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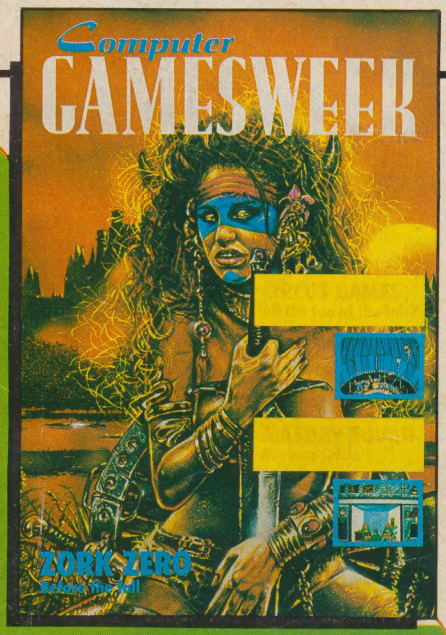
JUNE 1 1989



GAMES BEAT SEX!

STRESSED BOSSES ARE WINDING DOWN WITH JOYSTICKS, p.3

ALL FORMATS LIGHT GUN

– SEE p.2

LOMBARD RALLY BEATS OFFICE FLIRTING!

IN GAMESWEEK

MAYDAY SQUAD

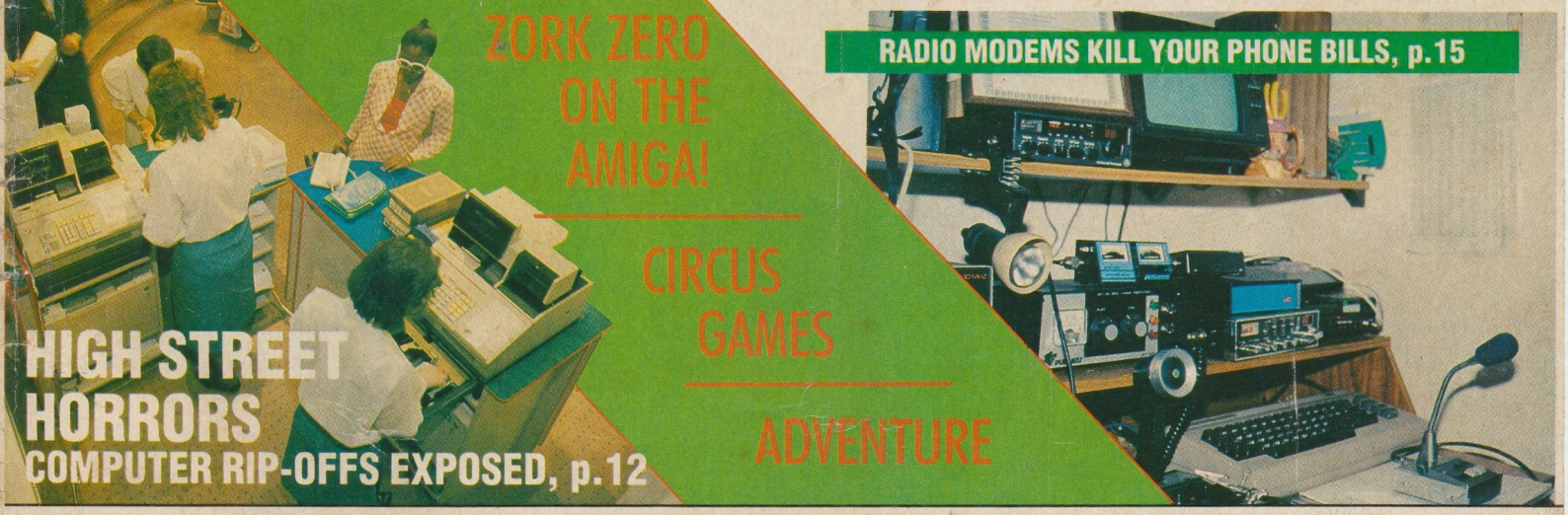
ZORK ZERO ON THE AMIGA!

CIRCUS GAMES

ADVENTURE

EXPOSED: PACKET RADIO

RADIATE WITH YOUR HOME MICRO!



RADIO MODEMS KILL YOUR PHONE BILLS, p.15

HIGH STREET HORRORS

COMPUTER RIP-OFFS EXPOSED, p.12

ATARI ST

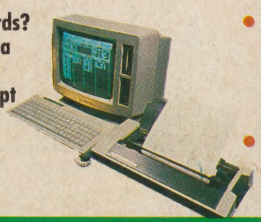
- We review Calamus, one of the best DTP packages ever made for the ST
- New ST thesaurus, see news

AMIGA

- The ST usually takes the Midi honours. We reveal the offerings for the Amiga
- Games reviewed are the Mayday Squad from Tynesoft and a revamped version of Zork Zero from Activision

AMSTRAD PCW

- Lost for words? We review a thesaurus for Locoscript



SPECTRUM

- Anyone with an MGT disc interface will just lurve this disc organiser from Betterbytes. Catch John Wase's review on page 35
- Part II of our Spectrum +3 desktop began last week – see Bytes and Pieces, p.52

JUST 55p FOR THE BEST NEWS AND REVIEWS WEEKLY IN THE U.K.!

Terminator chases Amstrad

THE computer games gunfight is on. Following the announcement of its Amstrad light-gun bundle for the Spectrum, Cheetah is launching a low-cost light-gun, the Cheetah Terminator, which will be available for all major formats except the PC and Amstrad CPC.

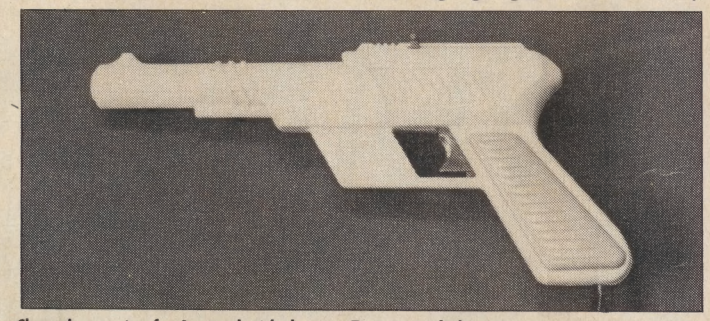
Cheetah boss Howard Jacobson told *Popular Computing Weekly*: "Originally we were planning to launch at this year's PC Show but with the arrival of the Amstrad gun we thought we had better show our hand. We feel we have a product we can shout about."

The Cheetah gun will be in three packages for the Spectrum. The stand-alone version will cost £19.95 and a bundle with six light-gun games will cost £24.95. A pack which includes three light-gun games, three ordinary games and a Challenger joystick will cost £29.95, the same price as the stand-alone Amstrad light-gun.

Jacobson does not feel that the light-gun games will be more expensive than ordinary games. "It is a very simple process to write games for the light-gun, so it should not affect the price."

Cheetah has signed a deal with a software house to supply the games but it cannot reveal the identity of the company. "Under the agreement we will choose the games we want to use from the software house. It will make the games anyway, because there will be a market for them."

The gun has also been developed for the C64, Atari ST, Commodore Amiga, Sega and Nintendo. All, except for the ST and Amiga versions, will be launched this month and will retail for the same price. For more details contact Cheetah on 0222 555525.



Cheetah: gunning for Amstrad with the new Terminator light gun.

Sega consoles Virgin

VIRGIN Mastertronic has signed a £100 million deal with Sega, taking effect on August 1, which allows the company to distribute Sega games systems and software in the U.K., Germany and France.

The deal covers the Sega 16-bit console, which has not appeared in this country yet. Nick Alexander, Virgin Mastertronics managing director, says of Sega's 16-bit consoles: "We are still waiting for the PAL prototypes to arrive, but we should have some by the beginning of next year and we will be marketing them in large numbers by the end of that year.

"We hope to have about 20 games for the console by then and expect to be releasing about three games a month." Alexander estimates that Virgin Mastertronic has released about 80 games for the Sega 8-bit console so far. An adaptor will be available for about £20 which will enable Sega 8-bit games to be run on the 16-bit console.

Sega: Virgin Mastertronic wins the deal.

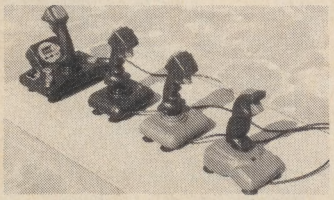
Itchy trigger finger relief

JOYSTICK FEVER has broken out at De Gale Marketing, which is launching three new products this month. The sticks are members of the Quickjoy range. Like the Supercharger, which is available already, all three have finger and thumb buttons, auto-fire, eight-direction control and four suction cups.

The biggest of the bunch is the Quickjoy V Superboard which has six fire buttons, an auto-fire with speed control and 10 microswitches. It also has a built-in digital stop-watch with LCD display, so you can time how quickly you kill the aliens. The Quickjoy V costs £19.95.

The Quickjoy II is the cheapest at £8.95 and the Quick Joy III is a Turbo version which has six microswitches and costs £10.95.

For more details contact De Gale Marketing on 01-637 5735.

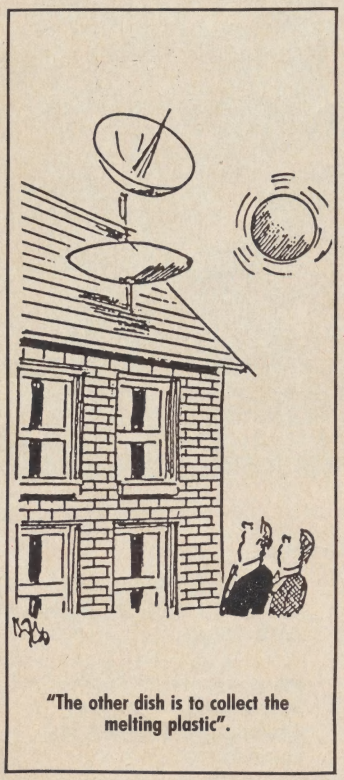


The Quickjoy range: joysticks for pirates? Walk that plank!

Cheapest drive for Amiga?

DIAMOND Computers is marketing what it says is "the cheapest Amiga drive in the world."

The Diamond external drive for the Amiga 500 costs £59 plus VAT. The ¼in. height drive features a NEC mechanism with a 1.5 foot cable. Diamond is also releasing a RAM board which will cost £99 inclusive. For more information contact Diamond Computers on 0703 338933.



"The other dish is to collect the melting plastic".

This Week

HOTLINES p.8
Duncan Evans cheats at Populous – he would, wouldn't he? – and considers the paucity of cricket games.

PUZZLE p.8

SIMULATIONS, p.10
Lee Paddon looks at the tank simulations coming up. All very well, but how do you take off?

LETTERS, p.11
The ST/Amiga battle begins again, Midi for the C64, credit card blues and more.

CONSUMING INTERESTS p.12
Banks and shops are turning to computers, but are they still looking after the customer? Our man investigates.

PACKET RADIO, p.15
Use your micro to control a packet radio system to enter the comms world and save on those phone bills. Andrew Banner explains how.

COMPUTER GAMESWEEK
Mayday Squad p.22
Adventure Bridge p.25
Circus Games p.27
Zork Zero p.28

FILE AND FIND p.31
Steve Brazier reviews a new PC database utility.

LOCOSCRIPT THESAURUS p.31
Paul Marks, who is never at a loss for words, reviews a new package for the Amstrad PCW.

PUBLISHING PROFESSIONALLY p.32
Our man puts the Calamus DTP package for the ST through its paces.

SPECTRUM DISC ORGANISER p.35
John Wase reviews a budget program to organise files and fix disc errors.

STUCK IN THE MIDI p.37
A round up of the MIDI packages available for the Amiga. Turn it on and move on up.

DIVIDED WE FALL? p.38
Our resident comms expert, Malcolm Arnold, says the on-line community should be better organised.

TECHNICAL PROBLEMS p.50
It doesn't matter what the problem is, nothing is beyond our Kenn.

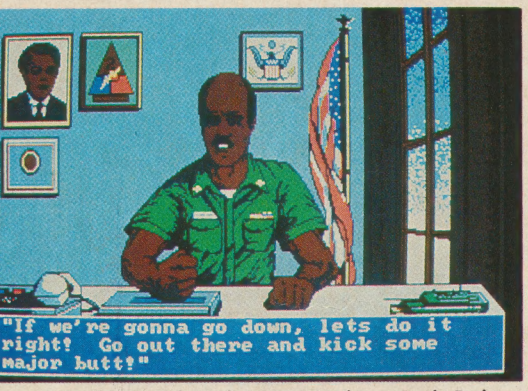
BYTES & PIECES p.52
Spectrum +3 Desktop continued and colour scroll for the C64.

