

POPULAR Computing WEEKLY

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20-26 March 1987

Vol 6 No 12

Software plans for Plus 3 and A500

NEWS DESK

Guild of Thieves
- follow up to
The Pawn

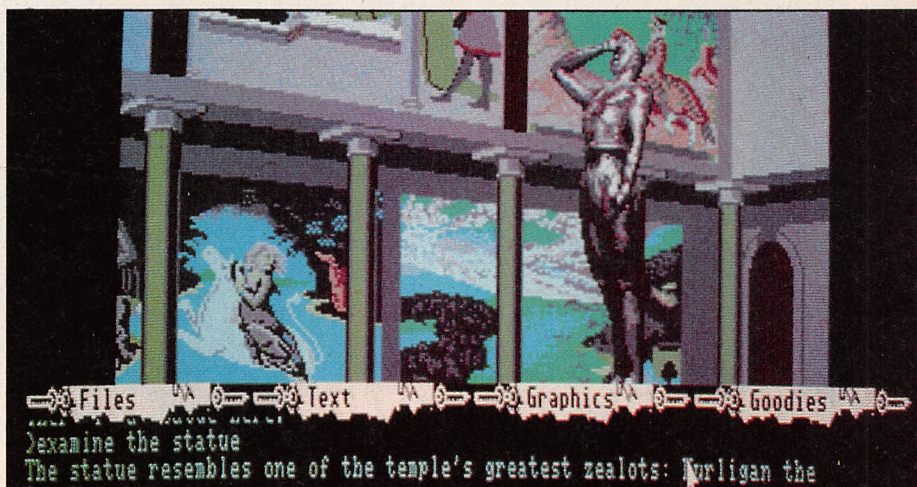
**Commodore has
doubts about
PC1's UK launch**

REVIEWS

**Bowled over
by US Gold's
Tenth Frame**

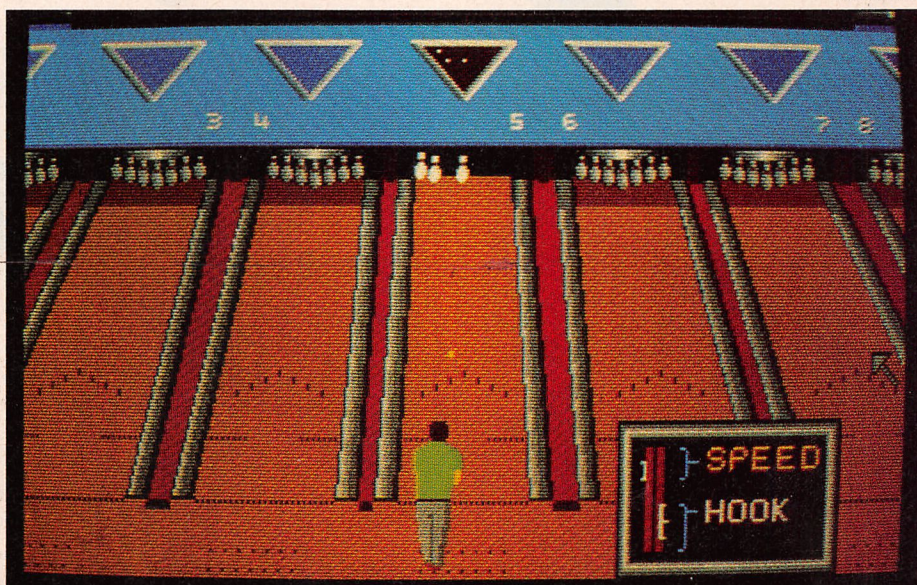
**SPECIAL
supplement**

The Spectrum



Guild of Thieves

Tenth Frame



SPECIAL SUPPLEMENT

Sinclair Spectrum

GAMES ▶

13 Reviews

Two from Firebird with *I, Ball* – in colour – and *Cholo*. Plus *Tenth Frame* from the authors of *Leaderboard* and published by US Gold, and Mastertronic's *Kobayashi Naru* – do you eat it or play it?

16 Arcade Action

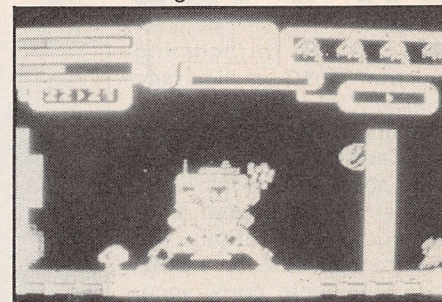
Continuing the C64 games info. Including *BMX Simulators*. Plus this week's Gallup Top Twenty.



17 Adventure Corner

Tony Bridge offers a second opinion on *Grange Hill* – an adventurer's eye view, as it were.

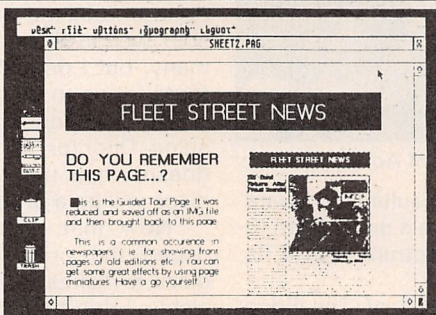
21 A worthy successor to the *Quill*, *Patch* and *Illustrator*? Chris Jenkins looks at *The Paw*, the Professional Adventure Writer, a development from its earlier adventure designers.



SOFTWARE

18 Fleet Street Publisher

Mirrorsoft has grand plans for this, the most sophisticated Fleet Street package yet. But how will it suit the consumer without the money to splash out on the latest printer technology to show it off? Chris Jenkins puts it through its paces.



23 Spectrum News Desk. All the latest news on Spectrum software and hardware.

25 The Spectrum Plus 3 – the much rumoured new Spectrum with a built-in drive. We attempt to sort out just what you can expect next from the Amstrad stable.

26 Cheap and cheerful: budget titles from five major software houses compared and reviewed.

PROGRAMMING

30 Amstrad CPC

Rescue those files you've deleted from your disc. In two parts.

31 Spectrum

Recovering your corrupted tape programs, by Paul Mooney.

31 BBC

Function keys and how to use them to the full.

33 Commodore 64

Chock full of sprites and plenty of things to shoot at – that's Xedion. Part two this week.

34 Bytes and Pieces

Short routines for various machines.

35 Peek and Poke

Kenn Garroch helps out with programming queries.

REGULARS ▶

4 News Desk

Software prospects for the Spectrum Plus 3 and A500 machines.

8 Letters, Puzzle

9 Chess Tournament

11 Chess Board

Martin Bryant reports on an intriguing tournament between computer chess programs and British juniors.

36 Communications

Ben Knox and Julian Hayward report

on former Prestel IP Timefame's decision to go it alone.

35 Soundcheck

44 New Releases

46 Ziggurat, Hackers

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The verdict (1): caution on Plus 3 software

Kaday cagey on PC-1

AMSTRAD'S forthcoming Spectrum Plus 3 machine (see *Popular Computing Weekly*, February 19) is being treated with caution by a number of major software houses.

Amstrad has briefed leading companies about the Spectrum Plus 3, at a software developers' conference, and a number of others are turning their attention to planning for it.

Firebird's Tom Watson claims that Amstrad seems to have taken the wrong approach. Watson's view was typical of many publishers — they would invest in software development for the Plus 3 if and when the market for the machine was clear.

"Throwing resources at a machine is a bit risky when it will take an undefined slice of the market," said Watson.

"If Amstrad were giving us a great deal of interest and assistance with development for a new machine, things would be different. As it is, our resources are both finite and expensive."

"Any investment by us would be a dangerous one, unless Amstrad changes its



Rod Cousens of Activision

policy on consulting software developers. It's up to them to give the Spectrum Plus 3 its market share."

Tim Langdell of The Edge went further. The Edge was not included in Amstrad's software developers' conference on the Plus 3.

"I don't know of any other company in the UK that supports 128K machines to the same extent that we do," he said. "We're dying to have more information from Amstrad."

Mastertronic will be supporting the machine, but

chairman Frank Herman has his reservations also.

"There is one drawback from where we sit, in that the price of discs is still too high," he said. "But we will do something."

Compilation discs might seem an obvious way of supporting the machine, but Herman is not keen. "We have done one in the past, which sold well in France and Germany, but I don't think it's a route for us to go on."

Rod Cousens, Group Managing Director of Activision doesn't think that the price of discs will be a problem.

"Now that Sugar has reduced the price of 3 inch discs it makes it much more viable. I don't think you'll see many new developments going onto it, but we'll certainly put on some existing catalogue for the machine," he said.

All the software houses we spoke to will probably be releasing such back catalogue material, and new releases from some companies will be in Spectrum Plus 3 versions, so long as the machine's sales potential looks healthy.

NO dates have yet been fixed for the UK appearance of Commodore's PC1, the sub-£500 PC compatible launched rather suddenly at the Hannover Fair at the beginning of March (see *Popular Computing Weekly*, March 13).

It is clear that the announcement of the PC1 in Germany two weeks ago came as a surprise to more people than just the press and show visitors and Chris Kaday, the company's UK general manager, is being cautious about its availability.

"If the PC1 can be released at the right price and in the right volume, then we in the UK will participate," said Chris Kaday. "And we could sell a lot of them, if the price is right. But we feel we've just launched two very exciting products in the Amigas (the A2000 and A500) and we don't want to distract too much attention from them."

Interestingly, this is much the same argument put up by Atari chairman Jack Tramiel regarding Atari's own PC compatible *vis a vis* the Atari Mega STs (see *Popular Computing Weekly*, March 13).

Nor would Kaday be drawn on the subject of pricing. The German price is DM 1,295 — around £430.

"The whole question of price is academic. We announce the UK price at the time of launch, but the machine is not yet in production. Commodore UK is focusing on product that is shippable."

Amstrad PC trade-in offer

RETAILER Abbot Computer Products, now headed by the ex-Imagine and Oric director Bruce Everiss, is offering trade-ins for Amstrad PCs.

Customers can trade in their Spectrums, Orics, Dragons or Commodores and get £50 off the ex-Vat price of any floppy disc Amstrad PC, or £100 off a hard disc

model.

This means that 'traders-in' would pay (including VAT) from £458.85 for a single floppy disc, mono monitor 1512, up to £1,114.35 for a 20Mb hard disc version with colour monitor.

Although the promotion is being publicised as a trade-in for Spectrums, Everiss says

that, "any old machine will do really".

Details from Abbot Computer Products, 50 High Street, Edgware, Middlesex, 01-951 5809.

Comms newsletter

COMMS File is a new monthly newsletter aimed at users interested, naturally enough, in communications. *Comms File* covers machines such as the IBM PC/AT and compatibles, Amstrad PCW 8128/8256 (sic), PC1512, and Apple II and Macintosh. Services in-

clude Telecom Gold, Easylink, The Source and UK Bulletin Boards.

Comms File costs £75 for 12 monthly issues in the UK, and there is a free sample copy for anybody who writes to TP Group, PO Box 509, London N1 1YL.

Ads watchdog chases Sir Clive

THE Advertising Standards Authority is reported to have criticised the advertising for Sir Clive Sinclair's latest machine, the Z88.

The ASA Code demands that goods advertised by mail order should arrive within 28 days. But the advertisements for the Z88, which request

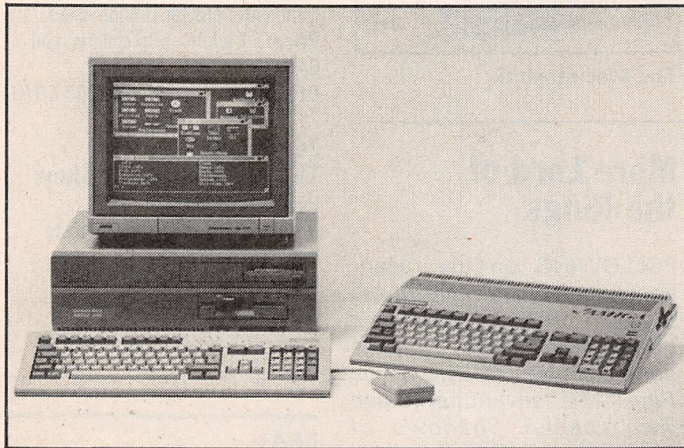
customers to send off cheques, only offer to give a "likely despatch date".

The ASA has demanded assurances from Sir Clive that their code will be complied with, but at the time of writing no reply had been received. Sir Clive was said to be "astounded" at the criticism.

The verdict (2): thumbs-up for Amigas following A500 launch

MANY leading software manufacturers have confirmed that they will be supporting Commodore's Amiga A500, launched a couple of weeks ago.

Leigh Richards of Creative Sparks commented: "It's early days yet. It's a significant launch, certainly, and will encourage development of software."



Mirrorsoft marketing director Pat Bitton summed up most software houses' attitude when she said: "Software for the 16-bit machines has to be done on an international scale, because of the high development costs involved."

"We are obviously developing for the UK and overseas markets as a whole."

One game Mirrorsoft has definitely got lined up for the Amiga is Mindscape's *Strike Force Harrier*, which should be available in August or September.

Affordable

Mastertronic chairman Frank Herman agreed with Bitton's view.

"I think the A500 is a very sensible move - it makes the Amiga more affordable," he said.

"We're developing Amiga product, in fact we're already fully committed to it."

"We're talking to Amiga programmers - we are interested in getting into the Amiga market," he went on.

Committed

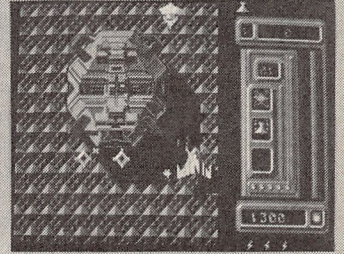
"We are definitely committed, and we'll test the water with one product first. The Amiga is a super machine."

So while those whose main markets lie in the UK seem to be adopting a mainly "wait and see" approach, companies with multinational connections are tending to be more committed to the Amiga.

Ian Stewart of Gremlin said that no material would be produced in the UK immediately: "We'll see how it goes. But any of our US or Canada products will have an Amiga version."

"The ST has opened the market. The Amiga is a superb machine, but is still too expensive as a games machine for Europe."

Software Hotlines



Guild of Thieves the next adventure release from **Magnetic Scrolls** via **Rainbird**.

Set, again, in the land of Kerovnia (introduced in the *Pawn* - the program with almost as many conversion jobs as *Football Manager*) the adventure opens with you applying to join said guild of rascallions, upon which you are given a test.

The guild master takes you to an Isolated Island, giving you instructions to clear out the place and return with all the treasures it holds. Interesting, huh?

Rainbird says that it features, 'a huge number of complex puzzles,' and will have 30 of those nice pictures - just like the one on the front cover this week.

Scheduled for release on ST and Amiga at the end of April (£24.95), with 15 billion other versions out in May, *Guild of Thieves* is said to be the first of five new products to be produced by the **MS** team for Rainbird, over the next two years.

Activision - the way ahead. That's the new buzz phrase for the **Big A**, and if that way includes frequent lunches at the ritzy Limelight club, then I'm all for it.

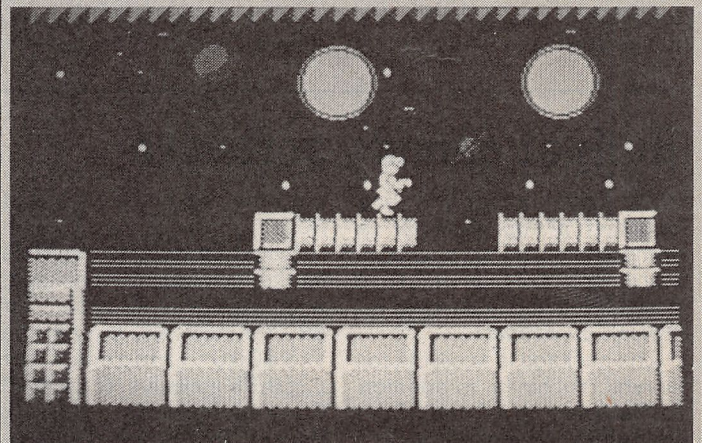
Held last week in the heart of WC2, the spirit of the thing was more like an Evangelical Revivalist meeting (quite apt considering Limelight used to be a church) with Rod 'The God' Cousens giving us all a rather echoey sermon.

Activision is going to be very successful. **Activision** is going to be releasing coin-op conversions such as *Quartet* and *Rampage*. **Activision** has done huge deals with coin-op giants **Nichibutsu** and **Data East**. **Activision** is going to be ruling half the free world by August 1988, etc, etc. If positive thinking creates sales, they're on a winner. All together now; Ommmmmm.

Golly, a **Microdeal** ST game called *Gold Runner* arrived in demo form this week (see above) and includes the fastest vertical scrolling I've ever seen on any computer. Fantastically detailed backgrounds included.

Don't know how they've done it, but congrats to programmer Steve Bak and Pete Lyon for the graphics, with Rob Hubbard making an appearance on the music. More reports when we get the finished item.

John Cook

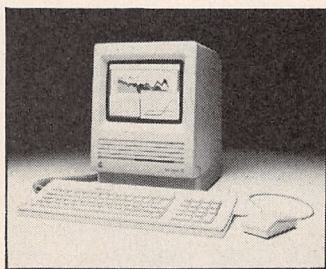


Two new Macs

APPLE has launched two major new machines and a range of related products (see *Popular Computing Weekly*, February 19).

The new machines are the Macintosh SE (System Expandable), a replacement for the Macintosh Plus, and the long awaited "open Mac", the Macintosh II.

The SE comes with either a



The SE

single drive, or two 800K drives and a 20 meg SCSI hard drive that operates 2 times faster than previous models.

The unit is equipped with an internal and external SCSI interface allowing for internally mounted devices and a 96-pin expansion slot for add-on cards.

The machine is 15 to 20 per cent faster than the Macintosh Plus, but is still based on the same 7.8 MHz 68000 processor.

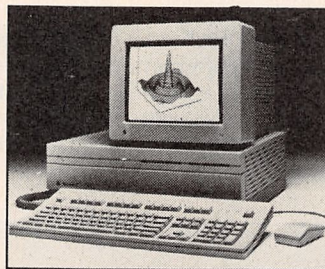
The SE is now available at the price of £2,935 inclusive for the two drive system.

The "open Mac" or Macintosh II, is a true second generation Macintosh that resembles an IBM PC with an Apple II GS keyboard. The Mac op-

erates under the 68020 32-bit processor with a maths coprocessor and an optional memory management chip operating at almost 16 Mhz.

The machine is available with either a 12 inch black and white monitor or a 13 inch colour RGB screen.

The Mac II will be available this summer at the starting price of £5,294 inclusive.



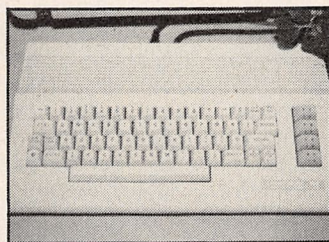
The Macintosh II

C64 "still has a role", says Kaday

THE launch of the Amiga 500 does not signal the end of the Commodore 64, according to Commodore UK's general manager Chris Kaday.

Despite the fact that the 64 is now over four-years old, and the A500 is being targeted at first time users and upgraders from 8-bit machines, Commodore intends to continue selling the 64 in its promotional packs.

"The Commodore 64 is still selling well, believe it or not," said Chris Kaday. "People will buy it because of its software base, and it still has a role as a fun computer."



Commodore is currently in discussions with high street retailers to finalise its new promotional C64 package to supersede the Connoisseur's Compendium, but Kaday would not comment on the specific contents of the new 'bundle'.

Budget comms software

PMS Communications has launched *Dialup Personal*, a comprehensive communications software system designed as a follow up to its *Dialup Educational*.

The package is available for several machines. In addition to the Amstrad PC and PCW, there are versions for the BBC B, B1 and Master Compact, RM Nimbus, IBM PC and com-

patibles and the Apricot PC/X1.

Dialup Personal is available as a standalone package, with manual and cable, for £89.95 inclusive, or with the WS4000 modem for £259.95 inclusive, from PMS Communications, Norfolk House, Smallbrook, Queensway, Birmingham B5 4LJ, (021) 643 7688.

More Lord of the Rings

FOLLOWING on the recent announcement of *Lord of the Rings - The Arcade Game* comes Melbourne House's announcement of *Lord of the Rings* (the adventure) *Game Two*, called *Shadows of Mordor*.

Game One finished with the fellowship of the ring leaving Lothlorien - *Game Two* continues the quest, based on *The Two Towers*, up to the famous struggle at Shelob's lair.

The game, programmed by the Australian Beam Software team, allows you the option of controlling Sam or Frodo, and promises 'more complex problems' than its predecessor.

The game will be single load, with graphic versions for the Commodore 64 and Spectrum 128K/Plus 2 machines. The Amstrad CPC will be text only, with the Spectrum allowing you the option of either playing the game, or simply looking at the graphics.

Out June of this year, *LOR - Game Two* will be priced £9.95 (£14.94 disc) on Commodore 64, £8.95 on CPC and £7.95 on Spectrum.

● More details in next week's Hotlines.

