

POPULAR COMPUTING WEEKLY

A FOCUS MAGAZINES PUBLICATION

March 10-16 1988

70p

WEEKLY

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Blood Valley

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Twenty-five copies of *Blood Valley* and five sweatshirts must be won

Atari and Amstrad announce computer price increases

ATARI and Amstrad have announced price increases for their micros. The ST range will retail at £100 more while Amstrad's PC and PCW models will be subject to a price increase of up to 12.5 percent.

The underlying problem is the world-wide shortage of D-RAM chips, crucial components of most computers. "The price is now \$5 higher for each chip and there are 16 chips in each machine," says a spokesperson for Atari.

According to Atari's managing director, Bob Gleadow, the problem stems from the argument

between the U.S. and Japan about trade deficits. "Japan then restricted the export of certain products and so is manufacturing only a limited quantity of D-RAMS," he says.

It would seem that while the cost of manufacturing has been rising rapidly in the past few months, both companies have been trying to avoid the price increases but have found that they can hold on no longer. "We can no longer realistically absorb this additional cost as we have been doing for the last year," says Malcolm Miller of Amstrad.

Atari has been experiencing the same problem but was delaying the price increase in the hope of finding another source of chips. "Atari is trying to acquire its own chip-making facility but as there is no immediate prospect of that happening, we are relying on third parties," says the spokesperson.

The £100 price increase is likely to have a considerable impact on the Atari product range but Gleadow remains optimistic that the increases will not be too detrimental to Atari's sales. "It will mean a short-term hiccup but within two

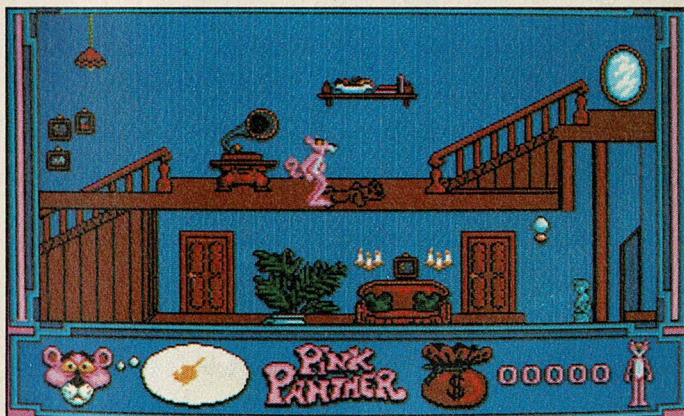
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Pink Panther returns

THE cult following of *Pink Panther* has now extended to the computer games market following the latest Magic Bytes/Gremlin deal. As in the popular cartoons, the panther pink is once again pitting his devious wits against the muddlesome Inspector Clouseau.

The game begins with Pink Panther being interviewed for a butler's position in a wealthy household. If he is well-dressed enough he gets the job but while his role is one of butler his main objective is to relieve his employer of all his valuables.

When night falls, the light-fingered Pink Panther must collect as much silver and jewellery as he can. To complicate the situation he must dodge Inspector Clouseau and keep hold of the house-owner, who is given to fits of sleepwalking. Thus Pink Panther has to steal while preventing his boss from



Pink Panther to be released in April.

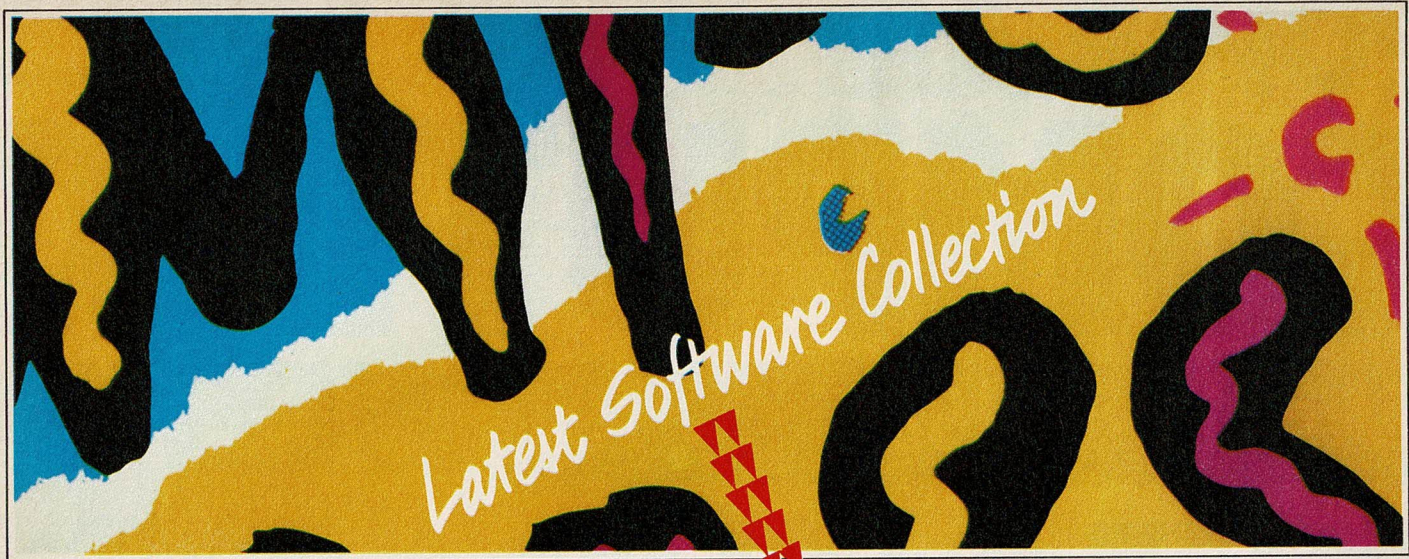
walking off or bumping into things. If he wakes, the game is over.

The more Pink Panther can acquire, the more money he makes.

If he is successful in stripping the house completely of its valuable assets, he can try the same

ploy on a larger house or take the money and run.

Complete with the famous theme tune, the panther will appear in shops in April on Atari ST, Spectrum, Amstrad, Commodore and Amiga, with prices ranging from £8.99 to £19.99.



If you want to keep up with the latest computer software, check out the W.H. Smith TOPSOFT 20 – now.

- | | | | |
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| ▶ 1 | Platoon | Ocean | Spectrum/C64/Amstrad |
| 2 | Out Run | US Gold | Spectrum/C64/Amstrad |
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| 4 | Match Day 2 | Ocean | Spectrum/C64/Amstrad |
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W H S M I T H  H S M I T H 



Subject to availability. Available at larger stores only.



Looking at this week's leading story, it appears that the long-running argument between Japan and the U.S. about trade issues is having wide repercussions, with two of Britain's major home computer manufacturers announcing imminent price increases.

It all began when the U.S. accused Japan of dumping chips on the American market at uneconomical prices and so imposed large import duties on specific Japanese goods, including D RAM chips. Japan then retaliated by restricting the export of the chips; thus what began as a flood has now ended as a slow trickle.

The implication for computer manufacturers is that until the U.S. and Japan can reach some agreement on the issue, any company relying on Japanese chips is subject to a rather precarious situation. While contract suppliers give companies the freedom to choose the most economical manufacturer, it also places them at the mercy of those suppliers. Subsequently, if manufacturing costs rise, the price of the machines to the consumer inevitably will also rise. Horace McDonnell, chairman of the American Electronics Association, was quoted in the *Financial Times* as saying: "The elements of the electronics industry are analogous to the food chain. If one link is damaged, the others automatically are injured."

Theoretically, the obvious solution may seem to be for companies to manufacture their own chips, giving them total control over the manufacturing process. In practice, that, too, poses problems. In the States companies do not want to produce their own chips because an agreement by the trade authorities concerned could mean another flood of Japanese chips on to the market, undercutting U.S. manufacturers.

One company, Atari, is prepared to take the risk and is seeking to acquire its own silicon plant. That is just as well, for it has been hard-hit by the chip dispute. While Amstrad machines have had a relatively small price increase, another £100 on top of the ST is a significant increase, bringing it more into the competitive market of the Commodore Amiga. Whether that has any serious repercussions for Atari we will have to wait and see.

On a lighter note, it is interesting that a new service from Micronet, called Teletalk, is due to emerge only a few weeks after the demise of the BT version, Talkabout. Whereas the tabloids used to be full of stories illustrating parental distress at teenage children's addiction to the telephone service, it is unlikely that the new service will evoke the same distress.

The service enables users to chat with up to 64 others, or to enter 'rooms' and conduct private conversations with selected participants. While the latter feature has connotations of secrecy, it is doubtful that it will lead to any *Spycatcher* affairs.

Nikki Carvey

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Micronet to launch chat-line

MICRONET has announced the impending launch of Teletalk. Two weeks after British Telecom announced the closure of its Talkabout service. Unlike the ill-fated telephone chat line, Teletalk looks to be here to stay.

The best way of describing it is in terms of a large hotel. When you enter the product, you encounter the reception desk where you are given the option of taking a key to a room or moving to the lobby. The bar area has open access. Anyone can go on-line and talk to anyone else.

If you wish to hold a private conversation you can move to a room.

Keyholders have complete con-

trol over one of the 35 rooms. They have the power to allow in new people, eject them or even silence them.

The door of room can be left open, allowing anyone to enter, or closed, meaning that people will have to knock and ask permission to join the chat.

If a group of ST users wanted to hold a discussion on new software for the machine, the keyholder would post a notice in the bar area telling others of the meeting and in which room it is to be held. The door of the room could then be left open for a time to allow the meeting to begin promptly.

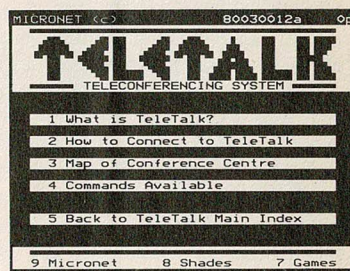
The scrolling screen is split into two when using the product. One

half prints all conversation and the other echoes your input. Comments can either be made to all those on-line - or in your room - or to only one other user.

At present the system is only available to Micronet subscribers with a capacity of 64 users. There are, however, plans to expand it and to offer it to Prestel and Telecom Gold users. There Micronet visualises more serious use of the facility.

Groups of businessmen who want to hold confidential conversations, even though they are in different parts of the country could move to a room, lock the door and talk in absolute security.

As Phil Godsell, product man-



Teletalk menu.

ager for TeleTalk, says: "On-line teleconversation offers tremendous potential as an entertainment form and a serious business tool. We intend to cater for both markets, with products to suit."

Plus 3 adventures

TOPOLOGIKA has released a selection of disc based adventure games for the Spectrum Plus 3. Retailing at £9.95, the games, are *Kingdom of Hamil*, *Countdown to Doom*, *Philosopher's Quest* and *Acetron*.

Giant Killer, which is loosely based on the tale of Jack and the Beanstalk, and involves the player with the task of going to market to buy a pig is also available at £14.95. *Giant Killer* is aimed at 9-14 year-olds as it contains many challenging puzzles.

More information from Topologica on 0733 244682 or write to Freepost, PO Box 39, Stilton, Peterborough PE7 3BR.

Locoscript on IBM PC machines

LOCOSCRIPT, the top selling word processor for the Amstrad PCW, could soon be available in IBM PC

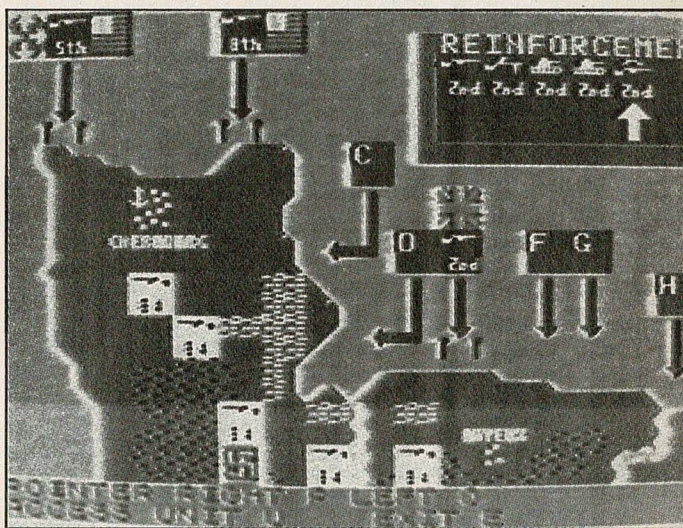
format. Locomotive Software, the company behind many official Amstrad computer titles, did not deny the rumours, rife in the industry, of the impending launch of the PC-compatible program. A spokesman for the company says: "I cannot comment on whether we are planning to launch the software for any other machines. We are, however, constantly turning away people who want us to adapt the program for the PC. So if we had any plans to produce the program on a different format, the PC would be the most likely choice."

LocoScript, supplied free with the Amstrad PCW range, has introduced many non-computer-literate people to computing and has proved a favourite among homeworkers and small businesses.

At first the program was criticised for being too slow and not having a spelling checker, word counter or mail-merging facility. Locomotive responded quickly with *LocoSpell*, *LocoMail* and *LocoScript 2* which boosted the efficiency and appeal of the program.

The company has obviously listened to the comments of customers, so the possibility of a PC version of LocoScript cannot be ruled out.

Hope of an even more efficient version of LocoScript for the PCW has faded. "We have no plans to produce new versions of LocoScript on the PCW," a spokesman says.



Rimrunners.

Name game for Palace

STEVE BROWN, the man behind such mega-hits as *Barbarian - The Ultimate Warrior* and *Cauldron*, looks set to consolidate his position as one of the country's top programmers with his latest epic, *Rimrunner*.

The program, nearing completion, is described as a "multi-plane scrolling-landscape fast-and-furious shoot-'em-up". The action takes place on the edge of known Space, far from life as we know it. A Insectoid race is struggling to colonise uninhabited planets despite constant attack from their arch enemies, Arachnoids.

You take the part of a Rimrunner, one of an elite group of Insectoid warriors used to keep the protective force shield at full strength. Using your reptilian mount, known as a Runner, you take it to patrol the perimeter, recharging the generators and destroying any hostile lifeforms of Arachnoid probes which may have penetrated the shield.

Palace Software, distributor of the game, hopes to have it ready for release in mid-March for the Atari ST, with Amstrad CPC and Spectrum versions following soon after.

Compact Apple

APPLE Computer U.K. has announced its first product to be based on optical storage technology - the Apple CD SC. This is a compact disc, read-only memory (CD-ROM) drive.

In the past CD-ROMs have been used primarily for reference materials such as specialised data bases, and have been sold in specific vertical markets.

By making the CD-ROM drive readily available through dealers and in supporting third party developers, Apple is now hoping that other companies will follow its lead, resulting in the publication of a much wider variety of CD-ROM products.

"CD-ROM is a logical extension of Apple's unique computing plat-

form" commented Apple's product marketing manager Chris Calvert last week.

"CD-ROM complements all of Apple's other strengths by providing cost effective and convenient delivery system for vast amounts and varieties of information," he added.

The Apple CD SC drive is able to store up to 550 megabytes of data and features a 64K memory buffer

and Small Computer Systems Interface (SCSI) enabling faster transfer of data.