FEEDBACK p.54
Do shopowners get a bad deal? Ewan Dalton thinks they do.

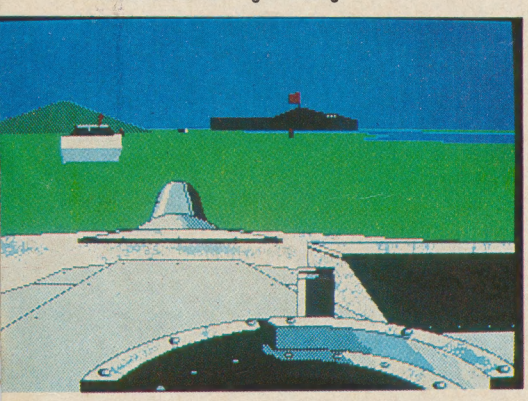
The tanks roll in

Lee Paddon is back down to earth this week with a look at the tank battle simulations on the way.

There are no fewer than three programs on the way simulating the U.S. Abrams M1 main battle tank. This hi-tech colossus, you may remember, was at the centre of a recent "mini-Westland" where the Ministry of Defence was faced with the choice between this "proven" design or waiting for Vickers to modify its Challenger MBT to meet the Ministry specification. For the time being, the decision has gone to Vickers but the spectre of the Nimrod AEW project stalks the corridors of Whitehall.



All pictures from Electronic Arts Abrams Battle Tank . . . You heard the man – get tanking!



I wouldn't stick your head out of the turret unless you want it blown off.

To get a feel for the kind of world in which the Abrams operates, Harold Coyle's *Team Yankee* is required reading. This, like Tom Clancy's *Red Storm Rising,* contains everything from WW3 to a little punch-up in Europe and the Atlantic – apart from Birmingham getting a little fried. Of course, the good guys win.

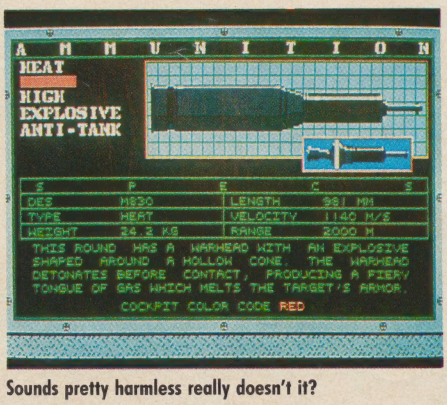
If you do not find the kind of loose political thinking which can produce a load of boloney like that too appalling, you might stay with it long enough to read the accounts of the tank battles. They emphasise that an individual tank will last about five minutes in such a battle. It is part of the overall "tactical situation".

Thus, any simulation of such a vehicle demands that it be put in context. This battlefield must be crawling with other tanks, infantry, helicopters, missile launchers and the whole pyrotechnic Pandora's Box of modern warfare.

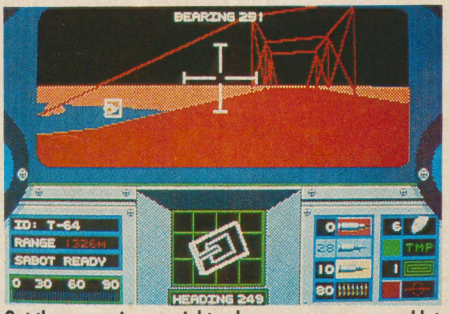
First, the tank transporter is an Electronic Arts offering. Unfortunately, it will be imported only on the IBM format with no plans for conversions. It also suffers from being very much a "one man and his tank against the universe" kind of affair. That said, what it tries to do it appears to do well. The graphics are finely detailed and the tank systems are simulated faithfully.

There is a variety of missions over a number of battlefields. Scenery is of the "billiards table with lumps" variety familiar to flight simulation fans. Some of the lumps are climable and so give a feel of interacting with the scenery rather than just avoiding it. There is no doubt that having a tussle with a T-72 is great fun but obviously the overall feel of the battlefield is incorrect with these isolated duels.

Microprose is really pulling out the stops, lexicographically speaking, with the imaginatively-named *Tank.* This is the latest project from Sid Meier and the boys in Hunt Valley and not something thrown together by one of the also-ran associate labels, so it should be good. Microprose is staying tight-lipped about this one at the moment but is promising F-19-style polygon-driven graphics with the ability to flip between one of four tanks. This obviously suggests a liberally cluttered battlefield with an emphasis on team tactics. It is good to see the collective heads are still well and truly screwed on in Maryland. Anyway, all should be revealed in October with the lead PC version.



Sounds pretty harmless really doesn't it?



Get the enemy in your sights, choose your weapon and let him have it . . .

To digress, Amiga *Gunship* is imminent with an IBM version of *Red Storm Rising* due in June, which promises several improvements on the C64 version to increase playability. Other 16-bit versions are nearing completion, with 8-bit versions to follow.

If Microprose is taciturn about Tank, Spectrum Holobyte has taken Trappist orders concerning its Abrams game. About all it will say is that it has one in the works and it will exploit the experience gained from working on ASAT with the U.S. military. Regular readers will remember the ASAT generated plenty of interest at last year's Farnborough Air Show with its promise of budget pre-merge training for F-16 pilots.

Apparently, this project continues apace and the machine has now been interfaced with *Simnet,* the army's armchair armageddon. With that experience behind it the company feels more than ready to do full justice to what it promises will be more of a battlefield simulator than a simple tank simulator.

Much depends on whether the company can tear itself away from playing with *Falcon* which must be the most commercially successful flight simulation since *Gunship.*

Instead of a simple scenery disc with a few new targets, Falcon is having a major revamp which the company admits will try to steal some *Combat Pilot* thunder by giving the game an overall strategic emphasis. It will also be easier to land. □

POPULAR POSTBAG

STAR LETTER

Lesson

This letter is a warning to readers who undertake mail order transactions by quoting their credit card numbers over the telephone or by letter when purchasing goods or services.

I decided to buy a well-known computer magazine at a cost of £16.50 for 12 monthly issues and I quoted my Access card number in payment. When I received my Access statement at the end of the month I saw that I had been charged £23.

I telephoned the firm and was given another number to ring as they did not deal with such matters at that address. I telephoned the number at 2.45pm and I was told to ring again after 3.15pm as they were all at lunch. This I did and I was promptly told that the person who attends to such matters was away sick. I confirmed my telephone call by recorded letter but received no reply.

I telephoned the Access department at Southend and explained the situation; I was informed that they charge people only the amount that has been submitted by the mail order firms.

I have also written to the editor and publishing manager of the magazine explaining the matter and asking for help, but have received no reply.

When one purchases goods from a mail order firm by credit card the customer has no redress on the amount of money submitted to the credit card company for payment until their statement arrives. About one percent of the firms send a receipt with the goods and one has no proof of the amount charged until they receive their monthly statement. They can keep the customer's credit card number and submit fictional deals at will. This is a very dangerous situation. One is giving a signed open cheque for them to use.

I have now had my credit card number changed and no way will I again submit it for payment of goods ordered by letter or by the telephone.

H. Gardner, Swanage, Dorset.

Floppyshop

I realise that this is not really an arcade game hint, but in the latest issue of *Stuffed* disc magazine, from Floppyshop ST, pressing F10 while reading an article dumps that article out to the printer! I've read the magazine from beginning to end and there is no mention of the feature.

Richard Bennett, Worthing.

"You only want me for my computer games."

Ends in tiers

We have taken considerable exception to your coverage of our two-tier workstation in the May 11 issue.

This story was sent to you to inform your readers of a serious and imaginative new way of increasing VDU capacity in overcrowded computer operations. Your jokey and cavalier treatment of the story devalues this objective, and generally impugns the commercial integrity of MDS Industries (UK) Limited, which has invested heavily in the design and development of this new workstation.

You have no right to take such liberties with stories concerning serious commercial ventures, and this letter is to express our indignation over your action, and to inform your readers that our new two-tier workstation is not to be regarded in this jokey way, but that it makes a valuable new contribution to computer and office environments where space is at a premium.

Tony Mutlow, managing director, MDS Industries (UK) Limited.

We feel certain that readers can distinguish tongue-in-cheek mickey-taking from serious reviews.

Angry of Wigan

Why did you allow such an obviously over-the-top feminist to write the "Sexist Programming" article? Because of this, the article loses all worth. I'd like to see you print an article which went to the other extreme – as it is, a week never passes without PCW writing more about sexism. It's the same thing with racism – if the minority in question believe they are equal or superior, why do they feel the need to stress it every other minute?

It's now fashionable to believe that everybody is the same. Yes, I know it's rubbish that women are more suited to cooking meals and washing clothes, but I'm sure they're more suited to bearing babies and bringing them up!

PCW is a stonking good mag – how about a review of the PC Engine?

Barry Newton, Wigan.

I'm sure many will disagree with your sentiments. As for the PC Engine, watch this space!

Out of tune

I am an organist and director of music at our local village church, and there are frequent occasions when I would like to harmonise a tune, print out a piece of music in a different key, etc. I have a C64 with 1541 disc drive and a CBM4040 dual floppy disc drive with an Interpod interface. I also have a Star DP515 printer connected through a Tripler-64. What I would like to do is to be able to enter music, preferably through a keyboard which I admit I do not have as yet, store it on disc, recall it whenever necessary and amend and print out. The main problem seems to lie in the fact that it is essential that I have a four part harmony, which no C64 software that I have come across yet seems to do. I know that the C64 only has three voices, but I am not interested in hearing the computer play anyway.

I understanding that E.M.R. have such facilities available for the BBC computer, but I don't want to have to buy another computer except as a last resort.

Roy Sansom, Leicester.

Music software for the 64 is not something we tend to cover very often – there is little in the way of new Midi stuff launched for it these days. However, in our C64 supplement next month we hope to be covering most of what's out there. As to your problem, perhaps Soundcheck readers have some suggestions?

Well versed critique

I am writing to express my feelings to your reader Andy James. First of all he starts his letter by saying that the ST/Amiga debate is nonsense. Then, at the very end of his letter, he has the nerve to slag the Amiga off. Well, that is not on. Anyone with half a brain knows the Amiga is the far better computer: it's far superior in graphics and sound. The Atari ST is c**p.

Now I've gotten this out of my system I would like to say that I think you run a great mag and now with the Gamesweek in it it is great value for money – just like the Amiga.

Grant Maclean, Glasgow.

At 55p we're far better value than a Commodore Amiga – we come with built-in word processors, great art packages and self-test diagnostics (agony uncle Kenn Garroch to you).

***A lawyer writes:* the views of the aforementioned reader regarding the said Atari ST apparatus do not substantially heretoforth represent the views of *Popular Computing Weekly* (if that's alright with you).**

Off the fax . . .

Your story in the May 18 issue about the racist *Intefadeh* game that has appeared in Israel contained a salient inaccuracy in its closing paragraph. You said that it was ironic that "targets of racist games in West Germany" are playing a racist game themselves. By this I assume you mean Jews, and as such are bracketing all Israeli's as Jews. WRONG! There are also Christian communities in Israel – something to do with places you may have heard of called Bethlehem and Jerusalem.

Dan Clerk, Amsterdam.

We stand corrected – thanks for your input. Another reader rang to tell us that we were inferring that all Jewish people support the state of Israel (i.e. are Zionists) and that this is far from the case. We do not believe we inferred this, but it's your right to reply.

Public confidence in automated checkout systems using bar codes has been shaken by bad press about overcharging.

Consuming interests

Do banks have an unhealthy trust in computers? Are centralised computer pricing systems in shops causing rip offs? Our man investigates.

As consumers, whether we like it or not, our lives are administered increasingly by computerised technology. Few shoppers will never have been through a computerised store checkout. Many bank and building society customers regularly use hole-in-the-wall or automatic teller machines. Our credit card statements, bills, local authority rates, even junk mail, are mostly calculated and mailed by a microchip-driven machine.

It is vital to the smooth running of such a network that consumer confidence is maintained in the system. Although the consumer is rarely consulted for his views on computerised administration, his tacit support is assured and relied on by the institutions which benefit from it.

In the last few months there has been a spate of bad publicity against such technology. There have been stories of incorrect shelf-edge labelling leading to over-charging at electronic point of sale checkouts and allegations are rife that bank and building society accounts are vulnerable to fraudsters armed with bogus ATM cards, to villainous computer hackers or even to internal computer hiccups. All such talk is fuel to those of Luddite inclination who have always secretly believed the computer to be an evil invention, working against, not for, the man in the street.