DIARY DATES

MARCH

20-22 March

The Electron & BBC Micro User Show

UMIST, Manchester

Details: Software, hardware and peripherals for Acorn's micros

Price: £3 adult, £2 children, £1 discount for advance booking

Organiser: Database Exhibitions, 061-456 8835

APRIL

11 April

Dragon Computer Show

Ossett Town Hall, nr Wakefield, W Yorks

Details: Software, hardware and demonstrations for Dragon users

Price: £1 adults, 50p children and OAPs

Organiser: John Penn, 04203 5970

24-26 April

The Atari Computer Show

Novotel, London W6

Details: First chance for Atari to show off exciting new strategy

Price: £3 adult, £2 children, £1 discount for advance booking

Organiser: Database Exhibitions, 061-456 8835

MAY

2-3 May

First Ideal Microcomputer Show

Kensington Exhibition Centre

Details: Software, hardware, peripherals for consumer users

Price: £3 on door, £2 in advance

Organiser: RAMCO International Exhibitions, 01-906 3363

8-10 May

The Electron & BBC Micro User Show

New Horticultural Hall, London

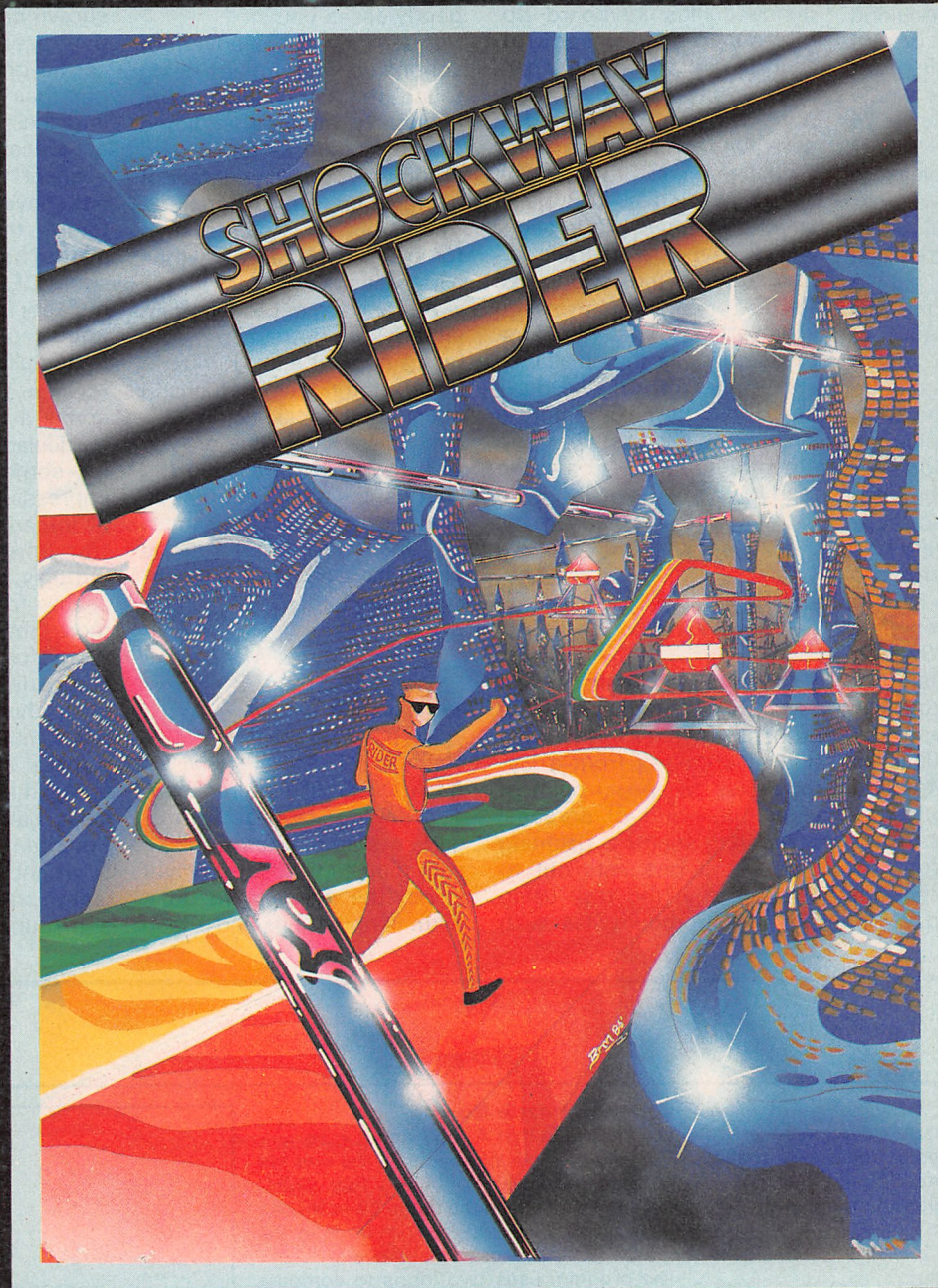
Details: Software, hardware and peripherals for Acorn's micros

Price: £3 adult, £2 children, £1 discount for advance booking

Organiser: Database Exhibitions, 061-456 8835

Prices, dates and venues of shows can vary, and you are therefore strongly advised to check with the show organiser before attending. *Popular Computing Weekly* cannot accept responsibility for any alterations to show arrangements made by the organiser.

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DIY Spectrum?

As the days of the pricey add-ons for the quaint but well supported 48K Spectrum draw to a close, I was thinking that many owners might welcome the occasional DIY hardware project in *Popular*.

Modest things, requiring only pocket money and a basic soldering ability not only enhance but offer a new dimension to a flagging interest.

There is a certain pleasure we non-electronic-wizards gain from a successful 'close encounter' with a sacred and much-hallowed PCB, plus a little knowledge about the components themselves.

As an example, a *proper* reset button can easily be fitted either to the Spectrum or virtually anything plugged into the expansion port, for about 30p! When changing programs with disabled *Break* or after a crash, it is very bad to keep interrupting the power supply.

I take the odd nostalgic glance at my DIY ZX81 that looks more like the Electron, but has a 57 reed-switch keyboard with numeric pad and built-in 16K Ram. Alas, as such, it can never command the princely £20 or so from a collector, but who cares? I got so much pleasure from its construction and use that the £7 outlay was justified.

Cheap and plentiful support will keep the Spectrum the most economic entertainment centre for some time yet despite its limitations; and not everyone has the desire or ability to capture the latest Multi-Kb-mega-marvel.

At the last two ZX Micro-fairs I had hoped to find redundant Plus keyboard upgrades by the sackful, accordingly priced, but there were none. Our local components centre provided a new full-travel keyboard for £5 (as per Lynx, I think) which I shall alter to suit. But can anyone at *Popular* or a reader with a keyboard upgrade explain how combinations like *Del*, *Ext* or cursor controls are achieved with single key-presses? Does the small chip and capacitor on the keyboard PCB play some part in such combinations?

Yours hopefully, iron at the ready,

George W Payne
Watford

Computing can be fun

Entering the realms of a closed society? Well, perhaps a slight exaggeration but nevertheless from a layman's (so to speak) point of view the world of personal computing seems a daunting prospect if one sets out to participate in the task using one's own money (as with

Ziggurat, March 6). Seeing the plethora of computer magazines lining the walls of most newsagents adds to the novice's dilemma.

Falling accidentally into the cauldron of computing using your younger brother's newly bought Atari ST seems to be the answer! A method which gently eases you in.

It begins with the advent of various computer mags being found about the house. You eventually become addicted to the reading of these, and gradually you lose your fear of being ignorant of the subject. The use of age as an excuse for being thrashed at games also eases the process.

Anyway, to get to the point (and to stop getting up Ziggurat author Keith Kimber's nose), computing is fun and should not be taken too seriously. I think this has proved to be the case, because the cost and initial confusion, plus no immediate financial (for the home user) returns would have nipped the use of PCs in the bud.

M A Ellor
Manchester

What we want

If Atari is really interested in cracking the computer games market then a 65XE with a built in cassette player is not the machine to do it with. I know it has had a long

tradition of repackaging the 800 into new boxes, but the industry and, more importantly, the market place has moved on to a more stable footing. The Spectrum is just too entrenched, at the bottom end of the market, to be ousted by such a machine.

Most manufacturers have shown consistently that they over-estimate the willingness of the great British public to put their hands a long way into their pockets for the latest piece of hi-tech gadgetry.

Sheer technical excellence has never been enough to tempt the masses to buy something, witness the Amiga. Everyone wanted one but very few people thought it good enough value for money to actually buy one.

Once a computer has become a brand leader, in a particular category, it has to be something spectacularly impressive to make any sort of inroads on that hold over the market. Rightly or wrongly, the single thing that seems to impress the public more than anything else is value for money. The only company seemingly able to grasp this fact is Amstrad.

Any machine that is to grab a major share of the bottom end games market must be at least half the price of the Spectrum, preferably down to around £40. It must have at least comparable graphics and sound to, say, a C64.

Puzzle

Puzzle No 250

In the Crossnumber puzzle below, you are required to find two values, A and B, such that the grid can be completed. Notice that one digit has already been entered on the grid!

Clues

- 1) B²
- 2) A
- 3) B
- 4) A²

1	2		3	
4		7		

Solution to Puzzle No 245

The answer is that A = 87 and B = 36.

From the number of spaces in the grid we know that the square of A has four digits, therefore A must be in the range 32 to 99. As both B and B/2 have two digits, B is in the range 20 to 98. It must also be even.

The program uses two loops to compute the various combinations of A and B. By calculating the various values in the grid and converting these to string variables corresponding digits can be checked. For example, the second digit of A must be the same as the first digit of A squared.

Only one pair of values allows complete agreement throughout the grid.

Winner of Puzzle 245

This week's winner is A R Nolan, of London W2, who will receive £10.

Rules

The closing date for Puzzle 250 is April 10. Answers should include a program listing if possible.

```

10 FOR A=32 TO 99
20 P1=A*A
30 A$=STR$(A):P1$=STR$(P1)
40 IF LEFT$(P1$,1)<>RIGHT$(A$,1) THEN 140
50 FOR B=20 TO 98 STEP 2
60 P2=A*B:IF P2<1000 THEN 130
70 P3=A**B:IF P3<1000 OR P3>9999 THEN 130
80 P2$=STR$(P2):P3$=STR$(P3)
90 V=VAL(MID$(P2$,2,1)+MID$(P3$,2,1))
100 W=VAL(MID$(P2$,3,1)+MID$(P3$,3,1))
110 X=VAL(MID$(P3$,1,1)+MID$(P1$,1,1))
120 IF B/2=V AND B=W AND A=X THEN PRINT:A$,STR$(B)
    P1$,P2$,P3$
130 NEXT B
140 NEXT A
    
```

It doesn't need a keyboard or disc interface. Remember, only about one in a thousand actually attempts any programming so why make a machine for one when the rest just want to play games? Due to the cost of software development the cartridge port isn't needed because no third party developer is going to be interested. A high speed reliable tape system seems about the best compromise.

The technical details of the machine must be freely available to all third party developers as they are crucial to its success or failure. It should be based on tried and tested technology to be able to attract the widest base of competent programmers. Finally the software should retail in the £2 to £3 bracket.

Instead of using the 65XE board as a starting base Atari should be looking at its dropped 7800 pro-system. This machine with a tape deck instead of a cartridge port, knocked out at about £40, with all its software under £3, might just stand a chance against the Spectrum.

Mark Annetts
Richmond, Surrey

Graphic demonstration

The Amstrad PC1512, being a 16-bit computer, is faster than 8-bit machines and the Basic 2 that it uses has a reputation for speed – but how much faster or more efficient?

The results of benchmarks published in magazines give a measure of the machine's capabilities but these are not readily understandable. I obtained a more graphic illustration on my Amstrad, at least

in calculating ability, by timing the drawing of a graphic in Basic using the Spectrum, then the Amstrad.

The 'Twisted Band' program is given for Spectrum then Amstrad Basics. The timings were six minutes, 54 seconds, and 56 seconds, respectively, a dramatic example of the Amstrad's capabilities.

Spectrum Program
10 PAPER 0: BORDER 0: INK 2: CLS
20 FOR x = 0 TO 1800: PLOT 110 +
(25 + 45 * COS (X / (PI*13))) * COS
(X / (PI*12.5)), 75 + (45 + 25 * SIN
(X / (PI*12))) * SIN (X / (PI*12.5)):
NEXT x
30 BEEP 1,0
Amstrad Program
CLS
USER SPACE 200
WINDOW £1 OPEN
WINDOW £1 FULL ON
BOX 0;0,8000,5000 COLOUR 1 FILL
COS X = 0 TO 1800
a = 300 + (25 + 45 * COS (X /
(PI*13))) * COS (X / (PI*12.5))
b = 100 + (45 + 25 * SIN (X / (PI*12))
) * SIN (X / (PI*12.5))
POLY a;b COLOUR 5
NEXT x
PRINT CHR\$(7);
WHILE BUTTON = -1: WEND
END

Alastair Watt

Setting things straight

The letter titled Teaching your QL in Letters, *Popular*, February 26.

I can only assume that Line 110 of the appended listing was severely garbled by accident (God forbid that it was by design!).

The only way to make the program work is to substitute the offending line with the following (or one of identical effect):

```
110 n=0: FOR k=2 TO x: n=n+1n (k)
J McCarthy
Mansfield
```

Corrections and changes

Anyone still wishing to send away for the *Popular Superbowl* program should note a change of address to: D Evans, 85 Westbury Avenue, London N22 8SA.

In *Popular*, 13–19 March, the news story headed "PCW desktop publishing war" we inadvertently referred to Electric Studio's desktop publishing program as *News International*. The correct name of the product is *Newsdesk International*.

Queen on the move

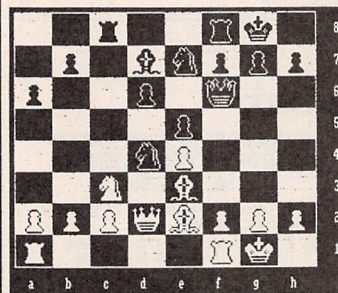
The Readers are playing white in Game Two of our *Popular vs Colossus* chess tournament, and the votes have now all been counted in on move 13.

The move most favoured by the readers was to move the queen forward one square, from d1 to d2.

Colossus, playing black, has responded by pushing forward its queen's knight (see diagram below for details).

Your next move

Now we need your suggestions for the next readers' move. Send your suggested move to either Inter-Mediates (*Popular Chess*), Freepost, Sawbridgeworth, Herts CM21 9YA (you do not need to use a stamp with this address), or *Popular Chess*, Unit 2, The Maltings, Sawbridgeworth, Herts CM21 0PG (with a stamp). Please



note that if you use Freepost, your entries must be posted promptly – Freepost is slower than paid-for mail. All entries must reach either address by Wednesday, March 25.

The move which gets the most votes will be entered into the game. Results and *Colossus's* response will be published in two weeks' time.

Prizes

A British Museum reproduction Arran chess set will go to the person suggesting the most accepted moves at the end of the game. Five copies of *Colossus Chess 4* (available for most popular micros) will go to the most consistent entrants for the duration of the game.

Next week, we return to *Game One*, where the readers are playing black.

Game Two

- | | | |
|----|------------|------------|
| 1 | Pe2-e4 | Pc7-c5 |
| 2 | Ng1-f3 | Nb8-c6 |
| 3 | Pd2-d4 | Pc5xd4 |
| 4 | Nf3xd4 | Pe7-e5 |
| 5 | Nd4-b5 | Pa7-a6 |
| 6 | Nb5-d6+ | Bf8xd6 |
| 7 | Qd1xd6 | Qd8-f6 |
| 8 | Qd6-d1 | Ng8-e7 |
| 9 | Nb1-c3 | Pd7-d6 |
| 10 | Bc1-e3 | Ke8-g8 o-o |
| 11 | Bf1-e2 | Bc8-d7 |
| 12 | Ke1-g1 o-o | Ra8-c8 |
| 13 | Qd1-d2 | Nc6-d4 |
| 14 | ? | |

Putting out the rubbish

I recently typed a long program into my Spectrum. It was saved and verified OK, but when reloaded, it went on putting an extra 3758 bytes of zeros and other rubbish in.

However, it would still list and run without problems. Somehow I think the header data had been mutilated, and I had the problem of correcting this.

I eventually did this as follows: add a couple of lines to look at memory to find where the program proper ended, eg,

```
FOR N=Start address (at least 23755)
TO END (make a guess high enough to
include the program) :PRINT N; " "
;PEEK N; " " :IF PEEK N<32 THEN
PRINT: NEXT N
PRINT TAB 12; CHR$(PEEK N):
NEXT N: STOP
```

Run your line number

This gave me the address of Code 13, the *Enter* of the last line. I then carried on looking and found the last 128. Then I used a little machine code to reclaim the bytes in between:

```
17,186,118 LD DE (30394) The
address after (13)
33,156,118 LD HL (30448) The
address (128)
205,229,25 CALL 19E5 The ROM
RECLAIM-1 which uses
the difference routine
201 RET
```

This put the 128 as it should be in 30394 (with no variables saved). Next, I did something which is not advised: poked *Vars (30394)* and *E Line (30395)*.

I then saved and verified and the program would reload without the rubbish.

John Geisow
Abingdon

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British Computers v British Youth

Martin Bryant reports on the computer v people chess tournament held in Bath.



From February 14–25 this year the British Zonal tournament to decide qualifiers for the next rounds of the 87/88 World Chess Championships was held in Bath.

However, at the same venue on February 21–22 a vastly more important and entertaining event was held, that of the British Computer Chess Programs versus British Juniors. Each team consisted of six players and two rounds were held, one each on Saturday and Sunday mornings.

The computer team members were *Mephisto* (reigning World Microcomputer Chess Champion and programmed by Richard Lang running on a 16MHz 68000), *Cyrus 68K* (a new version by Mark Taylor running on a 24MHz 68000), *Advance* (ex-European Microcomputer Chess champion by Dave Wilson running on a 'fast' 68000), *Colossus* (written by a certain Martin Bryant running on a 3.5MHz 6502), *Chess Champion Mark V* (an old campaigner by David Levy et al, running on a 4MHz Z80), and *Laptop* (a new version of an old program by Intelligent Software running on an IBM compatible portable).

The British Juniors fielded a strong team as well in Graeme Buckley (joint British under 15 champion), James Akehurst (Lloyds Bank Junior Squad under 14 champion), Simon Pain (top Manchester Junior), Natasha Reagan (Lloyds Bank National under 16 champion), Julie Harwar (England Girls International) and Jack Rudd (Lloyds Bank England Junior Squad under 7 champion). The computers were obviously up against a fine team.

The first round was played with a time control of 40 moves in two hours and 20 moves per hour thereafter, with games being adjudicated after four hours play. The computers got off to a great start by winning four games and drawing two, hence scoring five points to one.

James Akehurst's game against *Mephisto* ended in a rook and pawn endgame when it had to be adjudicated. The Master level adjudicator soon came to the opinion that James's position was lost but expressed an opinion that he didn't want the computers to win (biased adjudicators!?) so desperately tried to

find some defence for the human side. Eventually, after no success, he called in top British Grandmaster Jon Speelman to try to salvage something for the humans. However, when GM Speelman also found no defence it was finally declared a win for *Mephisto*.

Graeme Buckley also had an unfortunate experience in the first round against *Cyrus 68K*. He put a rook en-prise! Now computers may not be good at all aspects of chess, but spotting en-prise pieces is something of a forte. He struggled on bravely but a rook down against a number-cruncher – he had no hope. The following day he was quick to correct people who were tarnishing his reputation by saying he 'left' a rook en-prise. He insisted correctly that he'd 'put' it en-prise, a totally different thing, perhaps a stunning sacrifice that didn't quite pay off!

The second round was played with a time control of 60 moves in two hours and 30 moves per hour thereafter, with games being adjudicated after four hours of play. Well, the juniors certainly didn't mess about in this round and revenged themselves with four wins, one draw and one loss, hence scoring 4.5 points to 1.5.

In this round the computers were to suffer the misfortunes. In *Advance's* game against Simon Pain, it played a stupid queen move in the opening whilst still taking moves from its opening book! Dave Wilson was quick to find his listing of *Advance's* book and he found a typing error! The move led to *Advance's* king being horribly exposed and actually "advancing" (sorry!) up the board leading to comments about Steinitz's maxim that "the king is an attacking piece".

Now what could account for the swing in results? Well, first of all, computers don't get nervous before a match, whereas the juniors may well have been so, as only one of them had ever played a computer before! I found this very surprising. However, in the second round the juniors had settled down and were confidently playing against the computers. The time control may have been the key factor: it meant that games were played to conclusion and not adjudicated, and hence the programs were taken

into their weakest area of play, ie the endgame.

So the final result was the computer team winning by 6.5 to 5.5. I would think this was the ideal result. Being on the computer team I obviously wanted us to win, but the closeness of the result ensured that British chess was the real winner. I think everyone enjoyed themselves in a relaxed and friendly atmosphere and a return match sometime would be very interesting.

Also of interest was the totally different approach of the two teams. The programmers thrill at the gain of an extra mega-hertz speed or the use of a 16/32 bit processor. The juniors, on the other hand, wouldn't know a 68000 if it came up and bit them! What they do know, however, is how they should proceed in, say, the Panov-Botvinnik attack variation of the Caro-Kann defence! This is the old chestnut of computer-power against chess knowledge. Which will win in the end we still don't know.