The audio chip set and 'desk accessory' software allows it to play both audio CD tracks on CD-ROM and commercial audio compact discs. The drive includes a headphone jack, two RCA audio jacks for external speakers and amplifiers and a universal power supply.

The drive comes complete with an accessory kit that contains a CD Caddy, software drivers and an owner's manual.

Apple expects the CD SC to be used in all spheres from education to business.

Available for the Macintosh Plus, SE and II and the Apple IIe and IIGS computers, the CD SC will be on sale from June priced £895.

Eidersoft make music on Amiga with ProSound

BUDDING songwriters can now make beautiful music with their Amigas, thanks to Eidersoft. The tuneful company is releasing a new music package for the Amiga, based on its highly-successful *ProSound* package for the ST but with many additional features.

The Amiga version will be one of the most advanced music packages available and will feature stereo sampling hardware, allowing the user to take full advantage of the best available sound. The program will also allow up to four channels to be played back at once and each of the channels can be looped to provide continuous background sounds, just like a drum machine. Additionally, the program features compression, fade in/out and complete volume control.

Supplied in two parts, the £79 package consists of the stereo sampling hardware and the music software which, in the cosmetic sense, is identical to *ProSound* on the ST.

The hardware has been adapted to draw its power direct from the cartridge port rather than from a separate source, as is the case with

the original version of the program.

Eidersoft hopes to launch the product early this week.

Also in the musical pipeline from Eidersoft is a new version of *ProSound ST* which runs on machines fitted with monochrome monitors.

The improved package will also feature compression, fade in/out and many other features not available on the original program. Monochrome *ProSound* for the ST will cost around £59.

Computer price increases announced

◀ continued from page 1

months it will have redressed itself," he says.

For Atari the new prices take effect on March 14, so that old stock can still be bought at the original price. "The consumer should now buy quickly before the price increases," one major dealer says.

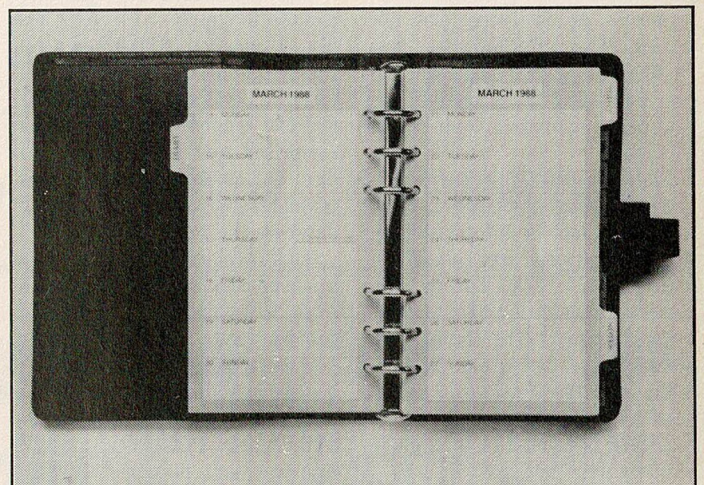
Amstrad, however, will be de-

laying two weeks longer, with its price rises implemented at the beginning of April. "Accordingly, from April 1 we will be raising the retail price for all PC 1512 and PC 1640 models except the lead-in single drive models, which stay the same," Miller says. The increase for the PC range is scheduled for the end of April.

Leather personal organiser offer

WANT to join the jet-set? 3M, diskette manufacturer and sponsor of the 1988 Olympic Games is offering a leather personal organ-

iser, embossed with the 3M Olympic logo, with every five boxed or 3M diskettes ordered. See your local stockists for details.



ST Club

I must reply to the letter by Richard Phillips regarding the 'appalling service' he has received from the ST Club. I also joined the club at about the same time as Mr Phillips - May, 1987 - as a disc-mag subscriber but, unlike him, I am very pleased with the service provided.

To answer his criticisms. Patchy delivery of newsletters and disc-mags. How can they arrive late when there is no fixed date for arrival? They are nominally monthly/bi-monthly but in any event 12 issues - 6 disc-mags - will be sent for the subscription. The normal month at the moment is 5-6 weeks.

The non-chronological arrival of the issues was due to an inefficient printer - as in trade, not dot matrix. The ST Club has now changed its printer and legal action was being taken against the first one - scarcely a fault of the ST Club.

The disc catalogue has had a series of upsets and now has to be updated to include information on which programs are compatible with the new TOS. Surely it is better to have an up-to-date catalogue than not? The inability to order PD discs because of the lack of the disc-based catalogue is beyond my comprehension, as the PD catalogue is printed in the middle of every news letter.

The ST Club is improving with every newsletter published. It is now DTP-ed, printed on a laser printer plus commercial software and is also available at discount prices. The PD library is also one of the best I know. At £22.50 for a 12 newsletter/six disc-mag subscription, it must be one of the best buys of the decade.

S. H. Rudd,
Wolverhampton.



Right of reply

Richard Phillips - letters page *Popular Computing Weekly* - feels he has been badly treated by The ST Club. Point taken; nine months' waiting for a PD disc is a little excessive, but what he does not make clear is that instead of waiting for the disc he could have asked for an alternative disc or a full refund.

Because the overdue disc was the one intended to contain the full PD Library could not have prevented him making an alternative choice. All subscribers have received at least two copies of the printed version of the PD catalogue in the last few months, plus numerous catalogue updates in the newsletters.

Why does it take more than nine months to supply a PD disc? The disc in question (STD.02) is a full file-by-file description of all PD material available for the Atari ST. The original version (STD.01) comprised text files on each PD disc, but as the PD library grew tenfold in the last year - a custom database was required.

This project was handed to someone who failed consistently to produce the desired results and so the discs were withdrawn; via the newsletter we again offered everyone the option of a refund, alternative disc or another wait for the STD.02 disc. Phillips' alternative disc was sent to him two weeks ago.

On to the question of irregular newsletters. In the early days we had considerable problems with unreliable printers, more recently, the task of producing newsletters of 28 A4 pages with *Publishing Partner* on the ST has proved far more time-consuming than was envisaged. The situation with the newsletters has been explained in all recent issues. Subscriptions run for 12 issues and not 12 months.

Apologies to Phillips and anyone else who has been on the receiving end of a long wait for PD discs or a reply to a letter. In the past three months there has been a massive increase in interest in the club and at times we have struggled to keep pace with the demands. The ST Club started 15 months ago on a desk in the corner of my bedsit. That was in the bad old days when one PD disc could cost £10. It has outgrown three new premises since and we are now preparing for a fourth move. Hence the absence of a published telephone number and use of a PO Box address.

We will soon have sufficient space and staff to be able to return

to giving a 48-hour response on orders and correspondence.

Phillips suggests that "it has probably cost me the price of half a dozen discs to get the one owed me". I doubt that the bill is £13.77 (at ST Club PD disc prices). If he would let me know the additional expense he has incurred I will be happy to reimburse him.

Finally, after reading the first issue of *ST Update* I took a subscription to this magazine. After a few months *ST Update* was sold and the new proprietors started sending me a poor substitute called *Your Computer*. Sixteen pages of ST-related material per issue scarcely what I had in mind when I took the *ST Update* subscription.

Paul Glover,
ST Club.

Very DIM

R. J. Henderson - Letters, February 25, should get a Basic manual as soon as possible. A command such as DIM a\$(1000,20) has a different meaning on the Spectrum from most other Basics. To emulate it on his PC 1640ECD he should have typed DIM a\$(1000) and he would have had the equivalent of DIM a\$(1000,255) on the Spectrum.

In fact, he was asking the computer for what would have been DIM A\$(1000,20,255) on the Spectrum. His claim that the Spectrum has three times as much array memory is unfounded.

T. E. Watson,
Oswestry.

Basic facts

In your issue of February 25, you published a letter from Mr R J Henderson which purported to compare Basic 2 with ZX-Basic but was peppered with factual errors, from which Henderson deduced an absurd conclusion.

First, he makes some serious errors in his comments about arrays. Basic 2 implements the standard idea of the command DIM that you can use DIM to create an array of the given type with the requested number of dimensions - each dimension with elements starting from 0). So, DIM a\$(1000, 20) will generate an array of 21,021 strings, each of which is of variable length.

The Spectrum, on the other hand, has a completely non-standard and very limited meaning for the DIM command with string variables. It can have only single

dimension string arrays. Despite this, arrays on the Spectrum are written as if they had two dimensions. Also array elements are numbered from 1. So on the Spectrum DIM a\$(1000, 20) defines only 1,000 strings, each of which is fixed at 20 characters.

Thus Henderson is comparing the space for a 21,021-element array in Basic 2 with a 1,000-element array on the Spectrum. It is scarcely surprising that the Basic 2 array takes more space. He continues his comparison to say he executed the command DIM a\$(2000, 20) successfully on the Spectrum - 2,000 elements - and DIM a\$(500,20) under Basic 2 - 10,521 elements. I fail to see how this shows the Spectrum to have "three times as much array memory".

Second, Henderson refers to the "tiny Edit window". Basic 2 places no restrictions on the size of its windows, the Edit window starts small so that most of the screen can display the results. Click on the standard GEM "full-size box" for the Edit window - and it is shown at the maximum size which can be displayed on the screen. Or, using the standard GEM "scroll bars" you could scroll through your program while it is running. This is scarcely a "mish-mash of old hardware and archaic Basic"!

Then the letter that describes a "benchmark" of printing some text on the screen. It is surprising the Spectrum does well at this, there are so few features that printing text can scarcely be other than quick. Basic 2, however, is running in the GEM environment, with windows, where text can be in a variety of fonts and sizes. Naturally, this can be slow. From that Henderson draws the conclusion that Basic 2 text-handling is slow. It proves nothing of the kind. What it shows is that using GEM to write to a screen window is slower than writing to the Spectrum's screen.

Considering the features available in GEM, the absolute speed of a trivial operation is not a reasonable benchmark - no more that is than would be a comparison of the two machines' performances when writing text in a quarter screen, scrolling window with 30 point italic text - if the Spectrum can do it, that is.

It is foolish to suggest on such partisan and inaccurate data that Locomotive Basic 2 is inferior to ZX-Basic. It is more powerful, more flexible and far more sophisticated.

H. Fisher,
Director of marketing,
Locomotive Software.

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Friday to Sunday, March 18 to 20

Bring this coupon to the Show to get 50p per person off the normal admission price of £3 (adults), £2 (children). Valid for up to four people.



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Saturday, March 19, 10am-6pm
Sunday, March 20, 10am-4pm**

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Pop

The task force strikes out

There has been an increasing trend towards naval games - Argus with *Hunt for Red October*, Rainbird with the soon available and much hailed *Carrier Command* and Electronic Arts with *PHM Pegasus*. It is the last game which bears the closest resemblance to *Strike Fleet*. That is not surprising, since both games were written by Noah Falstien, Ken Macklin and Lawrence Holland who all work for Lucasfilm. Some companies like Accolade sell their own games in the U.S. and use Electronic Arts only in the U.K. Lucasfilm is a company which writes programs for other companies, much like

the task before you. Since you play the commander of the fleet you have a number of ships under your thumb.

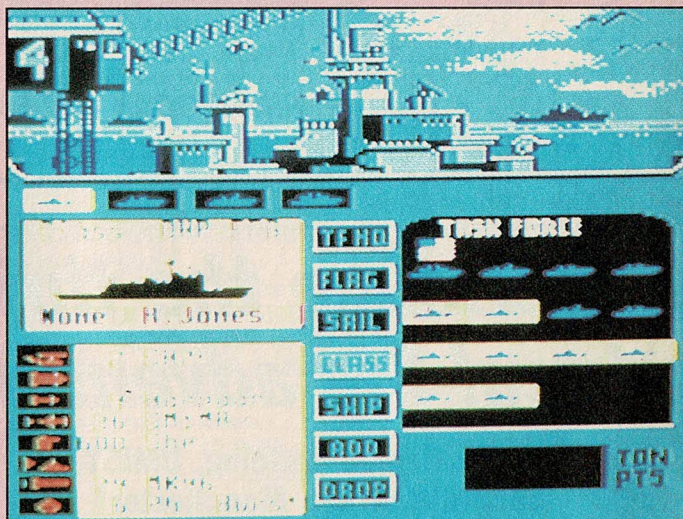
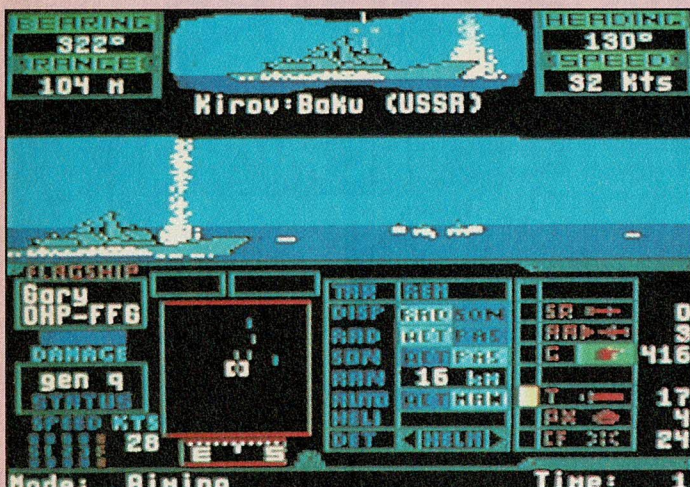
Depending on the task in hand it will range from a single frigate to an armada. You select your ships in the shipyard along with their armaments. You are given a budget in terms of points and have to decide whether you want a number of cheap and weak ships or fewer, more impressive ships. You get points only for those craft which make it back to the shipyard after the mission.

Much of the strategy, as opposed to action, is co-ordinated from the Command Information

using a joystick but it is very slow. The best way to learn is to start with mission one. Your task is to defend re-flagged shipping

continue eating into our economy.

The rest of the missions are not based on real life but in the



Probe in the U.K. All its programs have been excellent.

Strike Fleet is a big game. Not only does it take up both sides of a disc, but it also has a weighty manual, which includes a catalogue of the marine combatants you are likely to encounter.

I was surprised how quickly I could get through the manual. A crib card gives you a quick way into the game. A briefing outlines

Centre. From there a ship can be sent to form another task force or summoned to join your mariners. You do not really have to worry about navigation - an autopilot does that for you.

The action takes place on the bridge, which may mean from inside a helicopter in some cases. There is plenty to learn, with more than 30 keyboard controls. The whole thing can be played

in the Persian Gulf. Mission two is a contrast. There are two ships to worry about and the helicopters are of less use.

It is a submarine hunting exercise, based on events during the Falklands war.

Mission three returns to the Persian gulf. With a fleet of seven ships you must escort three Kuwaiti tankers through the Straits of Hormuz.

Mission four in the Comodoro 64 travelogue returns through time to the Falklands war with the first real attack. Seek three frigates which are defending an aircraft carrier and take them out.

Then it is back to the Persian gulf for mission five where you take on motor boats while escorting empty tankers.