The latest controversy was sparked when *The Observer* of May 14 revealed that the Scotland Yard Fraud Squad is taking seriously the idea that thieves are manufacturing 'cloned' cards to steal hundreds of thousands of pounds from personal accounts via ATMs. Such claims are not new but the finance industry, predictably, has always closed ranks, refusing to admit that ATMs are vulnerable.

Problems with ATMs – Automatic Teller Machines – have hit the headlines recently following the fraudulent cloning of dispenser-cards and software systems failures.

No customer complaint in the U.K. that money has been withdrawn illegally through an ATM has ever been met with compensation by a bank or building society. The story is always the same – that the claim is bogus or that the account must have been accessed by a friend or relative in possession of the card and the PIN. The interest of Scotland Yard looks set to pose a threat to this tight-lipped behaviour.

Detective Inspector John Austen of the Yards Computer Crime Squad said: "Our experience with computer crime is that the banks do not tell us, even when very serious crimes are committed. They want to keep it under wraps that someone, somewhere is stealing." He blames the silence on a desire to maintain customer confidence.

The banking ombudsman, Lawrence Sherman, has so far sided exclusively with the banks in each of the hundreds of ATM complaints he receives each year. He told *Popular Computing Weekly:* "This is the most frequent cause of complaints to me. On the evidence I have had I have never had reason to believe that a fraud has been committed. I am not saying, however, that it is impossible for such fraud to take place."

The Consumers Association was less supportive of banks and building societies. Spokeswoman Virginia Wallace said: "The

EPOS – Electronic Point of Sale Equipment: customer friendly or a consumer hazard?

Review Committee on Banking Services Law, the Jack Committee, is at present considering what the law should be in relation to ATM transaction. It has seen evidence that ATMs are not as reliable as banks claim."

None of the banks or building societies questioned admitted knowledge of any fraud. Unanimously they denied weaknesses in ATM security.

The topic of ATM fraud may be in its infancy in the U.K. but elsewhere horror stories abound. In Los Angeles in February five people were arrested in connection with a major ATM fraud. The group was charged with conspiring to steal account numbers and algorithms from a bank computer and using the codes to produce false ATM bank cards. Police raids netted almost 2,000 completed ATM cards, with 4,900 more in production. Each card had the potential to have been used to withdraw unlimited amounts from accounts until the money was discovered to be missing.

In November, 1987 the Canadian Toronto Dominion Bank was ordered by a court to pay $1,100 to a customer who had had that amount stolen from his bank account through fraudulent use of his ATM card. Robert Miller convinced the court that he was elsewhere when the money was taken from his account and that his bank card had not been lost or his PIN divulged. Canadian computer experts said that they believed that ATMs could be defrauded with a cheap magnetic encoder used to put somebody's card number on a blank card and a portable computer used to calculate the PIN.

Unlimited withdrawals

French computer hacker Phillipe Gombert was sentenced to 18 years' imprisonment in March after gunning down a fellow hacker in a row over a system they had devised to withdraw unlimited amounts of money from ATMs.

Gombert, 22, had enlisted Jose Pereira, an electronics expert, to find a way of defrauding ATMs. The pair quarelled after Pereira demanded a trial run for the system before Gombert believed it was ready. After shooting Pereira, Gombert tested the system, making six withdrawals before the ATM swallowed the card.

In June, 1987 the Westpac Bank in Australia was forced to close all 650 of its ATMs after a computer error had caused the machines to dispense hundreds of thousands of dollars without authorisation. It is believed that the bank had installed a new software system which had not been tested under full operating conditions. When the system was put into operation it soon became unable to process hundreds of transactions at once.

The machine began allowing customers to draw unlimited funds from their accounts, by-passing the normal maximum withdrawal. After several days of confusion the bank was compelled to shut down the network. It has been reported that the bank has decided not to incur the heavy legal costs which would be incurred by forcing customers to pay back the enormous overdrafts they were able to acquire without limits.

The same machines apparently decided to compensate for the embarrassment three months later when they confiscated, without human order, thousands of ATM cards from customers making legitimate withdrawals.

Yet another bar code application – this one has been woven into clothing.

It is not only banks which have suffered unwelcome publicity from the media after technology problems. Last autumn several supermarket and DIY chains experienced the attention of the tabloid press after allegations of over-charging by checkout systems using bar coding systems. It seems, in the light of subsequent investigation, that the errors were human, not mechanical. Shelf-fillers had failed to update shelf-edge labels with price rises.

The dangers of a poor public perception of technology were not missed by the stores. Recognising that a crisis of confidence would be fatal, most of the chains have acted to improve efficiency. Bill Whiting, press officer for B & Q, one of the firms embroiled in the controversy, no doubt spoke for many when he said: "The level of inaccuracy uncovered was extremely small but because it has been over-hyped by the press there is a danger that public confidence will be undermined. This is a serious problem and it needs to be addressed and we are not underestimating our responsibility.

"There has been plenty of misunderstanding and suggestions of deliberate fiddling are not true. Prices cannot be changed locally, only centrally. This means that the errors could not have been due to 'buncing', an illegal procedure where stock loss from internal pilfering by staff can be covered by rising prices slightly in an individual store. The irony is that EPOS provides security against this, as well as human errors. Errors are made more visible with EPOS."

Price changing

Support for EPOS was also forthcoming from the Retail Consortium. Press officer Elizabeth Tongue said: "So far as we are concerned, computers make stores less open to fraud. The operator cannot put in what amount she chooses with bar codes. Obviously retailers have to be vigilant about price changing."

Speaking for the Consumers Association, Elizabeth Hobson said: "We are not against technology but we are very concerned that standards laid down by the Article Number Association, the bar coding governing body, are adhered to strictly."

It is clear that the issue of consumer protection from computer error or fraud is a thorny one. It is equally clear that the onus for maintaining public confidence in a computer-driven society is on the institutions which stand to benefit from it. Retreating behind a wall of silent solidarity in the face of accusation or criticism is the worst remedy to the illusion of the computer as a tool of 'big brother'. □

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Many computer owners are avid communications users who love logging on to their favourite bulletin boards and leaving messages to people they have never met. I went through the phase of BBS but soon found the telephone bills were going through the roof and had to limit myself to the occasional call.

Today, the modem is in a corner of my desk, being used only as a support for my disc drives. For me the appeal of electronic mail and downloadable software is still there – the money is not.

Background

So how do you relieve your craving for electronic communicating without lining the pockets of British Telecom? Get wired into the fast-growing Mercury telephone system or dispense with the telephones and turn to radio communication? Telephone time is expensive, even if you are making a local call to a bulletin board for half an hour. The new Mercury network is cheaper to use than BT but it still costs money. What every data communications user wants is free telephone calls. Failing that we want another method of communicating which is cheap and easy. Radio waves are free but how do we harness this medium to use it for data interchange?

Yeasu FT-211RH FM radio ▶

Saving a packet

By using your micro to control a packet radio system you can enter the world of comms without the drudge of phone bills. Although the initial outlay is high, the rewards are worth the trouble, writes Andrew Banner.

◀ What lurks in the spare room of every radio ham

The method is simple; the equipment can be expensive. Radio waves have been used for many things in the past and in the last few years Packet Radio has become a popular and alternative medium for computer communication enthusiasts. Many users have already turned to Packet Radio. Perhaps you will be the next to become a ham.

Licences

As with everything, Packet Radio has its disadvantages. To be able to start to trans- ▶

◄ mit you are legally required to have an amateur radio operator's licence; a citizen band licence is not sufficient.

Amateur radio operator's licences cannot be bought off the shelf like those of CB. To obtain a licence you need to pass a City & Guilds examination on amateur radio. Knowledge of radio can be gathered in any way you choose. If you know someone who is willing to help you, all is well.

You can attend a course in amateur radio which is run by the City & Guilds authority. That will teach you how to use and understand radio frequencies, as well as how to use a radio. Courses run for six months and the next one is due to begin in September – with examinations in May and the following December. To get your licence you will need your examination certificate as proof of passing. The licence costs £12 per annum.

Some adult institutes and colleges run City & Guilds amateur radio courses. So, if you are interested, you should contact your local education authority to find the course which is closest to you.

AEA PK88 Terminal node controller modem.

Modems

You will, of course, require a modem to transmit and receive data through Packet Radio. If you already own a telecommunications modem you will have to buy a new one which works with packet. Standard telecommunications modems send and receive data in a long, steady, sequential stream. Packet Radio modems will cram data into a set size box or packet and then eject the full packet to the radio, up the antenna and on to the airwaves.

Different methods of communication also means different types of connector. The connectors used with up-to-date telecommunications modems use standard British Telecom telephone connectors, while radio uses UHF-type, radio microphone sockets and plugs.

Your new modem should be a Terminal Node Controller unit. There are many TNC modems on the market; three such units can be bought from leading retailer Andrews Computer Services of Watford. They are the AEA PK88 which retails at £129.95 and can be used for HF and VHF Packet Radio. The AEA PK232 TNC modem is an all-singing, all-dancing model and that is reflected in the £279.95 price. For those on a slightly tighter budget, the Pac-Comm Tiny-2 TNC modem will suffice. It operates on VHF packet only and costs £109.95.

To be able to connect one of these modems to your computer all you need is an RS232 interface. Many computers already have such an interface built-in but if you own one which does not the chances are that there is a company marketing such a unit.

Software

As with all hardware peripherals, a TNC modem will not run on its own and so needs to be driven by software. If you already have some communications software you are laughing as this will work satisfactorily with your new modem and radio set-up. Many Packet Radio functions, however, will be missing and you will have just the bare essentials. For a fuller use of your new-found joy you might like to buy one of the packet-specific programs. Luckily, they are not expensive as they are mostly in the public domain and will cost only a few pounds.

This specific software will provide you with the full range of functions from the standard receive and transmit facility to the more technical file transfer options.

With the exception of a few computers, there is software available for most machines. For a nominal fee you can obtain TNC communication software for the Commodore 64 and Amiga, Atari ST, IBM PC and compatibles, BBC, Archimedes, Dragon 32 and Apple II. You can also buy RS232 interfaces, which include software, for the Amstrad PCW and CPC machines.

So almost no computer is omitted, apart from the ever-popular ZX Spectrum. Do not despair, though, as there was a company which produced an appropriate interface and software for the Spectrum. Sadly, the company has now ceased trading but there is still a chance that you will be able to find a supplier with some stock. Failing that, you could buy an RS232 interface and use most communications packages.

Radio equipment

Packet Radio operates on many frequencies, some of which are used more than others and for different things. The main frequency is 144.650MHz FM. It is an incredibly busy channel and is used by many bulletin board systems and network nodes. A network node is basically a sub-station to which the signal travels if it is embarking on a long journey. The node receives the signal, attaches its identification to it and then passes it to another network node or the signals destination.

Another busy frequency is 144.675, where many one-to-one conversations take place. Other channels include 70MHz, 50MHz, 432MHz and 1,296MHz. Frequency 432.6MHz is also busy. On high frequency, 14.105MHz is popular.

To be able to use Packet Radio you obviously need to have a radio transceiver. Radios can be unbelievably cheap or very expensive. If you attend a radio rally you could probably find a single-channel radio for only a few pence to £200. If you buy second-hand it is likely that the radio will need to be re-tuned. The correct crystals should cost no more than about £5 but, unless you are experienced in radio tuning, you will have difficulty doing it yourself. A good radio shop or enthusiast friend will be able to help.

If you intend to buy a new radio you might like to consider the Yaesu FT211R. It costs £250 and has been designed with Packet Radio in mind. It incorporates some of the features which would assist any Packet Radio user.

Any radio requires an aerial of some description. The better quality your aerial the better your incoming and outgoing signals will be. Also if you have a good aerial you will be able to cast your broadcasts further afield.

