

SELL YOUR
MICRO
FREE!

See
page 47

COMPUTER *EXPRESS*

First news, best buys - every week • Issue 45 • Sept 16 1989 • 58p

PC

- IBM price shock
- New portables
- Speech recognition

ST

- Genlock out soon
- Virus news
- New music package

AMIGA

- Animation festival:
special report
- 1Mb chip mystery
- Amiga HyperCard

ALSO INSIDE

- Columns for PCW,
CPC, Spectrum, C64,
Archimedes, QL,
BBC, and MSX
- Data Protection Act
- Absolute beginners
- Terrific Tech Tips
- Your letters

SHOPPING EXPRESS

Your **weekly** source of the best computer bargains see pages 17-48

THIS WEEK **50 PC ESSENTIALS**

PC PIRATES UNDER FIRE

- Crackdown means company bosses face jail page 3

REVEALED!



First Konix games shown - but
problems loom for console page 15



GET HIGH

Why flying will never
be the same again
page 16

Use Express Vouchers and **SAVE OVER £10** see page 17

● Nintendo games copied by Nottingham firm

CONSOLE PIRATES IN BRITAIN

Nintendo

Using a £150 kit available from Taiwan, a Nottingham firm is pirating Nintendo cartridges, removing title and credits and selling them on for as little as £2 each.

The company is also using the system to compile compendium cartridges containing up to 60 top Nintendo games. It's so easy to use that newly released Japanese games can be imported, pirated and distributed in the UK in less than 24 hours.

The system used is a sophisticated copier that transfers Nintendo cartridge program data to cassette tape before re-loading it to electrically-erasable ROM chips - EEPROMs. It also allows pirates to modify Nintendo code and base new games on the stolen sprites with little

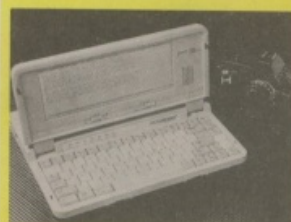
programming knowledge. By simply capturing a sprite and moving it around a screen with the built-in joystick, the user can define his own movement paths and collision detection and save portions of code with ease.

Nintendo is a company well known for its legal muscle, and although huge in the US and Japan has as yet made little impression here. But its UK distributor, Serif, has already adopted a tough line on the development in warning that the full might of Nintendo will come down on all notified copyright infringers.

The pirating system will undoubtedly be given top priority as pirated games will also run on the as yet unreleased 16-bit Nintendo machine due out in Japan in July 1990. ■



• Innocent fun with a Nintendo machine - but are the games legal?



• Zenith's tiny MinisPort could help set a new standard of miniature two-inch disks

Two by two's the way forward

The new Zenith MinisPort PC portable could herald the next step in miniaturisation. Zenith has incorporated a two-inch 720K floppy disk drive into the machine even though there's precious little software available on a format that's primarily used by Sony for its video and digital camera ranges.

So at present, MinisPort users will have to rely on file transfer utilities to run applications from the drive. The two-inch disk has an identical read/write format as the 1.44Mb 3.5-inch floppies but despite having a third of the surface area can store half as much data because not all the space on a 3.5-inch disk is used. ■



• Konix' ambitious Multi-System faces delays*

Problems dog Konix machine

The futuristic Konix console, to be officially launched at this month's PC Show, could now miss being in the shops for Christmas.

The company has already shelved television advertising plans in the three month run-up and concedes that demand will be greater than supply.

At last week's press preview, Konix were at pains to quell rumours that it was experiencing difficulties. However there are problems with the console's optional seating unit which moves in response to the player's joystick control. Currently, the unit does not have sufficient ground clearance to pass safety standards. It's also incredibly noisy.

Moves are afoot to replace it with a chair that moves on compressed air rather than gearing. Company spokesman Michael Baxter admitted the console was experiencing teething problems but added that 'tens of thousands of Konix's' would be available by Christmas. Journalists present at the preview were not so sure - the console replete with chair etc crashed early on in the proceedings. ■

Portable weighs in at under a ton

Victor UK (0494 461600) has announced the launch of a new low-cost battery powered portable - the Victor V86P. The new portable, based on a 10MHz 80C86 processor, offers 640K RAM, Supertwist LCD display and a battery life over over 2.5 hours from a two-hour charge. It's available in twin floppy or 20Mb hard disk versions for £999 and £1499 respectively. The portable market is currently the highest growth sector in computer sales and Victor hopes to capture a significant chunk by accompanying the machine's release with a £1 million ad spend. ■



• Victor's new portable offers long lasting power at a low price

YOU'VE GOT TO HAND IT TO 'EM



Cameron U.K. (01-499 9192) is to release the world's first hand-held colour scanner for PCs and Amigas at the PC Show. Able to process images in 4,096 colours, the Type 6C will sell for £575 and comes with optical character recognition and graphics software. The company is also to release a 200DPI mono scanner which it claims will be the cheapest in Europe. Available for PCs, Amigas and STs, the Type 2 will retail for £199. ■

NEW COMPUTER EXPRESS • 16 SEPTEMBER 1989 • 3



COMMENT

Taxing question

The arrival of 'snoopercomputers' such as those used by the Inland Revenue is another worrying example of our privacy falling prey to machines. The new computer can cross-reference on incredibly large amounts of apparently diverse data: that computer you sell through the pages of Express could in theory be noted, the details stored, and one day brought out in court to show that you did not declare all your incomings and outgoings that year.