Remember it is the merchantmen's safety for which you are paid and Japan needs the oil to

light of the world beating its SS-20s into ploughshares they are much more chilling. Missions six to 11 take place during World War Three where you take on Russian fleets with 14 ships of your own, or take on a landing force as it attacks Norway.

I began by thinking that *Strike Fleet* would be exciting and zappy. It was not. *Strike Fleet* is tense and absorbing. I am beginning to understand why grown men spend so many hours playing with lead soldiers. □

Reviewer: Simon Rockman
 Price: £14.95
 Micro: C64
 Supplier: Electronic Arts
POPULAR RATING
 Graphics: 18
 Sonics: 14
 Gameplay: 47

79

Arkanoid 'The Revenge of Doh' - Spectrum

Who would have thought that a simple theme game such as *Breakout* would be cloned heavily in 1987/88? The game is more than 10 years old, but it seems software houses like it and, judging by the number of *Breakout*-style games on the market, the public likes it, too.

One software house successful with a *Breakout*-style game is Imagine with *Arkanoid*. Now, Imagine has released a sequel, *Arkanoid, The Revenge Of Doh*.

After a bitter battle, the *Arkanoid* Space Wars were eventually liberated by the Universe. Doh, an evil alien was at last defeated, but for those who took part in the victory little realised that 40,000 years later history would repeat itself.

An enormous spaceship called Zarg has been trying to enter the Universe. Unfortunately the spaceship containing Doh is a more powerful and evil form than ever.

You are in control of Vaus II and you must break down the



wall with which you are confronted by using a bat and ball technique as you try to get your energy bolt into contact with the bricks.

This is no ordinary *Breakout*-style game. It has a totally over-the-top storyline, great gameplay, pleasant sound effects and an overall addictive quality. If you enjoyed *Arkanoid* or if you like *Breakout*-style games, it is

well worth looking at, as it offers a real challenge.

Reviewer: Leslie Bunder

Price: £7.95

Supplier: Ocean

POPULAR RATING

Graphics: 18

Sonics: 16

Gameplay: 42

76

Sidearms - Spectrum

Remember *Nemesis*? Capcom certainly do. And thanks to them, that great little game with all those wonderful things to pick up to give you more speed, power or weapons is born again, partly - in *Sidearms*.

Sidearms is not, I hasten to add, a complete rip-off of the game, it just bears a few similarities. Not just the pick up items, but also the nasty monsters at the end of each screen.

Nemesis, converted for the home market, is unlikely to be anywhere near as good as the arcade version but *Sidearms* has a few additional features, which make it highly playable and very enjoyable.

First, bonus points can be scored by picking up additional items - cows, barrels and strawberries(!). Second, and far more importantly, in two player mode, the two players can combine their weapons and to fire multiple shots in multiple directions.

In addition to this, all the usual features that make up a good shoot-'em-up are there. Speed up and down pods, multiples, tall guns and bazookas as well as a great multi-beam laser - wonderful if you can get it. When more than one weapon has been collected, the player can switch between them by pressing a key.

The weapons are displayed on a grid at the bottom of the screen. Should you lose a life while using one weapon, the remaining lives still have access to any remaining weapons.

Sidearms is an exciting game with plenty to do and lots of action. In terms of graphic appeal, the Amstrad and Commodore versions, as usual, score more points, but in terms of pure playability and enjoyment, the Spectrum version knocks spots off the others.

Reviewer: Tony Thompson

Price: £8.99

Supplier: Capcom

POPULAR RATING

Graphics: 14

Sonics: 15

Gameplay: 39

68



Your complete guide to all the software released this week

Amiga

Program *Joe Blade* Price £9.95
Supplier Players, Mercury House, Calleva Park, Aldermaston, Berks RG7.

Originally out on the Spectrum now converted to the Amiga with enhanced graphics and sound. Quite an addictive shoot 'em up.

Amstrad CPC

Program *Shanghai Karate* Price £1.99
Supplier Players, Mercury House, Calleva Park, Aldermaston, Berks RG7.

Another Karate game as you take on the role of the warrior Lo Yin. Nice large and colourful graphics make this a worthy buy at £1.99.

Atari ST

Program *Seconds Out* Price £19.95
Supplier Tynesoft, Addison Industrial Estate, Blydton upon Tyne, Tyne & Wear NE21 4TE.

Yet another boxing simulation, this time you must take on five champion boxers in your quest for the world title.

Commodore 64

Program *UCM* Price £2.99
Supplier Mastertronic, 8-10 Paul Street, London EC2.

Program *Battle Valley* Price £1.99
Supplier Rack It, 8-10 Paul Street, London EC2.

Commodore C16

Program *Indoor Sports* Price £9.95
Supplier Tynesoft, Addison Industrial Estate, Blydton upon Tyne, Tyne & Wear NE21 4TE.

A simulation of four indoor sports including Table Tennis, Darts, Ten Pin Bowling and Airball.

continued on page 10 ►

Software guide continued

IBM

Program *Frank Bruno's Boxing*
Price £19.99 **Supplier** Elite.

Originally released nearly three years ago on the speccy, Elite has decided to bring it out on the IBM machines. Quite a good conversion and fun to play if you like boxing simulations.



Spectrum

Program *Impact* **Price** £9.95 **Supplier** ASL, Winchester House, Canning Road, Harrow HA3 7SJ.

Yet another breakout game for the Spectrum complete with a screen designer. Not a bad little game and is well worth a look if you like breakout style games.

Program *Rockford* **Price** £1.99 **Supplier** Mastertronic, 8-10 Paul Street, London EC2.

Complete with added game *Rockman* not bad for a couple of quid.

Program *P.O.D.* **Price** £1.99 **Supplier** Mastertronic, 8-10 Paul Street, London EC2.

The most exciting and addictive shoot 'em up ever. At least that is what the inlay card says, so it must be true!

Frightmare - CBM 64

F*r*ightmare is the first computer nasty from Cascade. It is a tale of good versus bad as *Fright-*

mare now roams Frightmare, killing people to experience the death which was denied to him.

The tales go on and get more and more gory but all of them



mare takes you into your subconscious and you will find yourself trapped in a world of dreams, all of which are horrific.

There are several tales of those who live in Frightmare. A race of people who worshipped the Moon to gain eternal life now live a life between wolf and man. A Pharaoh who was denied death

involve monsters, zombies and other assorted nasties.

There are two objectives in Frightmare. The first is to awaken by advancing the clock to 8.12am by visiting as many rooms as possible. Each room visited will advance the clock by six minutes. The second objective is to increase your dream state to

the highest possible. From a bad dream through to the ultimate, a nefarious Frightmare.

The graphics are big and bold but the game is somewhat of a let-down after a few plays. It is a basic platforms and ladders game and involves you collecting various items on your journey as you attempt the ultimate dream.

To help you the items include holy water to get rid of skulls and bats, a watch which will slow all monsters so that you can dodge past them, and a silver revolver and bullets to kill zombies and werewolves.

The game plays very fast and is a taxing challenge to the arcade adventure fan but unfortunately it has all been seen before and offers nothing dramatically original to a well-used theme. The plot may be original but the game play certainly is not.

Reviewer: Leslie Bunder

Price: £9.95

Supplier: Cascade

POPULAR RATING

Graphics: 15

Sonics: 13

Gameplay: 30

58

Rocky - Sega

If you always wanted to be Sylvester Stallone, Sega is now offering you the opportunity with its *Rocky* game.

As Rocky your aim is to become heavyweight champion of the world.

There are three opponents for you to compete against, Apollo, Lang and Drago.

Apollo is the heavyweight champion and is virtually unbeatable. Lang is hungry for a chance to win the title and Drago is from the U.S.S.R. and is very ambitious.

To build confidence, skill and strength there is time allocated to training sessions. There are three training sessions, each geared towards each of your rivals.

Sandbag training is used to prepare Rocky for Apollo and will allow you to increase your punching power and timing. The punchball is used to prepare for Lang and increase punching speed, consistency and power and allow each punch to have more impact.

Punching mitts will be used to prepare for Drago and will help you increase the accuracy of your punches.

Rocky is sheer delight to play. The graphics are finely-detailed right down to the muscles on Rocky's body.

While the sound and music add to the overall atmosphere, *Rocky* must surely rank as the best boxing game yet produced, even beating the all-time classic

Frank Bruno's Boxing. If you own a Sega, Rocky is essential for you to have.

Reviewer: Leslie Bunder

Price: £24.95

Supplier: Sega

POPULAR RATING

Graphics: 18

Sonics: 18

Gameplay: 41

77



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A fistful of feathers

We have spent the last year analysing what consumers want from us." Paula Byrne, head of Telecomsoft, was evaluating the company's situation in the games market and appears to be contented with the way things are going.

Having gone through a period of "getting our act together", Telecomsoft is ready to battle even harder with other software houses. To emphasise the opening of a new chapter it has emerged complete with overhauled corporate image, which will be introduced formally next week.

Telecomsoft was set up in 1983 as just the mid-price Firebird label. In 1985, the more strategic and disc-orientated Rainbird evolved, primarily to target the U.S. market developing 16-bit machine bases - "a radical thing to do at that time", says Byrne.

According to Paul Hibbard, publisher of Telecomsoft, Rainbird has now established its own niche in the market. "The range is increasing dramatically," he says. "We started with 10 products and now have more like 70 or 80."

Budget entrance

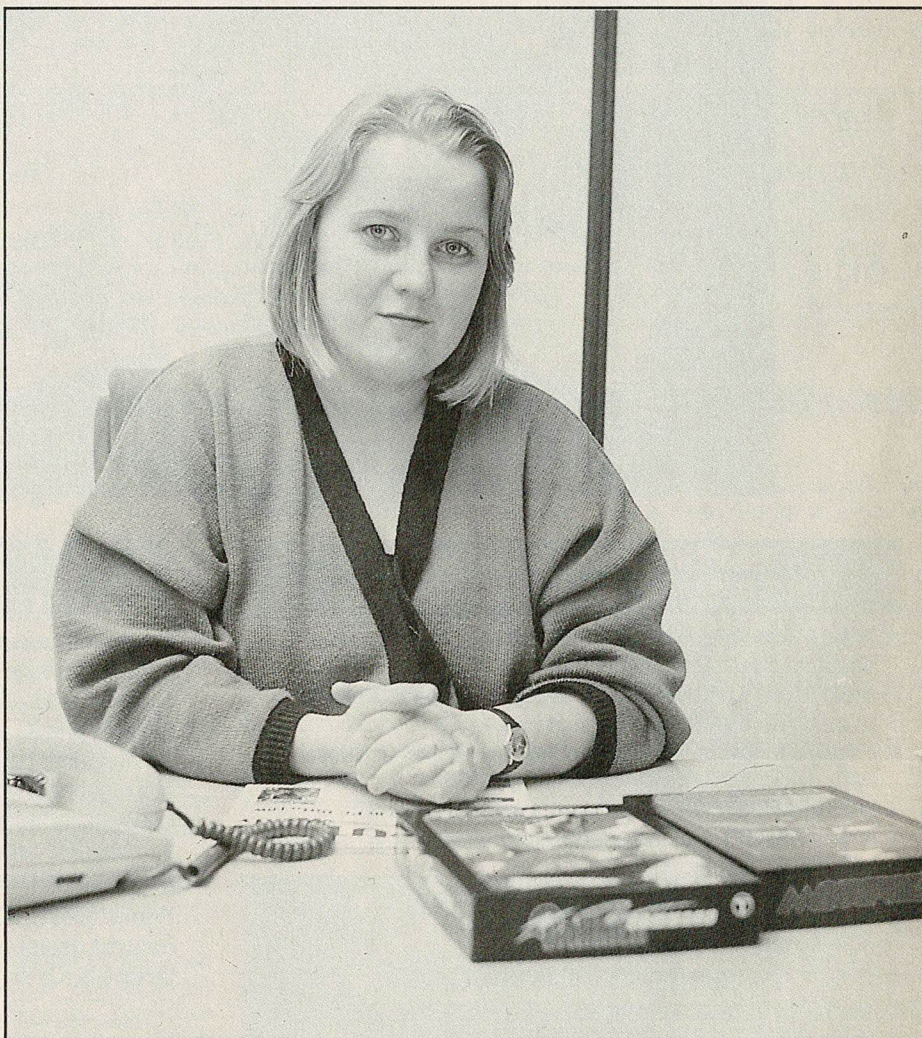
The company's entrance into the budget market was a more recent venture, undertaken because that was the way the market was moving. Hibbard is adamant that the interest in budget would not be at the expense of the full-price labels as the markets are aimed at different consumers.

"Quality of the game is the key to the whole thing; mid-price is superior to budget as much more goes into them. The quality of both budget and £10 games has improved considerably because of the competition."

A year ago each Telecomsoft label - full-price, mid-price and budget - was run as individual software houses. In the last few months, however, the decision was made to bring together the various marketing and development teams to capitalise on the various skills.

The result has been a polarisation of the

Nikki Carvey visits the offices of Telecomsoft and reports on the development of its software labels.



Head of Telecomsoft, Paula Byrne.

corporate image under the slogan 'A legend in games software' while at the same time individualising the labels - Firebird Silver, for example, has been re-named Silverbird to make its budget identity more lucid. "It is for recognition," explains marketing manager Debbie Sillitoe. "It makes each brand and the company more identifiable

in the market." This change in marketing is linked closely with the redefined business attitude of Telecomsoft.

According to Byrne, the last year has been spent getting all three labels firmly established in the market and subsequently the company lost in competition. "We were not targeting our market carefully

enough." In the past with Firebird it had tried to create its own innovative and quality games rather than following the



Paul Hibbard, Telecomsoft publisher.

mass market. Now it has realised that the middle market is very much fashion-led - martial arts, sports, coin-op licences - and will try to follow the themes in the same way. "With Firebird we have not achieved the kind of position we would like to so we will be making a big attack on that in future," says Hibbard.

Market trends

"We will let customers tell us what they want, only we will keep the same quality of programming as before," he adds. "A certain amount of business must be following market trends - if something is successful everyone jumps on the bandwagon. It is also important to be a market leader - to produce things and from now we shall do both."

The implication for Firebird is more licensing deals and Telecomsoft is currently 'actively seeking' such contracts. While film licences can prove to be extremely popular, they are a problem in that a company can release a game title of a film which never took off.

"You have to be very close to the market to know what will be successful," concedes Byrne. "Publishing is always a risk; the product can die a death or come top of the best-selling list."

Original

While Telecomsoft had also been concentrating on original themes for the budget market, it is now pursuing similar games to those on the Firebird label - albeit less sophisticated ones. "The market is becoming more of a copycat market for full-price," comments Byrne.

Consequently the company will be looking more at publishing back-catalogues of other software houses, having already produced some Activision titles.

A distribution deal was also signed with Activision in the States, since it proved a better option than Telecomsoft having to build on its own. "We are using its built-in

sales force while maintaining our own marketing, public relations and publishing," says Hibbard.

For Telecomsoft to be successful in the States it needed to deal with an established company as the American system is structured very differently from the British. Whereas magazines play an important part in a game's success in Britain, in the U.S. reviews are not featured until three to six months after a game is released. "The campaign is to get the games on the shelves," acknowledges Hibbard. "Then it is a question of word of mouth."