On the Sunday Graeme Buckley showed himself to be a potential star of the future. Not by "putting rook en-prise" but by two hilarious public demonstrations of earlier games. For a 15 year old he certainly seems to have a flare for comedy and public speaking that would put old hands, like Bill Hartston and Raymond Keene, to shame.

And to anyone who thinks that girls can't play chess, consider this: Natasha Reagan and Julie Harwar scored 2.5 out of four, but the boys only scored three out of eight!

Finally a word about young Jack Rudd. This seven year old impressed everyone with his natural flair and ability at the game. He has a provisional rating of 100 BCF which is roughly what Nigel Short (Britains top GM) had at the same age. It's nice to see Britain can still produce them and he may be a World Champion in the future.

A final note for chess fans: don't miss Channel 4, Saturdays 6.30pm, *Speed Chess Challenge* between World Champion Gary Kasparov and our own Nigel Short.

Martin Bryant is the author of Colossus Chess

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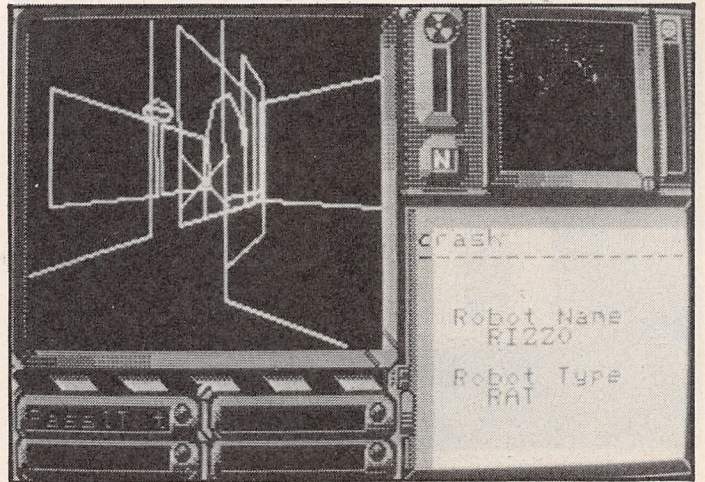
First you blast the target with your RAT's laser, until it's paralysed, trying not to destroy it. Then a gentle collision lets you tap into the CPU. Providing you can guess the

robot's password, you can pick up whichever program you fancy. Once you've disconnected, you have another droid under your control, which will soon return to full strength.

Obviously you start out totally under-equipped for your mission, but stealth and patience can give you a formidable army, capable of getting you out of the hole. Providing, that is, you can tame or take on enough rogue robots, avoid the flying eye, steer an aeroplane, master the teleports, don't enter areas with too high a radiation level... and try not to fall in the water!

Cholo has all the complexities that one looks for in a blockbuster game. It's the sort of thing you can play for weeks on end, discovering new subtleties as you progress. Is this what they mean by bunker mentality? Still, the instructions, though they may look daunting, lead you into the game slowly, taking you from your first encounter with the computer to a run-in with a hacker droid. After that, you're on your own, bud.

To get to know it properly



would mean saying goodbye to every deadline for the next few weeks, so there are inevitably things that I've missed. But that's also its strength, *Cholo*-ites will still be discussing strategies and subtleties as we roll into '88.

What I can say is that the 3D vector graphics work fairly well, though they're a little less smooth and speedy than you could wish. It's a pity that there's no hidden line routine, because relative positions can be confusing, but this would undoubtedly have slowed things further. Practise taking a spin round the city and you should soon get the hang of the view screen.

So is *Cholo* another *Elite*?

Not quite, because *Elite* has that wonderful open-ended quality. But it does possess the same sense of a fully realised, credible universe. If you want a game that will make your pulse race as you creep round corners, your brain ache as you try to co-ordinate your forces and an overheating micro as you struggle for survival.

Popular Appeal ♦♦♦♦♦
John Minson

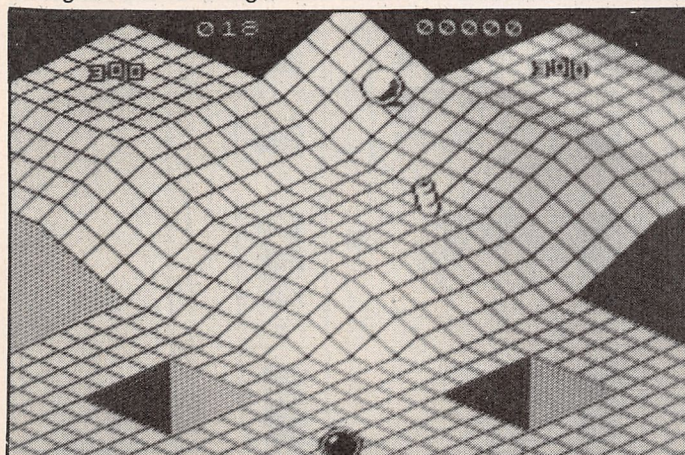
Program *Cholo Micro*
C64 **Price** £9.95 **Supplier** Firebird Gold, First Floor, 64/76 New Oxford Street, London WC1A 1PS.

Lost your marbles?

Haven't I seen this somewhere before? It seems like the arcade marbles have been around longer than the Elgin ones. But here comes the authorised, de-luxe edition, complete with the classic course and the construction set, so let's get the ball rolling.

Side one of the tape presents game as played in all the best arcades, but I can't say it thrilled me much. Kept me at the keyboard, trying to beat the next screen, sure... but without any great adrenalin rush.

It really is off-putting to have to wait while the screen



catches up with your marble. Couple this with some rather dubious collision detection, and the fact that the bonus doesn't always clock up quite as it should, and you'd do better with Melbourne House's unofficial clone, *Gyroscope*.

But flip the tape and you have a chance to construct your own pathways. Before you do, try out the sample that's enclosed. As you'd expect, it suffers from some of the same problems that bug the championship course, but is rather more playable.

Creating a course isn't the sort of thing you can do in a spare half hour before your friends come round. In fact, I'd set an evening or two aside if I was going to come up with a really fiendish challenge. But though the task is far from simple, the units are all there, providing you take time to learn how to use them.

One of the most frustrating

things is that, just like a *Scalextric* set, you think you've completed a brilliantly clever loop, then find that the ends don't join up. Only trial and error will teach you how much space a slope requires and there are one or two odd little quirks.

Persistence pays dividends though. *Marble Madness* is one of the most frustratingly addictive games I know, so there's something satisfying about playing God and creating even more sadistic slaloms.

Popular Appeal ♦♦♦♦♦
John Minson

Program *Marble Madness - Deluxe Edition Micro*
Spectrum 48K/128K **Price** £8.95 **Supplier** Melbourne House, 60 High Street, Hampton Street, Hampton Wick, Kingston upon Thames KT1 4DB.



Kobyashi Naru? I'm fine, thanks – how you? Also fine because *Kobyashi Naru* is an ingenious little adventure which can be completely controlled by joystick. And what's more... it works!

The plot has something to do with the three tests that you must face to reach immortality, which is a pleasant

enough theme, but hardly startlingly original. If it was *Quilled* or *GAC'd* it might merit a mention in Tony Bridge's column – but instead, everything that you do is input via a combination of verb icons and nouns, which are drawn from the text or a separate window.

Let me give you an example. You stand in front of the

New adventures

Great Stone of Tharg, say. You want to analyse the stone, so you choose the relevant icon. The cursor now appears in the text window, and you highlight stone, after which a message informs you that there is a sonic widgeon on top of the stone. Select the *Get* icon and the widgeon will appear in the main graphic window. Click fire, to confirm that this is the widgeon you always wanted, and it's added to your inventory.

Clever control systems aren't enough on their own, but Clive Wilson has ensured that *Kobyashi* has enough meat to keep you going for a long while, if not quite infinity. You won't find that the elements you'd expect from an adventure have been sacrificed in the cause of icon encroachment. There's lots

of opportunities for examination, the descriptions are quite vivid, and the illustrations are very reasonable. The only thing that seems to be missing is the dreaded response, 'I don't understand Widgeon.'

I'm not claiming that this sort of adventure will replace the traditional style in everybody's affections, but it makes an intriguing alternative, and could well entice those who have always been put off by limited vocabularies into the genre.

Popular Appeal ♦♦♦♦
John Minson

Program Kobyashi Naru
Micro Spectrum 48K/
128K Price £1.99 Supplier
Mastertronic Ltd,
8-10 Paul Street, London
EC2.

Grange Hill – class of '87

"I say, chaps," asked Bunter, as he rolled into the study. "What's that you've got there?" Bob Cherry shuddered. "A tie-in arcade adventure," he explained, "in which you control Gonch, a pupil at Grange Hill School, in search of his Walkman."

"School! Crikey!" exclaimed Bunter. "Lots of tuck..." Wharton stared at him. "Grow up, Bunter. This is 1987. It's not tuck any more. It's smack." "Yipes! Like I get from Quelchy?" "Get him out of here," breathed Cherry. "We've got a game to review."

Things have certainly changed since the days of Greyfriars. *Grange Hill* presents a bleak urban landscape with vandalised phone boxes which serve as ladders, sewers and the infamous drug dealer.

Eventually you'll find your way to the waste ground, where a Tom Lehrer inspired old drug pedlar is selling his wares. It wasn't so much the desire for narcotics but rather an overwhelming longing to escape the game that made me just say yes, despite the nearly indecipherable synthe-

sised speech that warns you otherwise. I was told that the dealer has a 'habbit' (sic). Surely some error, but do they mean 'habit' or 'hobbit'?

Whichever, there's little to recommend *Grange Hill*. It's

as dull as its landscape, with only the bugs to liven it up. If anybody tries to sell you a copy, just say NO!!!

Popular Appeal ♦
John Minson

Program Grange Hill Micro
Commodore 64 Price
£9.95 Supplier Argus
Press Software, Victory
House, Leicester Place,
London WC2H 7NB.

What happens Xen?

Arggh, it's *Argon*, gone to destroy the peaceful Xenons on their orbital island of Xen, and it's up to Peladus – that's you – to save them with his V-class fighter.

Well, my guess is that the Xenons get wiped out in the first round, because though the fighter is light weight, it's nowhere near so light weight as the game. Once more unto the realms of scrolling shoot 'em ups, my heroic zappers, with much of the colour of *Lightforce*, but none of the speed and playability of *Uridium!*

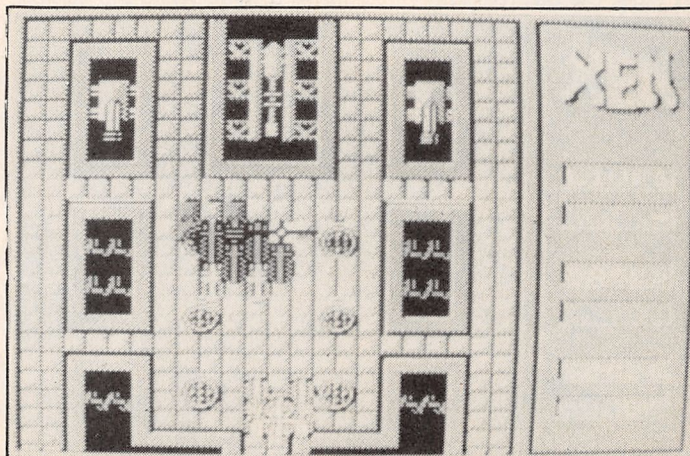
The problem would appear to be that the scale of the graphics, combined with a vertical scroll, has resulted in the shooting and dodging slowing down. There's too little time to manoeuvre or blast the incoming waves of fighters. Worse, there's no

real sense of danger.

Big bright colours do not a shoot 'em up make. If I were Peladus, I'd leave my race to their fate and zoom off in search of a more exciting universe!

Popular Appeal ♦♦
Paul Svasky

Program Xen Micro
Spectrum 48K/128K
Price £2.99 Supplier
Super Sparklers, Unit B11,
Armstrong Mall, The Summit
Centre, Southwood,
Farnborough, Hants GU14
ONP.



Bowled over

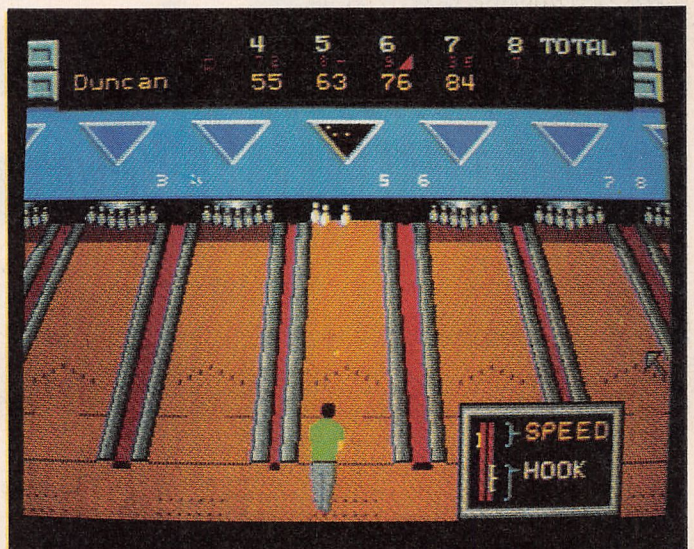
Over the past week anyone phoning the office might have been forgiven for thinking that they'd got through to Popular Bowling Weekly by mistake. The program causing all the confusion is *10th Frame* by Access via US Gold. To be more specific, it is the excellent ST version of the C64 original.

10th Frame is, of course, a ten pin bowling simulation and features nicely detailed graphics and a host of start-up options. Best of all though are the sampled sound effects that accompany the action. From the clanking as the machinery sets the pins up, the rumble of the bowl speeding down the alley, through the crashing of the pins being scattered far and wide, to the

cheering and clapping when you score a spare or strike.

To anyone familiar with Leaderboard (by the same people, and also with a dongle) then the method of controlling bowler and bowl will seem second nature very quickly. The right hand mouse button sets your bowler's position and bowling mark while the left button controls, hopefully, the speed and amount of hook. A minor niggle here is that you can only hook the ball to the left, not right.

Apart from the excellent sound effects the other big plus point to *10th Frame* is simply the game play. Tactics from the real game can be applied here with some success, although none of us have managed to clear off a 6-10 split due to the fact that



you can't bounce a pin off the wall of the alley across to the other side.

But despite these small drawbacks it's still an excellent game and if you've ever had the pleasure of doing it for real then *10th Frame* is a must.

Popular Appeal ♦♦♦♦
Duncan Evans

Program *10th Frame* Micro Atari ST Price £24.95 Supplier US Gold, Ltd, Units 2/3, Holford Way, Holford, Birmingham B6 7AX.

An eye for an I, Ball

Ever heard of loss leaders? You know the things. In the window of Tesco's - '20p off baked beans,' it says. And being a baked bean freak, off you go, legging it in there like a good 'un to go for those cheapo baked beans.

However, devious psychologists are at work within such shops, and next to those special offers, you're likely to find things that the vendors fervently hope you are going to shove in your shopping basket along with said 'bargains'. If you have a think about it, budget games are of a very similar ilk.

You get the odd one or two that are fabby, and fantastic value for money. Then you get many more that are complete bargepole jobs - hardly worth the cost of the cassette. Fair enough - there is a lot of middling product - call it rainy afternoon filler if you like, but if you can catch the

good stuff without suffering the crud, you're on to a winner. So do yourself a favour and get hold of *I, Ball*.

I, Ball is everything you'd ever want from a budget game. Pick it up, and away you go.

The flimsy excuse for loading the game up is that you have to rescue your four rotund friends (Glow-Ball, No-Ball, Eddie-Ball and Lover-Ball) from the clutches of the nicely animated, colourful shapes.

You do this by making your way through a series of vertical scrolling stages, littered with objects you must weave your way around. Some of these stages are fiendishly designed: you can take a corridor that, as the screen scrolls down, turns out to be a dead end. Backtracking is possible (the screen scrolls up as well as down), but this loses valuable time - and if the timer runs down to zero,

you're dead, pal.

To make things that little bit more difficult, many of the obstacles are glowing. Touch one of these and it's curtains. So for a start, a decent memory and a certain amount of dexterity are prerequisites.

Animated nasties appear constantly, and all have frighteningly kamikaze tendencies. Naturally they must be mercilessly zapped, but to start with, you only have a feeble stream of bubbles with which to do this.

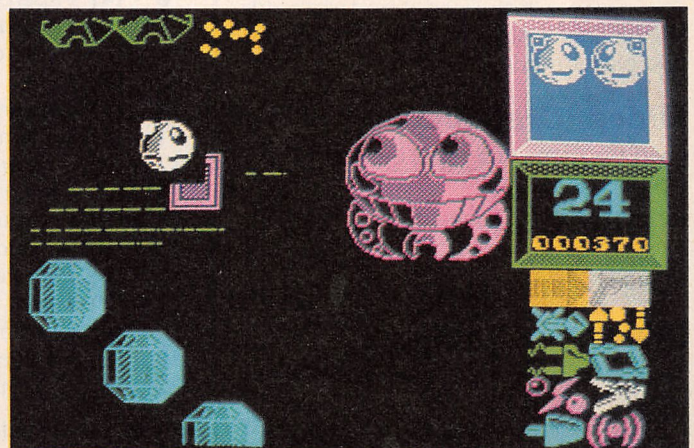
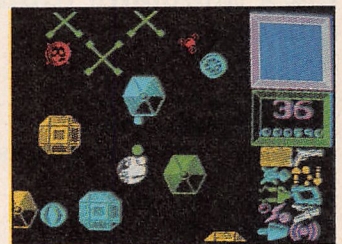
Extra weapons and abilities can be gained by picking up the Power Discs that show up from time to time. (Incidentally, their arrival is announced by some digitized Dalek - who also sympathetically commiserates with you when

you loose a life.)

Great stuff at a great price - anyone with the slightest interest in Spectrum zapping should really grab two quid and go for this one. Out soon.

Popular Appeal ♦♦♦♦
John Cook

Program *I, Ball* Micro Spectrum Price £1.99 Supplier Firebird Silver, 74 New Oxford Street, London WC1.





On with the Commodore

Tony Kendle returns with more C64 games pokes from Martin Pugh

Some time ago in this column we had an embarrassing mixup when one of our correspondents reported the 'exaggerated' demise of AnF software. I was extremely pleased when the reports turned out to be a simple mixup, aggravated by the fact that the company had been rather quiet for some time. I'm even more delighted now that AnF have returned with a vengeance releasing the excellent *Xeno*, and more recently a marvellous space shoot up, with strategy elements, in *Agent Orange*. Well worth buying. (On the other hand *Wibstars*, the game based on life in the software industry, struck me as uninspired and annoyingly difficult which, although it may be true to life, isn't much fun.)

Another game that I am enjoying immensely is *Feud* from Bulldog software — two battling wizards have to collect spells in order to knock the stuffing out of each other. Unfortunately the authors have missed the chance to give a two player option but it is still worth the few pennies it costs, if only to see the marvellous sprites of the dumb country yokels. Lots of mindless fun.

Now to finish the series of Commodore games pokes from Martin Pugh.

BMX Simulator (Code masters)

Type
POKE 43,3: Load
to load the game loader
When the *Ready* message appears, type
POKE 43,1
Then enter this line
100 POKE 13937,0: SYS 5096
RUN
The game will then load and run with infinite time. This is most effective in the two player mode."

Elidon (Orpheus)

Load the game and reset the computer.
POKE 2586, (0-255)
for the number of lives
SYS 2304
to start.

Killer Watt (Alligata)

Type in this listing and play the game tape when told to.
1 A=A+1 : IF A=1 THEN POKE 157,128 :

LOAD
2 POKE 977,76 : POKE 978, 123 : POKE 979,227
POKE 7214,0

Turns off the sprite to background collision detection.

POKE 40305,234
gives infinite lives
SYS 33792

to start.

Panic Planet (Alligata)

Type in this listing and play the game tape when told to.

1 A=A+1 : IF A=1 THEN POKE 157,128 :
LOAD
2 POKE 977,76 : POKE 978,123 : POKE 979,227
POKE 18960,234 : POKE 18961,234 : POKE 18962,234

Turns off sprite to sprite collision but allows you to kill aliens.

SYS 21810

to start.

Eagle Empire (Alligata)

Type in this listing and play the game

tape when told to.

1 A=A+1 : IF A=1 THEN POKE 157,128 :
LOAD
2 POKE 977,76 : POKE 978,123 : POKE 979,227
POKE 16393, 169 : POKE 16394,234 : POKE 16395,234
POKE 21646,169 : POKE 21647,0 : POKE 21648,234

Turns off sprite to sprite collision making you immune.

CYC 10515

to start.

Haunted House (Alligata)

Type in this listing and play the game tape when told to.

1 A=A+1 : IF A=1 THEN POKE 157,128 :
LOAD
2 POKE 977,76 : POKE 978,123 : POKE 979,227
POKE 6231,0

to turn off sprite to background collision
POKE 7609,234

for infinite lives

SYS 9500

to start.