The claim that 'only the guilty have anything to fear' does not ring true when a computer is so powerful that it can store virtually every transaction you've made in your life. If you won a fiver in the club raffle, would you declare it on your tax form? Now the time is approaching where the tax computer will know all about it. Besides, the linking together of the most innocuous information can be made to prove just about anything.

And yet, on the other hand, we are told that if we ourselves try to store too much information on our own micros - the telephone numbers of our club members on that simple card index database, for example - we may fall foul of the Data Protection Act, which also comes under the microscope in this week's issue.

Big Brother is watching you. And he's got one hell of a machine to keep tabs on you with.

Copy catalogue

It can be no surprise that those now being targeted for an 'awareness campaign' on copyright are not the playground pirates but those stealing software at work. Lotus, Ashton-Tate and Microsoft are surely being diplomatic when they say most copying is done out of ignorance, not with intent to rob them; one of the reasons given for buying a PC is often 'so I can copy all my mate's software from where they work'.

A similar 'awareness campaign' in Italy - where two companies were made aware of their misdeeds by prosecution - proved successful: business software sales rocketed after the case, which received heavy press coverage. Let's hope court action is not needed in the UK; it would do no one's image any good.

EDITOR Rob Ainsley
NEWS EDITOR Colin Campbell
FEATURES EDITOR Andy Storer
TECHNICAL EDITOR Jerry Glenwright
ART EDITOR Angela Neal
DEPUTY ART EDITOR Harriet Athy
PRODUCTION EDITOR Stuart Anderson
ADVERTISING MANAGER Mark Salmon
AD EXECUTIVES Sarah King, David Lilley, Quentin Mowbray, Adrian Taylor
AD TYPESetting Terry Turner
PUBLISHER Greg Ingham

© Future Publishing Ltd

4 QUEEN ST, BATH, BA1 1EJ

TEL: 0225 446034 • FAX: 0225 446019 Printed by

Redwood Web Offset, Trowbridge, Wilts

Distributed by Comag, West Drayton, Middx

● Inland Revenue's new mainframe is watching you

COMPUTER SYSTEM COULD SLASH TAXES

If all the undeclared tax in the UK could be collected The Inland Revenue reckon the extra income could cut your tax bill from 25p to 15p in the pound.

To this end it has installed a sophisticated new £2m super-computer to help crack down on tax evasion and earn up to £4,000,000,000 a year for the tax man.

The Camms system is a 10-Gigabyte relational database able to hold up to 100 million files and will enable tax officers to make associations between apparently unrelated financial transac-

tions and track the movement of money in whatever form it comes.

Its storage capacity is big enough to hold a couple of files on every individual of taxable age. At present 70% of information on tax evasion comes from anonymous tip-offs and is held on paper-based files. Entered directly into a relational database, the leads will be processed more efficiently and with greater effect. Camms has inbuilt software to automatically print out writs - in suitably heavy duty fonts that appear old-fashioned and hand-written.

Philips has supplied the hardware

which runs database software developed by US company Informix. More Camms will be up and running by 1994. Concern has already been voiced by the National Council for Civil Liberties over its introduction because the Inland Revenue disclosed it had been entering information gleaned from advertisements for property, expensive cars and yachts as well as from tip-offs.

Ironically, the system is configured to comply with the current standard in the drive towards more open systems - the Government Open System Interconnect Profile. Otherwise known as GOSIP! ■

25-atom thick chip promises amazing speed

AT&T's laboratories in the States have developed a microscopic parallel processor that looks like having far-reaching effects for future generations of computers.

The transistors are made of gallium-indium-arsenide and measure just 25 atoms thick. Unlike normal transistors, the AT & T device is capable of multiple states - its output current peaks, falls off and then peaks again. This allows it to do the work of many conventional transistors. Aside from its unbelievable size, the transistor operates at speeds of up to 24 GigaHertz - twice the speed of the fastest silicon transistors. Although still in a prototype stage, AT & T's little baby already faces competition - Texas Instruments recently announced a similar development and predicted commercial application in five to 10 years time. ■

PCs to speak out

AMT on 01 450 3222 has announced the release of a new Speech Development System for PCs.

Designed to form the basis of applications ranging from warning systems to word processors for the blind and partially sighted, SDS comes on a half-sized add-on card with sound output through AMT's external playback unit which plugs into a parallel printer port.

SDS is ingenious and something of a breakthrough in that its software com-

presses recorded sound to a mere 1% of the memory used by normal digital recording. As such, AMT claim a normal 360K disk can hold up to 24 minutes of clearly spoken guidance, instructions and prompts.

Software drivers allow SDS speech files to be imported to any programming environment. At last it seems your system might get round to talking back to you - but it'll probably make you speechless. SDS costs £3000. ■

Amstrad fax here

After the recent relaunch of the PC200 Amstrad is set to launch 'an important new business communications product' - the now almost legendary fax machine.