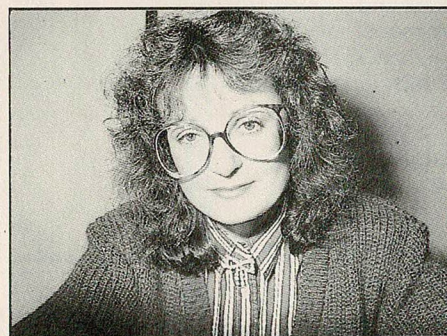
Break the mould

While Firebird and Silverbird will follow the trends of the market, Rainbird will continue to break the mould - setting fashions instead of merely following them. "We do not want to give people the same type of programs all the time and although it is a higher risk, when you get the products totally right, you have achieved something major," comments Byrne.

Telecomsoft is also interested in expanding further on the Rainbird side into entertainment areas other than pure computer games. Along with Virgin and most other software houses, Telecomsoft is keeping a close watch on the CD-ROM and arcade machine markets. Hibbard attributes this interest to the large size of the product memories, which allows them to have much greater graphics capabilities.

Plans for the future include working in the Sega area and further concentration in the 16-bit market. "We were producing Amiga and ST products a year ago," says Byrne, "so we are in a good position to take advantage of increasing those products."

While the Atari ST market remains stagnant in the U.S., Hibbard is confident that the ST will replace the Spectrum as the main machine in the U.K. "I would like to see it happen as you can put more into the game. The quality of the graphics is



Marketing manager, Debbie Sillitoe.

superior with the ST and it gives you more scope, rather than trying to squeeze things into the memory of a Spectrum."

Byrne is also aiming to work more closely with other software houses in the

future, although she is adamant that there will be no affiliation deals in Britain. "It is just to avoid stupid things happening, like all companies releasing their strongest titles of the year in the same period. By planning releases for different months we will not be clashing head on."

From scratch

For Byrne, 1987 was an exciting year in which the new Telecom team has worked from scratch on a number of objectives which will soon reach fruition. Both Byrne and Hibbard attribute the company's success to the teamwork and the members' ability to judge what will sell.

Others in the industry would not necessarily endorse this view, preferring instead to link Telecomsoft's success with its massive wealth. Ever since it has been established, Telecomsoft has been subject to flak concerning its backers - BT. Byrne dismisses the notion that the company expansion was due to its ability to buy others out of the market.

Grossly inflated

"The money we are supposed to have paid for deals is always grossly inflated or wrong. On many occasions we have offered programmers less than other companies but with us they get security and now they will get a royalty," she said. "The only way

"A certain amount of business must be following market trends - if something is successful everyone jumps on the bandwagon."

of being successful is by creating a good product at the correct price."

Her point of view was reiterated by Hibbard. "We do not have endless supplies of money and although we are backed by BT, if we are not successful in our own right it would not keep BT happy." He admitted that having a secure financial base meant that Telecomsoft does not have to worry about being forced out by other companies.

Hibbard's motto is 'success breeds success' and his ultimate plan for Telecomsoft is to become the world's largest publisher.

For the nearer future, Byrne is intent on taking Telecomsoft to the top of the games entertainment market. Since there is no major competitor to Rainbird, the company's main objective is "to out-do Ocean and U.S. Gold in sales terms on Firebird and to out-class Mastertronic on budget". □

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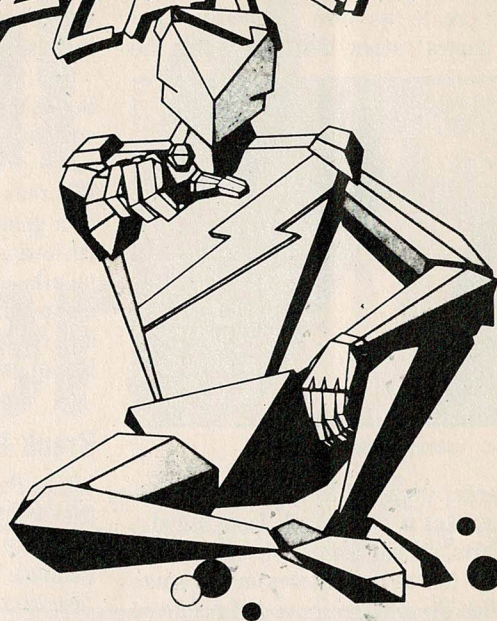
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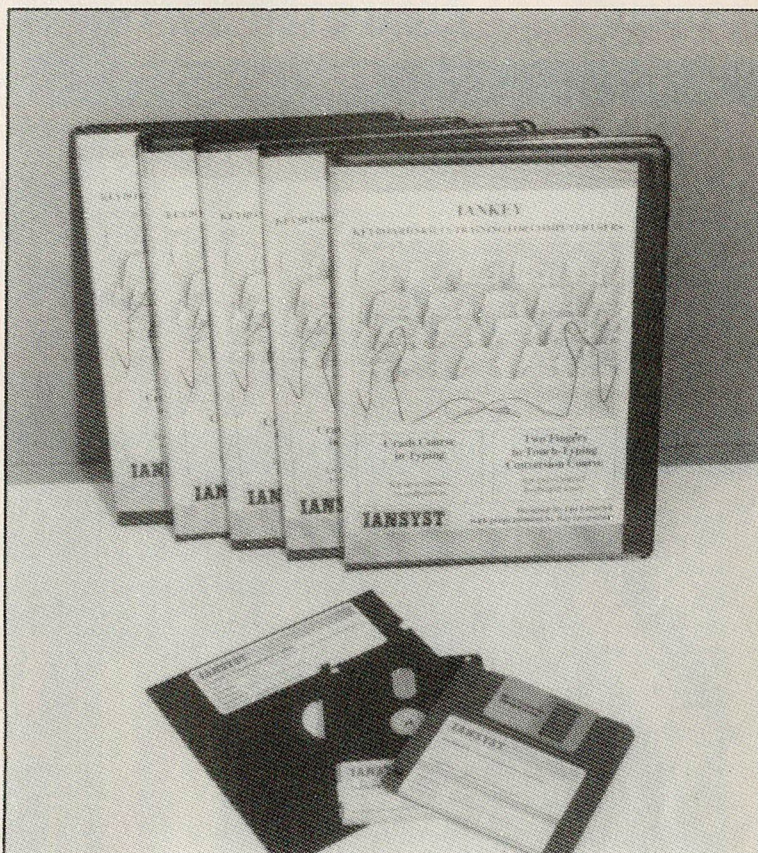
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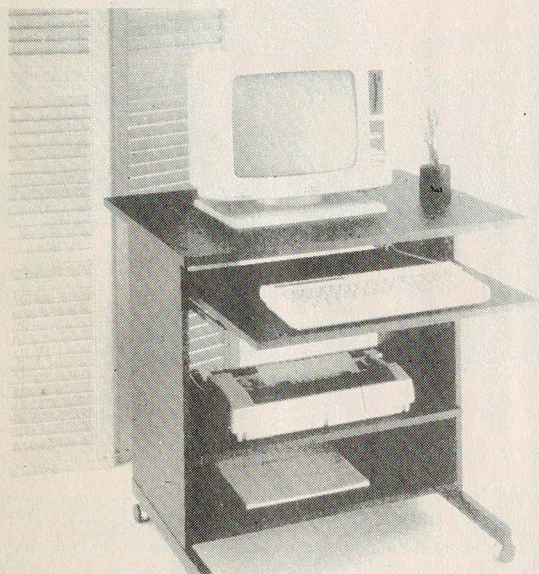
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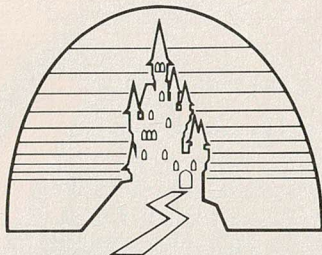
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Saturday 9th April Warlingham Park School, Chelsham Common, Warlingham, Surrey.
Saturday 30th April The Cannons Leisure Centre, Madeira Road, Mitcham, Surrey.
Saturday 21st May Dacorum College, The Marlows, Hemel Hempstead.
Saturday 11th June The Pavilion, Lingfield Park, Lingfield, Surrey.
Saturday 9th July Venue to be announced.
Saturday 30th July The Cannons Leisure Centre, Madeira Road, Mitcham, Surrey.

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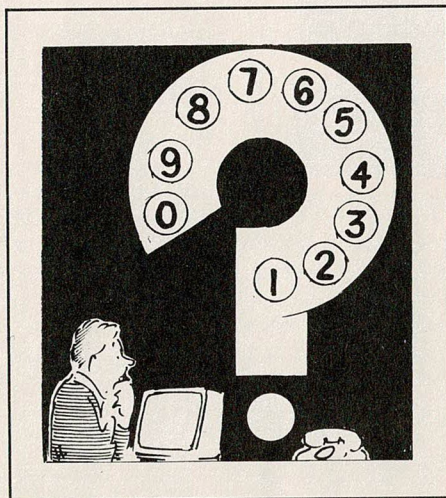
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Percival Prime

Percival Prime lives in a world where prime numbers are the order of the day. It is not surprising that the number of his house is a prime number, as is his car registration, bank statement number and locker number at the golf club, where the 19th hole - 19 being prime - is of extra special significance.

Therefore he was particularly pleased to be allocated a three-digit telephone number which was also prime. Consider his dismay when, some years ago, he was informed that it would be necessary to add the prefix '3' to the beginning of his existing telephone number. He went into a momentary panic until he realised that his new four-digit number was still



prime. The story is not yet complete. Because of reorganisation at the exchange, he was told that a '1' would need to be added to the front of his number, so producing a five-digit number.

No sooner had he been able to verify that this, too, was prime than he heard that for technical reasons the two leading digits would have to be reversed, producing a final number of 31***. The three stars represent his original number, which has remained unchanged throughout. This, too is prime.

Can you find his original number, as represented by ***, such that ***, 3**, 13** and 31** are all prime numbers?

PUZZLE SOLUTION

Solution to Water in the Works puzzle of March 3-9

Answer: The jug holds 635.06236cc of water, to eight significant figures.

Solution: Starting with an initial volume of 10,000cc, the two FOR/NEXT loops represent the weeks and the days. For each of the seven days the volume is reduced by one per cent - line 140. Weekly, the tank is topped up with one jugful of water - line 160. The volume of the jug is

set initially at 500cc at line 10. After the final weekly addition an extra jugful is added - line 180 - and the total volume of the tank is printed-out. As the volume is unlikely to be the required 10 litres, the volume of the jug is adjusted by a proportional amount at line 200 and the while process is repeated.

This will result in an improved final volume, each run of the program producing a more accurate result.

The running of the program can be halted when the required level of accuracy

is required. This would normally be limited to the number of digits to which the computer can work.

```
>
100 JUG=500
110 VOLUME=10000
120 FOR WEEK=1 TO 52
130 FOR DAY=1 TO 7
140 VOLUME=VOLUME*99/100
150 NEXT DAY
160 VOLUME=VOLUME+JUG
170 NEXT WEEK
180 VOLUME=VOLUME+JUG
190 PRINT STR$(VOLUME); " "; STR$(JUG)
200 JUG=JUG*(10000/VOLUME)
210 GOTO 110
```

COMPETITION WINNERS

Here are the winners of the Road Wars competition, they will be receiving their prizes shortly from Melbourne House.

N Gordon, Bilton; C Marron, Isleworth; I Chiles, Forrest Hill; B Oates, Cambridge; C Best, Plym-

outh; M Pursey, Bournemouth; K Wolstenholme, Manchester; A Thomson, Ilford; P Evans, Felixstowe; M Bryan, West Midlands; J Gill, Surrey; M Weatherhill, Aylesbury; B Nix, Northants; S Lee, Ramsey; J Shaw, Cheshire; K Daw-

son, Peterborough; T Lyall, Northumbria; I Levy, Essex; J Douglas, Blackpool; D Caesar, London; J Rose, Bognor Regis; C Richardson, Kent; C Hebberts, West Midlands; A May, Elgin and T Blackhouse, Salford.

SOFTWARE HOTLINES



SOFTWARE HOTLINES

With Duncan Evans lazing in the sun on Bondi Beach and John Brissenden joining our sister publication *Your Computer*, you might think *Popular Computing Weekly* would grind to a halt, but there is no stopping it. After last week's

hell-raising antics, Evans is certainly in need of a rest. Not only was he extremely busy sampling the cuisine delights **Mirrorsoft** had to offer during a hectic and intense four-hour lunch but he also found time for some scenic travelling, courtesy of British Rail and a day trip to Blackpool.

The pièce de résistance was when he took some time from his busy schedule to go flying with those wild men of software, **Microprose**. During an eight-hour flying

day, thousands of feet above the ground, Microprose somehow managed to relate the flying session to some new game it will be launching soon. No doubt Evans will explain all when he returns next week.

Without further ado, a moan. Every week we spend hours thinking of competitions and every week we get hundreds of entries for them - except for one. *Robocop* must have been one of the most publicised films of recent months so we thought it would make a brilliant competition. You know the situation; give away some promotional jackets, records, books and posters. We then waited for you to flood our offices with entries but you did not. Of the 17 entries received, 16 were incorrect. It was not as if the questions were difficult. Who was the intelligent person who said Robocop is a sheet of Bacofoil? As we still have 83 copies of the Robocop book, we would like to give you another chance to win it.

All you have to do is write on a piece of paper your name and address, put it into an envelope with 40 pence in loose stamps then seal the envelope and put an 18

pence stamp on it and address it to: I Really Want To Read a Book, Popular Computing Weekly, Greencoat House, Francis Street, London SW1P 1DG.

Almost every film reviewer slammed the brilliant new film *Less Than Zero* based on the fantastic book by Bret Easton Ellis. I found it highly enjoyable and thought-provoking, despite one or two slow moments. Not only did I like the film but so did an unnamed software house which will be releasing *Less Than Zero*, the computer game.

Do not expect an arcade game; this is definitely an adventure/strategy. It will be set in Beverly Hills and you will play the part of a 20-year-old home on vacation from college meeting with old school friends and going to bars, clubs and other youth haunts.

This week's screen shot is from **Cascade** with its new game *Ring Wars*. It looks interesting and it's available soon on a variety of machines.

That is it for this week. Next week Evans will provide you with all the latest news, views and gossip from Australia.

Leslie Bunder

DIARY DATES

MARCH

March 18-20 1988

The Electron and BBC Micro User Show

UMIST, Manchester

Details: Displays and demonstrations of all the latest hardware, software and

peripherals from Acorn computers
Organiser: Database Exhibitions, 061-456 8383

March 22-24 1988

Electro-Optics & Laser U.K.

National Exhibition Centre, Birmingham

Details: Electro-optics and laser hardware, components and applications

Organiser: Cahnners Exhibitions; Sheila McGill, 01-891 5051

APRIL

April 12-14 1988

The Scottish Computer Show

Scottish Exhibition Centre, Glasgow

Details: Scotland's exhibition for professional and business computer users

Organiser: Cahnners Exhibitions; Stella Hall, 061-832 4242

April 22, 11.00-18.00

Einstein Exhibition

National Motorcycle Museum, Birmingham

Details: Demonstration and sale of Einstein equipment, software, hardware and peripherals.