If, by this time you have run out of money, you could use a substitute antenna which ►

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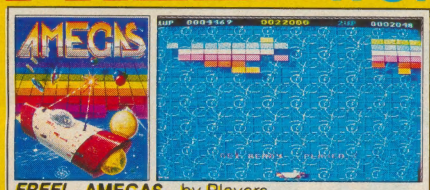

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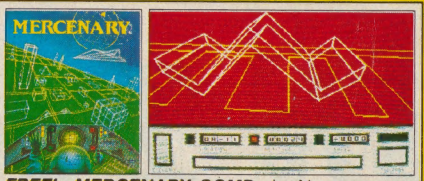

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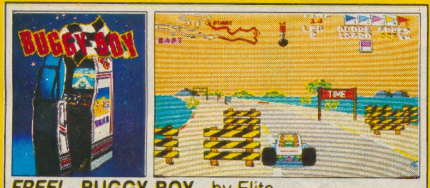

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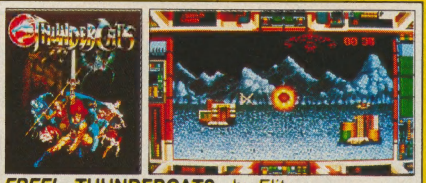

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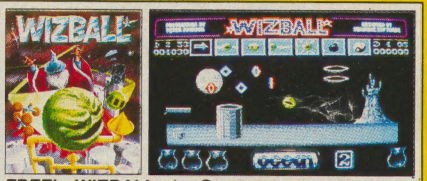

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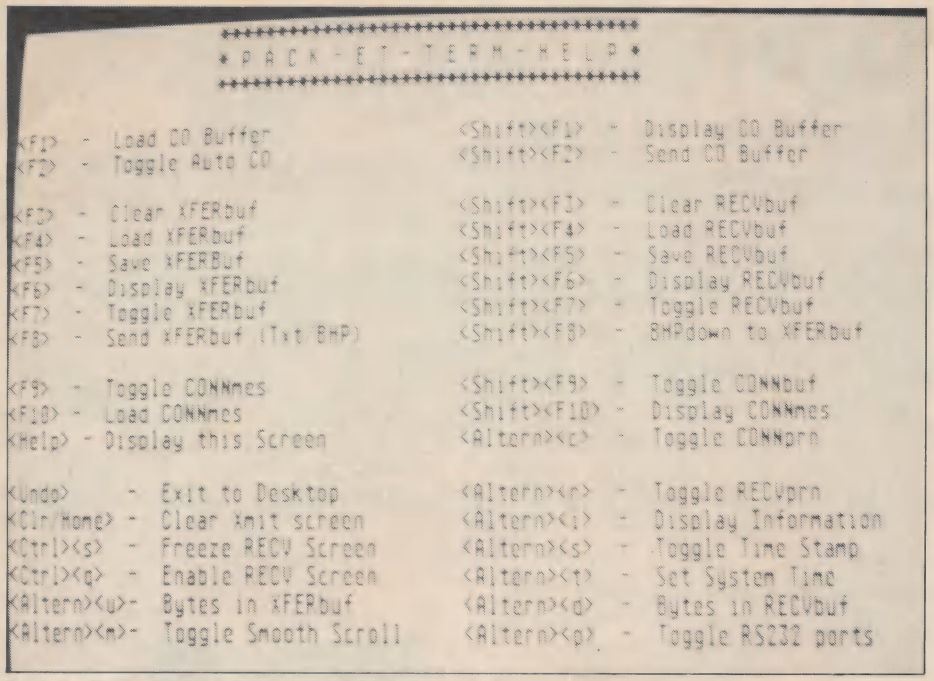

Terminal software showing help screen and full list of commands.

◀ you can make out of virtually any conductive material. A coat hanger is always favourite. Remember all those cars with bent hangers poking out of the wing? Well, they work but not too well.

Usage

There are thousands of amateur radio users throughout the world; many also use Packet Radio. It is equally easy to talk to someone in Australia as it would be to someone at Scunthorpe.

There is now a special satellite in orbit which is dedicated to receiving packet signals and then beaming them back down to the ground for receiving by another station somewhere on the other side of the world.

Packet Radio is becoming a very widely-used medium for data transfer. New users are up and chatting every day. Many are already hams but a high percentage are everyday home computer enthusiasts. Will you be among the new recruits?

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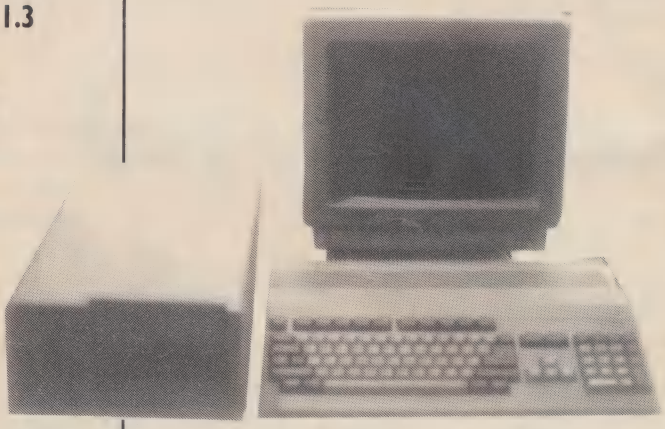

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MAYDAY SQUAD
Hostage Crisis

ZORK ZERO
Before the fall

Mayday, mayday, the Red Legion has captured the Lutonian Embassy and is threatening to blow it up. The bodies of the staff litter the lawn like leaves after an Autumn storm, but the terrorists have missed one victim so far – the ambassador's daughter is hidden in the building somewhere, and it can only be a matter of time before the mad dog killers find her.

This sounds like a job for the **Mayday Squad**, an international anti-terrorist organisation, that sends teams of three skilled fighters into no-win situations.

Remember **Hostages?** The Tynesoft programmers obviously do because **Mayday Squad** is heavily derivative of that game. The objective is twofold, though completion of either earns commendation, namely, the termination of the Red Legion leaders and the rescue of the ambassador's daughter, before they blow up the embassy.

After selecting from a collection of Squaddies, and setting the parameters (note: don't try to use the joystick – it's far too slow), then off you go to the entrance of the building and your first problem, a locked door.

Each character has a specialised subject, killing, explosives, and communications, and you can swap between them in a slightly tedious manner. The current leader is the one who can act, though when the firing starts they all get hit. Call up your comms person and listen then pick the lock. Even if the report says that a room is probably empty, go in firing because it inevitably isn't.

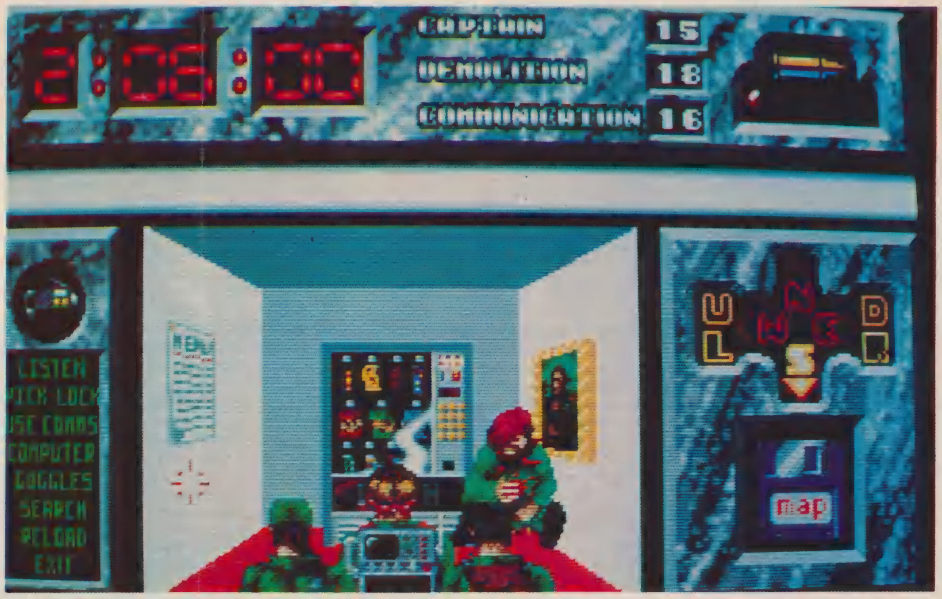
The graphics are presented with a 3-D over the shoulder of the party look, and are quite attractive but only minimally animated.

As you race around the basement, ground, first and second floors of the building, you'll encounter security computers which can be used to turn the surveillance system off, and the escape route on, ordnance cupboards and rooms containing safes. Beware the booby traps though, as they will add damage to your already wilting squad.

I have one gripe with this game and that is that the mouse control isn't quite quick enough. There's nothing more irritating than getting into a firefight, finding your main man (or woman) out of ammo and getting shot to hell as you try to switch character.

There's a smattering of music at the beginning but as this is eminently forgettable I suggest you do just that. The rest of the sonics though are excellent. Sampled explosions and gunfire had half the office ducking.

Mayday Squad isn't a game you'll play over and over, it's too repetitive for that, but it is quite enjoyable in the short term, and will make any would be hero fight for their medals.



• Try a lead sandwich, commie pig!

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Program: Mayday Squad
Version: ST/Amiga
Price: £19.95
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RELEASE DATES

ST: Out now
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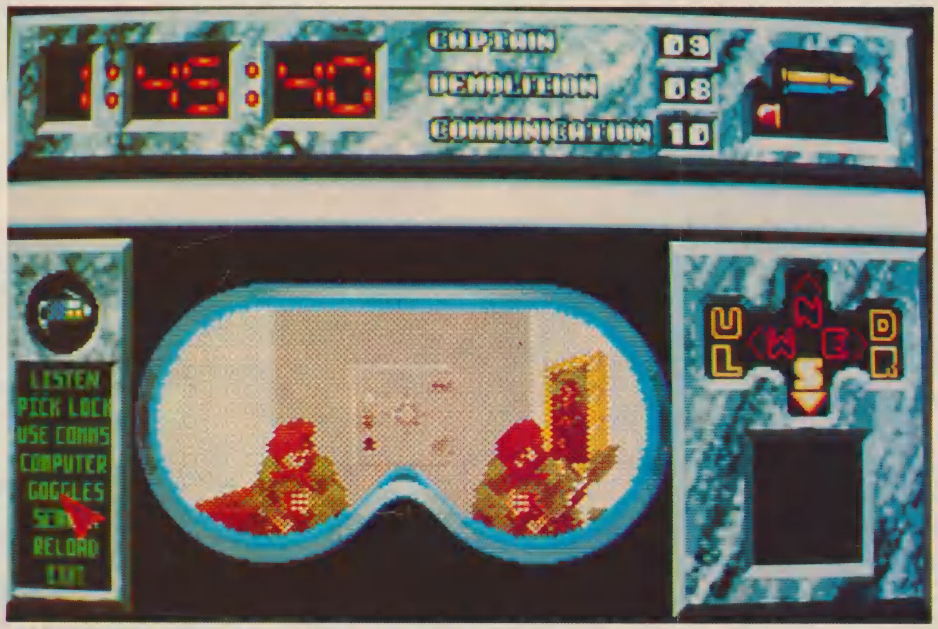

• NHS spectacles are getting worse – I can't see a thing.

Gameplay 74%
Grafix 85%
Sonix 83%
Overall
80%

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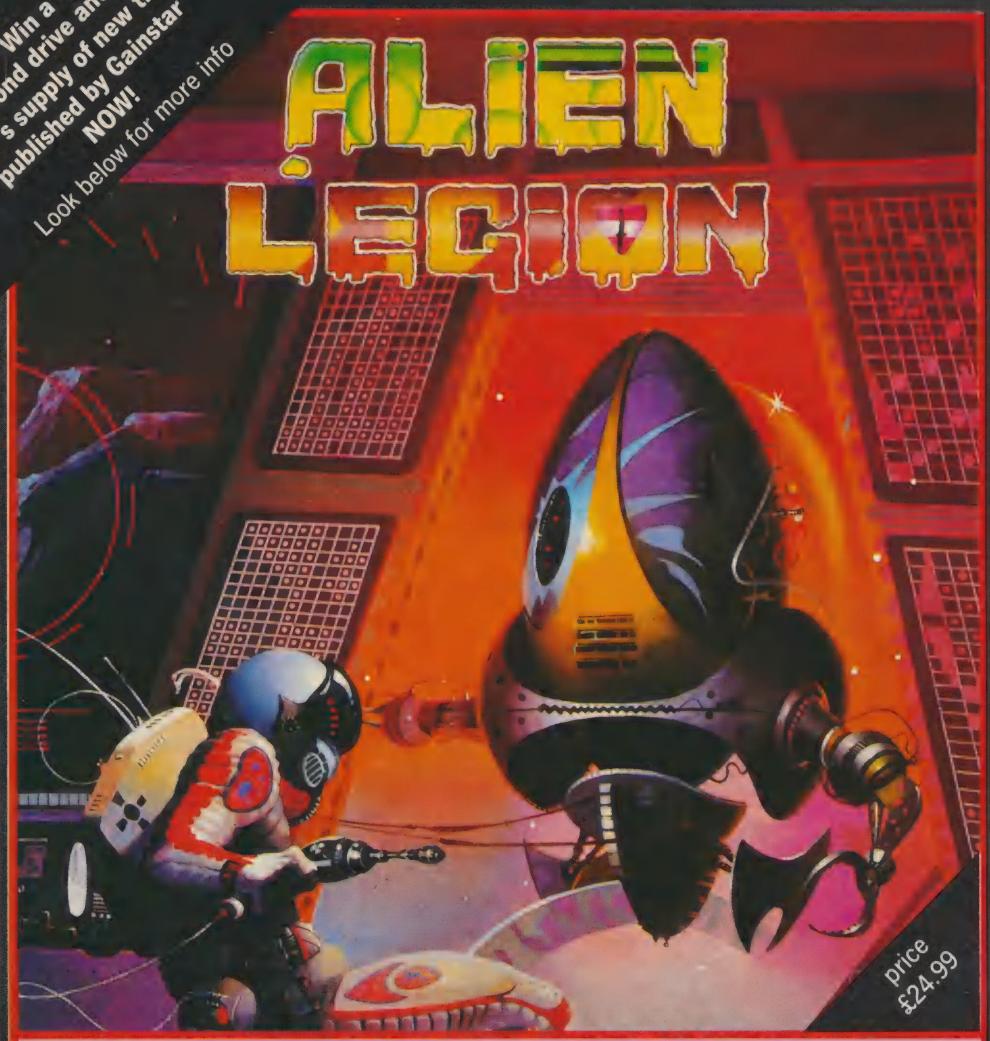