This is understood to be a phone-fax-copier which will retail for £399. The fax will interface to the computer to allow paperless transmission and reception. ■

Atari rumours dept. No. 435

Latest gossip in the Atari camp is that the recent launches of the STE and TT are just to fill time. Atari is really after the low-cost workstation market in a big way and is currently working on a 68040 RISC-based machine in its Sunny Vale R&D labs. Or is it SPARC based? But there again.... ■

More multi-user games on Microlink

Two new multi-user games will be available this autumn to subscribers to the comms system Microlink.

Federation II has more than 900 locations and is described as 'a cross between Monopoly and Star Trek'. The other adventure, Bloodstone, is capable of supporting 'millions' of characters, says Microlink. It combines 'loving, killing, buying and selling' in a scenario which updates the classic Shades game.

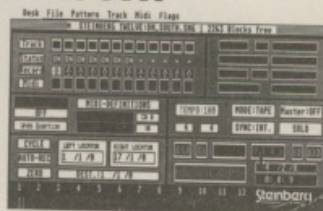
The resets which marred Shades have been removed from both the new games.

Microlink is on 0625 878888. ■

Play while you work

Sound supreme Steinberg, producer of the Pro 12 and 24 MIDI sequencer packages has announced its M-ROS operating system for use with STs, Macs, and PCs.

M-ROS will allow networking between computers running MIDI software so that application can be run in sync. Interestingly, all Atari software will be able to reside simultaneously in RAM with M-ROS as a supplementary operating system. For M-ROS does not replace GEM entirely - just its resident MIDI operations. As Steinberg puts it, 'there's little point re-inventing the wheel just because we've found a better way of steering the car'. The



• Steinberg's previous hit, the Pro-12

multi-tasking capability effectively means that you can edit scores while they're still playing. More information on 099 389 8484 ■

A portable Mac on your lap

Having just cut the price of its Plus and SE ranges by 27%, Apple is set to make further pushes into the personal computer market by launching a new portable.

The Laguna is a 16MHz 68000 based Mac-compatible machine with a 1000 x 1000 pixel screen and lead-acid battery supply. You'll have to dig deep into your pockets though - it's expected to sell for around £4000.

This comes after US company Wallaby Systems' launch of a Mac-compatible laptop last month which features an infra-red keyboard and comes in at a more realistic £1900.■

Standard floppy could hold 2.8Mb

Micro Solutions, on 010 1 815 756 3411, has announced a 3.5-inch floppy disc drive that can store 2.8Mb on a standard 3.5" disk. It works via a new controller, the Compaticard IV, which doubles recording frequency - it can thus write to 36 tracks per sector instead of the usual 18 or 9 used in 1.44M or 720K floppies.

The XT and AT compatible card supports up to four disk drives and will sell for around £200.■

First colour portable from Hitachi

Hitachi will be entering the portable PC market with the launch of a range of computers later this month.

Prominent among the new arrivals will be the world's first colour portable the HL400C which comes with an eight-colour LCD screen. No price has been mentioned as yet but expect it to come in for under £700. Toshiba is hot on Hitachi's tail though - it has a 16 colour machine due for release later this year.■

POLL TAX PROBLEMS FOR COUNCIL DATA

The Data Protection Registrar is this week writing to over 300 local authorities about the information they got in connection with the Poll Tax, telling many of them to erase some of the more sensitive information from their computers - or face prosecution.

Under the Data Protection Act, it is illegal to store information on computer that is unnecessary or irrelevant, and many local authorities asked on the poll tax forms for things such as telephone number or relationship with other people in the household - information that is irrelevant to the poll tax.

However, it's not going to stop the poll tax going ahead. 'This

is only a preliminary letter to the Community Charge Register Officers,' said the Data Protection Registry's legal adviser Rosemary Jay, 'and we're giving them a chance to put things right.' Any irrelevant information will have to be erased from their computers, but authorities can continue to collect and process other information.■

• At this year's PC Show, copies of the Data Protection Guidelines will be available free on the Data Protection Registrar's stand - meanwhile for details of the Act and how it affects the home user, turn to the Express feature on page 8 and 9.

'Rays from outer space crashed my micro'

Next time your Amiga hangs up, swear to the heavens. Scientists are blaming the sun for a massive crash on Toronto Stock Exchange computers last month which halted all trading for three hours.

The Toronto network was previously thought to be totally fault-tolerant but it seems increased solar electromagnetic disturbance is to blame. Canadian scientists noted that the sun was experiencing a 'proton event' which was resulting in a 10 per cent increase in high-energy radiation being beamed our way.

Protons are suspected of disrupting the charge on microchips and causing regular random crashes on computer systems throughout the world.