Organiser: Graham Bettany, 0473 4950

April 22-24 1988

The Atari User Computer Show

The West Hall, Alexandra Park, London

Details: Displays and demonstrations for the Atari range

Organiser: Database Exhibitions, (0625) 878888

MAY

May 13-15 1988

The Electron & BBC Micro User Show

New Horticultural Hall, Greycoat Street, Westminster

Details: Displays and demonstrations for the Acorn range of micros

Organiser: Database Exhibitions, (0625) 878888

JUNE

June 3-5 1988

The Official Commodore Computer Show

Exhibition Centre and Champagne

Suite, Novotel, Hammersmith, London

Details: Displays and demonstrations of all the latest hardware, software and peripherals for Commodore computers

Organiser: Database Exhibitions, (0625) 878888

CHARTS

Top Twenty

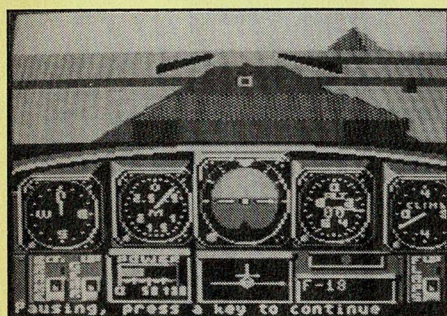
1	(4)	Ghostbusters	Ricochet
2	(1)	Platoon	Ocean
3	(NE)	Predator	Activision
4	(2)	Out Run	Sega-U.S. Gold
5	(3)	Way Of The Exploding Fist	Ricochet
6	(5)	Kik Start 2	Mastertronic
7	(6)	Soccer Boss	Alternative
8	(8)	Grand Prix Simulator	Code Masters
9	(9)	Trap Door	Alternative
10	(15)	Popeye	Alternative
11	(12)	Fruit Machine Simulator	Code Masters
12	(7)	BMX Simulator	Code Masters
13	(11)	Match Day 2	Ocean
14	(14)	ATV Simulator	Code Masters
15	(10)	Pro Ski Simulator	Code Masters
16	(RE)	BMX Kids	Firebird
17	(17)	Star Wars	Domark
18	(21)	I Ball 2	Firebird
19	(16)	Super Stuntman	Code Masters
20	(20)	Back To The Future	Firebird

All figures compiled by Gallup

Happy landings

More advice from Lee Padden on how to handle flight simulators.

One of the things which discourages many people from the whole idea of flight simulators is their inability to get down in one piece. So I suggest a few tips which might help. The first thing to do is make sure you know the direction of the runway. This rather basic piece of information should be provided in the manual



Chuck Yeager's AFT.

but if it is not, fly over the runway and note your compass heading.

Make sure you know the limitations of your aircraft. Once again, the manual should be helpful. What you are looking for is maximum rate of descent and maximum ground speed; knowing the maximum speed with the landing gear down helps as well. If that information is not there you may have to discover it by painful trial and error.

Having obtained that information fly towards the airfield - you should be able to see it. The first thing to do is get your bearing and heading. Ideally, if the runway runs north to south, you want a heading of 180 degrees while the runway is on a bearing of 0 degrees. If you head for the runway you will have to turn at the last moment. If the simulator has an instrument landing system, make sure you are centred on the scope.

Speed

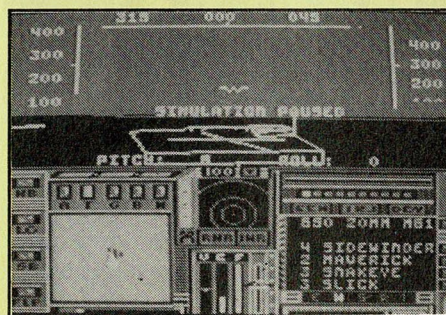
The next thing is speed. The faster you go the faster things happen and again you will be trying to make last-minute corrections. So throttle back and use the speed

brake to bring your airspeed to about 30 to 50 knots above stalling speed. If you have flaps, use them - they allow a slower approach.

Rate of descent

Next, calculate your rate of descent. Again, an ILS will soon tell you if you are wrong; if you start to drift off the middle of the scope, increase your throttle if you are too low, decrease it if you are too high. Without an ILS it is a matter of guesswork.

So far so good. All simulators are much the same to these. After that it is very much a question of how fussy they are. Some programs will let you follow the ILS right on to the runway; others will throw crosswinds at you or demand that you "flare" your landing. In a realistic simula-



Stealth Fighter.

tor, you cannot land by digging your nose into the ground. You must land with a nose-up attitude.

On some simulators this is a stable state; you can just fly along in a nose-up attitude all the way. If so, get into that attitude with plenty of time to spare. In many others it is unstable. You cannot fly nose-up; continue to descend and maintain airspeed.

That is where it gets tricky. If your planning has been good so far, when you are a matter of a few feet off the ground you pull up the nose the rate of descent becomes small, the airspeed falls, drops and you have a perfect landing. On the

other hand, if the flare is too early or too large, one of two things will happen. If your airspeed was too low, you will stall, with fatal consequences. With the airspeed a little higher, you will start to climb and miss the runway. Be careful when making late corrections, control your speed with airflaps and rate of descent with throttle.

Landing

Landing a helicopter is, of course, much easier but two things have to be watched. As you slow the helicopter to a hover by pulling back on the cyclic control, you will lose translational lift. So watch your vertical speed and correct quickly with the collective.

Of course, the flash way to land is to reduce your speed to the maximum safe ground speed, land while pointed towards your base, then dump the collective and control your speed with the cyclic control and heading with the rudder.

Translational lift

It is also rather fun to try taking off like this. Set a little collective, then run along the ground until translational lift takes over and up you go. That was the classic technique for taking off in Vietnam under fire. After all, no-one wants to hover in the air like a sitting duck. □

Ease of landing, easiest to most difficult, not overall quality.

- | | |
|--------------------------------|---------------------|
| 1. <i>Stealth Fighter</i> | Microprose |
| 2. <i>Sole Flight</i> | Microprose |
| 3. <i>Gunship</i> | Microprose |
| 4. <i>Tomahawk</i> | Digital Integration |
| 5. <i>Strike Force Harrier</i> | Mirrorsoft |
| 6. <i>Spitfire 40</i> | Mirrorsoft |
| 7. <i>Delta Wing</i> | Mastertronic |
| 8. <i>Falcon</i> | Mirrorsoft |
| 9. <i>Fighter Pilot</i> | Digital Integration |
| 10. <i>Flight Sim II</i> | Sub Logic |

Sign of the times

Thanks to Tasman Software you can use a Spectrum computer to design your own sign. Jeffrey Davy reports.

Step into a DIY shop and there are many signs but never the one you need. There is always the obligatory Beware of the Dog and the names no-one would want to call their houses but nothing really useful or personalised. What a relief it is to find that someone has plugged this niche in the market, first for PCW owners and now for owners of the Spectrum 128/+2 and even a special disc version for the +3.

The package could scarcely be simpler, just load it and everything is there on the

**VOTE
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Create your own signs.

screen for you. Initially, a small configuration program has to be run. It deals with all the salient details of the printer you plan to use for the output of your offerings. Questions such as the type of printer and the interface fitted are soon out of the way and once the data is saved you can proceed.

Loading

On loading the main part, a gridded screen appears with the top quarter devoted to user-definable options. A line at the bottom of the screen adds the total number of lines and columns, as well as declaring whether "insert" mode - the ability to add another letter in the middle of a word without overwriting the following one - is on or off. The rest of the area is divided horizontally into three boxes - the working area into which the prose for your sign will take shape.

Typing your sign is easy. It is all the options which provide food for thought. One press of the EDIT key catapults you to the top of the screen and the opportunity to re-design your sign as you wish.

No introduction is needed for 'Font', which decides the style you use. There is a

choice of 'Standard' - fairly unadventurous and square; 'Casual' - an italic-style rounded script; 'Western' - the kind of style in which 'Wanted' posters were supposedly designed; and 'Block' - as seen at the beginning of every episode of M*A*S*H.

Next are all the options for the style of the words - 'italics', 'Underline', 'Reverse', 'Centring' and even 'Hatch' - the letters are not solid but are patterned.

The amount of space a word occupies, can be adjusted through the use of 'Height', 'Spacing' and 'Stretch'. The first governs whether your word will look like the Empire State Building or a molehill; the second decides whether sardines are the order of the day or whether the letters will have to shout to each other to span the distance; the third is the rubber band

REVERSED

TAS-SIGN

factor of each letter; will it be S-t-r-e-t-c-h-e-d or will it be as thin as a cat's whisker?

Printer commands

Next are printer commands. 'Orientation' is basically which way round the picture is. Two options are available in this - 'Landscape' would give the printer holes at the top and 'Portrait' would give perforations at the top. 'Strike' is a choice of how many times the printhead will go over one line; if you change this from 'Single' to 'Double', the words will be darker. 'Density' also affects that vital darkness of print, again with the use of single and double density. 'Meshing' is a most intriguing option; if turned on it makes the printhead make another run over the current line of print and it prints dots between the existing ones, making it darker still. The disadvan-



TAS-SIGN

**THE SIGN MAKER
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Tas-Sign.

tage is that the sign takes two or three times longer to print.

Once all the twiddling has happened and the words are in place the whole thing can be sent to the printer. The speed of printout will depend on the printer but it printed-out reasonably fast for me with all the options set to single. Unfortunately, this produced a rather dotted output.

As seems to be normal with all pieces of Tasman Software for the Spectrum, the whole thing can be transferred to many devices like Microdrive and configured in many ways. It is a brave release for Tasman - a previously untried type of software probably more geared for the Amstrad PCW and PC - but there may be many people who will like it and find it very useful. Price is in its favour, so signs everywhere may never be the same again.

Program: Tas-Sign

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Publisher: Tasman Software, Springfield House, Hyde Terrace, Leeds LS2 9LN

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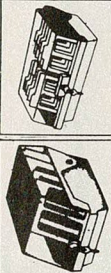
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Budget battles

As budget software is gradually taking up more of the market, David Lester reports on the companies that provide the games.

Budget software now accounts for more than six out of every 10 games sold in the U.K. Most of it is sold by the four main software houses. Mastertronic, Code Masters, Firebird and relative newcomer

compete and failed, even though in some instances backed by large parent companies with substantial financial resources and experience of software publishing.

On top of those failures have been various local publishing set-ups which have come and gone, such as Firefly, Livewire and Cubit. Then there was the Central Solutions debacle.

The reasons for each demise are many and varied, but probably centre on the nature of the software market. In 1984 and 1985, budget was new and an unknown quantity. It has to be said that for the most part the quality of what was issued was significantly worse than full-price. Given this, it seems amazing that Mastertronic survived at all, what with wary customers, unwilling distributors and inexperienced retailers.

Yet survive it did and nurtured, with its tremendous growth, a new sector of software world-wide. That made it inevitable that it would be challenged; when one company begins to make big money others will try to follow.

Since the key to making money from budget software is very high volume sales, each of the budget firms needs to sell a great deal of each title to just break even. By the time the distributor has given about 95 pence for each game and you have paid about 45 pence for duplication of the cassettes, there is just 50 pence left to pay the programmers, all the bills of the company, and profits. Yet for the smaller publishers 7,000 or 8,000 is a good seller.

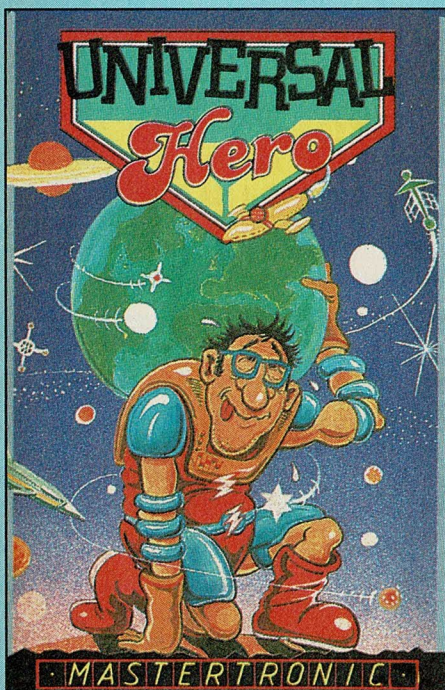
Before Christmas, there were many recognised budget publishers; the big four, including all Mastertronic associated labels such as Americana and Rack-It, as well as Powerhouse, Players, Bug Byte, Atlantis, Top Ten Hits, Pirate, Prism Leisure (Addictive and Endurance Games). Of those, the last three are relatively recent entrants into an arena which is beginning to look very densely populated.

Since then, more have been added, including the curiously-named Zeppelin Software, run by Derek Brewster, the programmer responsible for some very good games and some very average ones. More significant is the launch at last of Micro Selection. It is a label published by

the Softek group and promises to give the lead players a very good run for their money.

Further, Elite is known to be preparing its own second attempt at the market, which looks like being yet another label, probably released in May. Powerhouse is being revamped and given a new livery and image. It has just been sold by CRL in a management buy-out; it, too, is making a bid for a bigger slice of the market.

The most recently announced venture is being run jointly by Maynard International - the company behind Top Ten Hits and, now, Sparklers - and Smart Egg, previously just a development house writing adventures for Mastertronic. This label, called Powerplay, will market two games on one cassette at £2.99; games are likely to be slightly different from the run of the mill shoot anything that moves variety and will



Main software house: Mastertronic.

Alternative. There are many other firms and recently several more have joined the fray. How much room is there for all of them?

Budget software has never had an easy ride. Mastertronic, Ace and Atlantis started the trend in mid-1984. Of those, Ace never made much of an impact; Atlantis is still going, although definitely one of the smaller players; while Mastertronic has grown beyond anyone's wildest expectations to be one of the dominant forces in leisure software.

Looking over the four years of budget software life reveals a far from rosy picture. Far from an out-and-out success story for all concerned, the picture is more one of a battlefield, the victors continuing the fight while many casualties are littered around. Rabbit, Software Super Savers, Scorpio Gamesworld, Blaby, Sparklers, Alpha Omega, £2.99 Classics, Minibus, Artic and other labels have all tried to

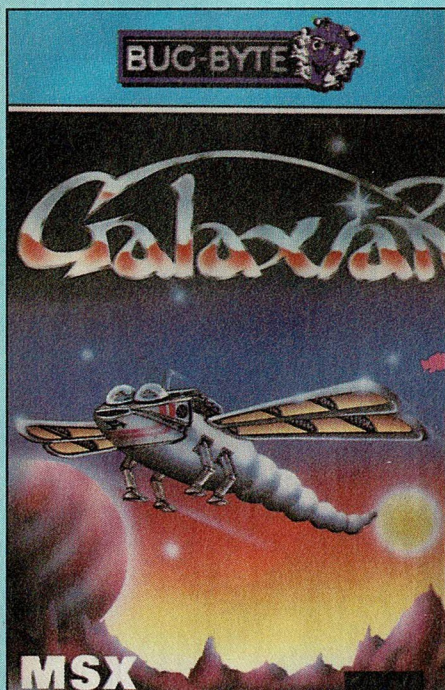


Smart Egg writing adventures for Mastertronic.

probably have an adventure bias, given the Smart Egg background in this area.