Charts

Top Twenty

- 1 (6) Feud
- 2 (3) BMX Simulator
- 3 (9) 180
- 4 (2) Gauntlet
- 5 (1) Bomb Jack 2
- 6 (4) Paperboy
- 7 (10) Footballer of the Year
- 8 (-) Curse of Sherwood
- 9 (5) Ninja
- 10 (7) Leaderboard
- 11 (8) Konami's Coin-op Hits
- 12 (12) Ollie and Lisa
- 13 (-) Thrust II
- 14 (11) Computer Hits Vol 3
- 15 (18) Arkanoid
- 16 (20) Park Patrol
- 17 (17) Agent X
- 18 (-) Gun Law
- 19 (13) Hit Pack
- 20 (15) Five Star Games

All figures compiled by Gallup/Microscope

- Bulldog
- Code Masters
- Mastertronic
- US Gold
- Elite
- Elite
- Gremlin Graphics
- Mastertronic
- Mastertronic
- Access/US Gold
- Imagine
- Firebird
- Firebird
- Beau Jolly
- Imagine
- Firebird
- Mastertronic
- Mastertronic
- Elite
- Beau Jolly

Grange Hill, the game

Is it an arcade game – or is it an adventure? Tony Bridge investigates Argus' latest

Along with the traditional text and text/graphic adventures (*Quill'd*, *GAC'd* and otherwise, amateur and professional), I occasionally get to see programs of a less specific nature, though with an adventuring slant. And, as I believe that there's plenty of interest to be found in puzzles of any sort, I've occasionally mentioned them here in The Corner.

I remember particularly *That's the Spirit*, and more recently, Firebird's *Megabucks*. If you haven't seen the latter, then badger your local shop to get it for you; it's in the £1.99 range and will keep you happily busy for quite some time. I've just seen a very acid review of this one but I can't agree with the reviewer, who found the program very unfriendly – I find the menu system very easy to use and a great time-saver.

The latest story that I've been sent by Argus Press (whose programs are always rather different and quite often original and outstanding) is *Grange Hill*, nominally an adventure. The program has been conceived by Matthew Rhodes of Binary Design Ltd (and designed by Colin Jones, with further programming by Nick Vincent and John Pickford, graphics by Jeremy Nelson, additional screen layouts by Tony Delves, the windowing system designed and programmed by John Pickford and, finally, music by Dave Whittaker – what about the tealady, fellas?); obviously a good deal of excellent work has been lavished on the story by a large committee but I must admit that this has paid dividends.

The story takes place, of course, in and around the dreaded Grange Hill School. You play the part of Gonch, the resident schemer and your quest is to recover your Walkman, which has been confiscated. This isn't going to be an easy task, of course, involving as it does breaking into the school and *stealing* it back for yourself in a certain amount of time! ASP don't expect you to do all this for yourself, so Hollo is around to give you a hand.

Now, the last time I was tied in front of the TV to watch *Grange Hill*, Emelda was ruling the roost and being a right pain in the *!!? – that was some time ago as you'll realise, so things must have changed somewhat. In fact, I'm not sure how much you need to know of the TV programme in order to enjoy the com-

puter program to its best advantage, but I must say that the computer version is very easy on the eye.

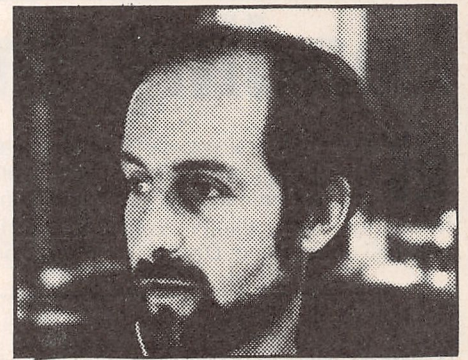
Grange Hill attempts to combine the attractiveness of graphics with the logic puzzles of the mainstream text adventure – the authors have succeeded to a large degree, but inevitably the exercise is doomed to failure. I'm sure that there is a way to combine the best of both worlds, but it's asking a lot of any programmer. And what we have here is merely a pedestrian, plod-along attempt.

The graphics consist of a side view of each location, and your character, Gonch, standing in the middle of the screen.

He can be controlled by keyboard or joystick and moved from left to right and even prodded into an almighty leap over holes, bumps and so on (Hollo follows under his own steam). The graphics window takes up the top half of the screen, with the bottom half devoted to information about the location, objects and dialogue with the various characters, and a digital clock showing current game time (you start at 3.50 in the afternoon and have until midnight to complete your nefarious task) and a small window for your keyboard input.

Because the joystick is used to move Gonch around and also to select various options like *Pick up*, *Drop*, *Use*, *Examine* and *Give* objects as well as *Talk* to other characters, gameplay is very quick. This is all very well, but unfortunately a sudden death is all too easily stumbled into because of the awkwardness of the joystick.

Although the graphics are pretty, the text layout is a bit untidy (no spelling mistakes, though!) and the windowing system, though it makes everything very



quick and easy, is a bit primitive when compared to something like *Megabucks* or the *Knight Tyme* series. Apart from the graphics, the puzzles are mildly diverting, though relying rather too much at first on the 'Here is a dog who won't let you pass, oh, here's a bone in the very next location, I wonder what *that* can be for?' sort of logic. However, the remorseless countdown of the clock lends a certain amount of tension and suspense to the proceedings and planning the best route and neatest solution becomes an interesting pastime.

I can't see that *Grange Hill* would appeal to either the arcade adventure fans or to the straight adventurer – there are some puzzles that will hold you for a little while, but in the end the intellectual stimulus just isn't there. The Press Release calls the program "A true arcade adventure" – I don't know what this means, but I imagine that it is a bid for credibility with the "true adventurers" among us, while the "arcade action" is obviously an attempt to win over the joystick twitchers (who won't find much here to keep them busy). Personally, I resent the fact that you need hair trigger responses in an adventure – too often I found that I was dead, just because I waggled the stick a little further than necessary.

And I wasn't totally convinced about the programming – once the title screen is loaded, the player must press *Fire* to get things started. I inadvertently pressed *Enter* and the program *Newed* itself!

Add to all this the horrendous asking price of £9.95 and I don't think that, despite some saving graces, I can recommend this one to a serious (or "true") adventurer of any category.

Adventure Helpline

Hitchiker's Guide to the Galaxy on Atari XL. How do I open the screening door? Grzegorz Wrobel, uL Skarbinkiego Ao/31 30-071 Krakow, Poland.

Hampstead on Spectrum. What is the correct vote? Where do I get the huge sum of money? Where is Pippa? David Mackie, 45 Haughton Avenue,

Kilsyth, Glasgow G65 ODU.

San Francisco 1906 on Atari XL. I've found the dog, apple, gun, hammer and lumber but I can't get any further. Can offer help on Time Machine, Escape From Tromm, Mordon's Quest, Emerald Isle and Dungeon Adventure. Barbara Armitage, 46 Cinque Ports Avenue, Hythe, Kent CT21 6HP.

Leading the way to Fleet Street

Buzzwords are wonderful things, allowing you to assume an air of familiarity with things you only half understand. Desktop

Publishing, or DTP, makes an excellent buzzword. Desktop publishing is the concept of producing publishable documents on a single-user com-

puter system without using traditional methods of printing. *Fleet Street Publisher* is a desktop publishing package for the Atari ST.

Definitions over, we can take a long cool look at Mirrorsoft's ST version of the *Fleet Street* program first seen on the BBC B. Its intention is to allow ST users to print out newspaper-style documents, faces, sizes, and illustrations, which can then be photocopied for distribution.

The aim of DTP is to keep the whole process under the control of the user, and to avoid having to pay for the traditional printing processes.

These include typesetting (taking original text and retying it in a particular typeface and column width); layout (designing the way in which text, headlines and pictures fill the page); artwork (transferring photographs and drawings to a form which can be reproduced) and the final printing process.

FSP operates in five modes which emulate these processes; text edit, text block, picture edit, picture block and box rule; writing, typesetting, drawing, photoprocessing and layout. Printing is performed on an Epson-compatible printer, or, if you are phenomenally wealthy, a laser *Fleet Street Publisher* is best used with a hi-res mono monitor, but a colour version is provided on the disc. The package comes with a thick ring-bound manual and three discs. *FSP* uses the full Gem system of icons and pull-down menus. A sort of combination word-processor and graphics handling package, it allows you to use type sizes from 4 point to 72 point - larger on the 1040ST - to give you some idea what this means, the text you are reading now is nine point.

There also twelve styles of type face on the system disc, and many more on the font disc. Twenty commonly used text styles and sizes can be stored as macros on the function keys.

Your first move would normally be to enter some text (or load it from any Ascii word processor file), then store it on your clipboard. There are several insert, delete and edit functions similar to those of a word processor.

The next move is to define

THE GUIDED TOUR

FLEET STREET NEWS

Bill Beret Returns After Fraud Scandal

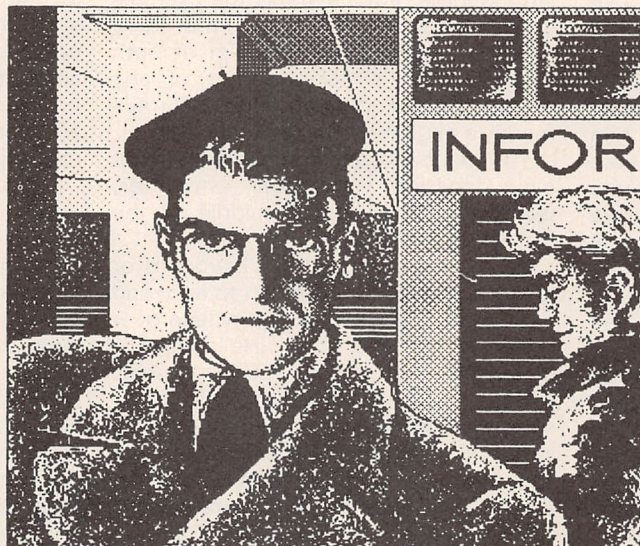
By Otto Blunt

Legendary pop star and self-ordained Buddhist monk Bill Beret returned to Britain yesterday from a long vacation that took him all over the world. But the holiday also saw him fall into very deep trouble when he was arrested on fraud charges in South America.

Bill (real name Joe Raphascutti), aged 32, is one of the most popular and highly-paid pop stars in the world. Sales of his most famous album "Large Lapels" have topped all known records. His jet-setting fans follow him everywhere trying to catch a glimpse of the famous hat from which he took his name. Also following him are legions of bodyguards and police.

On this particular trip the police were not there so much to guard him from his fans as to keep his creditors from catching up with him. Apparently, he was accused of syphoning off thousands of pounds from sales in the UK of his last hit, "Clothes I have loved", recorded on his Coat Hanger record label.

The truth was only revealed when he was

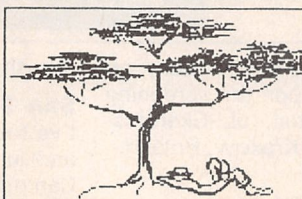


spotted depositing 20,000 dollars into a Geneva bank account. Bill was shadowed by police for over a week and finally arrested at a high society function in Brazil held in his honour.

The pop star would have been imprisoned for years, had it not been for the fact that everyone in the courtroom appeared to be a member of his family.

Bill now returns to his bachelor mansion in fashionable Peckham.

More pictures Page 4



Twenty Years Without a Bite!

By our Angling Writer

Fisherman Bob Jordan, 60, celebrates the twentieth anniversary of his last catch this week. It was twenty years ago that Bob last netted a fish at his local river, the River Parched. To celebrate the occasion, Bob has invited a host of local fishermen to the spacious Town Hall in Dedchester.

Tin of Beans

When asked about the absence of fish, he replied "Well, it's a mystery to me! Every week I would go to exactly the same spot under a lonely tree on the bank and every week, after a long day's wait, I would trudge back home empty-handed and open a tin of beans."

a text window. Each window is independent; changes made to the size or style of type in one window do not necessarily affect the others.

Page size – A4, A3, double-page spread or whatever, is set next, and the magnification option can be set to show the whole page in miniature or just the current work area. Text blocks are then outlined, resized as required, and headlines in larger typefaces added over the text.

Pictures can be created, edited pixel by pixel, moved, copied and sized in the same way as text. A disc full of graphics is supplied with the package; these include borders, sports icons, maps, technical illustrations, portraits, zodiac signs and so on.

FSP's manual explains all sorts of publishing terms used in the package – kerning (closing up space between letters), leading (space between lines), widow (a single word isolated at the top of a column) and so forth. Even if you don't use the package, you'll learn something from reading the

manual.

I can't say that I found FSP easy to use. Despite having help files for all the major functions, there's nothing about the main program which makes it easy for the inexperienced to navigate

through the minefield of desktop publishing step by step.

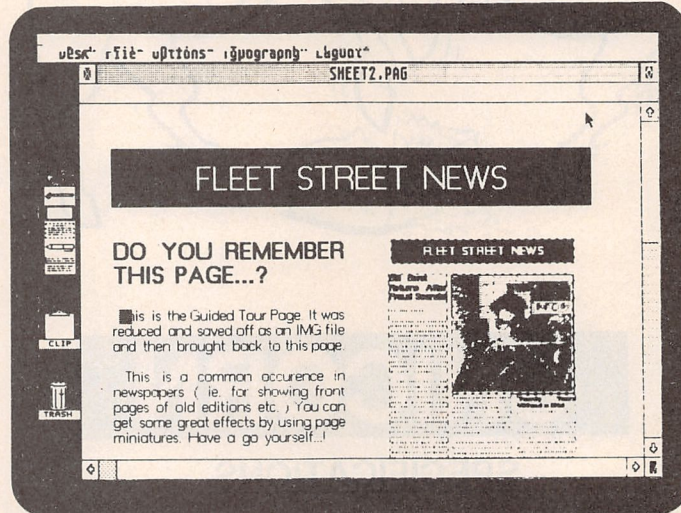
Though incredibly powerful and full of useful options, Fleet Street Publisher seems to me to have two major failings. The first is that the quality of the final output text

is limited to that of your dot-matrix printer, making the finished document fine for club newsletters and so forth, but not the sort of thing you would want to use for a professional application.

The second problem is that of illustrations. Unless you want to invest £270 in a Haba video digitiser, and more in a video camera, you are limited to using "drawings" rather than "photographs" in your publications; again, rendering them suitable for amateur use but not professional.

If FSP was priced at an amateur level, these problems would not matter; but at £115, I think that many club secretaries and village fete organisers will decide to stick with the typewriter and felt-tips, despite the wealth of features and details in FSP.

Chris Jenkins



"The aim of desktop publishing is to keep the whole process under control of the user"

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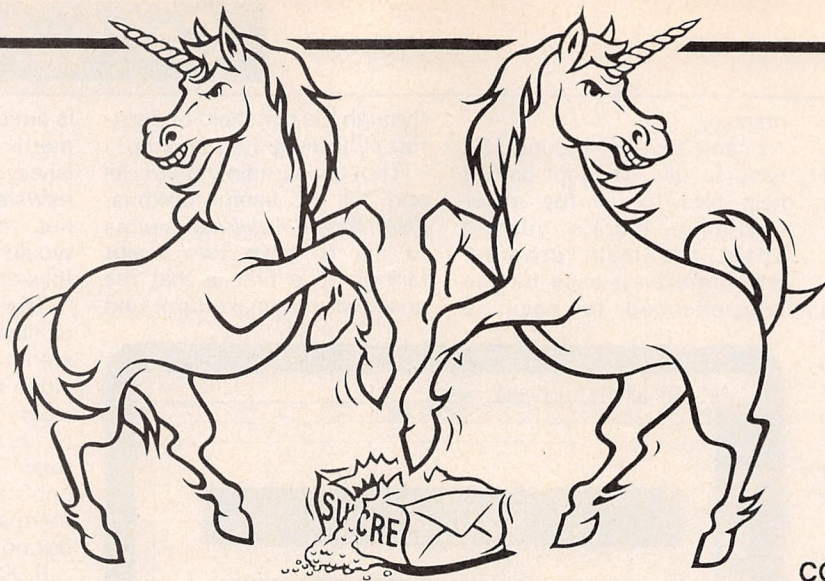
Spectrum users, test your memory against Microtrivia, the general knowledge game you play on your computer. There are 12 different subjects to choose, ranging from pop music to science. On each tape there are 1000 questions and if you score 240 or more, the holiday could be yours. There's also the chance to win £1000 in cash prizes through a competition in the April issue of 'Crash' magazine.

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THE SINCLAIR SPECTRUM

INSIDE

22

The follow-up to Gilsoft's Quill adventure generator looks like setting new standards.

23

Spectrum news; new software, hardware, trade-ins and trade secrets

25

We preview the Spectrum Plus 3, Amstrad's solution to the mass storage



problem. Will the disc keep the Spectrum ahead of the pack?

26

Budget games; bargains or blowouts? Six companies' products compared

Despite the high-tech competition, the Spectrum soldiers on, beloved - and, more to the point, used - by thousands of the most dedicated micro owners.

The machine now exists in four forms; 48K, Spectrum Plus, Spectrum 128, and Spectrum Plus 2; soon there will be another, the disc-based Spectrum Plus 3.

Regardless of Amstrad's avowed intention to market the Spectrum as a games machine, it seems that continued improvements in the specification are certainly on the cards. Certainly, products such as Gilsoft's Professional Adventure Writing System are keeping it ahead of the pack.

Non-gamers needn't despair, though, as there's plenty in this supplement which confirms that the Spectrum is still the UK's favourite home computer for serious stuff as well. ◀

PAWing to the top

PAUL HOSKINS ON THE IMPRESSIVE FOLLOW-UP TO GILSOFT'S POPULAR ADVENTURE WRITING UTILITY, THE QUILL

Requiring no knowledge of machine code programming, yet allowing users to create professional standard adventure games, **The Quill** broke new grounds in the field of program generation. Now its successor, **Professional Adventure Writer**, is about to hit the streets.

There is little point in trying to make a direct comparison, feature for feature, between the Quill and PAW. Users of the original program will know that while it offered many powerful features, the vocabulary, sentence parsing and object attribute features were limited, there were no graphics features, and many preset features such as sign-off messages could not be altered.

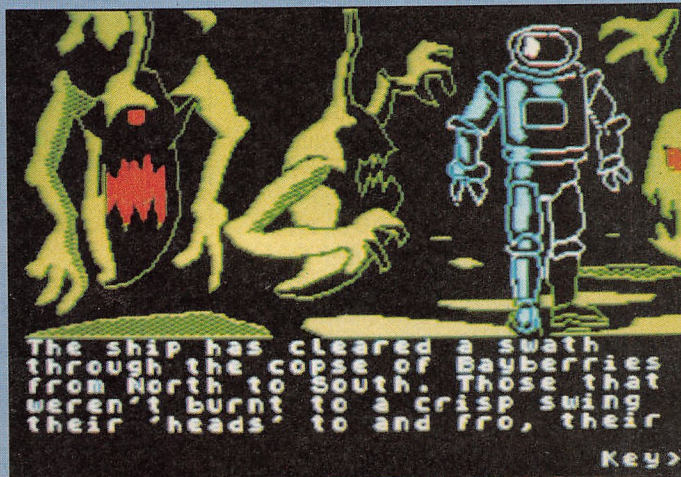
The position was improved by the release of ad-ons such as **The Illustrator**, **The Patch**, and **The Press**, which allowed users to produce illustrated adventures with a number of different text styles, sound effects, and compressed text for

greater memory economy. Using all four packages together, though, is cumbersome; the Professional Adventure Writer aims to combine aspects of all these, and to go further, while retaining the ease of use of the original Quill.

PAW is menu-driven, and includes a powerful diagnostic routine which can display all the relevant flags and pointers as you play-test your adventure. The vocabulary has space for up to 1500 words, including synonyms.

In response, I suspect, to the challenge represented by Incentive's **Graphic**

Adventure Creator, PAW includes many useful new features. The parser is not now limited to verb-noun input. It can cope with complex chained sentences of up to 125 characters, for instance "REMOVE ARMOUR AND DROP IT THEN GO NORTH AND GET THE LARGE KEY AND THE SMALL KEY. ASK WIZARD TO "PLEASE PULL THE SHORT SWORD FROM THE BLACK ROCK". Note that the system recognises verbs, adverbs,



prepositions, and nouns. The program scans the first five letters of each word.

The parser works by splitting the input into "logical sentences", separated by AND, THEN or punctuation. The structure of each "logical sentence" can be quite complicated; (Adverb) Verb (Adjective 1 (Noun 1)) (Preposition) (Adjective 2 (Noun 2)) at most.

There are 256 condition flags available in the program. Of these, 220 are free to the user, while the remainder control aspects of the game such as whether it is light or dark, location, objects and so forth.

Rather than having a single process table to deal with game control, multiple tables are provided. You could, for instance, construct a different table to control the action of each character, making it possible to customise games by changing the characters quickly and easily.

Graphics

Other features include a "timeout" system so that the game can carry on running while the player dallies; and each object can be assigned a weight, and can be a container for other objects. GET ALL and DROP ALL are also supported.

To put the icing on the cake, the graphics routines are especially good. Subroutine picture can be drawn under process control to allow simple scene changes, the built-in multiple character sets can be swapped as the game runs, as can the text colours, and you can even design your own character sets.

