you a bronze key. Get back
 to the gate where you will find three bronze doors.

It is behind one of these that you will find the Princess/
 dungeon. Don't enter with the amulet in the holdall, or
 she'll disappear. She will recognise you and for father the
 Forest King will reward you for her freedom with the silver
 key. Now you can open the silver doorway, get the long
 wooden staff, and kill the Dragon. But be warned! Make
 sure your strength is 128 before you enter the Dragon's
 tower!

ALASTAIR LINDSAY,
 Edinburgh.

■ Now play the game
 out of that little bit
 because Power Mary all
 disagrees!



GOATI

IT'S BEYOND words what
 playing Goats is like. Must
 be said. When I typed in
 GOATS, that made
 me wonder. What's the
 name. When I pressed
 space bar I instantly got my
 whole house and world straight
 to the next level. This
 happened every time.
SMITH CARTER,
 Castle Donington, Derby.

GOAT II

LOOK WHAT I found out while
 playing the goat on Mega.
 When I got into how much
 you're going to play. The
 level to keep them loyal —
 now the money number. The
 amount'll be added to the
 dollar value already have.
SMAC WHITELAKE,
 Cairn,
 Lancs.
 ■ And The Goats stay loyal?
 Mega.

CBM FRILLS

Here are some tips for CBM 64
 users:

POKE 89014 — This Poke
 enables the user to force
 Repeat Keys. Move 'R'
 between 128 and 255 to turn
 them on, and 0-127 to turn
 them off.

POKE 8622, 80-255 — This'll
 give you a super-fast com-
 port speed range in from 0
 (hardware "250" slowest).

POKE 808201 — The security
 Poke. Will disable the RUN/
 STOP and RESTORE.

SMACK POKES,
 Charley 867.

COLOUR SECTION

In your review of Jet Set Willy
 you said: "If you write colour
 routines in BASIC it's a waste of
 disk and extra memory. (And
 colour is displayed and
 loaded again in each case.)
 Press the appropriate number
 — and enjoy!"
DAVID SCOTT, Apr.

SALAD DAYS?

MY YEAR is ruined. I read
 the book before I bought my
 phone and saw a £1,500 30-
 megabyte hard disc drive
 when we already had a 500
 disc drive. Why couldn't we
 have a couple of modern New
 American schools? Are there
 worried we'd break into a
 bank!
SUZ SIMMS Leek, Staffs.

by

announcing . . .

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BEST AD OF THE YEAR _____

CRASH OF THE YEAR: Open category _____

LAME GAME OF THE YEAR: Software only _____

SOFTWARE OF THE YEAR: Peripherals only _____

GOOD IDEA BUT . . . (OF THE YEAR)
Or Most Miseric Features: Open category _____

WYPE OF THE YEAR: Open category _____

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rip-off OF THE YEAR: Open category _____

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Your goal:— To regain the fabled crown and defeat the all powerful skull king.

The adventure is of the classic format. Simple, colorful combinations are respected, and will usually be understood.



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You control a fearsome Samurai warrior whose aim is to prevent the alien invaders from gaining control of the earth. To help you in this task, you are armed with shuriken, flamers, missiles, throwing stars,



Ms. Mazzy

Can you guide the intrepid little Mazzy around the garden maze and collect the diamonds? Or will you fall victim to the evil skull robot? (Is a garden?!) Can you make it to the diamond "flow" or sink? Will you get the "Vintage Queen" to kiss the study? AND Ms. Mazzy can get on top the house of her Mom, Betty Chubb!



Rooster Run

Why did the chicken cross the road? You don't know? Neither do we, but with the help of the game you may just find out! Your aim is to guide the hapless rooster across the road, then, get to the farm and avoid the approaching hounds. When could he be caught?

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