Its entry has been encouraged in particular by Code Masters and Alternative, which have both been remarkably successful, moving from scratch to the first

division within about one year of being launched. Any more prospective entrants had better take note that those two are the exceptions rather than the rule; established firms such as Bug Byte, Atlantis,



Bug Byte: established.

Players and Powerhouse have been trying hard for a long time without making the big time. Firebird has had the vast financial backing of British Telecom, with plenty of cash and marketing effort poured into it; it also had the much-prized benefit of Richard Bielby pushing its titles into corner shops nation-wide, but, despite those factors, it has just been overtaken by Alternative in terms of its market share, according to Gallup.

One of the reasons certain firms appear to be doing so much better than others is undoubtedly that the Gallup information-gathering system favours some firms over others. Pirate Software has had some very high-selling titles but as yet no chart presence. Atlantis and Powerhouse have similar tales to tell.

Professionalism

Professionalism is another major factor. To sell at all, budget titles need to meet extremely high standards of packaging and design. In the last two years all the firms involved have improved dramatically in this direction. To look back at the early packaging of Mastertronic is now a shock; it seems difficult to imagine many people buying software packaged like that. The same is true of the packaging of Firebird and others.

What happens now is unknown. There may yet be some dramatic crashes by one or two of the smaller budget firms. More

likely a few will quietly fade away and become but an item for a software history book somewhere. Much rests on what happens in the full-price market.

Budget has gradually taken over more and more of the market for 8-bit games, but budget cannot compete for licences from coin-ops or films and cannot provide the type of packages which accompany all the major releases from the full-price hordes. There will always be a small full-price bracket for the very rare mega game, such as Incentive's recent *Driller*, and also for specialist games such as strategy and wargames.

The key question budget firms need to ask now is how much more the cheap end of games publishing can take over from full-price. A large proportion of each year's full-price sales are always made in the Christmas season and those sales are likely to remain at full-price, as the higher price makes the games more appropriate for presents. That must mean that the budget sector cannot make up very much more of the market for 8-bit games.

On top of this you also need to consider how the total market size is changing. As people upgrade their Spectrums and CPCs to Atari STs and the like, they will stop buying software for their 8-bit machines. As 1988 has widely been predicted to be the year of 16-bit computers in the home market, that would seem to suggest that fewer 8-bit games will be bought in one year's time than now, which will mean that all the publishing companies will be chasing fewer games buyers.

Tale of gloom

If this sounds like a tale of gloom for publishing companies, rest assured that none of it will happen suddenly. You are unlikely to wake up one morning to find that Mastertronic is the only firm left selling software for your Spectrum. The budget market may not grow too much, but it is also unlikely to get any smaller for several years, if only because at £1.99, people don't mind buying a few games.

Nevertheless it seems curious, at first sight, that several major firms should enter an already full market. One reason is obviously that they think that they can do at least as well, if not better, than many of the firms already operating. Zeppelin said at its launch that it thinks it can improve on how other companies go about publishing budget software in a few ways. Powerplay, similarly, think that it will offer something different from what is available elsewhere.

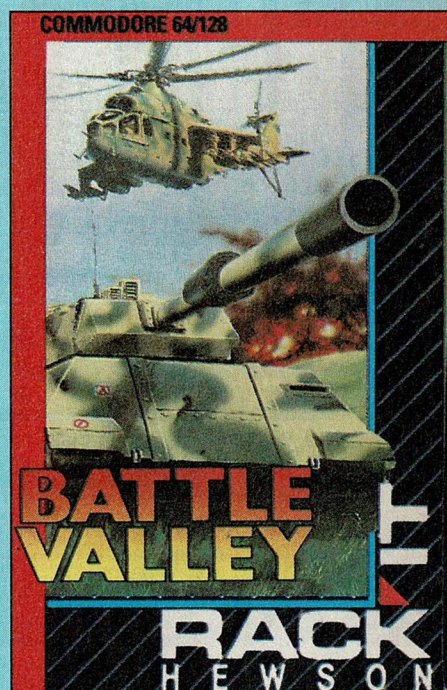
The firms doing well are by no means resting on their laurels. Code Masters have recently launched its Plus range of higher-priced games, while Mastertronic has revamped its MAD range, giving each title a

B-side game for the same price. Both those initiatives will make it more difficult for the new labels to get much of a foothold.

There has been plenty written in the computer press about the future of full-priced games for the Spectrum, Commodore and CPC ranges, with most predicting a big reduction in the volumes of new products and budget taking over even more. That is clearly why there are so many firms launching new ventures in the cheap sector, to try to get established there before the full-price sector tails off.

In on the act

Given this, you might be surprised to learn that Ocean and Gremlin, two of the largest full-price publishers, are not getting in on the budget act. To some extent they are strong enough at full-price not to need to go down-market, with a strong emphasis on the licensed titles which are less vulnerable to budget competition. Equally it is possible they are planning their own budget launches for the future. They both have large numbers of good-quality old



Budget Software: Rack It.

titles which could be put out on a budget label.

If everyone jumps on to the bandwagon, as seems to be happening, the budget market could become very overcrowded. Not everyone could survive, as the multiples would have to restrict themselves to just some of the labels, and without multiples stocking titles, it is very difficult to succeed. If that happened, as it did in 1983-85, we could see a repeat of those years, with several firms going unceremoniously bust or selling to the larger budget firms. □

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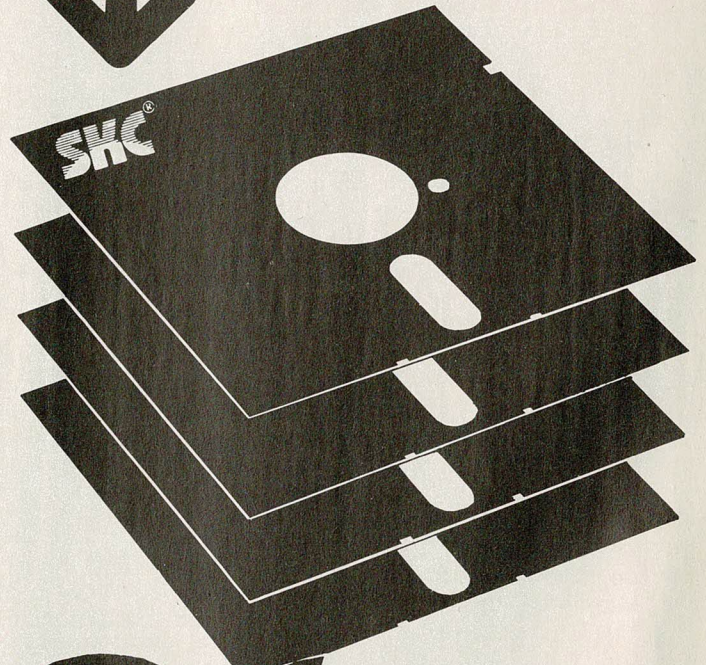
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This bloodthirsty game, which is a favourite of the valley's ruler, involved hunting a slave like an animal. A true two-player game, *Blood Valley* has a solo option

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Popular Computing Weekly has fifty fabulous copies of the game to give away in yet another of our unbelievable, chance in a lifetime competitions. And there's more. Yes, five totally wonderful sweatshirts for the top five winners.

All you need do is answer these two questions:

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A. Terry Wogan B. Cyclops C. Lassie
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harsh land full of the type of villains your mother really wouldn't want you to hang around with, you must participate in - The Hunt.

allowing one player to play the quarry in the game of a two player option where one takes the role of the hunter chasing the other on a

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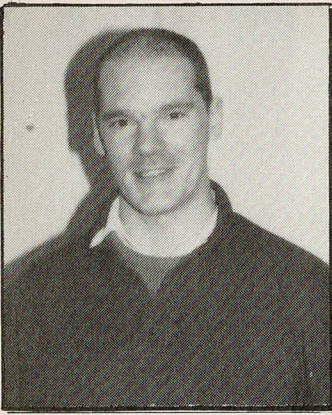
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Do you already own a computer
If so, which one do you own?





Golden Nimbus

Richard Clapp, of Chelsea School Of Art, writes:

Following the golden rule that anything is worth trying, occasionally I use an RM Nimbus at work with 3.5in. D/S drives. As I have an Atari STFM I thought it would be worthwhile doing a disc swap but as the STFM is single-sided, this did not read in the double-sided Nimbus discs. Slightly deterred, I loaded the MS/DOS into the Atari GEM desk-top and there were the files. Text files could be read in from a Wordscan MS-DOS file and loaded into 1st Word, saved and reloaded into the RM Nimbus - even an ST Basic program ran with the Nimbus RM Basic under MS/DOS though, of course, only because of the duplicated key words.

After this initial elation I have found that loading the RM files on the Atari is limited to about 100K of disc space, presumably due to similar format sectors as TOS and the disc head skipping around looking for more space. I assume 200K if a double-sided disc.

Why does this work and what are the limitations?

GEM as used on the Atari ST is a Digital Research product and for various compatibility reasons e.g., GEM also runs on PC machines using Microsoft MS/DOS, the same or similar disc format is used; in fact, at a high level, ST GEM is very compatible with MS-DOS 8086 format GEM commands.

As you say, the Nimbus used double-sided drives whereas the STFM is single-sided. Fortunately, the BOOT and Directory sectors are on the same side for both machines and they are compatible so either machine should be able to load data from the other machine's discs. Problems will arise with files

from the Nimbus which are spread over two sides since the ST cannot read them. The 1040ST should be able to - though I have never tried.

Basically, this is one instance of compatibility between different manufacturers that is actual and perhaps even accidental but nonetheless real.

The ST has a flexible disc sys-

tem in that the format can easily be altered so it should be possible to make the discs match exactly. From machine code and Basic, it is possible to reformat a disc with the XBIOS 10 command which takes the parameters in Figure one. It is also possible to reconfigure the boot sector as in Figure two.

Param	Comment
form.w	Initial value of the formatted sectors - usually \$E5E5
magic.l	A constant value of \$87654321
interleave.w	Define in which order the sectors are written, normally 1
Side.w	0 or 1
track.w	Number of track to be formatted 0-79
spt.w	Sectors per track - normally 9 but can be 10
dev.w	0 ==> drive A 1==> drive B
buffer.l	Pointer to at least 8K of space

From machine code, these are used as:

move	form,-(sp)
move.l	magic,-(sp)
move	interleave,-(sp)
move	side,-(sp)
move	track,-(sp)
move	dev,-(sp)
move.l	*0,-(sp)
move.l	*buffer,-(sp)
move	*10,-(sp)
trap	*14
add.l	*26,sp

Fig 1 - Formatting an ST disk.

Boot sector is on side 0 track 0 sector 1 and uses the following

Param	Comment
Exec.w	0==> not executable
Type.w	0==>40TSS 1==>40TDS 2==>80TSS 3==>80TDS
Serial.l	24 bit serial number for disk
Buffer.l	512K byte buffer containing the boot sector

Use

move	exec,-(sp)
move	type,-(sp)
move.l	*serial,-(sp)
move.l	*buffer,-(sp)
move	*18,-(sp)
trap	*14
add.l	*14,sp

Boot sector:

Byte No.	Comment
0-1	Branch to executable code (BRA.S)
2-7	OEM reserved
8-10	Serial number 24 bit
11-12	Bytes per sector - norm 512
13	Sectors per cluster Type 0=>1 2-3=>2
14-15	Number of reserved sectors incl boot norm 1
16	Number of file allocation tables norm 2
17-18	Max directory entries Type 0=>64 1-3=>112
19-20	Total sectors on disk Type 0=>360 1-2=>720 3=>1440
21	Not used on ST but is media descriptor byte
22-23	No. of sectors for each file alloc table Type 0-1=>2 2-3=>5
24-25	No. of sectors per track norm 9
26-27	Number of sides on disk Type 0=>1 1=>2 2=>1 3=>2
28-29	No. of hidden sectors norm 0
30	Start of code - if any
510-511	Checksum of whole boot sector

- note all 16 bit values are 8086 format i.e. low byte first.

This is compatible with MS-DOS but will apparently only work with the WD1772A disk controller

Fig 2- The Boot sector.

Milling machine

D Winchester, of London N19, writes:

I own an Amiga 500 with 1M RAM. I make designs using the paint programs and so I have a number of iff files stored on disc.

I am building an XYZ milling machine and I need help to create a program in Basic which will allow me to load the files and then output them to the parallel port using vector graphics. I believe that this is the best way to do it. If not, can you suggest another way? At the moment I am completely in the dark because nobody to whom I have spoken, i.e. dealers and friends, has a clue. The companies to which I have spoken are not willing to help at all.

This is a serious project and I would be grateful if you could help.

There are two approaches to this problem of which I can think. The first, and possibly the simplest is to take the pictures as they stand and load them into a screen in Basic. From here, you could write a simple program to scan across the picture using POINT to find the colour at each pixel on the screen. The x and y dimensions are given by the position of the pixel on the screen and the z dimension by the colour. This limits you to 32 colours or depths and so is not very good.

The second method is far more complex and requires a completely different program to draw the object to be made. You would need a 3D CAD type program which allows wire frame objects to be drawn and rotated on the screen. Once the object outline has been defined, tessellation - using a standard pattern and then 'tiling' over the surface of the object - can be used to define the surface. This will give a surface to which to work which can then be re-interpreted on to the milling machine. *The Art Of Computer Graphics* by Jim McGregor and Alan Watt from Addison Wesley describes this process but you will have to do some work on the re-interpretation part since I do not know of any books on the subject.

Once you have the data, you need to send it to the Amiga parallel port, normally used for Centronics. It is located at &HBFEE101 with the data direction register at &HBFEE301 (set to 1s for output). This is an 8-bit port and does not appear to have any easily available control lines. It should be

possible to access the RS232 port lines at &HBF000 from bit 7 these are DTR/RTS/CD/CTS/DSR/x/x/x and the data direction register at &HBF200 is set to &HCO i.e., DTR/RIS are out, the rest are in.

The most difficult part of the program is converting a picture, or a set of points, as in vector graphics, into data that the milling machine is able to use.

Images

A J Northcott, of Wokingham, Berkshire, writes:

Q I have recently upgraded to an Atari 520 STFM from an Oric and have two queries with which I hope you can help me.

First, I normally use a portable black and white television which, to my surprise, I find satisfactory for 80 column text, particularly as I use a PD accessory called FONTRIX to change to a Degas Thin screen font.

The output on a colour TV is not readable. I would like to use colour to fully appreciate the various programs I have but cannot really justify around £300 for a monitor just to use with a computer. As a compromise, I have been considering buying a colour TV with SCART input - The Ferguson MC05 is around £200 - but no dealers have been able to tell me how worthwhile this would be. Would you consider that 80-column work would be possible on this kind of set?

I use the computer in my spare time only so eye fatigue would not be so important as mere legibility.