The little devils.■



• Sun spots: blamed for crashes in Canada

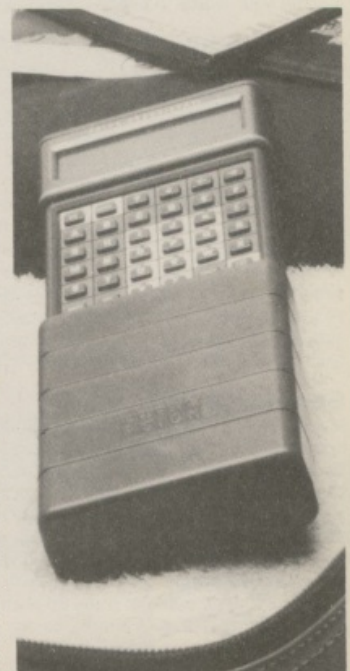
BIG BLUE THINKS SMALL

IBM is secretly working on a 386 laptop destined to take on the likes of Compaq and Toshiba. The as yet unnamed 386 will feature a paper-white VGA display, 40Mb hard disk and will sell for around £3,500. The new machine has been under development since late last year when production of the ill-fated PC convertible ended.■

Psion profits rocket as competition looms

With its Organiser firmly established as the electronic Filofax it's no surprise to learn Psion's profits for the first half of 1989 are up by 58% to £1.63 m.

Doubtless the launch of its new range of A4 laptops will make further contributions to the kitty, but competition in the A4 market is hotting up. Poquet are launching a new mini-PC next week and Atari's Folio is already in the shops. Perhaps Psion will retain the edge though since its range of hand-helds will use EEPROMs as memory storage devices and are claimed to be able to run for several months without battery recharges.■



• Psion's Organiser: leading the company to a 58% profit boom

SNIPPETS • SNIPPETS • SNIPPETS • SNIP

Amiga buffs wanting the latest in demos should check out Goldstripe PD PO Box 557 Glasgow G11 5NA

Would you believe that the copy holder market is worth a cool £13 million and is expanding at a rate of 25% per year?

A Parisian computer recently went hay-wire, sending 41,000 motorists official letters

informing them they'd been charged with offences ranging from manslaughter to keeping a brothel. Marriages wavered for four days before apologies were issued

US company, Bellcore has developed a smart card which recognises human speech. You'll have to train it to understand you at first though. The smart is designed for use as fraud-proof bank card

SPREADING THE WORD

The most common serious application for computers in the home is word processing - but what has a computer got that a typewriter hasn't?

Well for a start, typewriters have several nasty characteristics. There's that regular "ping" every time they reach the end of a line. And then there's the continual clackety-clack of the keys. Plus the endless hours spent Tip-Ex'ing out mistakes. And the retyping of countless successive drafts each time you make a change to your copy... the list goes on.

A word processor will solve all those ills, and more besides. You can buy word processing programs for just about any computer, and just about any word processing program will make your old typewriter seem as efficient as chipping away at stone tablets.

Home from home

Experienced typewriter users will be immediately at home with a computer keyboard. The keys follow the usual QWERTY pattern, and number and punctuation keys can be found in all the usual places too. The only difference between writing on a computer and using a typewriter is that with the computer your words appear on the screen, not on a piece of paper.

Computers do improve on the typewriter in one immediately obvious way though. No longer do you have to listen for a "ping" at the end of each line and reach for the carriage return lever. Your computer will start new lines automatically, carrying over whole words rather than splitting them when it realises they're too long to fit. And when you reach the end of a page, the computer will go straight onto the next - you don't have to lift a finger.

The real key (no pun intended) to the efficiency of word processing, however, is the way a computer will store up all the words you type until you are ready to print them out on the machine's printer. This lets you go back over what you've written, checking spelling, punctuation, grammar etc as many times as you like before you finally commit your words to paper.

Editing highlights

Word processing programs will let you store documents of essentially unlimited length either in the computer's memory or on floppy disk. You can recall any document at any time and go back over what you've written, correcting it, changing it and then saving it again or printing it out.

All word processing programs offer a "cut & paste" facility. Text can be cut in single words, sentences or large chunks. Lines, paragraphs and even whole pages can be picked up and inserted somewhere else. You can edit and refine what you've written at will without having to re-type a single word, and the text will reflow automatically for completely invisible repairs.

Spelling it out

Many word processors will even check your spelling. They go through your finished document, checking all the words against those in their own built-in dictionaries. Every time the spellchecker comes across a word it doesn't recognise it will offer you the option of ignoring it, changing the spelling, or saving it to the dictionary as a new word. Most spell checking programs can be made to come up with the nearest spelling they have for any dubious word you come across.

You pays yer money

As with most things, the more you pay, the more you get. Word processors for the cheaper, less

Rod Lawton flings his typewriter into the bin and sees what a word processor can do...



sophisticated computers tend to be cheaper and less sophisticated themselves. Spellcheckers are becoming standard issue now, but other exotic features remain the province of the more expensive machines and programs.

Some word processors have a "mail merge" facility whereby a letter can be drafted with "holes" left for the name of the addressee - a technique used to such good (?) effect by mail order companies. In this way you can use just one letter document get the computer to print it out hundreds or even thousands of times with a different name and address (taken from a separate list either on disk or in the machine's memory) each time.

As well as spellcheckers, some word processing programs also offer a thesaurus - useful for writers who have trouble finding *le mot juste*, or,

more likely, for Sun reporters trying to achieve additionally appallingly alliterative anecdotes.

Word processors for the Atari ST, PC-compatibles and Commodore Amiga often incorporate the ability to handle pictures in the text. The pictures can be "imported" electronically from a drawing or art program, and laid out among the words by more ambitious home publishers. And many more expensive programs will let you lay out your text in columns for an even more professional-looking result.