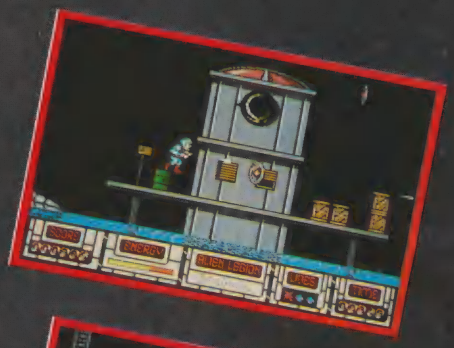

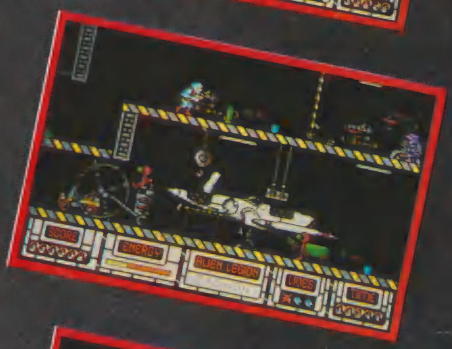

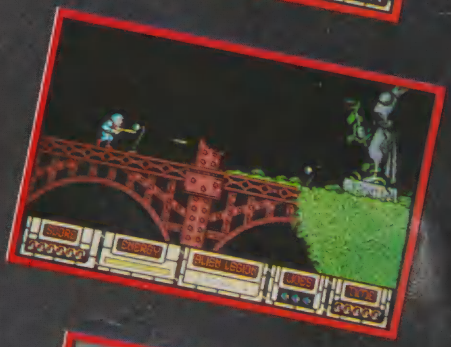

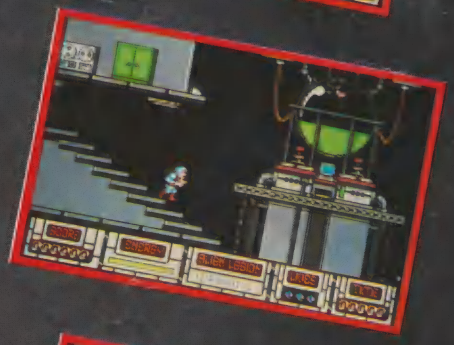

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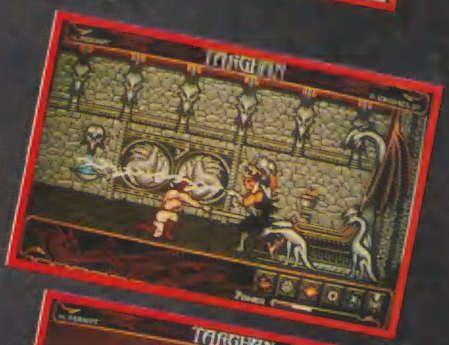

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Adventure Bridge

The U.S. market seems to have an insatiable appetite for RPGs of the most traditional kind and the PC machines have a veritable galaxy of them from all sources. **Might and Magic** is from New World Computing Inc, marketed in the U.K., by Activision.

Although there is a roster of characters supplied, making a party is simple and follows the time-honoured methods.

For each character you are given a pre-rolled list of vital statistics and there has been some attempt to get away from the usual Intelligence Charisma. Dexterity and so on, and we are provided with Intellect, Might, Personality and Speed, among others. Character Class must be chosen next, and they are more familiar, consisting of Knight, Paladin, Cleric, Sorcerer and so on. After that is Race assignment; again the familiar Human, Elf, Dwarf, Gnome and Half-Orc are available.

After deciding the sex of your character, the final option is to select the alignment of your character from the three choices of Good, Neutral and Evil. Up to six characters can be included in a party, which starts from the Inn in one of the five towns.

The town in which you find yourself is laid out in traditional 3D corridors and your party moves around one step at a time. At intervals, you will discover doors, which may be open and lead to Weapon Stores, Training Guilds, Food Stores and so on, or they may be locked. As one or more of your characters may be an expert lockpicker you can try opening these enigmas (or you can resort to the Bash command), but beware you will often be surprised by a bomb or some other trap.

This being a typical role-playing game, you will not get away with plodding around unhindered. As you wander around you will be confronted at odd intervals by parties of monsters, of varying degrees of monsterness. If you are surprised by the monsters, combat ensues; if you surprise them you have the option to fight or scarper. Bribery is an additional option if neither party is surprised.

What are the monsters like? After all, although all RPGers like the games because of the vicarious riches and fame we can amass, combat with horrible fiends must be a strong attraction for us. In **Might and Magic**, you will find more than 200 kinds of monsters, so there should be sufficient for the most bloodthirsty player.

Unfortunately – or fortunately – **Dungeon Master** has nothing to fear in this regard, you will not feel the hairs standing up on the back of your neck as so often happens in the FTL masterpiece. A simple cameo – admittedly well-drawn – pops onto the screen and stays there, unmoving, until battle is finished.

This takes place in a series of rounds, during which you can order each character in your party to attack or defend as required. Then you wait until the monsters have a slog.

What are you given with which to fight? The party starts equipped with simple necessities such as clubs but not even things like torches. Nevertheless, very close to the starting point is the Equipment Shop where, pooling the initially meagre supply of gold, you can stock with other essentials like torches, ropes and more exotic weapons and armour.

Apart from that, there is Magic. The sweetness of casting a Stone to Flesh Spell, or a sneaky Lightning Bolt; how about Walking on Water or even a quick Resurrection or two? These and dozens of others – 94 in all to be exact – are available to the Cleric and Sorceror, who start with level one spells and progress to level seven.

That is about it; wander round, fight monsters, search the corridors for hidden gems – useful for spell-masters – and other treasures and make your way through the ever-increasing difficulty of deeper levels.

There is not much originality to be found in **M&M**, although, exceptionally in my experience, you can emerge from the depths into the bright sunlight. In this case, the stark walls of the corridors are replaced by pine forests and mountains on either side of the forest path.

Dungeon Master has nothing to fear but then **DM** is not available for the PC and this program is a pleasant way to pass the odd afternoon. Along with the clearly-written manual, you are provided with a pad of blank maps with which to chart your progress around the towns.

Activision is giving us some good adventures at the moment and **M&M** is a solidly traditional RPG. It follows in the tradition of **Phantasie, Wizardry, Bard's Tale** and others, none of which it surpasses. For a first-time RPGer this is a very good introduction to the wonderful world of troll-bashing.

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• With attractions like that then I'm certainly going to the circus.

FAX BOX

Program: Circus Games
Version: C64
Price: £9.99
Supplier: Rainbow Arts
Reviewer: Kerry Culbert

RELEASE DATES

Amiga: Out soon
C64: Out soon

Half an hour of *Fatal Attraction* on home video and I was in need of a little comic relief. **Circus Attractions** was my only hope. Michael Douglas failed to hold me spellbound, so I hoped the entertainers in this tournament would.

The colourful graphics certainly brought a smile to my face and the acts included in the game were what you would expect in a circus, ranging from juggling to tightrope walking.

Joystick-controlled with one- or two-player modes, the object is to accumulate as many points as possible in each event.

The final score is calculated after the last event and is the average from all performances. The disadvantage is that you have to be good in every event to obtain a high score and that is easier said than done.

The knife-throwing event is a case in point. By pressing and letting go the fire button, an assistant gives you the knives. If you are too slow the spectators are on the receiving end instead and every time the assistant is hit your points start seeping away. As if that was not difficult enough you have to watch for sticks of dynamite which blow up if you handle them.

Another difficult area was the tightrope walk. You have to keep your balance as the figure makes her way across the wire. Performing handstands and somersaults awards you extra points but every time I attempted to correct a wobble using the extreme balance manoeuvre I toppled from the wire. During the somersault attempt the figure cannot be controlled, which is a bit boring to say the least.

To be fair, though, the rest of the games are straightforward and you have three chances to repeat any event. The best strategy is to think ahead as, if you use two chances on one event, you have only one left for the remaining four.

Juggling is fun. As well as contending with up to six objects you have to take up a balance ball wobbling on one foot and jump in the air to miss a clown who passes on his motor-bike.

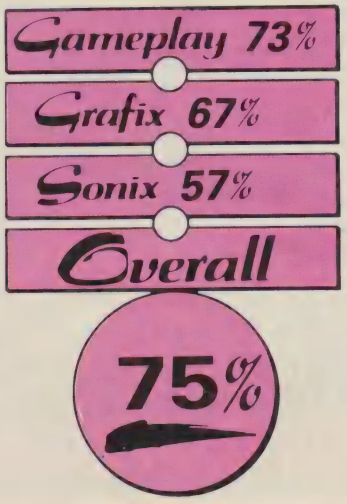
In the clown jumping sequence not so much skill is required but some of the details are a giggle. You have to jump between two seesaws and when you reach the second a heart shape appears. If you fail a ghost in the crowd socks you one and the first seesaw splits in two.

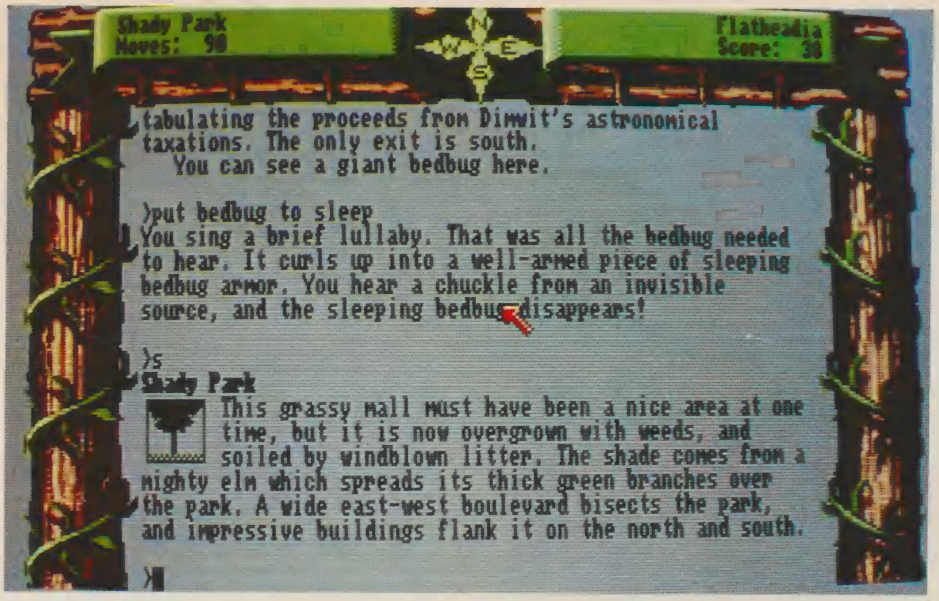
Last, there is the trampolining event. You spring as high as possible to prevent the spectators becoming bored. Their interest is indicated by a column logo at the bottom of the screen and as you perform feats like somersaults, the circles are transformed into objects like crowns and apples.