Second, ST Writer and GEM printer routines seem to have a problem with my printer, a typewriter with a Malvern Micro Systems interface fitted internally. ST Writer outputs a few lines and assumes it has finished; GEM does the same and then produces an Alert box announcing that the printer is not responding. Clicking on Retry after printing has stopped carries on to print the next few lines and the process can be repeated for the length of the document. My old Oric does not have this problem but this is, I assume, due to the fact that it uses ACK and not BSY to communicate. However, when I got *1st Word*, I was surprised to find it has no such problem and outputs

pages at a time normally. Why should this be, if this is a hardware problem?

Finally, is there any reasonable way of producing underlined text with either program? With my typewriter, this would require a translation table to output the letter/backspace/underline for each letter. Both programs seem to work on sending a single code to turn the underline on and off for the required text.

A Colour television sets do not usually produce the required resolution for 80-column text and, although you will probably be able to read it, you will find that it is not too easy. You will get roughly the same image from a TV using the UHF aerial input as you will from direct RGB; this image will be more stable but not much clearer. What you might like to consider, if you have a video recorder, is a composite colour high resolution monitor since you would be able to use this as a TV as well as with the ST; the 520 STFM has, as far as I know, a composite colour output as well as RGB.

The ST parallel printer interface uses eight data lines, a strobe, and a busy line, the last two being used to handshake with the printer. So long as your printer has these and uses them properly, there should be no hardware problems. What appears to be happening is that the printer buffer is filling and busy is being left high by the printer - this is why you get an Alert saying that the printer is not responding. At a guess, I should think that the software for ST Writer and the GEM output routines output data faster than 1st Word and thus fill the printer buffer up causing busy to go high, where it stays until the buffer is empty which might take longer than the 30sec. time out used by the ST.

What you might try is to set the printer option to daisywheel since this might slow things a little. I have never had problems like this occur when using other standard Centronics printers so I should think that the printer is at fault, not the ST or the software.

Getting your printer to underline each character by the method you suggest is rather difficult since it would probably mean a patch to the word processing software. It may be possible to patch the ST operating system to that the bcon-out command sends the char/bs/underline for each character printed, but some software may not use this routine and so it cannot be

guaranteed to work.

For example, redirect trap #15 to a routine that checks for a printer output command and then send the appropriate characters directly to the printer port - all other commands are transferred to the old trap #13 handler.

What a carry-on

F W F Covell, of Billericay, Essex, writes:

Q I am contemplating buying one of the new range of Amstrad portable PCs - I have a CPC 464 with colour monitor. Will it be possible to use the monitor from the 464 with the portable?

I also have an Amiga 1000 - can you tell me how to do the following from Basic.

1. Get rid of the single pixel border around windows.

2. Disable the right-hand mouse button.

One last point. As the Amstrad portables do not have Basic bundled with them, do you know of a manufacturer able to supply a Basic Language on 3.5in. disc which will work with the PPC?

A I should think that it is unlikely that the AMS portables will work with the AMS colour monitor although they can apparently take power from them.

The Amiga Basic does not allow borderless windows and, as far as I know, there is no way of messing around with the system to get rid of them.

The same comment, unfortunately, applies to the right mouse button.

It is connected to the potentiometer input of the mouse port and this is scanned every screen frame - plus the control register is reset by the system every time.

This means that whatever you tell the hardware to do with a POKE i.e. $r=(13*1048576)+(15*65536)+(15*4096)$ makes r the base address of the control registers. $r+\&H34$ is the pot control reg and bits 10 and 11 are the data and enable for the right mouse button (Port 1).

In theory, setting the enable to 1 disables the converter and hence should disable the button. Since the reg is reset by the system, using POKEW $r+\&H34,2048$ causes the menu bar to flick between selected and normal, as though the

mouse button were being tapped.

This is not the desired result and I cannot seem to find a way of getting it. An alternative solution, which does not disable the button but does stop menu accesses, is to set the menus to null e.g. MENU 1,0,1,"". However, the right button will still pause the program which, I presume, is what you want to stop.

On the last question, obtaining a Basic for the AMS portable should be fairly easy since it is an MS-DOS machine. GW Basic should be available on 3.5in. disc from most professional computer retailers. You might try Grey Matter 0364 53499 which sells a number of MS-DOS compatible Basics and cover virtually all disc formats.

It's a fax

D V Saville, of Lancaster, writes:

Q I own an Amstrad PCW8512 which I use for business and pleasure but hope either to change or add an Atari ST in the next two months.

Could you tell me if it would be possible to receive facsimile transmissions on a standard computer modem such as would be available for the PCW or ST machines?

I believe that a fax has a modem built-in so I presume that some special software would be required.

A I have never heard of this kind of thing being attempted but, since as you say, both computers and fax machines use modems, it is a possibility.

I would think that the first problem would be one of resolution - computers are limited to about 640 x 400 (ST hi-res) whereas a sheet of faxed paper has more. Some clever software should be able to cope with this limitation.

The other problem is speed. Fax modems probably run much faster (9,600 baud?) than the standard computer speeds of 300 or 1,200 baud.

If any software/hardware manufacturer makes software or hardware which copes with these problems and allows a computer to receive and display fax data on a complete screen, I would be grateful if you could send the information to me, along with some technical details. I can then pass them on.

Datafiler

T Schotanus

With this program for the Amiga, it is possible to convert binary files to standard Basic DATA statements.

All the information on running the program can be found in the program itself. Note that the program works best with binary picture images such as sprites and BOBs - other machine code files will take a long time to convert. □

```

`DataFiler made in July 1987
`by T. Schotanus.

DataFiler.start:
  nr.datas.in.line = 10
  WINDOW 1

UserGuide:
  COLOR 1,0:CLS
  PRINT "DataFiler by T. Schotanus"
  PRINT
  PRINT "This program converts binary files on disk to a BASIC program"
  PRINT "containing DATA statements. This is very useful when you want"
  PRINT "a sprite or BOB read from datas instead from the diskdrive."
  PRINT
  PRINT "First the program asks for a source file."
  PRINT "Secondly it asks for a destination file."
  PRINT "(This can be a printer instead of a drive!)"
  PRINT "When the destination file is omitted it's"
  PRINT "assumed that the output should go to the screen."
  PRINT
  PRINT "A third option allows you to add a DATA-loader to the list,"
  PRINT "this is a subroutine which loads the data and stores them in"
  PRINT "a string-variable (for instance: var$). You can access this routine"
  PRINT "with: `CALL ReadData(var$)`. When you make use of this option"
  PRINT "you're asked to enter the name of a label, this cannot be left out !"
  PRINT "(This label name can be any valid AmigaBASIC label-name.)"
  PRINT "It's also possible to include error checking in the loader."
  PRINT "(This is useful when the program must be typed-in manually.)"
  PRINT
  PRINT "Press any key to continue..."
  WHILE (INKEY$="")
  WEND

again4:
  CLS
  PRINT "DataFiler made by T. Schotanus"
  PRINT
  LINE INPUT "Enter source filename.:";source$
  IF source$="" THEN endprog
  LINE INPUT "Enter destination filename.:";dest$
  IF dest$="" THEN dest$="scrn."

again:
  LINE INPUT "Do you want a DATA-loader (Y/N)?";Dloadr$
  Dloadr$=UCASE$(Dloadr$)
  IF Dloadr$<>"Y" AND Dloadr$<>"N" THEN again

again5:
  IF Dloadr$="Y" THEN
    LINE INPUT "Include error messages in loader (Y/N)?";ErrLd$
    ErrLd$=UCASE$(ErrLd$)
    IF ErrLd$<>"Y" AND ErrLd$<>"N" THEN again5
    Eld=0:IF ErrLd$="Y" THEN Eld=1
  END IF

```



```
again2:
  IF Dloadr$="Y" THEN
    LINE INPUT "Enter label name: ";headr$
    IF RIGHT$(headr$,1)<>"." THEN
      PRINT " Not a label ! (a label must end with a '.')"
      GOTO again2
    END IF
  END IF
  PRINT
```

```
again3:
  LINE INPUT "Is everything correct (Y/N)?";cor$
  cor$=UCASE$(cor$)
  IF cor$<>"Y" AND cor$<>"N" THEN again3
  IF cor$="N" THEN again4
```

```
CLS
PRINT "DataFiler made by T. Schotanus"
PRINT
```

```
init.io:
ON BREAK GOSUB HandleBreak
BREAK ON
OPEN source$ FOR INPUT AS 1
nodats=LOF(1)
chksum=0
FOR t=1 TO nodats
  ac=ASC(INPUT$(1,1))
  chksum=chksum+ac
NEXT t
CLOSE
```

```
OPEN source$ FOR INPUT AS 1
OPEN dest$ FOR OUTPUT AS 2
```

```
read.write:
  IF Dloadr$="Y" THEN
    q$=CHR$(34)
    PRINT*2,"SUB ReadData(dat$) STATIC"
    PRINT*2," RESTORE "LEFT$(headr$,LEN(headr$)-1)
    PRINT*2," dat$="q$q$":a=0"
    IF EId=1 THEN PRINT*2," chksum=0:nodats=0"
    PRINT*2," WHILE (a>=0)"
    PRINT*2," READ a"
    PRINT*2," IF a>=0 THEN"
    PRINT*2," dat$=dat$+CHR$(a)"
    IF EId=1 THEN PRINT*2," nodats=nodats+1
      :chksum=chksum+a"
    PRINT*2," END IF"
    PRINT*2," WEND"
```

```
IF EId=1 THEN
  PRINT*2," IF nodats <>"nodats"THEN"
  PRINT*2," PRINT "q$"DATA contains"q$
    "nodats"q$"numbers,"q$
  PRINT*2," PRINT "q$" there should be
    "nodats"numbers."q$
  PRINT*2," END"
  PRINT*2," END IF"
  PRINT*2," IF chksum <>"chksum"THEN"
  PRINT*2," PRINT "q$"Checksum error."q$
  PRINT*2," END"
  PRINT*2," END IF"
END IF
PRINT*2," EXIT SUB"
PRINT*2,""
END IF
```

```
PRINT*2,headr$;
FOR t=1 TO nodats
  IF (t-1)/10=INT((t-1)/10) THEN
    PRINT*2,""
    PRINT*2," DATA ";
  END IF
  ac=ASC(INPUT$(1,1))
  PRINT*2,ac;
  IF (t/10<>INT(t/10) AND t<>nodats)THEN
    PRINT*2,".";
  END IF
NEXT t
PRINT*2,""
PRINT*2," data -1"
IF Dloadr$="Y" THEN PRINT*2,"END SUB"
```

```
endprog:
CLOSE
BREAK OFF
PRINT:PRINT "Done. ("nodats"numbers in file /
  Checksum : "chksum)":PRINT ep:
LINE INPUT "Do you want to convert another file?
  ";a$
a$=LEFT$(UCASE$(a$),1)
IF a$="Y" THEN again4
IF a$<>"N" THEN ep
PRINT
PRINT "Stopped !"
END
```

```
HandleBreak:
  WHILE (INKEY$="")
  WEND
RETURN
```

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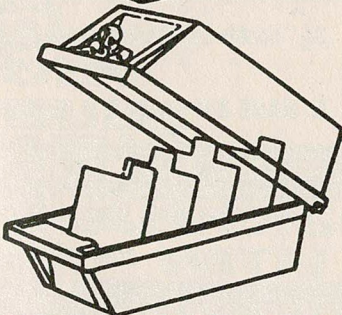
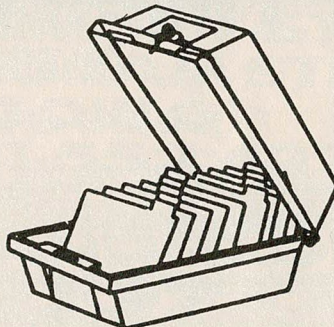
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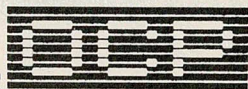
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For the **AMIGA** MONTHLY MAGAZINE ON A DISK No. 20 **MAR 88**
Vol. 3, Issue 3

PROGRAMS

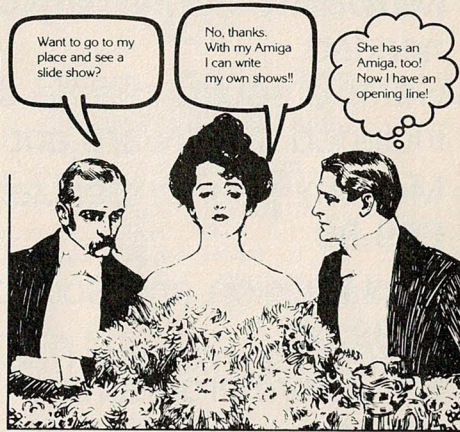
- | | | |
|---|--|---|
| ILBM.BAS
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| AmiEXPO REPORT
Convention-Crazed Amigans Flock To Los Angeles | PD DISKS FOR \$3 EACH
New: Fish 119-128 Plus Amicus 23-26 | 
Instructions inside cover. |
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| | SUPERBASE PERSONAL
Review | |

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How would you like



*A way to make your own slide shows with speech?

*A utility for quick-loading IFF Art Via Basic?

*Instructions for adding a 40-meg hard drive for about \$400?

*12 programs, from games to utilities?

*A way to get PD discs for £3 each?

We knew you'd say, "Yes, yes, yes, yes yes!"
It's in this issue: Programs, Articles, Tutorials, Utilities, Reviews, Games Art

See Reverse For Contents

Amiga™ is a registered trademark of Commodore Amiga Inc.

This month sees the arrival of a program that will add a new dimension to your Amiga. At last it's possible to make a slide show of low res IFF pictures narrated by the synthesised Amiga voice. A working example of digitised pics taken at the recent AmiExpo at L.A. and presented by a cartoon character is included. JUMPDISK is available in the UK & Europe from: George Thompson Services, Dippen Lodge, Dippen Brodick, Arran, Scotland KA27 8RN. Tel: 077082 234. Please send a cheque or money order for £8.50 inc. VAT and P.&P. for immediate despatch. ● **PUBLIC DOMAIN** — Each month we list on these pages the contents of PD discs we have in stock for Amiga Computers. Full details of Fish discs 1-118 are included on the Fish Directory Disc, price £3 inc. Here are details of the latest releases:

FISH 119. MicroEMACS — V3.9e of D. Lawrence's variant of D. Conroy's microemcs. Update to version on Fish 93. Included, for the first time, is extensive documentation in machine readable form. Inc. source.

FISH 120. Amoeba — This clone of Space Invaders is one of the best freely redistributable games for the Amiga to date. **BackGammon** — A graphical Backgammon game. Inc. source. **Bankn** — A complete chequebook system. **EgyptianRun** — Cute little "road race + hazards" type game. **IconImage** — Replace an old icon image with a new image, without affecting icon type drawer data, etc.

FISH 121. BasicStrip — Helps to convert programs written in other forms of Basic to AmigaBASIC. **DataPlot** — Plotting program. **Plot** — 3D graphing program with sample output plots. **Stairs** — Demonstrates a musical illusion. **Uedit** — Nice editor. Has learn mode, a command language, menu customization and other user configurability and customizability features. **WBColors** — Changes the WorkBench colours to a predetermined colour set.