On the whole though, these additional features are a luxury. Even cheap word processing software will let you lay out a business letter, article or book manuscript competently. And until you've become familiar with what word processors can do, and what your own needs are, you're better off with a simple, budget program. ●

PROGRAM LISTINGS

Word processing programs are available for just about every machine on the market. The following are generally reckoned to be the best for each machine.

- **Sinclair Spectrum:** Tasword • £13.90 - £24.95, depending on machine • Tasman Software (0532 438301). The Spectrum is not renowned as a machine for word processing on, but Tasword is versatile and well-featured, if a little slow in operation.

- **Commodore 64:** Paperclip • approx £50 • available from mail order companies (as advertised in Express).

Paperclip is getting hard to find these days, but is an excellent product.

- **Amstrad CPC:** Protex • £19.95 - £39.95 depending on version • Arnor (0733 68909). Very fast - especially when bought in its most expensive cartridge form - flexible and full of features.

- **Amstrad PCW:** Locoscript 2 • £25 • Locomotive (0306 740606). The price is academic since if you buy a PCW you get the program free! Incredibly flexible and also easy to learn. Very slow, however, compared to the PCW version of Protex.

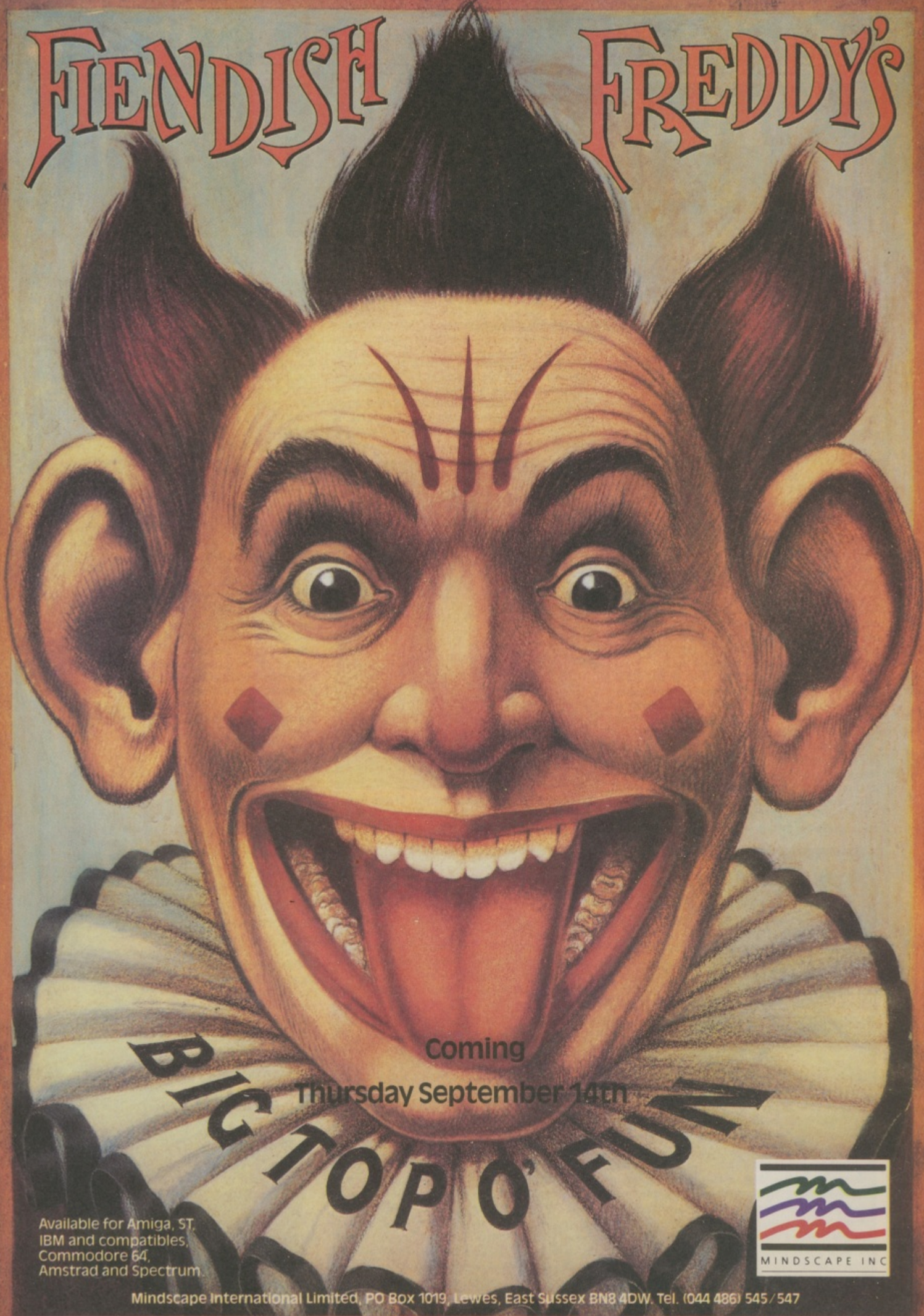
- **PC-compatibles:** Tasword • £50 •

Tasman Software (0532 438301). PC programs tend to be incredibly expensive. Tasword is an exception. It's also fast and versatile.