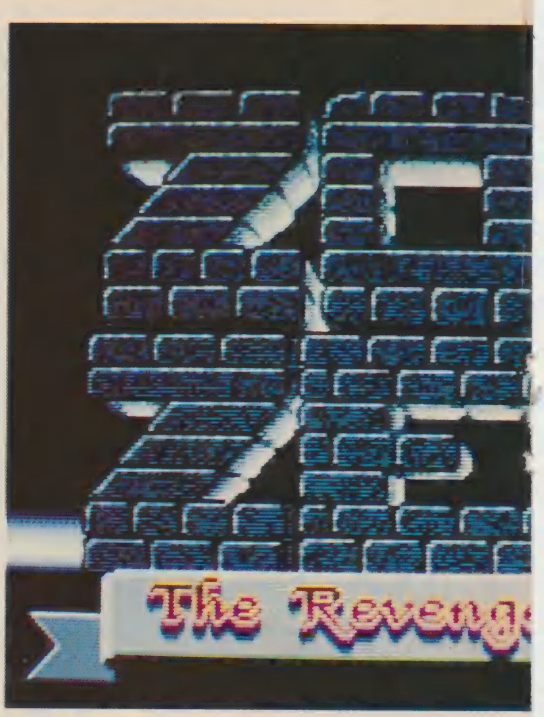
Circus Attractions brought me a little comic relief with its rainbow graphics and entertaining games but generally it lacked consistency. The gameplay skill varied from game to game, as did the quality of the sound effects. There was circus-style music during the tightrope walking event but little noise from the crowd or for the rest of the events for that matter.

The only tears you will have to wipe away from your eyes, though, will be tears of laughter.

• I wonder if she has any life insurance.







FAX BOX

Program: Zork Zero
Version: Amiga
Price: £24.95
Supplier: Activision
Reviewer: Duncan Evans

RELEASE DATES

Amiga: Out now

With the onslaught of Magnetic Scrolls, FTL with **Dungeon Master**, **The Bards Tale** and **AD&D** games, Infocom has become hard pressed to stay in the top flight of adventure. No surprise then to see the company abandon its claim to text only adventures (though parent company Activision undoubtably had a hand in this), and succumb to the lure of providing graphics.

Unlike in **Journey**, or **Shogun**, the two other recent Infocom releases, **Zork Zero** is very much in the traditional mode, and uses graphical illustration in a restrained manner. Most locations contain only text and an appropriate icon, but in particular circumstances, full screen illustrations are used.

To the plot then, and all is not well in Flatheadia. Some 90 years ago Lord Dimwit Flathead the Excessive built a statue which obscured a certain glade of shade trees. A certain glade belonging to Megaboz the Magnificent, the most powerful wizard this side of anywhere. And he wasn't happy.

The wizard, not being the friendly sort laid a curse on Dimwit, a curse on his siblings, and a curse on the Great Underground Empire. The palace wizards managed to forestall the big curse, that of utter ruination, for 94 years, but the other parts took effect immediately.

Dimwit died face down in his soup, and the great grandfather of the character you play managed to steal a piece of parchment which tells of how to cancel the spell and save the Empire.

Now, in the present day, the great castle is virtually empty, save for the court jester who follows you around. A sign hangs near the gates proclaiming that the person who would save the Empire would be rewarded with half its wealth. As a relative of the original servant who salvaged the vital information, you decide to set about negating the curse and making mucho money.

Zork Zero is of course, a prequel to the **Zork Trilogy**, and shows the Great Underground Empire at its height, and as it falls.

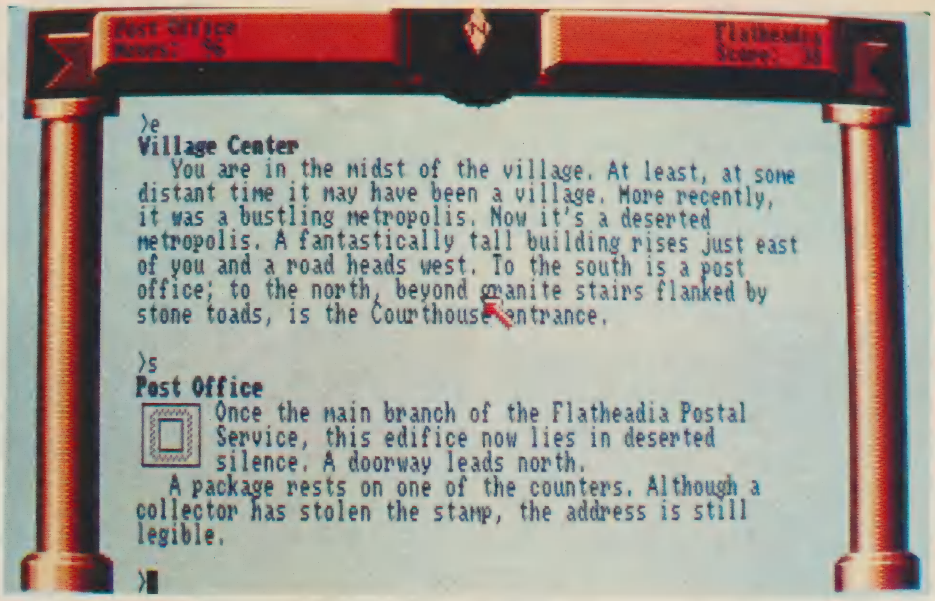
The parchment recovered is one of the goodies in the package, along with the Flathead Calendar for 883 (which contains numerous clues so read it carefully), and as such is used to discourage piracy, so I'm not going to tell you what it says either.

So, off you go, looking for certain items, around the palace of the Flatheads. Downstairs is nice and dark, but a quick warning here, don't rely on the torches to provide light, as they soon expire, instead look to your calendar.

Upstairs on a balcony is a rebus with magically squashed animals covering it. Aha! A puzzle – how to remove the animals and see what lies beneath. If you do the obvious, in a nearby location, and then check the rebus again, then you should get the idea of what you're supposed to be doing.

Although the only real difference

● **Who's been squashing animals on my painting? Notice something different about the picture on the right?**



between this and other old-style Infocom games appears to be the columns aside the text area, and a compass that the mouse can interact with, there are subtler differences. The painting is one, as it reveals full screen graphics, the auto-map is another, and there are a number of graphical puzzles which can only be manipulated with the mouse.

Also, each location is adorned with a small iconic representation, which are used on the map screen to show your position. You can actually use the map screen to move around on as well.

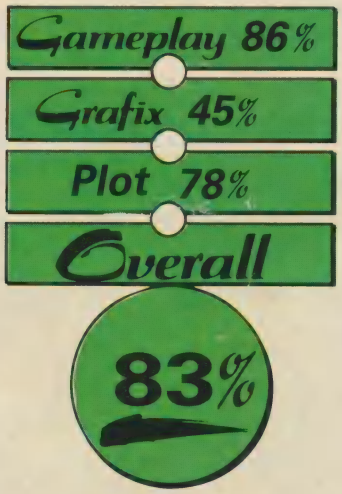
Though the puzzles vary in trickiness, from straightforward to complex, there are also riddles thrown at you by the court jester, which are satisfying to solve.

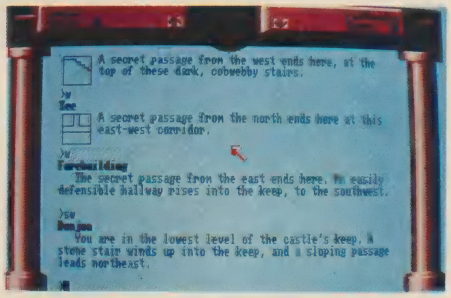
It's also nice to be able to redefine the function keys to hold specific phrases.

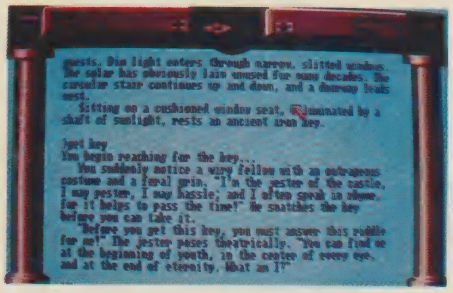
If you get stuck, which is entirely likely, and your hair is threatened with uprooting, you can always sink to using the on line hints. These invariably have levels of depth to them, ranging from a vague hint, to displaying the complete solution. Though as the manual says, if you keep having to use the full solution hint to each puzzle then you've somewhat wasted your money, and should be playing an easier adventure, such as **Journey** (reviewed last week).

Zork Zero isn't an easy adventure so be warned, but enough help is given to help you out, and enough of the world is initially explorable to satisfy most people.

Whether this new style, which is different to **Journey** and **Shogun** (with piccies for many locations) is just a stepping stone to Magnetic Scrolls style adventures, or the ground upon which regular Infocom games will make a stand has yet to be seen, but it does enhance an enjoyable adventure, and you can't complain about that.







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EGA: 640x350 16 colour 14" Tilt/Swivel base Monitor	Single Floppy	£1124.00	£ 930.00	£1032.00
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File and find

Steve Brazier reviews a new PC database utility.

When use of the personal computer first became widespread it was assumed that reams of paper in the office could be consigned to the past. Instead there has been a proliferation of PC software designed to control the paper which still rules the office. *File and Find,* released by Channelmark U.K. as part of its Power Up! software range, sets out to keep track of the filing cabinet.

File and Find is a pre-defined database built rigidly to look after hanging file systems. It can be used to organise files and documents for future reference and contains indexing and cross-referencing facilities.

To catalogue either an existing filing system or to create a new one is easy. Having set up a list of all the folders required in the cabinet, the names of all the specific items and the folders in which they are saved need to be entered. To each item up to three categories may be attached which will help it to be found again.

Index listings may be printed-out in three formats by item name, location and main category. It is a pity that sorts cannot be performed based on the secondary and tertiary categories, since most of the benefits gained by being able to assign three categories to each item are then lost.

Full control is given to the printing of the database. A range of printers is supported, along with the ability to change print settings and sizes. Printing can be done on normal listing paper or on to tractor-feed file-folder labels, of which 200 are supplied.

The retrieval of information is fast and efficient and, as with all the Power Up! products, it is very user-friendly. It is also inflexible; in particular, field lengths are fixed rigidly for all applications. The concept behind File and Find is good but anyone who already owns one of the more general database packages available would probably be better saving £59.95 and writing a purpose-built program.

CONTACTS

Product: File and Find
Price: £59.95
Supplier: Channelmark U.K. Ltd.
Tel: 0276 685761.

Locoscript thesaurus

Paul Marks reviews a new thesaurus for the Amstrad PCW.

Three Inch Software has launched a thesaurus for the Amstrad PCW in the form of a LocoFile datadisc. LocoFile is the database for LocoScript 2 and allows data records to be viewed from within a LocoScript document. Three Inch has made its thesaurus by emptying the contents of Roget's Thesaurus into a loco datafile.

The huge amount of data means that a 512K RAM machine with high-density drive – a PCW8512 or 9512 – is required.

The thesaurus is supplied on a high-density disc and, with cunning formatting, Three Inch has squeezed 780K of data on to the disc. Since extra tracks are squeezed on to the disc it is impossible to make back-up copies, because programs like Diskit are geared to the standard track densities used by CP/M products. If you manage to corrupt the disc the only way to obtain a replacement is by returning it to the makers.

The Three Inch disc is placed in the high-density drive, the lower one on the 8512, and pressing f7 brings up a huge 780K file on the main LocoScript screen. This is called TREASURE.DAT and is the aforementioned LocoFile datafile.

If you want to edit a document while using the thesaurus the document must be in drive A: on the 8512 or the M: drive on the 9512, unless you have fitted a second drive.

The thesaurus works by running Locofile as normal and selecting TREASURE.DAT as the required datafile. After that you are faced with a full screen display which explains how to find your words.

The search strategy begins with f5, the GOTO command. From there, treat the software like the book. Type the word you would normally look up in the back pages – the one whose close associates you want to examine. Pressing "enter" takes you to a full screen Locofile card, in which your word will appear somewhere.

It will be surrounded by words with similar meanings. When there are too many meanings to fit on to one page, the "List Number" window in the card will be suffixed with a, b or c and so on. Pressing "Page" will take you to the next part of that record.

In Roget's Thesaurus, opposites were in adjacent lists, with related topics in lists nearby. A similar regime has been adopted by Three Inch Software.

If a suitable word cannot be found on the record accessed, it is likely to be on a related card, which Three Inch usefully has placed in neighbouring – in terms of record number – cards.

The LocoFile database index in this package is initially set on WORDS, so this has to be changed to RECORD NUMBER – using f2 – allowing the user to browse back and forth through cards either side of the initial entry point. By hook or by crook, the sought-after word can be found. Even those stubborn, difficult-to-remember spellings can be cut and pasted into a LocoScript document.