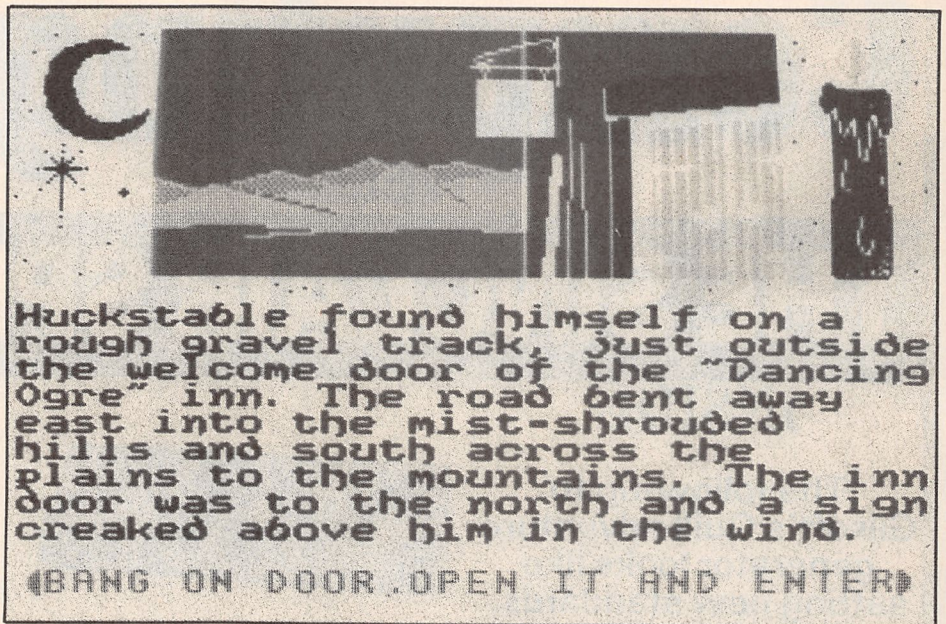
There are several screen modes available; full graphics, continuous scrolling text, fixed text-graphics windows, variable split screens, and so on. All these can be varied with a game.

The graphics editor itself features optional joystick control, a fast fill, "rubber banding" in line draw mode, a screen attribute grid, and the ability to combine standard pictures as subroutines in a number of sizes.

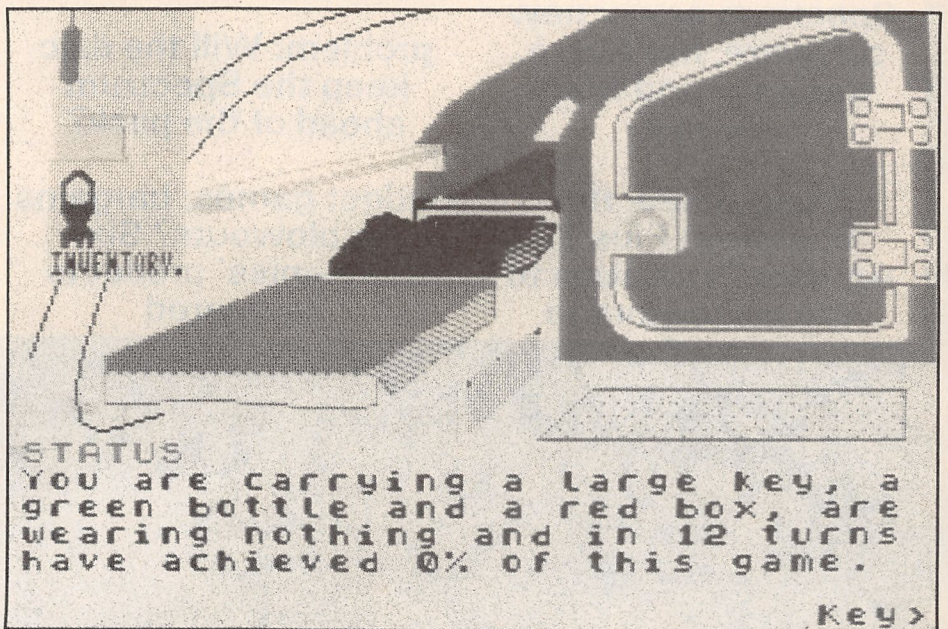
RAM save/load facilities, and the ability to create a 110K adventure using a 128K Spectrum, add the final touches to PAW's impressive list of attributes.

The finished version will be packaged with two manuals, a simple introduction and a detailed technical reference guide. At £22.95 for the cassette version (£7.95 on microdrive, with Beta, Disciple and Opus disc versions available later), PAW represents an attractive investment for serious adventure writers. Commodore 64, Amstrad CPC, Amstrad PCW, and CP/M versions are also on the way; Gilsoft, it appears, will soon be making a major impact on the programming utility market once again. ◀

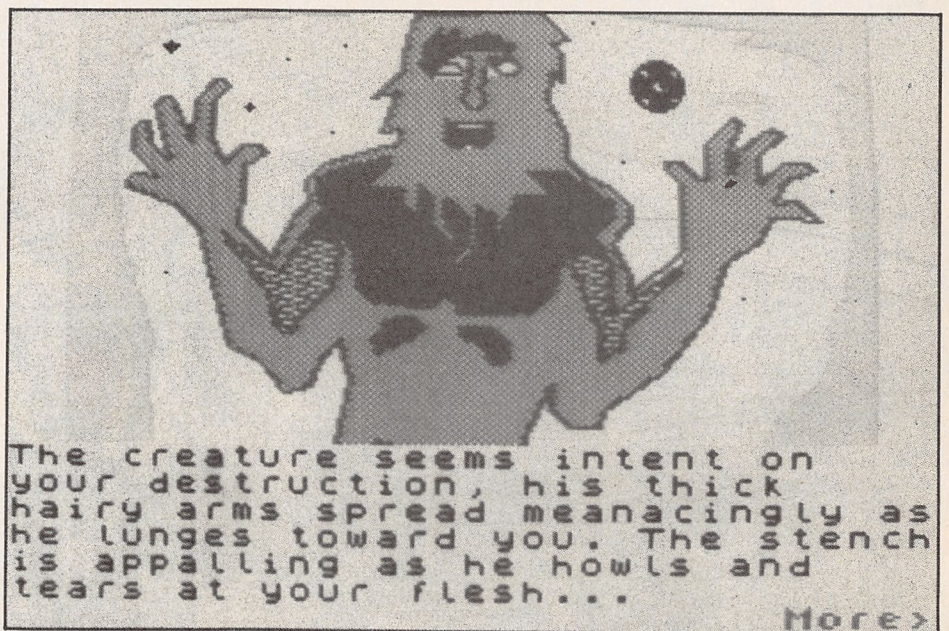
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PAW recognises verbs, adverbs, pronouns . . .



. . . prepositions and nouns . . . there are several screen modes . . .



. . . full graphics, continuous scrolling text, fixed windows and more



NEWS

SPECTRUM EXCHANGE

An offer of £100 for an old Spectrum – even if it isn't working – sounds too good to be true. Well, there is a catch.

Abbot Computer Products is now offering £50 part exchange for any Spectrum against the purchase of an Amstrad PC 1512. If you buy the hard disc model, the trade-in allowance goes up to £100. Prices for the PCs range from £449 for the single drive, mono monitor model, to £1069 for the 20Mb hard disc colour version.

Abbot's managing director is Bruce Everiss, formerly of Imagine, Tansoft, OCP, Citadel, and other companies of variable fortunes.

He comments: "There are hundreds of thousands of Spectrums gathering dust in

the country. They did not meet their owners' perception of what a home computer should do. Our offer allows people to purchase a machine that meets those perceptions, whilst recouping part of their original investment."



Whether Bruce's hope that Spectrum owners will make the leap to the PC is well founded, remains to be seen. You can find out more by contacting Abbot on 01-951 5809. ◀

interface, all you do is plug the cables for up, down, left, right, function one and two into the relevant key pins.

A standard nine-pin joystick plugs into the ComCon's joystick port, and after selecting the keyboard option on your software, you are ready to play.

The ComCon offers several advantages over Kempston and other interfaces. Firstly, if you have a joystick with two independent fire buttons such as the Flightlink, Quickshot 2+2 or Voltmace Delta 3S, the interface can perform two fire functions. Secondly, by plugging two ComCons together you can use two independent joysticks for two-player games.

FREL also produces a Plus 2 Adaptor at £2.50. This simply converts the pin connections of the standard nine-pin joysticks to those of the new-style Plus 2 joystick port, thus avoiding having to use the very terrible Amstrad SJS-1 joysticks. Contact FREL on 0584-4894. ◀

OH JOY!

Good news for those of you still playing games without joystick options on your brand new Sinclair Plus 2 (though goodness knows why you should want to).

FREL's ComCon joystick interface has been adapted for the Plus 2, and now works with the whole range of Spectrums. Retailing at £17.95, the ComCon is a hardware-programmable interface. Plugging into the user port, the ComCon has a follow-on port for connecting further peripherals.

The interface has a matrix of pins corresponding to the layout of the Spectrum's keyboard; from the rear come six connecting cables. To program the



RATTLE & ROLL

The fourth issue of the Spectrum software magazine *Shake* has hit the streets. Costing £1.49, *Shake* is a unique concept; cassette-based, it brings you up to date with news and views from the music industry on a fortnightly basis.

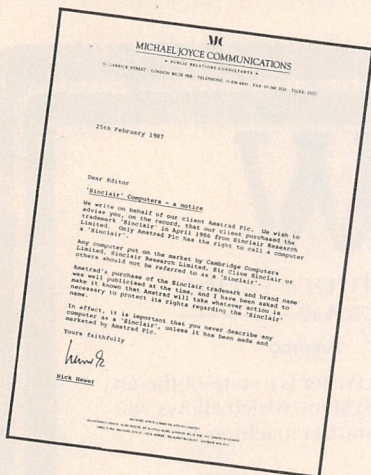
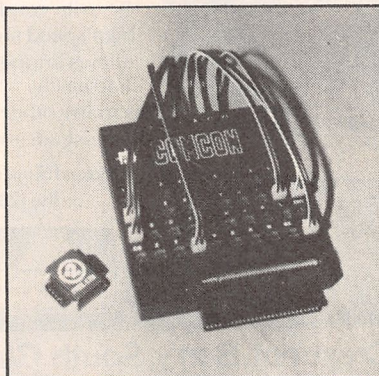
Programmed in Basic with machine-code sections, *Shake* has an attractive multi-window display and menu options.

Each issue contains a selection of single and LP reviews, an artist spotlight, record news, live reviews, crosswords, and so on. Juvenile humour is provided by regular guest star Blockhead.

The B-side of the tapes feature audio tracks from amateur bands.

While *Shake* is an interesting idea, you might find yourself asking why you should buy it when you can get the wonderful Smash Hits for half the price. I know I did.

Contact Keep Publishing on 0533 511734. ◀



SUGAR'S SWEET

A touch of the Ionescos surrounds PR company Michael Joyce Communications' recent letter to the computing press. In the wake of the launch of Clive Sinclair's lap-held Cambridge Computing Z88, we are reminded that "Only Amstrad PLC has the right to call a computer a 'Sinclair' . . . Amstrad will take whatever action is necessary to protect its rights regarding the Sinclair name."

While journalists tremble in their boots, fearful that a slip of the tongue will bring the wrath of Lord Sugar down on their heads, one wonders whether a copy of the threatening letter was sent to Uncle Clive, too . . . ◀

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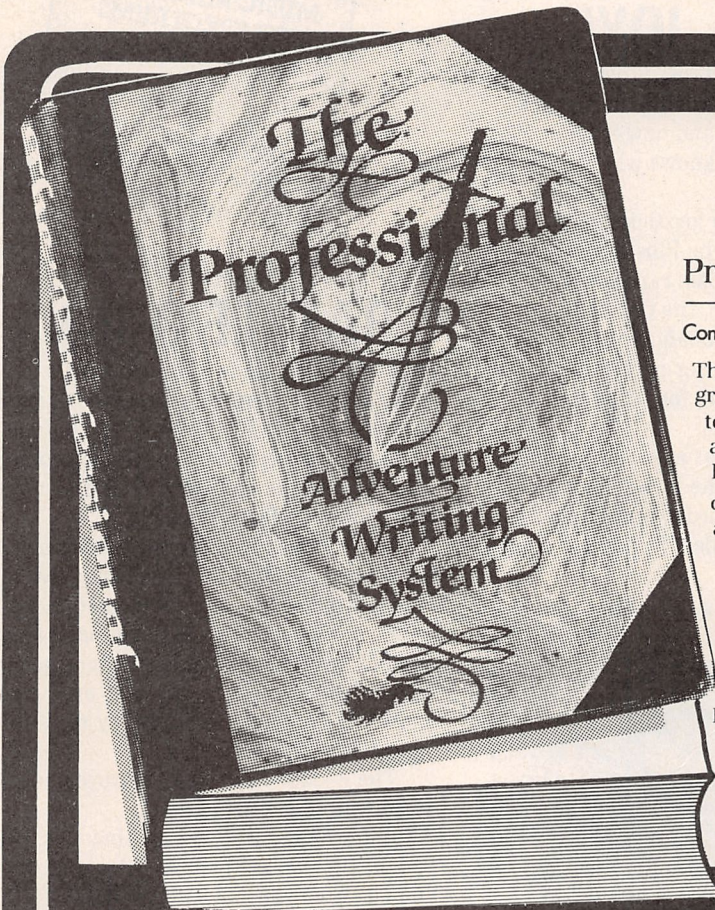
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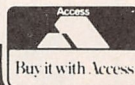
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SPECULATING ON THE FUTURE

FROM THE LAUNCH OF THE 48K TO TALK OF THE DISC-BASED PLUS 3, THE SPECTRUM HAS STAYED AHEAD OF THE PACK. CHRIS JENKINS EXPLAINS; ARTWORK COURTESY OF SINCLAIR USER

Although the Spectrum remains possibly the most popular home computer in the UK, it has always been limited in its applications by elementary hardware problems. Now it looks as if most of these will be overcome in the latest upgrade, the Spectrum Plus Three.

For users of serious software such as word processors, databases and spreadsheets, the original Spectrum presented intriguing possibilities, but continual frustrations. The small memory, squishy keyboard, lack of printer ports, and, worst of all, lack of a mass storage medium, imposed unacceptable limitations on the machine.

The Spectrum Plus solved one problem by improving the keyboard, although it was still not up to the standard of the Commodore 64 or Amstrad CPC. The memory problem was overcome by the 128K and Plus 2, which also features an improved keyboard and RS-232 printer port.

The final problem is mass storage. Tape is slow and offers no possibilities for using random access filing techniques. Microdrives overcome these problems, but are notoriously unreliable.

Now it looks as if the Spectrum Plus Three will come equipped with an honest-to-goodness disc drive, making it suitable for any mass storage application, as well as sophisticated multi-load games.

Although the Opus Discovery and other similar products introduced the concept of disc drives to Spectrum owners, many may still not realise the advantages of disc storage. The disc, made of the same magnetic material as tape, is imprinted with blocks and sectors for data storage. At the edge of the disc is a directory track, which can be scanned by the read head to reveal the contents of each disc.

Because the head can move freely over the disc, it can search out specified programs and data quickly and intelligently, rather than having to search the whole disc for information. This technique makes it possible to produce a DOS - disc operating system - which can load parts of a program as it runs, search for programs using random pattern-matching and "wild cards", and store large numbers of programs or text data in an accessible form.

The Plus Three's drive will be a 3-inch device like that of the Amstrad CPC series. The whole computer will probably resemble the Amstrad CPC 6128, with a keyboard similar to the Spectrum Plus 2, but the cassette mechanism removed to make way for the disc drive.

It seems likely that the commands currently implemented for using microdrives on the Spectrum will be adapted for using the disc drive. Incidentally, the Plus Three will be able to use cassette software too, having the

normal spectrum EAR/MIC sockets.

Three inch discs are now more readily available, after months of shortages caused by the near-demise of the standard in the Far East. Amstrad claims to have several million discs available, so it should be possible to cut prices to around £1 per disc - comparable to prices for the 5-25 inch discs used by Commodore and BBC machines, and cheaper than the 3-5 inch discs used by the Atari ST.

Prices of commercial software discs are another question again. It seems likely that initial releases will be compilation discs - possibly bundled with the machine - and conversions of existing titles. It will take longer for serious packages, such as word processors to be converted, although reports that the Plus Three will include a parallel printer port indicate that word processing is one of the intended markets.

Although top software houses and distributors have already seen prototypes of the Plus Three, it is unlikely to be launched before August. There are conflicting rumours on pricing; Amstrad's Alan Sugar suggested a figure slightly over £200, while industry pundits argue that while this would protect the position of the existing Plus Two, it would damage sales of the Plus Three. Far more likely is that the Plus Three will appear at £199, while the price of the Plus Two will be cut.

Before the Amstrad buy-out, rumours that Sinclair planned a Spectrum-compatible super-micro, the Loki, had reached fever pitch. Although it now looks as if this machine will never come into being, the Plus Three will prove that there's plenty of mileage left in Clive Sinclair's original concept. ◀

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BUDGET SOFTWARE IS THE FASTEST-GROWING FIELD FOR THE SPECTRUM. **RONDO HATTON** COMPARES PRODUCTS FROM SIX SOURCES OF POCKET-MONEY GAMES

COMPANY Firebird
RANGE Silver
TITLE Thrust II
PRICE £1.99



This is the follow-up to one of the most praised budget games of recent times. The original **Thrust** was everything a budget game should be; despite having primitive graphics and sound, it was immensely playable and made you determined to defeat it.

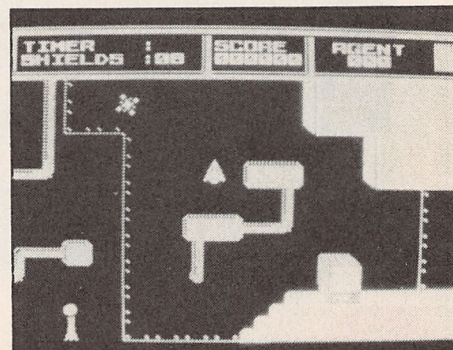
The sequel retains part of the plot, but is written by a different programming team and has a quite different graphic

style. As before, you have to guide a spaceship through a maze of underground caverns and collect objects to bring to the surface. This time, they are air processors which have to be assembled in a strict order.

Rather than the wire-frame graphics of the original, which were reminiscent of the game's progenitor **Gravitar**, in **Thrust II** we have rather dull solid surfaces, dotted with mechanical objects. The usual array of flying baddies have to be destroyed with various chemical agents.

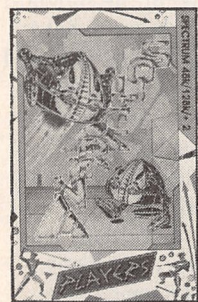
While the aspect of balancing thrust against gravitic force is retained, the sequel certainly isn't as gripping as the original.

The pack artwork is nice, and the



instructions decent. Good value, for real Thrust freaks.

GAMEPLAY: ★★★
PACKAGE: ★★★
VFM: ★★★

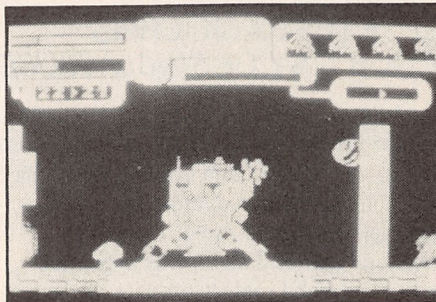


COMPANY Interceptor
RANGE Players
TITLE Anfractuus
PRICE £1.99

Latest in a series of budget games with unpronounceable names ("Nonterraqueous", "Ancipital" and so

forth), **Anfractuus** is distinguished by having the least legible title logo of all. However, it's a nice-looking game with a good quotient of moreishness about it.

Usual plot; guide a droid around an



abandoned mining colony in search of eight fuel pods and four launch triggers, then return to the shuttle before it blasts off and deserts you.

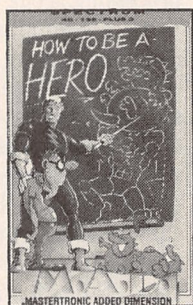
Shooting alien life-forms has its

dangers; your shots bounce back after killing them, and have a tendency to zap you. Energy points and elevators can be used, but are unreliable. Best aspect is the droid itself, a sort of animated coal-scuttle with a charm all of its own.

Players' packaging looks like an explosion in a pizza factory, but the instructions are adequate, and the game represents more than usual budget value for money.

GAMEPLAY: ★★★
PACKAGE: ★★★
VFM: ★★★

COMPANY Mastertronic
RANGE M.A.D.
TITLE How To Be A Hero
PRICE £2.99



Mastertronic, the original and in many ways still the best budget software company, usually comes up with original game concepts rather than ripping off arcade titles.

How To Be A Hero certainly isn't the company's best by a long chalk - a cliched scenario, dull graphics and derivative gameplay.

The game is in three parts; in each you control a heroic figure moving around a hostile environment, first an Egyptian

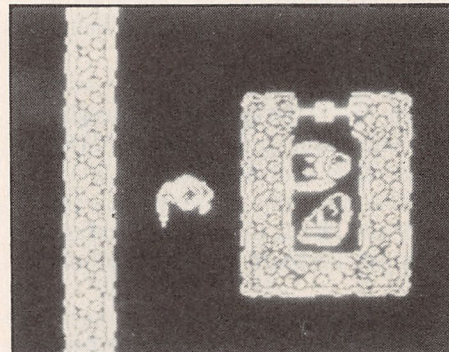
tomb, then an abandoned spaceship, then a mutant compound.

Like **Gauntlet**, **H.T.B.A.H.** shows you the action from above. The backgrounds are all black, while the walls, chambers and various monsters are in single contrasting colours.