- **Atari ST:** 1st Word Plus • £79.95 • Electric Distribution (0480 496789). Not cheap, but few serious ST programs are. Extremely versatile. Will even print in more than one column and handle pictures created in art programs.

- **Commodore Amiga:** Kind Words 2 • £49.95 • Amiga Centre Scotland (031-557 4242). A kind price, too. Lacks sophisticated layouts but more than adequate for everyday word processing.

FIENDISH FREDDY'S



Coming

Thursday September 14th

BIG TOP O' FUN

Available for Amiga, ST,
IBM and compatibles,
Commodore 64,
Amstrad and Spectrum.



Mindscape International Limited, PO Box 1019, Lewes, East Sussex BN8 4DW. Tel. (044 486) 545/547

ARE YOU IN ON

The ins and outs of the Data Protection Act leave lawyers confused. Sharon Bradley sorts out the mess

The Data Protection Act was enacted by Parliament in 1984. Westminster's reason for bringing it in was, they said, to give new rights to everyone about whom information may be stored – somewhere, anywhere – on a computer. The Act compels any data user storing computerised information about living people to register the fact, supposedly reducing the risk of unauthorised access.

Section 21, the spearhead of the Act as far as the man or woman in the street is concerned, allows us access to data held on us.

Jeux sans frontières

Cynics claimed, however, that personal security was the last thing the Home Office was worried about. They had learnt that the Act was needed to ratify the Council of Europe Convention on Data Protection; failure to comply with their EC counterparts, who had already introduced equivalent measures, might have resulted in the Europe refusing to transfer data over here, damaging our international commercial trade.

They may have been right. One of the Act's principal weaknesses is that the person or organisation handling the data can do almost anything they like, provided they declare exactly what they intend to do with it.

A company that keeps a computerised databank of customers' names and addresses, for example, is perfectly entitled to sell that list to mail order companies – provided that they state this during registration.

The Electoral Roll is a case in point. Although the information held is registered under the Data

Protection Act, anyone can wander along to their local council and take a look at it. The Electoral Registration Officer will even sell extracts from his Electoral Roll databanks to direct mail companies and credit reference companies for a fee of £2 per thousand names. Why bother to register under the Act at all?



• Wilmslow-based Senior Assistant Registrar, Dr John Woulds. The Data Protection policy department at Springfield House provide advice and guidance to anyone who needs it

Confidence trick

Says Dr John Woulds, Senior Assistant Data Registrar at Wilmslow in Cheshire: 'The Electoral Registration Officers are obliged to make public some of the personal information collated. But the records also hold additional private information like the eligibility for jury service. This is not for public perusal; consequently most of the Electoral Officers choose to register the whole lot under the Act.'

Although it is not for sale, the same is true of the poll tax register; only surnames, initials and addresses are made public.

The Act is riddled with the kind of loopholes that make it a shining example of British bureaucracy at its best. Expressions of opinion about the individual on whom data is held, for example, fall into the category of 'personal data'. But an indication of the data user's intention towards that individual doesn't.

Now this can be quite a difficult distinction to make and one that is subject to shifting sands of personal interpretation. Dr Woulds freely admits as much. 'The main reason why expressions of intention were excluded from the Act,' he says, 'is because organisations in the personnel management sector preferred to exclude information concerning personnel succession. You can say someone's suitable for a promotion – that's an opinion – but to say he or she is actually going to get it is a declaration of intention and one that you might not want the person in question to see.'

Hush money

Again, cynics believe that Section 21 is a right that only the comfortably well-off will be able to exercise. Instead of leaving the Data Protection Registrar, Eric Howe, the right to charge a nominal fee of, say, £1 every time an enquiry is made under the Act – a fee far more in keeping with the supposed spirit of the Act – Home Secretary Douglas Hurd imposed a much larger access fee of £10.

As Norman Truscott, from the Automobile Association's headquarters in Basingstoke reports: 'We have the details of six million members stored on our computer; since we've been registered under the Act, we've only had four formal requests for data subject access'. The AA, however, like the Readers' Digest, do not sell their customer lists to anyone.

Similarly, the cost of registering under the Act is £56 for three years – a lot for the small computer user.



HOW FAR CAN YOU GO?

If you are holding personal data that's stored in 'an automatically processable form' – on a computer that is – and that relates to living, identifiable individuals you must register under the Act. Your database of long-defunct Roman Emperors won't need to be registered.

Let's say that you're a modern literature bookseller; you might keep on your computer a list of all the books you have in stock, who wrote them, their date of publication, ISBN number and so on. This is classed as personal data because it concerns living, identifiable authors.

Watch out for the red herrings, though. The fact that you are holding information on such people could well be immaterial as far as the reasons you're keeping it are concerned. If you're merely monitoring your stock flow, then it has absolutely nothing to do with the

authors themselves, so there's no need to register.

If on the other hand, you're using the database to compile information on the authors themselves – you might be putting together a personal profile on each writer – then you're processing that information with reference to those people and should register.