CONTACTS

Product: Three Inch Thesaurus
Supplier: Three Inch Software, Second Floor, 73 Surbiton Road, Kingston-upon-Thames KT1 2HG.
Tel: 01-546 2754.

Publishing professionally

Is the new publishing package for the ST worth a price higher than the machine? Andrew Banner test-runs it.

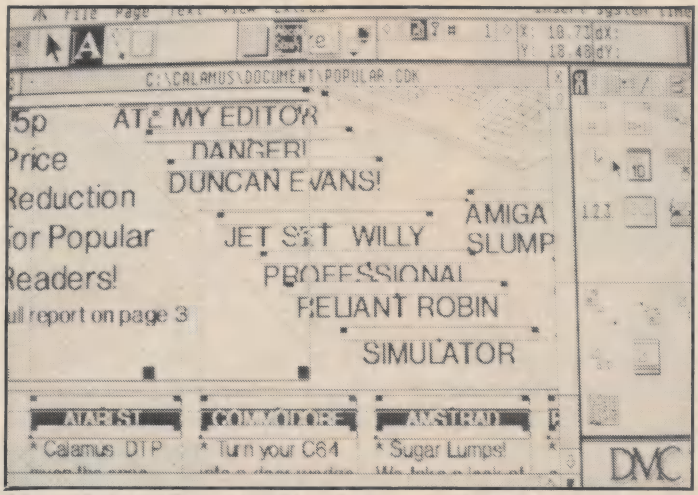
Have you ever wanted to produce a club newsletter or magazine, leaflets, professional-looking letterheads, or just any document which uses a different layout from that of a standard written letter? For that a standard word processor is not sufficient. A document processor will bring a small amount of layout into your pages but for many that is not good enough, either.

A desk-top publisher is the ultimate in page design and layout and is the basis of many magazines and newspapers. Until now professional desk-top publishing packages have all been written for business and personal computers; the Apple Macintosh and IBM PC are classic examples.

The Atari ST has never been considered as a serious contender in the business world. It has no networking capabilities and has been aimed at a different market. This is not to say that it is incapable of handling most, if not all, of the data which businesses create.

Calamus: full page view showing scaled clip-art guide rules and some of the eighteen typefaces.

Data aside, publishing is also a field for which the ST has not been cut out. Until recently there have been three main DTP packages for the ST – *Fleet Street Publisher, Publishing Partner* and *Desktop Publisher.* The latter is the better of the group, although it still has its limitations.



Calamus: the text toolbox on the right can be swapped to the left side.

Now Signa Publishing has released *Calamus*, a German product which is set to change the publishing equipment of many companies. An Apple Macintosh with Apple Laserwriter printer will cost more than £4,000; an Atari Mega4 ST with Atari laser printer, hard disc drive and mono monitor will cost about £2,500. Add the cost of Calamus and the total will be in the region of £3,000, a considerable saving on the Macintosh system, while you get more for your money.

That list of equipment is the top of the range but Calamus will run on any ST with 1MB or more of memory and at least one double-sided disc drive. It will output to a 9-pin, 24-pin or laser printer and is definitely the best desk-top publishing I have seen, it can even output direct to a litho press.

What do you get for £399? Calamus is packaged in a boxed ring binder and is supplied on three discs with a 280-page manual. The manual is produced entirely using Calamus and is very well-written. It includes a tutorial section to allow new users to get to grips with the software and a full reference section to explain each function in detail.

It is supplied with 18 typefaces including Swiss 50 and Univers Medium. That is already more than any other DTP package on the ST, but when you hear that eventually you will be able to get the whole range of styles available from CompuGraphic – more than 1,000 – you will see how professional this program is.

Unlike other ST publishing programs, Calamus has just one file for each typeface and bold and italic text is a different style and different file. Text sizing is performed by the program and it scales the typestyle itself. That saves memory and disc space as you do not need to have a disc full of different sizes of the same text style.

Continued next week

CONTACTS

Price: £399 + VAT
Signa Publishing Systems Ltd
Alexander House, Station Road,
Aldershot, Hampshire GU11 1BQ
Tel: 0252 341600

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NORMAL RRP: £884.82
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The MEGA ST computers are styled as as lightweight keyboard with a separate CPU, connected by a coiled telephone style cable. There are two versions of the MEGA ST, one with 2Mbytes of RAM and the other with 4Mbytes. Each version has a 1Mbyte double sided disk drive built-in to the CPU unit. The MEGA ST's do not come with modulator built-in and must therefore be used with a monitor. With every MEGA ST purchased, we will add the 'Professional Pack' software (worth £384.83) detailed above, plus the Silica ST Starter Kit (worth over £200) both Free Of Charge. Return the coupon for further details.

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All prices correct at the time of going to press. E&OE.

520ST-FM EXPLORER PACK
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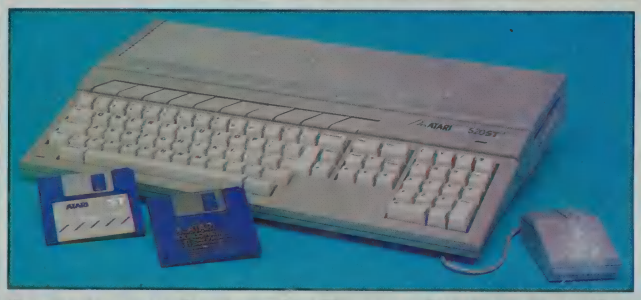

The value for money offered by the Atari ST range is reflected in the Explorer Pack featuring the 520ST-FM computer with 512K RAM. The 520ST-FM computer now comes with a built-in 1 Mb double sided disk drive as well as a free mouse controller and a built-in TV modulator. The new 520ST-FM Explorer Pack includes the 520ST-FM computer, the arcade game Ranarama, a tutorial program and some useful desktop accessories. In addition, if you buy the Explorer Pack from Silica, we will give you the Silica ST Starter Kit worth over £200, FREE OF CHARGE. Return the coupon for details of our Starter Kit and of the full ST range.

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Amiga in the MIDI

If you have ever felt like creating the kind of sounds which some of the more advanced Amiga games can generate, Paul Andreas Overaa overviews MIDI offerings for the Amiga Midi.

Midi stands for musical instrument digital interface. It is a communications framework which was designed for musical equipment. Midi messages are sent as streams of serial data at a speed of 31.25 kilobaud – about one byte of Midi data every 320-millionths of a second. A large class of Midi messages, known as Channel messages, contain a channel number as part of the message which allows pieces of equipment to be selective about certain types of messages they send, receive or use.

The result is that we can now have drummers, sequencers and synthesisers all talking to each other via Midi communications cables. By setting up each unit to respond to a different Midi channel we can even send all our Midi messages down the one Midi line, knowing that each unit will respond only to those messages which have the matching channel number identification.

Unlike the Atari ST, the Amiga does not include a Midi interface so if you are contemplating the use of Midi software the first thing you will need is the interface; there are plenty of models available and prices start at around £30.

Music/Midi software on the Amiga falls into two categories. For the home musician who wants some Midi facilities there are programs such as the Electronic Arts Deluxe Music Construction Set – £69.95 – and the Aegis Sonix – £49.95 – which have some Midi facilities. There are also dozens of music tools and sequencers such as Dynamic Studio – £69.95; Studio Magic – £69.95; Dynamic Drums – £54.95. These types of programs, when coupled to a small synethesiser, are good fun to use.

So far as the more serious Midi software is concerned, the Amiga is still lagging far behind the Atari ST. A few programs, however, have made a significant impact on the Amiga Midi scene and a surprising number of them are from a single source, Dr. T's Music Software Co. Its KCS sequencer – £225 – is available, tried and tested, and is very good.

There is also a range of Caged Artist voice editor/librarian packages for most common synthesisers; they offer mouse-controlled envelope shaping and Midi re-channeling and are excellent. Another Dr. T's offering is Copyist Professional – £199.95 – which lets you write music scores and can also transcribe sequencer files.

There is growing interest in sound sampling on the Amiga and several samplers are available, including those from Perfect Sound, Future Sound and the new AMAS sampler from Microdeal. The units provide the hardware/software for collecting sound samples and storing them in IFF form.

Audiomaster II – £69.95 – is the new digital stereo sampling and editing software from Aegis Development; it looks a useful package and includes effects such as echoing and sample reversal.

What is delaying this potential growth area, at least so far as the more serious musician is concerned, is the Amiga; its sound chips are good but not good enough to compare to the Yamaha/Roland brigade, so musicians who need the best are not moving to IFF sound sampling, even though they might have an Amiga available.

What will be available in the year ahead? The Micro-Illusion heavyweight Music X, which has been advertised for more than a year, promises to be good; reliable sources say it is "almost ready" but a few last-minute administrative hitches are delaying it. Another package which is due to be released soon is an Amiga version of the Steinburg Pro 24 sequencer package; it should be well worth looking at if you are a serious Midi user. Both are likely to be in the £200-plus price range.

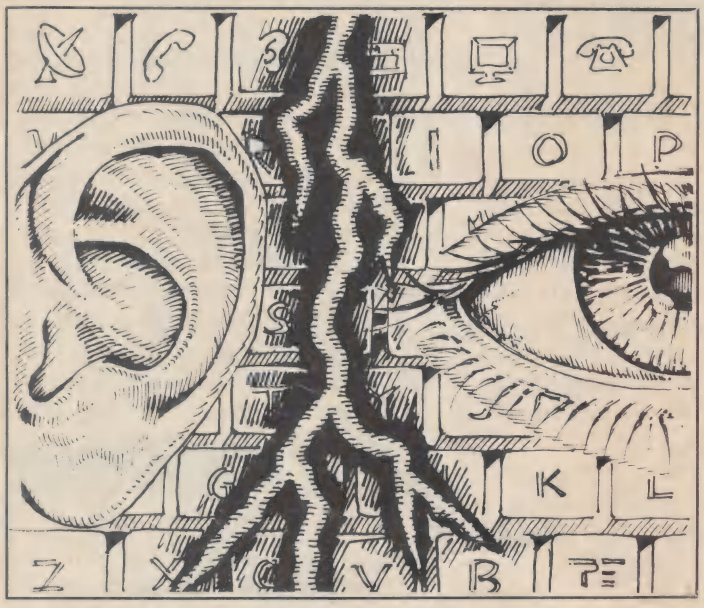
There is now sufficient software to suit both the requirements and the budgets of most people but there is still a shortage of professional quality packages which means that the Amiga has a long way to go before it catches the Atari ST.

CONTACTS

For details of Dr. T's products, Audiomaster II, Music X and other Midi packages: Digipro Ltd, Enterprise House, Howards Grove, Southampton SO1 5PR. Tel: 0703 703030.

With the increasing number of samples available for the Amiga which provide the hardware/software for collecting sound samples and storing them in IFF form, it is becoming popular for studio use.

Divided we fall?



Malcolm Arnold calls for a greater sense of co-operation and better organisation in the on-line community.

Part of the appeal of comms for me has always been the ideal of an on-line community. It must have been part of the motivation behind the development of the original enthusiasts' bulletin boards, the first of which appeared in the U.K. some 10 years ago. Disparate boards eventually expanding into more formalised networks, such as the Fido Net, would seem to be evidence of an underlying sense of 'belonging to something' in comms. This ideal is shared and articulated specifically by community-minded organisations such as Len Stuart's Netreach and the Community Computing Network.

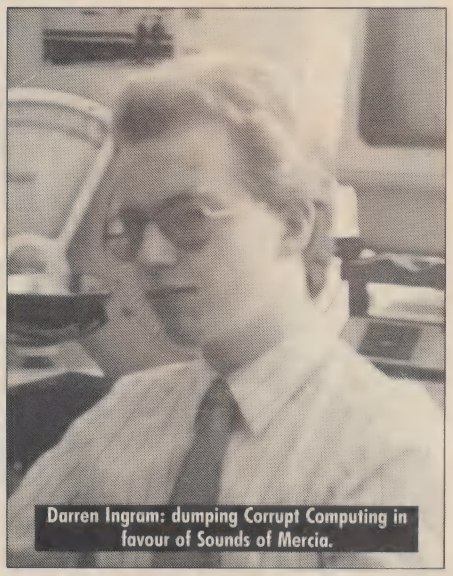
There are voices in this theoretical community expressing disillusionment. The parallel between comms and citizens' band radio has often been drawn. There are those who claim that the quality of the CB experience was ruined by its becoming more accessible, mainly because of the advent of increasingly inexpensive equipment. In comms, many claim there is an increase in 'troughing' – the downloading of every available file in sight on a BB without reciprocal contribution.