Zapping enemies and collecting keys, food and secret objects form a part of the action, but it's all rather turgid and doesn't hold the interest long. Overall, the programmer should have concentrated on creating one good game, rather than offering up three scenarios of equal dullness.

Mastertronic's previous try at a budget **Gauntlet**, **Storm**, was pretty poor, too. Perhaps this kind of game is just too complex for a budget label to imitate.

The cartoon style of Mastertronic's M.A.D. packaging doesn't appeal to me in



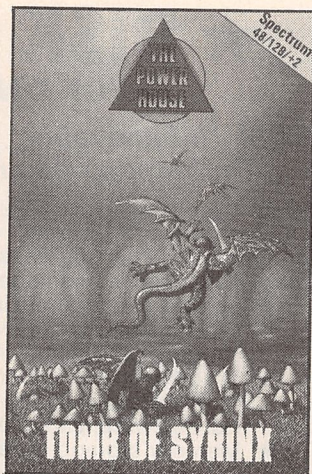
the same way the old Chris Foss-style spaceships did; but the insert is liberally illustrated with screenshots, and the instructions are adequate.

GAMEPLAY: ★★★
PACKAGE: ★★★
VFM: ★★★

COMPANY CRL
RANGE Power House
TITLE Tomb of Syrinx
PRICE £1.99

The Power House's main claim to fame seems to be the very marvellous Tim White's cover paintings. But don't try to kid us that they're done specially for the games, guys; we all know that most of them appeared in his book Fantastic Art.

In any case, the cover of **Tomb of Syrinx** seems totally irrelevant to the game, which presents in lumpy block graphics a map of an ancient Egyptian temple. Vicious guardians of various kinds roam the

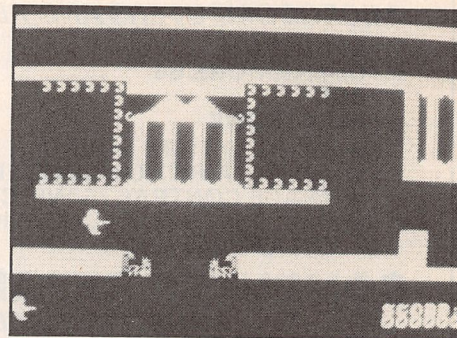


temple, trying to stop you finding the five keys of Syrinx; but with graphics like this, who cares?

Practically devoid of instructions and plastered with lines like "Yowzer brilltoid, mega mega! Collect the whole set!", the insert isn't much help, either. A mugshot of the

programmer is included, so we know who to blame.

Just think, you could buy two lovely



prawn sandwiches for the price of this game. Back to the days of brilliant paintings disguising lousy programs, I'm afraid.

GAMEPLAY: ★
PACKAGE: ★★ ★
VFM: ★

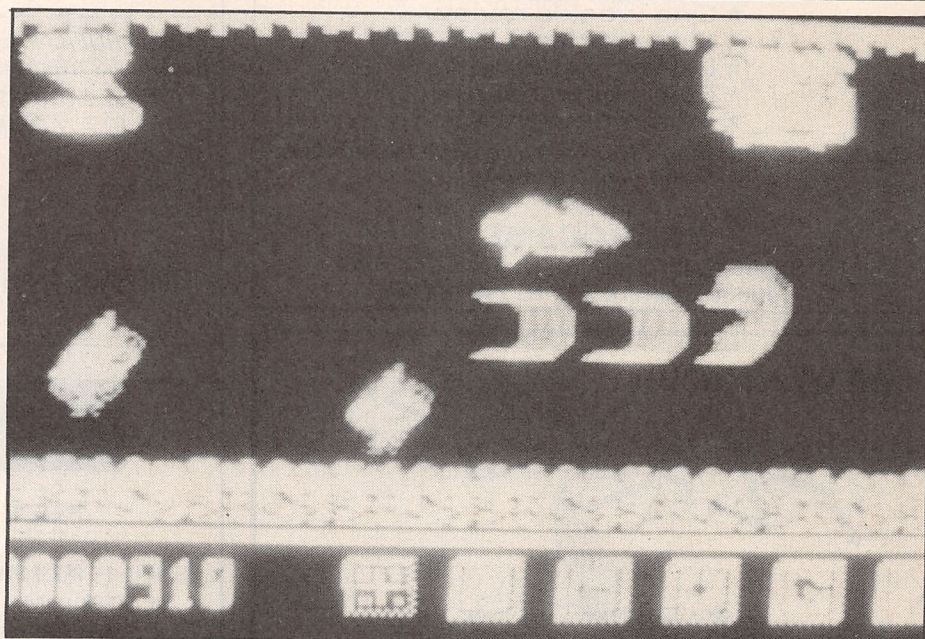
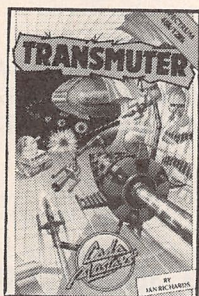
COMPANY Code Masters
RANGE Code Masters
TITLE Transmuter
PRICE £1.99

A dismal Nemesis lookalike, **Transmuter** is certainly not one of the best Code Masters releases. With the experience of writing many Mastertronic hits, the Darling brothers should know that if you are going to produce an arcade rip-off, you should at least do a good job of it.

Ian Richards' **Transmuter** is incredibly slow and flickery, and while James Wilson's graphics are fine, the gameplay does them no justice. Calling simple outline backgrounds "vector graphics" is pushing it, too.

The plot is a simple **Scramble** variant; fly through caverns blasting every emplacement, ship and missile you can see.

Absorbing enough energy allows you to



transmute your ship, either gaining extra speed or special weapons.

All pretty standard stuff, with some cliched graphics effects adding little to the action.

Someone ought to tell Code Masters

how to spell "subterranean", too.

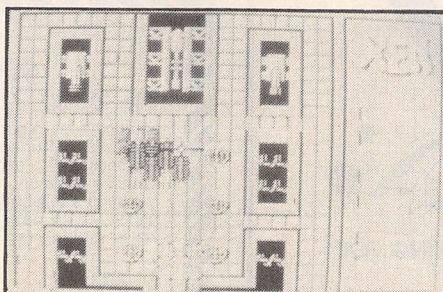
GAMEPLAY: ★★
PACKAGE: ★★
VFM: ★★



COMPANY Creative Sparks
RANGE Sparklers
TITLE Xen
PRICE £2.99

Sparklers are distinguished by being the only budget range in which I cannot name a single really good title (except **Mad Doctor**, says John Cook). **Xen** is something of an improvement, since at least the graphics are very colourful, and the action is non-stop.

Your mission is to fly through four fields of enemy defences in an attempt to



free your people from slavery. Same old thing. You have forward-firing lasers and Xevious-style guided bombs to fight off the baddies; your fighter, which looks like

the ship in FTL's **Lightforce**, is rather a big target, and is unfortunately prone to being sandwiched between two enemies.

The backgrounds are colourful but the designs aren't particularly inspired, again owing much to **Lightforce**.

For trivia buffs, your ship is a lightweight V-class fighter, and the captain's name is Peladus. We are now flying through the Alpha-Centauri constellation; please fasten your seat belts, extinguish your cigarettes and proceed to the next game on the shelf.

GAMEPLAY: ★★
PACKAGE: ★★
VFM: ★★

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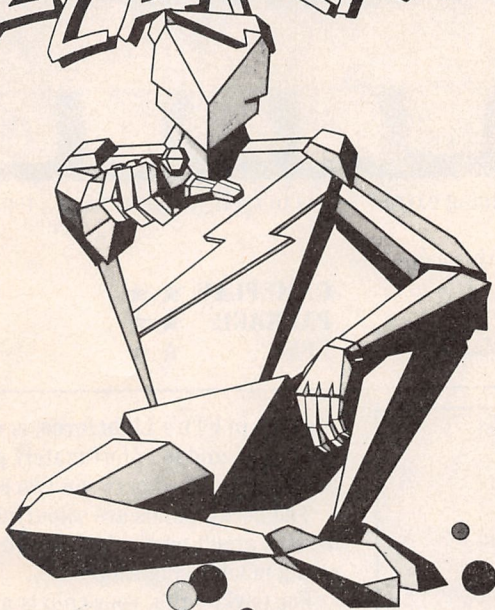
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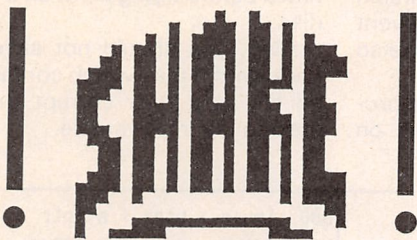
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screen prompts (S D or I first).

Try out the program and test it a few times before trying it out on an important disc.

Also, you should not save any data back onto a disc which contains a deleted file as it may corrupt the program making it unrecoverable.

```

10 REM *****
20 REM          U N E R A S E
30 REM
40 REM          by Eric Roy Jan.87
50 REM *****
60 '
70 MODE 1
80 DIM allblk(180)
90 DIM usarea(15)
100 DIM extent(15)
110 GOSUB 2310
120 GOSUB 2910
130 GOSUB 2700
140 GOSUB 2530
150 GOSUB 1370
160 GOSUB 490
170 GOSUB 880
180 '
190 REM-----
200 REM  Get first free user area, and
210 REM  unerase the file.
220 REM-----
230 n = 0
240 WHILE usarea(n) <> 0
250   n = n + 1
260 WEND
270 '
280 FOR i = 0 TO extcnt
290   POKE extent(i),n
300 NEXT i
310 '
320 LOCATE 2,5
330 PRINT f$;" Unerased in user area";n
340 LOCATE 2,7
350 PRINT f$;" File attributes ";
360 user = extent(0)
370 IF PEEK(user + 10) < 128 THEN PRINT "
Dir/"; : ELSE PRINT "Sys/";
380 IF PEEK(user + 9) < 128 THEN PRINT "
RW" : ELSE PRINT "RO"
390 '
400 LOCATE 5,11
410 PRINT "Writing new directory to disc
."
420 CALL &A015
430 GOTO 2200
440 END
450 REM-----
460 REM  Search for file in other areas
470 REM  and get allocation blocks used
480 REM-----
490 GOSUB 1630
500 LOCATE 1,2
510 PRINT #2
520 PRINT #2,"  Trying to unerase ";f$
530 '
540 inarea = false : round = false
550 FOR i = 0 TO 63
560   user = (i * dirlen) + dirptr
570   IF PEEK(user) <> erased THEN 630
580   IF PEEK(user+1) = erased THEN 780
590   GOSUB 1270
600   IF dn$ = uf$ THEN found = true
610   GOTO 780
620 '
630 inuse = user + allptr
640 n = 0
650 WHILE n < 16 AND PEEK(inuse + n) <>
0
660   allnum = PEEK(inuse + n)
670   allblk(allnum) = 1
680   n = n + 1
690 WEND
700 '
710 GOSUB 1270
720 IF dn$ <> uf$ THEN 780
730 usnum = PEEK(user)
740 IF usarea(usnum) = 1 THEN 780
750 inarea = true
760 usarea(usnum) = 1
770 PRINT " ";f$;" Found in user area
";usnum
780 NEXT i
790 '
800 IF found = false THEN msg = 2 : GOTO
1710
810 IF inarea = true THEN msg = 1 : GOSU
B 1710
820 RETURN
830 REM-----
840 REM  Search for erased filename and
850 REM  check that the allocation blks
860 REM  and extents are not in use.
870 REM-----
880 LOCATE 1,2
890 extcnt = -1 : extign = false
900 FOR i = 0 TO 63
910   user = (i * dirlen) + dirptr
920   IF PEEK(user) <> erased THEN 1100
930   IF PEEK(user+1) = erased THEN 1100
940   GOSUB 1270
950   IF dn$ <> uf$ THEN 1100
960 '
970 n = 0 : alloc = true
980 inuse = user + allptr
990 WHILE n < 16 AND PEEK(inuse + n) <>
0 AND alloc
1000   allnum = PEEK(inuse + n)
1010   IF allblk(allnum) = 1 THEN alloc
= false
1020   n = n + 1
1030 WEND
1040 IF alloc = false THEN 1100
1050 '
1060 extnum = PEEK(user + extptr)
1070 IF extent(extnum) <> -1 THEN extig
n = true : PRINT " ";f$;" Extent ";extn
um;" ignored." : GOTO 1100
1080 extent(extnum) = user
1090 extcnt = extcnt + 1
1100 NEXT i
1110 '
1120 IF alloc = false THEN msg = 3 : GOT
0 1710
1130 IF extign = true THEN msg = 5 : GOS
UB 1710
1140 '
1150 extok = true
1160 FOR i = 0 TO extcnt
1170   IF extent(i) = -1 THEN extok = fal
se
1180 NEXT i
1190 '
1200 IF extok = false THEN msg = 3 : GOT
0 1710
1210 msg = 4 : GOSUB 1710
1220 RETURN
1230 REM-----
1240 REM  Get filename from directory
1250 REM  ensure bit 7 = 0.
1260 REM-----
1270 dn$ = ""
1280 FOR j = user + 1 TO user + 11
1290   letter = PEEK(j)
1300   IF letter > 128 THEN letter = lett
er - 128
1310   dn$ = dn$ + CHR$(letter)
1320 NEXT j
1330 RETURN
1340 REM-----
1350 REM  Get filename to unerase
1360 REM-----
1370 GOSUB 1630
1380 LOCATE 2,3
1390 PRINT "ENTER FILENAME TO BE UNERASE
D BELOW"

```

Programming: Amstrad CPC

1400 PRINT	1480 PRINT CHR\$(8);	1570 IF an\$ <> "Y" AND an\$ <> "y" THEN C
1410 PRINT "Do not use ? or * in the fil	1490 NEXT i	LS #2 : GOTO 1440
ename"	1500 '	1580 CLS #2
1420 PRINT "Do not put . between name an	1510 INPUT uf\$	1590 RETURN
d type"	1520 uf\$ = UPPER\$(uf\$)	1600 REM-----
1430 PRINT "Pad out any unused letters w	1530 f\$ = LEFT\$(uf\$,8) + "." + MID\$(uf\$,	1610 REM Scroll main screen clear
ith spaces"	9,3)	1620 REM-----
1440 LOCATE 9,11	1540 PRINT #2	1630 LOCATE 1,1
1450 PRINT "Filename..ffffffttt";	1550 PRINT #2," Unerase ";f\$;" Confirm	1640 FOR i = 1 TO 16
1460 '	Y/N";	1650 PRINT CHR\$(10)
1470 FOR i = 1 TO 13	1560 INPUT #2,an\$	

Programming: Spectrum

Software Rescue

Paul Mooney

This utility can be used to rescue damaged or partially erased programs on cassette.

The program will attempt to decorrup as much of the damaged program as

possible leaving it in an editable state. There are no guarantees with Software Rescue, some programs are simply not recoverable, but you may find that a previous crisis can be turned into merely a drama.

1 REM ***** ** The Complete Softwa re ** Rescue Kit * * ** Paul Mooney 1987 ** *****	13 10 IF byte=14 THEN LET address=address+5 11 IF byte<32 THEN GO TO 14 12 PRINT CHR\$ byte; 13 IF PEEK 23692=1 THEN PRINT #1;AT 0,0;p\$ 14 LET address=address+1 15 IF INKEY\$="s" THEN RANDOMIZE USR 65000: GO TO 4 16 IF INKEY\$="p" THEN GO TO 16 17 IF INKEY\$="a" THEN CLS : GO TO 4 18 IF INKEY\$<>"q" THEN GO TO 7 19 CLS : PRINT "Address of first complete line? " : INPUT start 20 PRINT "Address of first line of garbage": INPUT end 21 LET length=end-start 22 LET hi=INT (start/256): LET lo=start-256*hi: POKE 65074,lo: POKE 65075,hi 23 LET hi=INT (length/256): LET lo=len	gth-256*hi: POKE 65053,lo: POKE 65054,hi 24 RANDOMIZE USR 65041 25 RESTORE 1: LET c=0 26 FOR a=65000 TO 65079 27 READ b: POKE a,b: LET c=c+b 28 NEXT a 29 IF c<>8539 THEN PRINT "Error in data": STOP 30 RETURN 31 DATA 33,0,172,1,0,81,8,203,30,8,35,11,120,177,32,246 32 DATA 201,221,33,0,172,17,252,80,175,55,8,243,205,159,5,1 33 DATA 254,253,237,120,31,56,r41,251,201,42,89,92,43,237,91,83 34 DATA 92,205,229,r5,1,0,0,42,83,92,197,205,85,22,193,42 35 DATA 83,92,9,34,75,92,167,237,66,17,0,0,235,237,176,201
--	---	--

Programming: BBC/Electron

Keys Toolkit

Jonathan Temple



This BBC/Electron program provides a toolkit to help with the use of the function keys. It allows definitions to be loaded, saved, cleared, examined and listed for editing.

Once the program has been debugged save the machine code produced by using the command *Save Keys 900 AFF Use *Run Keys from now on to get the five new OS commands which are as follows.

*KLoad "filename"
*KSave "filename"



*KClear
*KShow
*KHelp

The commands are all self-explanatory and you note that if Break is pressed you should enter Call &900 to re-activate the toolkit.

Programming: BBC/Electron

```

10 REM BBC/Electron KEYS TOOLKIT
20 REM (C) Jonathan Temple 1987
30 :
40 MODE 7
50 PROCassemble
60 PROCinitcms
70 PRINT""Code assembled"
80 PRINT "Now save using:"
90 PRINT" *SAVE KEYS 900 AFF"
100 END
110 :
120 DEFPROCassemble
130 FOR pass=0 TO 2 STEP 2
140 P%=&900
150 IOPT pass
160 LDA &208:LDX &209
170 CMP #ch MOD256:BNE sv
180 CPX #ch DIV256:BEQ b1
190 .sv
200 STA &F8:STX &F9
210 LDA #ch MOD256:STA &208
220 LDA #ch DIV256:STA &209
230 .b1 RTS
240 \
250 .ch
260 PHA:STX &F2:STY &F3
270 LDY #255
280 .st
290 INY:LDA (&F2),Y
300 CMP #42:BEQ st
310 CMP #32:BEQ st
320 STY &A8:LDX #0
330 .wd
340 LDY &A8
350 .chk
360 LDA (&F2),Y:AND #223:INY
370 CMP #14:BNE ns
380 TYA:SEC:SBC &A8:CMP #3:BCC ns
390 .ga
400 INX:LDA cm,X:BNE ga
410 BEQ fc
420 .ns
430 CMP cm,X:BNE nw
440 INX:LDA cm,X:BNE chk
450 .fc
460 LDA cm+1,X:STA js+1
470 LDA cm+2,X:STA js+2
480 LDA #0
490 .js JSR &FFFF
500 .rt
510 LDX &F2:LDY &F3:PLA:RTS
520 .nw
530 INX:LDA cm,X:BNE nw
540 INX:INX:INX:LDA cm,X
550 BPL wd
560 LDX &F2:LDY &F3:PLA
570 JMP (&F8)
580 \
590 .KLOAD
600 LDA #255
610 \
620 .KSAVE
630 PHA
640 LDA #0:LDX #17
650 .n1 STA &2EE,X:DEX:BPL n1
660 SEC:JSR &FFC2:BNE b2
670 JMP &E310
680 .b2
690 LDX #255
700 .n2 INX:JSR &FFC5
710 STA &700,X:BCC n2
720 LDA #13:STA &701,X
730 LDA #7:STA &2EF
740 LDX #11:STX &2F1:STX &2F9
750 INX:STX &2FD
760 PLA:LDX #&EE:LDY #&2
770 JMP &FFDD
780 \
790 .KCLEAR
800 LDA #18:JMP &FFF4
810 \
820 .KSHOW
830 STA &2B:LDX#16:STX &AC:TAX
840 LDA #237:LDY #255:JSR &FFF4
850 LDA #10:CPX #2:BNE nt:LDA #15
860 .nt STA &A8:LDX #255:JSR &FFE7
870 .n3
880 LDY #4
890 .n4
900 LDA str,Y:JSR &FFEE
910 DEY:BPL n4
920 INX:STX &AB:STX &2A
930 LDA #2:JSR &9925
940 LDA #32:JSR &FFEE
950 LDX &AB:LDA &B00,X:STA &A9
960 LDA #255:STA &AA:LDY &A8
970 .n5
980 CPY &AB:BEQ b3
990 LDA &B00,Y:CMP &A9:BCC b3
1000 CMP &AA:BCS b3:STA &AA
1010 .b3 DEY:BPL n5
1020 LDY &A9:CPY &AA:BCS b6
1030 .n6
1040 INC &AC:INY:LDA &B00,Y:BPL b4
1050 PHA:LDA #124:JSR &FFEE
1060 LDA #33:JSR &FFEE:PLA:AND #127
1070 .b4
1080 CMP #32:BCS b5
1090 PHA:LDA #124:JSR &FFEE
1100 PLA:ORA #64
1110 .b5
1120 JSR &FFEE:CPY &AA:BNE n6
1130 .b6
1140 JSR &FFE7:CPX &A8:BNE n3
1150 LDA #255:SEC:SBC &AC:STA &2A
1160 JSR &FFE7:LDA #3:JSR &9925
1170 LDY #14
1180 .n7
1190 LDA m1,Y:JSR &FFEE
1200 DEY:BPL n7:RTS
1210 \
1220 .KHELP
1230 TAX:JSR &FFE7
1240 .n8
1250 LDA m2,X:JSR &FFE3
1260 INX:CMP #13:BNE n8
1270 JSR &FFE7:LDX #7
1280 .ps
1290 LDA #42:JSR &FFEE
1300 .n9
1310 INX:LDA cm,X:JSR &FFEE
1320 BNE n9:JSR &FFE7
1330 INX:INX:LDA cm+1,X:BPL ps
1340 JMP &FFE7
1350 .str
1360 l
1370 m1=P%+5:m2=P%+20:cm=P%+45
1380 NEXT
1390 $str="YEK* "
1400 !m1=&0A0D0A0D
1410 $(m1+4)="eef setyb "
1420 $m2="KEYS TOOLKIT version 1.2"
1430 C%=0:FOR M%=P%-&1A3 TO P%
1440 C%=C%+?M%:NEXT
1450 IF C%<>&E650 PRINT"Error in PROCa
ssemble""Please check and try again":E
ND
1460 ENDPROC
1470 :
1480 DEFPROCinitcms
1490 M%=cm
1500 FOR N%=1 TO 5
1510 READ A$,B$:$M%=A$
1520 M%=M%+LEN(A$):?M%=0
1530 M%!1=EVAL(B$):M%=M%+3
1540 NEXT:?M%=255
1550 ENDPROC
1560 :
1570 DATA "KHELP",KHELP
1580 DATA "KLOAD",KLOAD
1590 DATA "KSAVE",KSAVE
1600 DATA "KCLEAR",KCLEAR
1610 DATA "KSHOW",KSHOW

```


Block Delete

Robert Bennet

This routine for any 8-bit Atari will delete unwanted program lines specified by the user.