Don't register if you're using your personal computer for keeping track of personal or family household accounts. A small recreational club, on the other hand, must ask each and every member if they mind having their details stored on computer. If anyone does object, then you must register under the Act and tell them exactly who might have access to the information in the future.

So how do you go about finding out who holds data on you and what they know?

Until March of this year, you could go along to a reference library and consult the Data Protection Register. This consisted of a microfiched list of all organisations registered under the Act, along with a breakdown of the kind of data they held, whether the data subjects concerned were employees or club members, why the information was being held and who would be likely to see it.

These no longer exist, the only copy for public perusal now being located in Wilmslow. All you can do now is write to the organisation which you suspect of holding information on you, stating that under Section 21 of the Data Protection Act you would like to exercise your right of data subject access. They will send you a form that you will have to fill in and charge you the requisite £10 fee. Government wheels grind slowly though; it may take weeks or months.

THE ACT?

'Yes,' agrees Dr Woulds, 'I accept that it is expensive for the small club or society.'

Perhaps because the Data Protection Act is still young, there have not been many prosecutions. The most common cause for the Registrar having to take enforcement action against an organisation is complete failure to register data. Consider yourself warned though: being genuinely ignorant of the need to register won't save you from a fine that can be anything up to £2,000.

If you're in any doubt at all about the Act, phone 0625 535777 and ask for the series of eight blue guideline pamphlets and a leaflet entitled 'Are you in on the Data Protection Act?' They should help you penetrate at least some of the ambiguity surrounding it.●

What if one member of the 20 does object? You can either store the details of the 19 members who don't object on the database and still not register, or proceed with a computerised membership for everybody – including the member who does object – and register under the Act.

EXEMPLARY CONDUCT

The Data Protection Act applies equally to small clubs and large organisations:

Q: In my spare time, I am Membership Secretary to the Plunkett-Green Yachting Club. On my computer I store the membership details of the 20 or so people who belong to the Club. Do I need to register?

A: If none of the members of the Society object to you holding such information, and you take certain precautions as to who sees it, then you don't have to register.

Q: What if one member of the 20 does object?

A: You can either store the details of the 19 members who don't object on the database and still not register, or proceed with a computerised membership for everybody – including the member who does object – and register under the Act.

Q: What happens if somebody comes to me asking for the address of someone whom they suspect is included on my database?

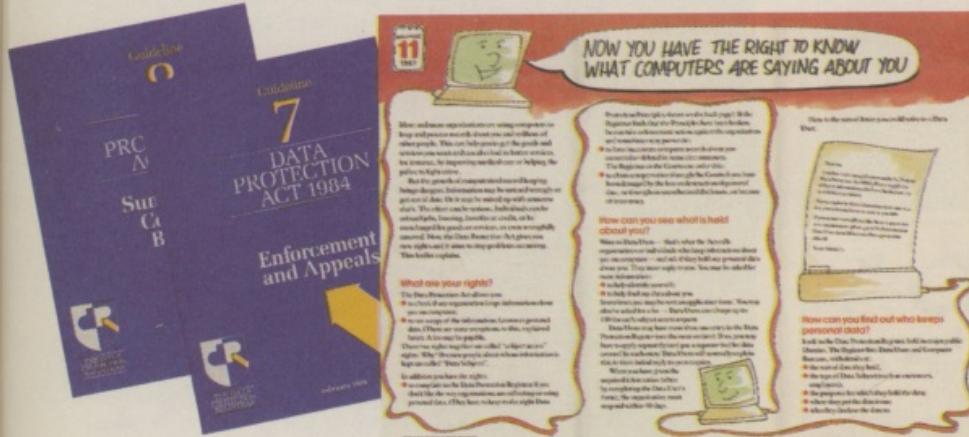
A: If you registered that you were keeping the records exclusively for club business, giving an address would be a breach of the law.

Q: What sort of information can't I keep on my computer?

A: The information has to be 'relevant and not excessive' for the purpose for which you're keeping it. In the case of the Yachting Club, you won't need to know if the skipper of the Cullendar Springs has a police record or what state his current bank account is in.

Q: I run a small club and keep a mailing list of members on my micro. Do I have to register?

A: Again, you don't need to register provided none of your customers object.



C&C Computers and Communications

ATTENTION

NEC PC ENGINE ANNOUNCEMENT.

NEC Corporation, NEC Home Electronics Ltd, and NEC (UK) Ltd (collectively 'NEC' hereinafter) have recently become aware that the PC ENGINE is being offered for sale in the United Kingdom. NEC believe that it is important that UK consumers should be aware of the following information.