FISH 122. Asteroids — Nicely done "blast the asteroids" type game. Unique feature is that all the images and sounds are replaceable by the end user. So instead of ships and rocks, you can have an Amiga against a horde of IBMPC's if you wish. **Iff2Pcs** — An interactive puzzle program that takes any IFF file containing up to 16 colours, and breaks it up into squares to make a puzzle which the can then piece back together again. **Names** — Create and manage mailing lists. **Pr** — Utility to print listings in different formats. **PushOver** — A neat little board strategy game. Inc. source. **PuzzlePro** — Create a puzzle from an IFF picture, which the user can then piece back together again.

FISH 123. Arp — ARP stands for "AmigaDOS Replacement Project". Arp is an effort to replace the current DOS in a compatible fashion, so that current programs will continue to work. **Car** — This animation is one of Allen's entries to the Badge Killer Demo Contest.

FISH 124. Icons — Some sample animated icons. You might find just the icon for that refugee CLI program you've been meaning to make runnable from the WorkBench environment. **Tarot** — An AmigaBASIC program as an

environment. **Tarot** — An AmigaBASIC program as an exercise for learning BASIC.

FISH 125. ElGato — This animation is an entry to the Badge Killer Demo Contest.

FISH 126. Colour — A program to manipulate the colours of specific named screens. **Dance** — These two programs, "dancing polygons", are an entry to the B.K.D.C. They demonstrate the range of colours available on the Amiga. **HBHill** — This animation is another entry to the B.K.D.C. It is the first known animation that makes use of the Amiga's "Extra Half Brite" mode. **Iconify** — A subroutine that creates an icon on the Amiga screen that can be subsequently dragged around and double-clicked on. **OnlyAmiga** — This animation was an entry to the B.K.D.C.

Suplib — The support library needed to rebuild various programs of the author from the source, including DME, DTERM, etc. **VCheck** — V1.2 of virus detection program. This version will test for the presence of a virus in memory, or on specific discs.

FISH 127. Bounce — Entry to B.K.D.C. **Nemesis** — Won fifth place in B.K.D.C. **Ripples** — Entry to B.K.D.C. Unlike most other animations, it shows a fixed object from a moving point of view, rather than a moving object from a fixed point of view.

FISH 128. Dis — A 68000 disassembler, written in 68000 assembler. Inc. source. **DropCloth** — Lets you place a pattern, a 2 bitplane IFF image or a combination of a pattern and image, into the WorkBench backdrop. **LedClock** — Extremely simple clock program, for interlaced screens only. Inc. source. **MRBackUp** — A hard disc backup utility that does a file by file copy of standard AmigaDOS floppy discs. Includes an intuition interface and file compression. V1.3, inc. source. **Paint** — Simple screen painting program, written in web. **PrDriver** — A printer driver for the Toshiba "3-in-1" printer in its Qume (best) mode. **SDBackUp** — A hard disc backup utility. CLI interface only. Does file compression. **Sed** — A clone of the Unix sed (Stream Editor) program. **wKeys** — A "hotkeys" program that binds keyboard function keys to

window manipulation functions.

AMICUS 24. Moose — A talking Moose! **BMon** — System monitor. **QuickFlix** — Slideshow program. **Daisy** — Example of using translator device. **BoingMachine** — Ray-traced animation of perpetual motion Boing machine. **Monolace** — Resets colours of Preferences. **BNTools** — Three examples of assembly lang. code. **Amibug** — W/B Hack. **CodeDemo** — Converts assembler object files to inline code statements. **Iconize** — Convert IFF brushes to W/B icons. **Sectorama** — Disc sector editor. Recovers files from trashed hard disc. **DGCS** — Stands for Deluxe Grocery Construction Set! **Virus Check** — V2.12, now checks discs and memory.

AMICUS 25. Nemises — Excellent demo with music. **KickPlay** — For those that want to hack the A1000 K/S disc. **KeyBird** — Edit keymaps. **8ColorWB** — Colour up those icons. **BrushIcon** — Converts brushes to icons. **Egraph** — Graphing program. **Keep1.1** — Save online messages to another file. **Kill.fastdir** — Speed up directory access. **LaceWB** — Go between interface and non-interface without rebooting. **Dodge** — Occasionally moves the W/B screen around. **Softballstats** — Looks after team records. **Mlist** — Mailing list database. **Snow** — Make snowflake designs. **DiskWipe** — Fast remover of files. **Guru** — Prints probable causes of those infuriating messages. **PW Utility** — For ProWrite users.

AMICUS 26. ImageMaker — Edits C image structures. **Claz2** — Useful for printing IFF images on a laser printer. **SDBackup** — Hard disc backup with compression. **TCB** — Prints inf about processes/tasks in the system. **FunBut** — Use function key instead of left mouse button. **DC** — Switch drive by clicking an icon utility, for 5 1/2 inch drive users. **SystemConfig** — View Scribble in 80 col text. **DicktoRam** — Move Scribble dictionary to and from RAM. **Lexical** — Analyzes a text file. **HexDump** — Display memory locations in hexadecimal. **Tartan** — Design tartans. **DirMaster** — Catalogue discs. **BMP** — Plays sampled sounds as a background task. **ShowPT** — Changes your pointer to another, includes a collection of them.

All Fish and Amicus discs are £3 each or £30 for 11, inc. 1st class post. We only use SONY DS/DD discs. Our next PD listing will appear in *Popular Computing Weekly* on 31st March.

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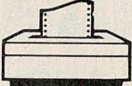
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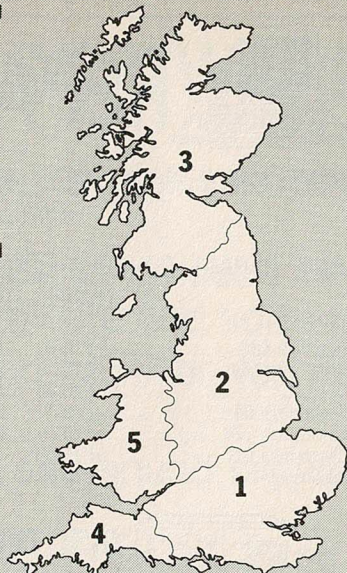
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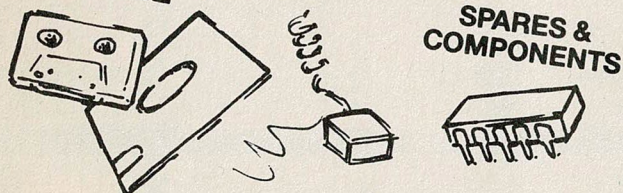


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(784)

Futile hopes... and failed dreams

Britain's education establishments decided several years ago that because of the widespread use of computers in everyday activities they would buy vast quantities of them to help in the education of the future generation. They spent millions of pounds purchasing state-of-art computers and peripherals.

They thought it would improve the standard of education, make life easier for them and their lessons better.

In many universities computers are used extensively in almost all departments. In the majority of schools outside computer science classrooms computers are becoming a rare sight.

Studying the problem for several years I have found the four major problems. They are:

Incompatibility of equipment, with different education authorities using different machines.

That leads to problems with teachers who move to schools with systems with which they are unfamiliar. It is the result of manufacturers and the London Education Authorities not organising standards at the beginning.

Bad programming. Nobody has written a standard set of software available for all

the machines. It means that teachers are trained only to use one type of software on one type of computer. If a teacher changes schools it can pose problems.

Also the programs which have been written usually do not meet the needs of teachers and they are jazzed-up with graphics to make simple programs look better.

At the beginning, teachers' expectations were placed too high by exaggerated sales talk.

They expected them to be simple to operate and would do their every bidding. When they found they did not they opted out.

Those are the main points as I see them. Different schools will have different problems.

The following is only an idea of how to solve the problem. The best idea, of course, would be to start again, but what would you do with thousands of computers which are now out-of-date, used and need selling?

You could improve the quality of programs supplied. Even if each LEA could afford to have software written specially it would be designed for their requirements only, making it incompatible with other systems.

It would require a nationally-run system of software programmers who would design the software for every type of computer available. It would have to be Government funded but think about the benefits. All the programs would also have to look and 'feel' the same, regardless of the computer on which they run.

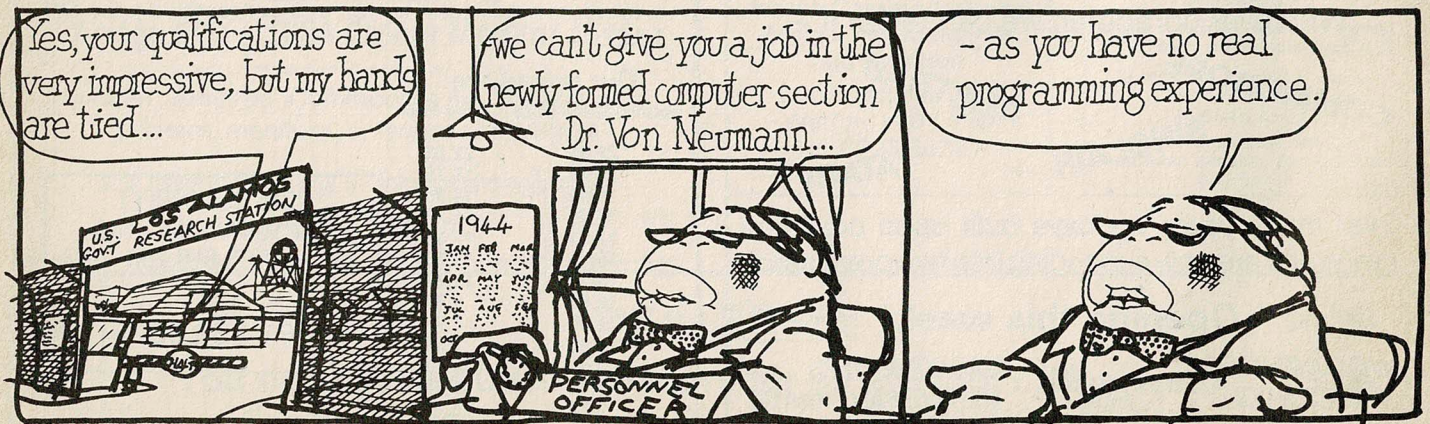
Give teachers more realistic training which would lead them to think of a computer more as an aid to education, like video cassette recorders and overhead projectors are today.

I expect what I am saying to be ignored. Schools, like many public bodies, are under-funded. Teachers can expect to use computers fully only if they are prepared to put the same amount of energy into learning about them as they do into using them.

Many years ago a young journalist published an article about machines which would travel round the earth suspended in the upper atmosphere, revolutionising international communications. They evolved into satellites. The author was Arthur C. Clarke. So do not ignore what I am saying because I am just on the first rung of the ladder of journalism. □

Richard Brooks

HACKERS





25,000 Zortech C users, can't be wrong!
Everybody's talking about the fantastic C explosion!

The magazines are starting regular C columns. Most professional software packages are now written in C. The Universities are adopting C as the language of choice.

Doesn't it make sense to start learning C right now?

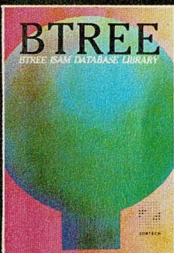
Zortech C at only £29.95 leads the way with its powerful features. The 352 page manual takes you step by step into your very first C program. You can work through the twelve introductory lessons. Go on to create your own libraries and automate the compiling process using the MAKE facility.

The sophisticated editor allows you to edit and compile up to five files at once for those advanced projects! Then you can save yourself weeks by taking advantage of our professional add-on libraries.



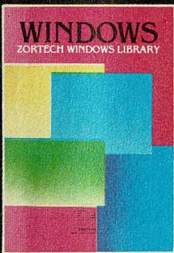
Zortech brings you a brilliant range of add-on C libraries at only £29.95 each! These allow you to get virtually any project off to a flying start!

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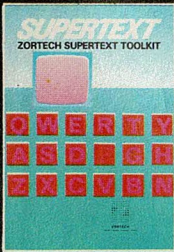
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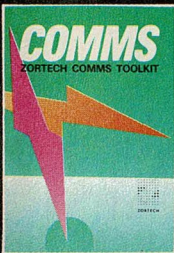


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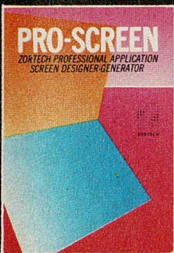
GRAPHICS TOOLKIT complete with over 30 different GEM drivers for screens and printers! Comes with a big 80 page manual and six discs!



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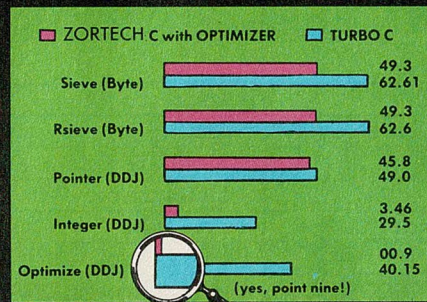


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Position	Title	Make	Spectrum	C64	Amstrad	CI6	Atari	MSX	BBC	Amiga	IBM	ST
1.	Kikstart II	Mastertronic	✓	✓	✓					✓		
2.	Way of the Exploding Fist	Ricochet	✓	✓	✓							
3.	Ghostbusters	Ricochet	✓	✓	✓							
4.	Agent X II	Mastertronic	✓	✓	✓							
5.	Energy Warrior	M.A.D. X	✓	✓								
6.	Bosconian	Mastertronic	✓	✓	✓							
7.	L.A. Swat	Entertainment USA	✓	✓	✓							
8.	Rockford	M.A.D. X	✓	✓								
9.	Skate Rock	Ricochet		✓	✓							
10.	Milk Race	Mastertronic	✓	✓	✓		✓	✓				
11.	Motos	M.A.D.	✓	✓	✓							
12.	Angleball	M.A.D.	✓	✓	✓			✓				
13.	Feud	Mastertronic	✓	✓	✓	✓		✓		✓		
14.	Dan Dare	Ricochet	✓	✓	✓							
15.	Scumball	Mastertronic	✓	✓								
16.	Venom	Mastertronic	✓	✓	✓							
17.	Rasterscan	Mastertronic	✓	✓	✓							
18.	Rigel's Revenge	Bulldog	✓	✓	✓		✓					
19.	Xevious	Americana	✓		✓							
20.	Revenge II	Mastertronic										

SEGA

TOP 10

	Title	Format		Title	Format
1.	Out Run	2 Mega Cartridge	6.	World Grand Prix	1 Mega Cartridge
2.	Choplifter	1 Mega Cartridge	7.	Enduro Racer	1 Mega Cartridge
3.	Space Harriers	2 Mega Cartridge	8.	The Ninja	1 Mega Cartridge
4.	Rockey	2 Mega Cartridge	9.	Wonderboy	1 Mega Cartridge
5.	World Soccer	1 Mega Cartridge	10.	Secret Command	1 Mega Cartridge



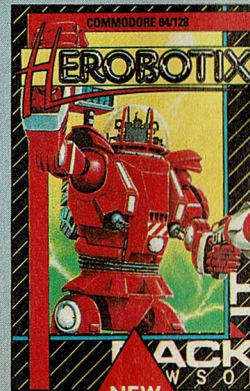
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