Save this routine by entering *List "C:"* (cassettes) or *List "D:Line"* (disc) and then add to your Basic programs by using *Enter "C:"* or *Enter "D:Line"*.

```
32000 GRAPHICS 0:PRINT "ENTER START LINE TO
      BE DELETED.":INPUT FIRST
32002 PRINT "ENTER LAST LINE TO BE DELETED.
      ":INPUT LAST
32010 FOR T=FIRST TO LAST
32015 GRAPHICS 0:POSITION 2,4
32030 PRINT T:PRINT "CONT"
32035 POSITION 2,0
32040 POKE 842,13:STOP
32050 POKE 842,12
32060 NEXT T
32070 PRINT "FINISHED.."
```

Explosion

Robert Bennet

This routine for any 8-bit Atari will simulate the effect of an explosion. It can be easily incorporated into your own programs for that added Chernobyl effect.

```
5 GRAPHICS 0:SETCOLOR 1,2,0:SETCOLOR 2,2,10
8 LIST :LIST
10 A=PEEK(560)+PEEK(561)*256
30 FOR B=0 TO 40:SOUND 0,20,0,10
45 POKE A,INT(RND(0)*130)
50 NEXT B
60 POKE A,112
70 SOUND 0,0,0,0
```

Records

Alan Thomas

This program for the Psion Organiser 2 tells the user how much memory is free

in the internal memory and any datapaks that may be in use. It also gives a count of records on the 'main' files.

```
RECS:
GLOBAL A$(5),P$(1),R%,S%
A$=":MAIN"
P$="A"
RECS0:
P$="B"
CLS
RECS0:
P$="C"
CLS
RECS0:
```

```
RECS0:
IF EXIST(P$+A$)
OPEN P$+A$,A,A$
PRINT "FREE",P$;": "
PRINT "Records:"
RECS1:
CLOSE
ELSE PRINT P$;": NO PACK"
ENDIF
GET
```

```
RECS1:
S%=LEN(GEN$(SPACE,6))
R%=LEN(GEN$(COUNT,6))
AT(17-S%),1:PRINT SPACE;
AT(17-R%),2:PRINT COUNT
```

Programming Spotlight – Magic

Stuart Slater

Programming Spotlight is where long programs are featured and offered to sale to you, the reader, by the author. Programs featured in this spot become the copyright of Popular as usual, for the sum of £10. We reserve the right to set a reasonable price for the programs on offer.

Magic is a two level graphical adventure where it follows the adventures of a freelance druid and his exploits. You have the option of casting water, fire or other spells to defeat the roaming monsters while seeking to escape from that level.

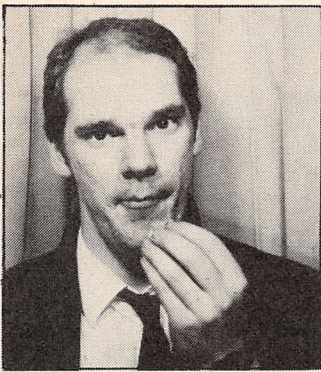
So, for a copy of Magic on the Com-

modore +4 and C16 send £2.25 to Stuart Slater, Programming Spotlight, Popular Computing Weekly, 12-13 Little Newport Street, London WC2H 7PP.

Still available is Sphere (S Pattullo) on the Commodore 64 at £2.00 and Sing-lestep (R M Wilkinson, Spectrum) at £2.75.



Magic (pictured left): "A two-level graphical adventure following the adventures of a freelance druid and his exploits."



with Kenn Garroch

A loaded question

A Hartsfield of Chesterfield, Derbyshire, writes:

Q I have been writing some machine code on my Commodore 64 but I am having some trouble loading it with a Basic loader. It is in a number of sections, the first of which will load, and then load again. I'm pretty sure it is possible to load sections of memory but I don't seem to be able to and I don't really want to resort to a machine code loader. Can you help?

A There is a little problem with the 64 when using the `Load "fnme",8,1` command. After executing it in a program line, instead of going on to the next line of the program, the program restarts from scratch. The solution is to use another quirk of the 64, ie, variables are not reset after the load command when executed in a program. The following program should solve your problem.

```
10 A=A+1
20 IF A=1 THEN LOAD
"SECTION 1",8,1: REM
LOAD ON 1ST TRY
30 IF A=2 THEN LOAD
"SECTION 2",8,1: REM
LOAD ON 2ND TRY
40 IF A=3 THEN LOAD
"SECTION 3",8,1: REM
LOAD ON 3RD TRY
40 SYS START:REM START
IS THE ADDRESS OF THE
CODE
```

Lost in memories

M Jameson of Crewe, Cheshire, writes:

Q I have had my Amstrad 8256 for a while now with al-

most no trouble. I use Wordstar for word-processing and generally, it has been fine. I have, however, come across a rather major problem. I was working on a medium sized document and the machine dumped me straight back into the operating system, losing an hour or so of work. Can you tell me if this is a fault in the software and if there is anything I can do to get my document back if it happens again. I'm fairly certain that some of it was still in the memory of the machine and retrieving only a little of it would have been better than none at all. As it was, I switched off in disgust.

A There is, or was, a fault in Wordstar which, I would have presumed, had been fixed since it was quite well known. The problem occurred when the disc became full - in which case, Wordstar simply dropped out and returned the user to the operating system. The solution to this is to regularly save the document while working on it, and never let the disc become more than two thirds full.

If the worst actually happens, the only solution is to save the computer memory to disc and then edit the document created to remove all the gibberish and retrieve some of the lost text. This is done from CP/M with the `Save` command. The syntax is: `Save n Fnme.ext` where *n* is the number of 256 byte blocks to be saved from the transient program area (TPA starts at 100 hex). I don't know how big the TPA is on the 8256 but on a normal 64K CP/M `Save 219 retr.ugh` saves the whole TPA (56064 bytes). Presumably the TPA is a lot bigger on the 8256 (possibly as much as 252672 bytes) so `Save 987 retr.ugh` should do the trick. Once this has been saved to disc, first making sure that there is enough room on it, enter Wordstar and select non-document mode and open the file `Retr.ugh`. It will be full of junk that you can delete but somewhere in there should be your text. Once you have cleaned it up, save the file and

re-edit it in document mode. Note that not all of the text will be there: some of it may be on the disc, in which case, you will have to use a disc editor to find it - not an easy job and not usually worth the bother.

Compiling information

P Wallwork, of 34 Mariman Drive, Crumpsall, Manchester M8 6PT, writes:

Q I have recently acquired an ACT Series 800 computer and also an ACT 825 twin 8" disc drive, which I think were both produced around 1980. The computer runs a Basic similar to that of the old Commodore Pet. However, on a system disc supplied, it can also run a 6502 assembler, and has PLM and Fifth compilers.

Despite searching through all my local libraries, I cannot find any reference to these two compilers. I would be very grateful if anyone could give me any information or books relating to either of these languages, and in fact anything about the computer. I would also like to know where I can get software on 8" discs. If anyone can help, please send the information to the above address.

A I'm sorry, but I can't be of any help, but perhaps some of our readers may know.

Time marches on . . .

M J Smith of Stevenage, Herts, writes:

Q I have been programming in machine code for a while now and I want to get the best speed possible out of my programs. To do this, I need to use the fastest instructions which involves knowing something about clock

cycles. Could you explain how these work?

A A microprocessor system is kept operating by a clock which governs every action so that everything is synchronised. Each instruction executed by the processor takes a definite number of clock cycles. The instruction usually has to fetch information from memory, perform an operation, and perhaps store the result back into memory. The faster the clock speed of the processor, the faster these cycles take place. For instance, the Commodore 64 runs at about 1 million cycles per second using a 6510 (almost identical to the 6502) whereas the BBC micro (6502) runs at twice this speed with 1 cycle taking about half a micro second.

The Amstrad CPC 464 runs a 4MHz clock giving a cycle time of $\frac{1}{4}$ microsecond which may sound fast except that the majority of instructions use more cycles than their counterparts on the 6502. One of the fastest machines around is the Atari ST, which runs a 68000 at 8MHz with a cycle time of 125 nanoseconds (0.125 microseconds) although, like the Z80, instructions use twice the number of cycles compared to the SXT.

In most books on machine code, the number of cycles taken for each instruction is given. To speed up a program, you must minimise the number of cycles in that program. The most important sections to speed up are those that are repeated often such as loops. Otherwise, they begin to take up most of the processing time. Sections of code that are only accessed occasionally are not so important and so can be slower. The general trade off is between length and speed. Some routines can be executed faster if they are longer. For example, a piece of code to move a section of memory from one place to another can be written in two different ways as a straight loop where the load store sequence is performed once every time the loop is cycled through. The trouble here is that the counter has to be checked every cycle, and this slows it down.

Timefame marches on

Ben Knox and Julian Hayward introduce the ABC's of Epnitex . . .

During the Summer of 1986, Prestel lost one of its more popular information providers (IPs), Timefame International, which ran the LetterBox service. With this service, messages from users were published automatically on Prestel pages under various section headings (current affairs, computing, hobbies and business). LetterBox allowed people to participate in discussions in a similar manner to the way they now can on Micronet 800's Daisychat system, but LetterBox was operating long before Micronet's service.

Timefame left Prestel because it did not accept the new Prestel IP agreement which was offered. Before it left, Timefame had been working on a new online viewdata service. This new service is due to be launched shortly, and will be called Epnitex, which stands for Electronic Public Network Information.

Epnitex not only has all the features found on Prestel (colour, graphics, mailbox), but 22 extra commands. These are all invoked by keying an asterisk, followed by a letter of the alphabet.

A Account

Provides information on your account: facilities for which you are registered, how much money you have spent and how much free time you have left to use that day.

Oddly, you are only allowed 10 minutes of free usage time each day. After this has been used up, you will be charged around two pence per minute (more if you are a business user).

B Back

This works like the * feature on Prestel, taking you back to the previous frame you looked at. You can go back up to nine frames, unlike Prestel which only lets you go back three.

C Carousel

This feature lets you view a selection of the best frames within an area. Each IP sets up his own choice of frames which are automatically displayed for a few seconds. If you spot a frame which interests you, you can stop the carousel by pressing your space bar.

D Duration

Displays how long you have been online for your current call.

E Editor

This allows IPs to edit their pages. To use it, you simply key up the page you wish to change, type *E and you enter your changes straight away.

This is a great improvement over the system Prestel uses for editing, where you need to log on to a different computer, use extra passwords and complicated commands.

F Find

Using this command, you can search for

selected as your main index page.

L EpnitLink

EpnitLink is a special facility for companies, which allows them to set up private 'bulletin boards'.

M Mail

This command allows you to read your electronic mail (Epnimail). After pressing *M, the first message will appear on your screen. By typing *W you can reply to the message (see below). Otherwise, pressing 1 will erase the message, or pressing 0 will keep it – but you can't read any later messages until you have deleted it.

N Number

This command informs you how many Epnimail messages you have waiting.

O Off last

Will tell you when you last used the system.

P Post

Takes you to the Epnimail index.

Q Quicklook

Similar to the Carousel command. When you key *Q, the front pages of all the areas your account can access will be displayed.

R Repeat

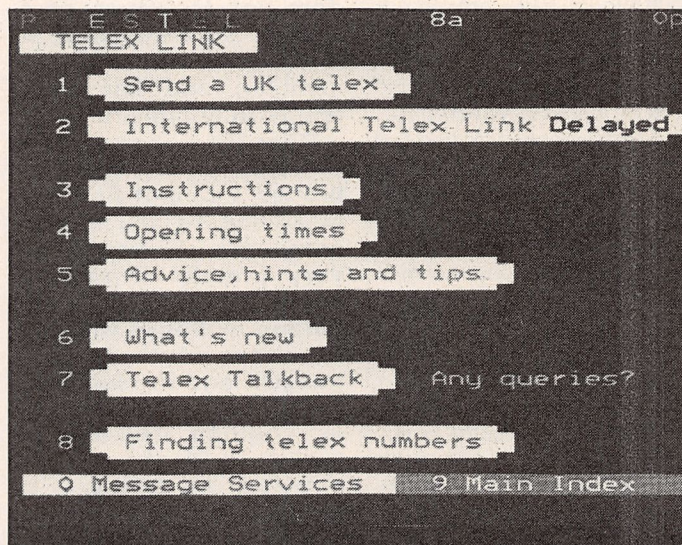
Repeats the current page (like *00 on Prestel). Handy if your screen is corrupted by line noise.

S Set

By invoking this command on any frame it allows you to 'set' it as your main index. When you first log-on or by typing */ the 'set' page will be displayed.

T Telex

If you are a registered telex user this command will take you to the telex index.



More extensive than Prestel

items of specific interest. If you enter *F NEWS, Epnitex will automatically create an index of all the relevant areas on the system (computer news, business news, etc).

Prestel has, for a very long time, promised a similar system. So far, however, it is only available to a few users for testing purposes.

H Help

On invoking this command, the bottom line of your screen displays all the possible *-commands, three at a time. Useful if you can't remember which letter does what.

I Index

Takes you to the page which you have

U Update

All pages on Epnitex have auto-refresh: if the page is edited while you are viewing it the page will be automatically updated. Pressing *Z will suspend the updates, conversely *U will restart them.

W Write

This will take you to the main Epnimail message entry frame, allowing you to send Epnimail to other users. If you key *W while viewing incoming Epnimail (*M) the recipient's user address will be en-

tered automatically, otherwise you must enter it yourself.

X eXit

Wherever you are on Epnitex, keying *X will disconnect you immediately.

Y Yapspot

Yapspot is almost exactly the same as the old Timefame LetterBox area on Prestel. It is similar to a bulletin board: users can send in messages which anyone can read and reply to.

Z Zuspend (suspend)

The command which suspends the auto-refresh feature of Epnitex (see *U).

! Password

Keying *! lets you change your password. As a security precaution, you must first enter your existing password.

Currently, the Epnitex system is very much an empty shell. There are lots of nice facilities, but nothing to read.

The domestic account will cost £2.50 per week – already very expensive, without taking into account that you only get 10 minutes free access per day. Prestel offers much better value for home users.

For further information, call: 0526 861110 (24 hour answering machine).

```
P  E S T E L           7a           Op
Prestel MAILBOX     Message Service
Main Index          Instructions #
1 Send a message   Remember *77#
2 Blank, greetings and standard pages
3 Check for new messages *930#
4 See your stored messages *931#
5 Directory of users 55 Request entry
6 Simpatico & noticeboards
7 Problems? Comments? Tell us
8 Send someone a FROGOGRAM!
9 Mailbox A-Z      0 Message Services
```

Epnitex offers all the features of Prestel (above), but has 22 extra commands

YOUR INVITATION

VENUE:

DATE/TIME:

METHOD OF ENTRY:

ID NUMBER:

PASSWORD:

Your micro
of your choosing

dial 01-618 1111
4444444444

4444

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Taking notes for Atari

Mark Jenkins begins a series of reviews of software from Dr T.



This week we're beginning an overview of a whole range of computer music software relatively new to the UK. It's the Dr T range now marketed by Take Note, a company started in the US which has now made its home in North London.

The Dr T packages are aimed mainly at the Atari 520/1040ST and are also available through a number of dealerships including Gigsounds and other London stores. You can have a demo at any of these dealers or a more leisurely stroll through the available software at the Take Note facility in Camden.

Wherever you buy a package, Take Note will provide a permanent backup service which will even include a realtime telephone consultation, with a member of staff sitting over one copy of a package while you struggle with your own copy!

Packages in the Dr T range include *KCS*, a Keyboard Controlled Sequencer, the simpler *MIDI Recording Studio*, patch editing/librarian software for the Yamaha DX7, Casio CZ range and Kawai K3, *Echo Plus*, a Midi echo utility, and *Copyist*, a score writing program.

Dr T (the irreplaceable Emile Tobenfeld) also handles a number of packages programmed by a company called Caged Artist. These include another CZ editor, *CZ-Rider*, an editing program for the Yamaha DX-100/27/21 synths, and a very useful editor for the Yamaha FB-01, an eight-voice multitimbral FM synth expander which offers lots of sounds but which can't be edited other than by using a computer. Its successor, the TX81Z, is self-editing, but the Caged Artist package can also cope with this unit and of course makes it much easier to create new sounds.

First up, though, the *KCS* Keyboard Controlled Sequencer, which has some very unusual features. Firstly, it abandons the Gem operating system of the 520ST in favour of a plainer but more straightforward layout. This makes more memory available and makes it possible to move around the various functions unusually quickly.

The main display is in colour and shows 36 out of 48 available tracks. The other eight aren't visible but are available for use at any time - should you be able to use more than 36 tracks at a time! On Steinberg's *Pro 24* package you're able to record only between two "locator points" which have to be programmed,

tracks and name them by the Midi channel number which you've chosen for them. You can record the initial set of tracks without even having to stop the package running, and after that point you'll want to go on to the next section of your music.

This can be composed either by muting some of the tracks of the existing passage and saving that version using "all tracks to sequence", or by composing a completely new passage. The F1 key then takes you into the Edit page which allows you to type in a series of different passages which can be saved to disc or altered at any time.

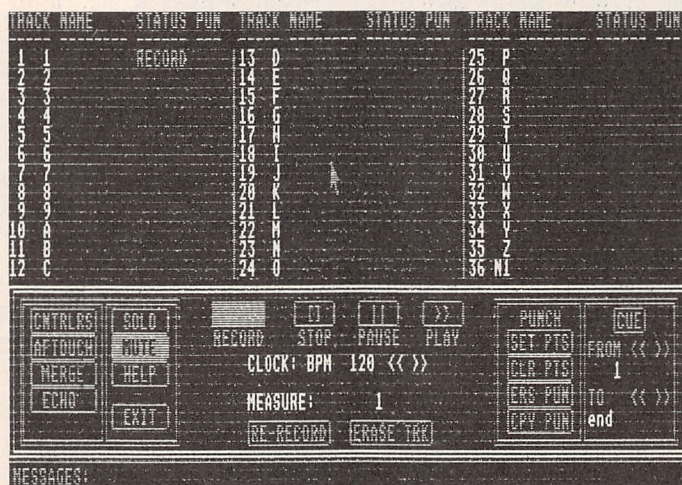
The really unusual part of *KCS*, however, is the third page, Open. This allows you to interlink passages composed in real time, passages composed in step time, and control sequences which can start and stop other

sequences at any point. For instance, you could create several passages and start them looping independently of each other to create long, minimalist pieces in the style of Terry Riley or Philip Glass.

KCS allows you to set tempos, delays between tracks and auto correction levels, and the Open mode will allow you to record a melody line which overlaps a long series of backing sections, something you can't do on *Pro 16* and other section-oriented composers. Midi song pointers are supported, so suitably equipped drum machines can start playing at any point in a song in synchronisation with the package.

At £250 for a single disk, *KCS* may seem expensive, but it's £35 cheaper than Steinberg's *Pro-24* and around £100 cheaper than the Hybrid Arts *Midi-Track* package. *KCS* supports *Jam Box*, a Midi merger originally designed for the Apple Macintosh which will allow up to four people at once to perform on to the sequencer, and will soon have a complementary score writing package to convert your music into conventional musical notation.

Take Note, Unit 7, 43 Carol Street, Camden Town, London NW1 0HT, 01-485 2988.



Dr T *KCS* Keyboard Controlled Sequencer

but on *KCS* you can start recording the basic track and go on for as long as you like, using the F10 key to start and stop.

Most functions can be controlled either with the keyboard or with the mouse, and once the first track is recorded it acts as a master, defining the length of all the other tracks. However, if you want to change the master track you can extend it and will find an appropriate amount of space opening up on all the subsequent tracks.