Is the scene in danger of becoming everyone with a modem for himself? I spoke to John Wallbridge, who was instrumental in the attempt slightly more than a year ago to set up a Bulletin Board Operators' Association. That august society is now lapsed, according to Wallbridge, having failed to run to an annual meeting. That might be seen as argument against an on-line community. Wallbridge would say that there probably is a fellow feeling but that there is no formal alliance, which could pose a bigger threat than any troughers.

He is convinced that the comms scene desperately needs to organise from within, before legislation binds sysops with restrictive practices born of a lack of understanding and sensitivity to the true potential of comms.

He refutes the notion that it is increasing accessibility which is the biggest threat to comms and that youngsters are to blame. "The scene is changing and growing up," he says. "Yes, there is fragmentation, but the process is organic in nature, the fragments coming and going as comms grew". The youngsters? "They were involved from very early, with the appearance of the BBC. With the miracle modem the scene exploded. Troughing was always a phenomenon. Ever since software started to be held on boards."

So far as he knows the practice is not increasing to the degree some might claim. There certainly had not been a Golden Age years ago, which some might claim to be slipping away.



Darren Ingram: dumping Corrupt Computing in favour of Sounds of Mercia.

Hacking is a threat only in that it draws adverse attention to the scene. In itself it is an over-rated exercise: "I have never heard of anyone hacking a well-protected system from cold." It posed a threat indirectly, drawing legal fire, and the legalities of operating a BB were what the community should be organising to discuss. The Data Protection Act, for example, was not so easily shrugged off as most sysops might want to believe.

After talking to Wallbridge I felt even more aware of the threat of externally-imposed censorship and uniformity – a greying-out of the colourful spontaneity of the BB scene, rough edges and all. One silver lining dawned on me. Perhaps as the threat becomes more real it might become the catalyst which pulls us together into a real on-line community.

Corrupt Computing no longer resides at Darren Ingram's sumptuous Coventry apartments. Problems with the system resulted in Ingram deciding to call it a day as full-time sysop of Corrupt. Instead he is helping Ian Beales set up a new board, The Sounds of Mercia – 0203 682896 – V21/23 – 8pm-8am. Some of the Corrupt conferences can now be found on Mercia, plus mail order details for Ingram's new computer and supplies project, Techno World. Anyone wishing to take on the Corrupt mantle – and with it the Corrupt files database – can contact Ingram on Mercia. He promises set-up support.

Sky Line – 0603 742273 – 24hrs – is keen to point out that it is Scrolling as well as viewdata, a point I omitted previously.

Users of Eureka Gateways may have experienced difficulties recently, eventually finding the board off-line completely. Sysop Carl Wright says the problem is an unco-operative hard drive. Repairs are under way and I will confirm its welcome return with a review when it is on-line.

Next time: CARBBS, the network? The Sin Bin, The Animation Station, and more.

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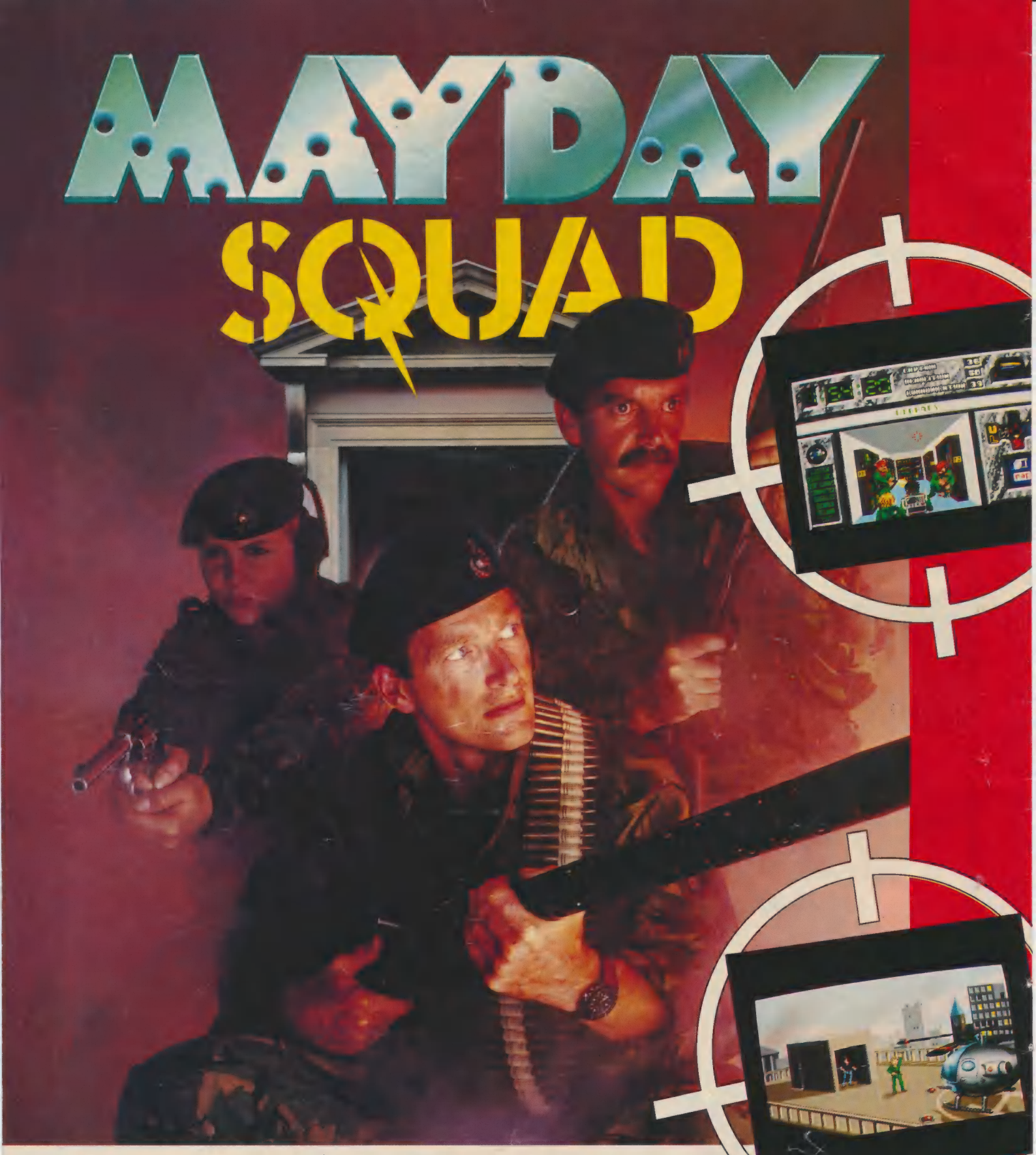

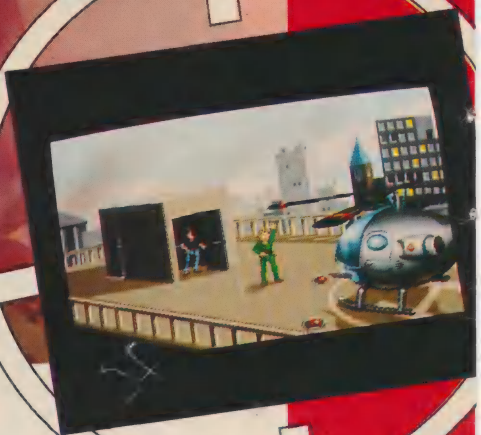

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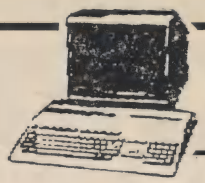

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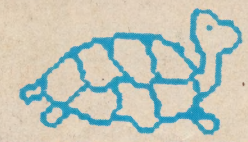

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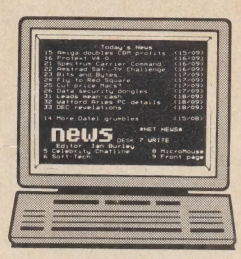

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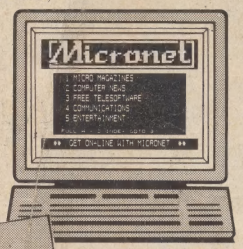

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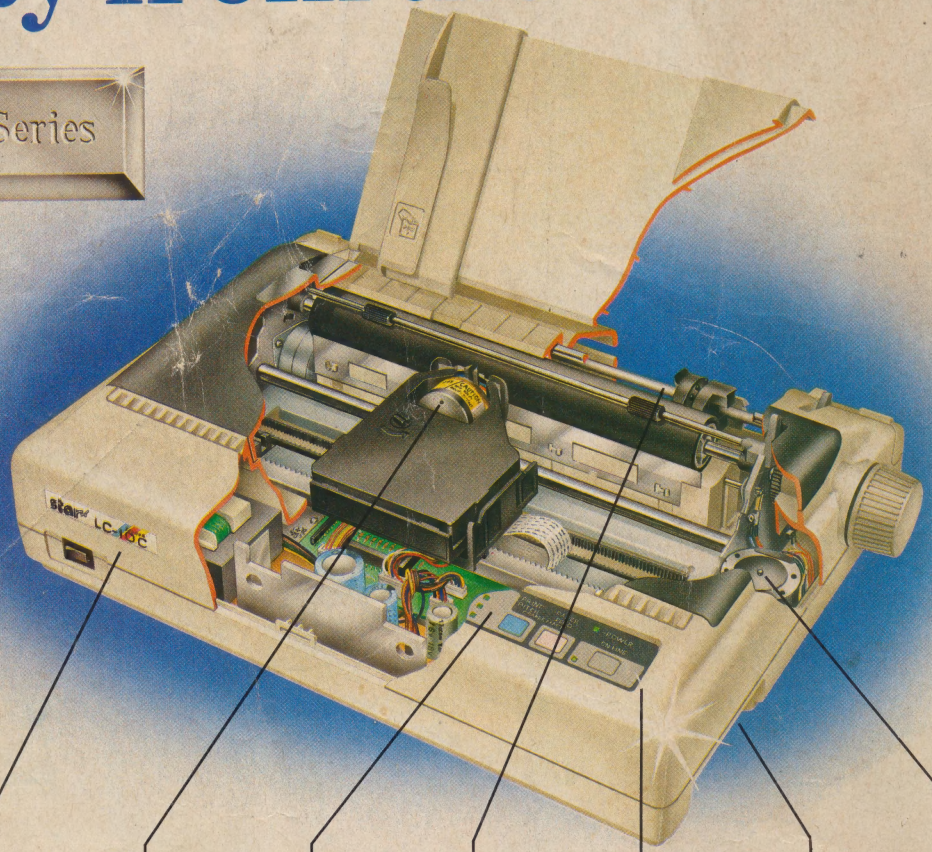

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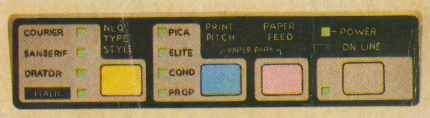
The multi-font LC-10 is simple to operate, easy on the eye and comes complete with some features you won't find on many more expensive models.

The LC-10 is compatible with almost every computer's needs whatever the system. It can emulate most industry standards with ease, (there's even a Commodore version) a standard feature that we think should always be included. For connection over longer distances, there is even the option of a low-cost serial converter. And the range includes two models that also give you the option of first class seven colour printing.

Putting the LC-10 to work couldn't be simpler. At the mere touch of a button on the front control panel you can set your margins, choose from one of eight Near Letter Quality fonts and pitch sizes or simply put the paper feed into action. (No more inconvenient DIP switches to hamper you). And with the clip-in replacement ribbons, we've made ink stained fingers a thing of the past.



144 From 0-144 characters in one second and that's just the elite draft. The LC-10 also performs word perfectly at a rapid 36 cps with its exceptional Near Letter Quality printing for pristine correspondence and important documents. And while you print, the 4K text buffer frees you and your PC to get on with other things.

£ No other 9-pin printer in this price range can match it. Features like its generous buffer, built-in push tractor and revolutionary paper parking facility are included as standard. While the colour versions will give you impressive full colour graphics at very low cost. You could hardly ask for more from a printer.

Behind every Star printer there's a guarantee of superb reliability together with a comprehensive back-up service. Should you need any help at any time you can rely on our national three-level support system which operates throughout the dealer network and is backed by the finest distributors in the country.

THE Star COMPUTER PRINTERS

Star Micronics U.K. Ltd.,
Craven House, 40 Uxbridge Road, Ealing,
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