As on most other Midi software packages, the main compositional method is to record one track at a time and add others while listening to the initial tracks. This means that you'll need more than one Midi synthesizer to come up with a complete composition, although a budget solution is to choose "multitimbral" models such as the Casio CZ-101, Yamaha FB-01 or a second-hand SCI Six-Track or Multi-Trak, all of which can play more than one sound simultaneously.

KCS produces a metronome bleep to play along with and will allow you to drop in to overdub pieces at any point (not necessarily the start of a bar), merge

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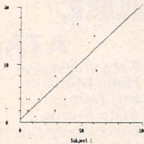
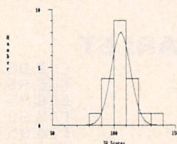
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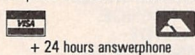
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(170)



Pick of the week

John Cook looks through this week's new arrivals

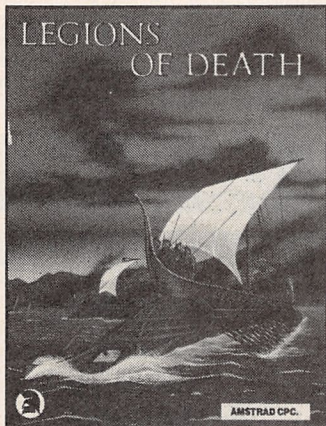
Amstrad CPC

Program Solar Coaster Type Arcade Price £1.99 **Supplier** Optyx Software, New House, Stoney Street, Madley, Hereford HR2 9NJ.

A new software house breaks forth onto the scenel Optyx Software. The label with spirit? The company that never gives short measure? The team that programs not so much in bytes but $\frac{1}{8}$ ths of a Gill? Well, they've kicked off with *Solar Coaster*, an Amstrad shooter that will not impress you.

It's a combination of arcade games circa 1981 – *Galaxian*, *Firebirds*, *Phoenix* – with five screens that repeat over and over. The implementation isn't bad but looks dated and the whole thing fails to inspire.

Program Legions of Death Type Strategy Price £9.95 **Supplier** Lothlorien, Argus Press Software, Victory House, 14 Leicester Place, London WC2H 7NB.



Largely icon driven strategy in the ancient times, with the Romans and Carthaginians (played by yourself) battling it out in the Mediterranean. Neat system that includes the whole playing area being displayed on one side of the screen, with a small window (where the action happens to be taking place) highly magnified and displayed on the other.

Program Krakout Type Arcade Price £9.99 (tape),

£14.99 (disc) **Supplier** Gremlin Graphics, Alpha House, 10 Carver Street, Sheffield S1 4DS.

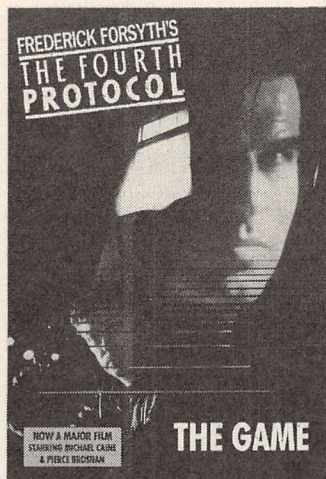
See Commodore 64 listing for comment.

Program FA Cup 87 Football Type Strategy Price £7.95 **Supplier** Virgin Games, 2/4 Vernon Yard, Portobello Road W11 2DX.

See Spectrum listing for comment.

Amstrad PCW

Program The Fourth Protocol Type Strategy Price £15.99 **Supplier** Ariolasoft, 68 Long Acre, Covent Garden, London WC2E 9JH.



PCW version of the excellent strategy/adventure based on the Forsyth book, soon to be movie. Three parts to the business, as you attempt to find out who is trying to detonate a nuclear device in mainland Britain.

PC and Apple II versions on the way, with Spectrum, Amstrad CPC and Commodore 64 versions to be repromoted at the same time. Worth looking at if you missed them before.

BBC B

Program Spiro-Eliptograph Type Application Price £15.00 (disc) **Supplier** Mo-

Program Delta Type Arcade Micro Commodore 64 Price £9.95 **Supplier** Thalamus, 2 Minerva House, Calleva Park, Aldermaston, Berks RG7 4QW.

Last week, we reviewed *Nemesis* from Konami (anyone who spotted therein the three deliberate spelling mistakes concerning that company's name – well done) and suggested that it paled before *Delta*.

Now that the latter has hit the streets, you can make up your own minds, but as far as I'm concerned, many hours of play simply confirm my initial suspicions. *Delta* is almost certainly the definitive *Nemesis* clone on the 64.

Forget about the scenario – this one's a pretty straightforward zapper, only with all the bells and whistles you could wish for.

It starts off with loading the game. While this is going on, a jolly three part tune is being played... only you can alter the voices and effects using an on-screen menu, via joystick. The idea creeps into your head. Someone, somewhere, is doing something rather clever.

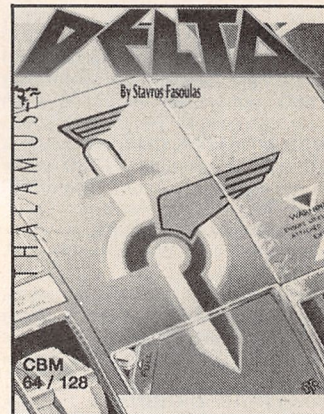
The game, when it starts, draws fairly heavily from *Nemesis* and *Salamander*, in that you zap attack waves to get extra powers for your own ship. The selection of powers has been varied slightly. They appear on the screen, with the powers you can 'afford' (depending on how many waves you zapped) coloured

saic Software, 4/15 The Grange, London SW19 4PS.

I'd guess everyone between the ages of 15 and 30 must have had, or at least seen, Spirograph – that box full of plastic wheels and biros, which made unusual, and often pleasing, circular patterns, which adorned the kitchen walls of a nation. Essentially, here you have it on the BBC.

The idea is a good one, and maybe a few schools will take

OK Stavros



light blue. You run into the icon that represents the extra power you want, and away you go.

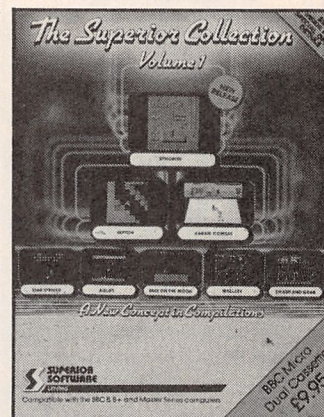
The right-to-left scrolling is very smooth, and the actual playing area has been made bigger than normal size by placing the score/status readouts in the border of the screen. Pretty impressive stuff.

Speed? Yes, is the simple answer and as much of it as you'd want to lay your hands on.

Throughout the design looks great, and music and sound effects are by Rob Hubbard, say no more.

Delta puts Stavros Fasoulas in the same league as the likes of Andrew Braybrook, when it comes to technical excellence. As for originality of ideas – well – perhaps they'll come in time.

But if this doesn't put Thalamus well and truly on the map, nothing will.



it up for the £15 price tag – but the big disadvantage is that the drawing is very slow indeed.

Whether this is a hardware limitation or simply bad coding is difficult to tell, but if you can take the waiting, some pretty results can be obtained.

Program Superior Collection Vol 1 Type Compilation **Price** £9.95 (tape), £11.95 (disc) **Supplier** Superior Software, Regent House, Skinner Lane, Leeds LS7 1AX.

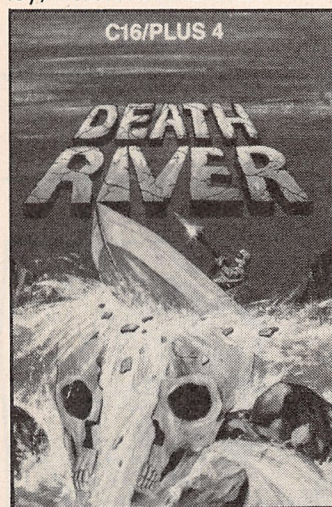
Seven oldies including *Repton*, plus one newie – looking a tad like *Uridium*. Not bad value.

Program Superior Collection Vol 2 Type Compilation **Price** £9.95 (tape), £11.95 (disc) **Supplier** Superior Software, Regent House, Skinner Lane, Leeds LS7 1AX.

Same again, with oldies including *Sinister* variant *Deathstar* and that *Popular* favourite, *Missile Strike*. The new one is a *Quix* variant, imaginatively named, *Kix*.

C16/Plus 4

Program Death River Type Arcade **Price** £1.99 **Supplier** Optyx Software, New House, Stoney Street, Madley, Hereford HR2 9NJ.



Ho, hum... the second of two offerings from the new Optyx label and one, I should think, they'd rather forget about.

Commodore 64

Program Krakout Type Arcade **Price** £9.95 (tape), £14.95 (disc) **Supplier** Gremlin Graphics, Alpha House, 10 Carver Street, Sheffield S1 4FS.

I loved *Breakout*. I loved *Arkanoid*. So even if *Krakout* had been a straightforward clone I would have liked it. As it is, it's been made different enough to give it a quality all of its own.

Gremlin have turned the usual vertical *Breakout* play action on its side, changed a few of the rules and borrowed a handful of ideas from the newer *Breakout* variants.

An option screen allows you to vary almost everything, the programming, design and music are all great – and if you ever get through the 100 odd screens, you can send away to Gremlin for a 'Construction Kit' that will let you create your own screens. Like it.

Program West Bank Type Arcade **Price** £4.99 **Supplier** Gremlin Graphics, Alpha House, 10 Carver Street, Sheffield S1 4FS.

Variation of the coin-op set in the wild west where you shoot the baddies as they come into the bank.

Program FA Cup 87 Football Type Strategy **Price** £7.95 **Supplier** Virgin Games, 2/4 Vernon Yard, Portobello Road, London W11 2DX.

See Spectrum listing for comment.

Program The Ket Trilogy Type Adventure **Price** £7.95 **Supplier** Incentive Software, 2 Minerva House, Calleva Park, Aldermaston, Berkshire RG7 4QW.

Program Return of the Space Warrior Type Arcade **Price** £1.99 **Supplier** The Power House, Alpha-Omega, 9 Kings Yard, Carpenters Road, London E15 2HD.

Re-released from the Alpha-Omega back catalogue, here we have a *Joust* clone – only instead of

nicely animated warriors on dragons, we have blobby egg-shaped things.

Electron

Program The Superior Collection Vol 3 Type Arcade Compilation **Price** £9.95 (tape), £14.95 (disc) **Supplier** Superior Software, Regent House, Skinner Lane, Leeds LS7 1AX.

Seven Electron arcade games, including that legend of the *Popular* lunchtime, *Deathstar*. For those Electron owners with the Plus 3 interface, g'awd bless 'em g'v'nor, it's on disc, too.

MSX

Program Krakout Type Arcade **Price** £7.99 **Supplier** Gremlin Graphics, Alpha House, 10 Carver Street, Sheffield S1 4FS.

See Commodore 64 listing for comment.

PC and Compatibles

Program Microtrivia Type Quiz **Price** £19.99 **Supplier** Harold Gale Associates, Bond House, St John's Square, Wolverhampton, West Midlands, WV2 4AH.

Trivia Quiz tied in with competition for Nile Cruise. 1000 questions – so should keep you going for a bit.

Spectrum

Program Escape from Singe's Castle – Dragon's Lair Part II Type Arcade **Price** £8.95 **Supplier** Software Projects, Bear Brand Complex, Allerton Road, Woolton, Liverpool L25 7SF.

Eight more levels to the game that the punters bought in their thousands – even though people

like me told them not to.

So much for the power of the press, but this one includes sequences such as the River Caves and Boulder Alley which were my favourites in the original coin-op, so consider it highly recommended. (The kiss of death if ever I saw it...)

Program Strangeloop Type Arcade **Price** £2.99 **Supplier** Bug-Byte, Argus Press Software, Victory House, Leicester Place, London WC2H 7NB.

Program Legions of Death Type Strategy **Price** £9.95 **Supplier** Lothlorien, Argus Press Software, Victory House, 14 Leicester Place, London WC2H 7NB.

See Amstrad CPC listing for comment.

Program Nether Earth Type Strategy/Arcade **Price** £9.95 **Supplier** Argus Press Software, Victory House, Leicester Place, London WC2H 7NB.

Another 'build the robots, attack the base' job. First impressions look promising.

Program Krakout Type Arcade **Price** £7.99 **Supplier** Gremlin Graphics, Alpha House, 10 Carver Street, Sheffield S1 4FS.

See Commodore 64 listing for comment.

Program FA Cup 87 Football Type Strategy **Price** £7.95 **Supplier** Virgin Games, 2/4 Vernon Yard, Portobello Road, London W11 2DX.

Udated version of last year's program, with the '86 season's form programmed in.

Program Professional Adventure Writer Type Application **Price** £22.95 (incl p&p), £27.95 (disc) **Supplier** Gilsoft International, 2 Park Crescent, Barry, South Glamorgan CF6 8HD.

New adventure writing system from Gilsoft – full review in this week's supplement.

The portable compatible

The recent launch of Sir Clive Sinclair's portable machine (see *Popular Computing Weekly*, February 19) prompted two questions to enter my mind.

Firstly, what market or markets should portable computers be aimed at, and what capabilities should they possess? Secondly, are manufacturers in general and Cambridge Computing in particular designing machines to fit the bill?

As I see it, there are two types of buyer for portables – those who need it for their job, and those who buy the machine out of interest – to play with as it were.

To suit the business user, the machine must be extremely flexible, both in the software it can run and the environments in which it can operate.

Thus it should either have a standard operating system or compatibility, so that existing software or data can be used, or be easily programmable so that users' diverse applications can be catered for. It should also be expandable with peripherals and memory packs, externally if not internally, so that it can change with the users' changing needs.

Physically the machine should be no larger or heavier than the average hardback book, so that it may be hand

"There are two types of buyers for portables – those who need it for their job and those who buy the machine out of interest"

held. It should be tough enough to withstand at least a fall from the user's hands, and should also be designed so as not to allow grit and dirt to accumulate in awkward places, when, for example, being used by students or engineers in the field.

For the second type of user, the hobbyist, the machine should be able to run completely independently of any other (potentially expensive) hardware, and so run on standard batteries and have an onboard programming language. This itself should be able to access all the machine's features.

So the perfect portable should be light, rugged, open-ended, with simple software built-in and also within the individual's price range.

Unfortunately, some of

these conclusions are mutually exclusive; if a machine is to have an integral disc drive for compatibility or mass storage, then it is unlikely that it will be solid enough to withstand being dropped, and the drive would add to the weight and power consumption.

Obviously, the specification of any portable machine must be a compromise between features and practicality, but where should the compromises be made?

The Psion Organiser II, which is probably the only real pocket computer, is powerful enough for most uses, but the display and keyboard are just too small to be practical for many operations.

On the other hand, a machine such as the new IBM Convertible is a complete system, which can also be used as a desk top computer, but is too large and heavy to be used as a hand held machine.

In designing the Z88 however, Sinclair has taken what I believe to be the right approach; specifying the machine's physical aspects and then packing as much power into it as possible.

In my opinion, Sir Clive has got it just right. Once again he has broken with tradition and created a computer which the public wanted as well as one that is truly useful.

Jeff Tupholme

NEXT WEEK

ST Word Processing

Roger Howorth tests a selection of word processors for the Atari ST. From *First Word Plus* to *Haba Writer II*, which would suit your best?

Microprocessors

Keith Hoyle peers into his crystal ball and presents his view of the microprocessors of the future.

Through a glass darkly

Reducing screen glare on your Amstrad PCW, with Alpha Electronics' screen filter device.

New from Thalamus

No-holds-barred shooting and zapping with Delta, the follow-up to Thalamus's *Sanxion*. Read our full review first.

Communications

David Wallin answers your networking queries.

Hackers



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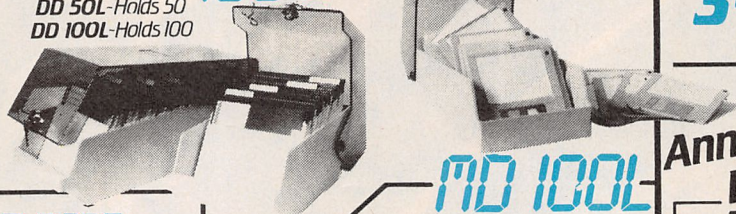


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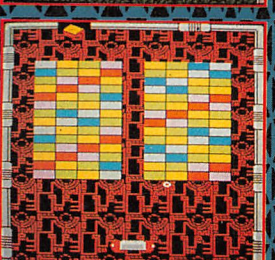
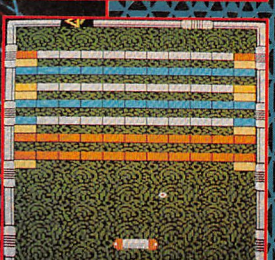
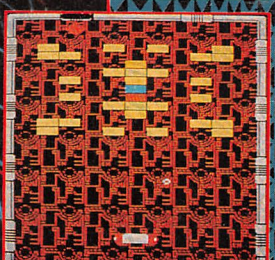
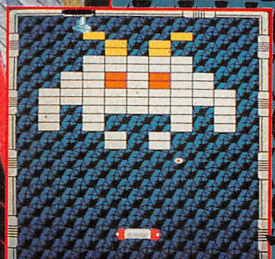
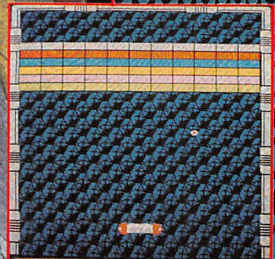
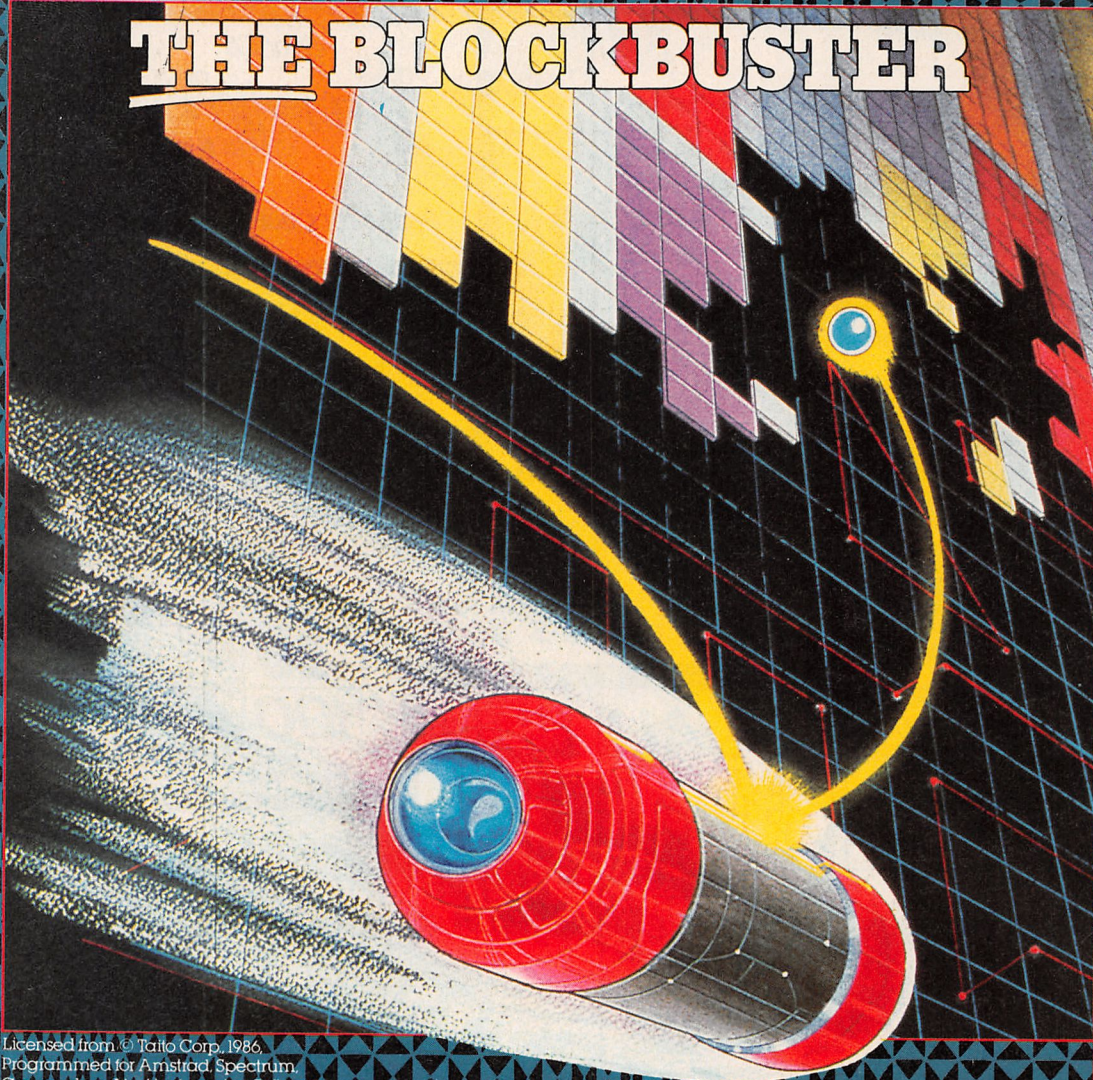
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