1. The PC ENGINE is a product manufactured by NEC Home Electronics Ltd for use with the NTSC transmission system. It is not compatible with the UK PAL transmission system nor any other non NTSC transmission system. For this reason, NEC Corporation does not market the PC ENGINE in the UK or in any other EEC countries.
2. There are no authorised distributors of the PC ENGINE in the United Kingdom at present. Therefore, if you are offered a PC ENGINE which is said to be compatible with the PAL system or any transmission system other than NTSC, you should be aware that it will have been modified by a third party. This modification is made without NEC's permission or approval.
3. In the event that a defect should arise in any modified PC ENGINE you must contact the dealer from whom you purchased the product. NEC cannot be held responsible for any defects in any modified PC ENGINE nor be involved in any disputes between purchasers and sellers of such products. In particular, NEC (UK) Ltd cannot respond to service calls in respect of any modified PC ENGINE. Please note that the guarantee provided with each PC ENGINE sold in Japan by NEC Home Electronics Ltd extends only to the use of the unmodified PC ENGINE in Japan and therefore NEC cannot assist you if you purchase a modified PC ENGINE in the UK. Any other guarantee provided with a PC ENGINE in the UK is not an NEC guarantee. Finally, any modified PC ENGINE's sent to NEC (UK) Ltd for servicing will be returned to the sender.

NEC Corporation, NEC Home Electronics Ltd, NEC (UK) Ltd.

NEC

THE ART OF PO

Damien Noonan at the Edinburgh Festival finds computer users north of the border mixing politics and animation

It is the first day of September, the famous international arts festival in Edinburgh is reaching its grand finale. Up at the castle the military pomp and circumstance of the tattoo is in full swing; down in the streets, the young and occasionally talented are entertaining each other, vying to be recognised as this year's rising star. Meanwhile in a back lane behind a tall row of grey stone houses a new artform is enjoying its own role in the festival: the art of computer animation as practiced on the Commodore Amiga.

This is the second year in which Martin Lowe of the Amiga Centre Scotland has tried to bring hi-tech art to the attention of the festival-going public. For three weeks his shop is transformed into an exhibition room, as many Amigas as he can lay his hands on ranged around the walls. The most famous and impressive animations on the Amiga scene - Walker demo, ray-traced Newton's cradle and Angle-poise lamps that live - run all day, entertaining curious visitors. There are even workshops to give complete movies a basic grounding in the use of an animated paint package; and all provided free of charge by the staff.

Climax of the whole event is the judging of prize winners in the Amiga Centre's annual animation competition. Entrants include many professionals, but even more amateurs who spend hours over complex ray-tracings in their own time at homes. Entries, on floppy disk or videotape, vary from short simple sequences to entire video productions, compiled from many sections created with many different paint packages and edited with professional video gear.

The quality, however, varied less than the subject matter: most of the entries were extremely cohesive and well presented, while their concerns included some sex, lots of violence, and a little bit of politics.

Suicide and incest

Shock-effect tactics made the video-tape entry from American demo programmers Process one of the least forgettable entries. A series of quite remarkable animation sequences with a resonant sexual and political overtones built into a bizarre kind of narrative, climax-



• The un-greening of Margaret Thatcher. Part of the winning sequence showing the Leaderene transformed from angelic ecologist to behorned she-devil, ending up as a coin of the realm

(Far left) • The bouncing bank: Dileep Sharmar was placed third with this animated advertisement

(Left) • John Armstrong's fourth-placed engine animation

POLITICS

ing with a disturbing but beautifully made sequence in which a baby knocks a hand-gun from a drawer and blows its head off accidentally. Unfortunately this was then capped with controversial live footage from an American news-cast in which a businessman is seen committing suicide with a gun in his mouth. A bit strong, very sickening, and quite unnecessary: so despite the quality of the animation, Process came away without a prize.

Another powerful and memorable entry was a good deal more subtle. This video-tape entry, from Amsterdam-based animator Greg Lawson, was commissioned by the Dutch government as part of an educational film about incest. "Incest" was very reminiscent of Raymond Briggs' work, treating a serious subject through the beautiful, understated and colourful style of a children's book. The pastel and watercolour-like illustrations were lovely, and the underlying message was subtle: but Greg failed to win a major prize, possibly because his techniques were a shade traditional.

In reverse order...

So what about the prize winners? Well, many were granted prizes, five received commendations, but the main honours went to the top four. The judges, all experienced in professional broadcast animation and computer graphics, were Jack Garrow of video production outfit Inverdeal Productions, Nick Masters, deputy editor of *TV Production International*, and Len Brown, lecturer in computer graphics at Middlesex Polytechnic. They chose the following four winners, in the traditional reverse order....

In fourth place came "Engine" by John Armstrong. This was a technical-drawing style cut away of a car engine, demonstrating the inner workings of internal combustion. As the pistons moved up and down the chambers, the valves opened and closed to show the intake-compression-combustion-exhaust cycle, and the crank drove the cam-shaft and so the cam and the valves. The animation was smooth, clean and elegantly drawn on an expanded 1Mb A500 with *DPaint III*.

Third prize winner was Dileep Sharmar, with a combined effort

involving another engine illustration, not shown on the day of judging, and a SA3D animation of the Royal Bank of Scotland logo, flying into and out of the screen above a mirrored and chequered landscape. Smooth, fast and impressive.

Second prize was a surprise choice but a popular one, awarded to nine year old Jonathan Grant for his endearing collection of animated mouse pointers. Smartly presented, each with an icon to start, and amusing, they changed from a 'smiley' face that grinned and grimaced to a whizzing clock, to a small chap pedalling furiously away on a bicycle. Good clean fun.

And finally, the great honour of first place, ladies and gentlemen, went to Mark Wirt, an amateur working at home with a 1Mb A500 and second drive. "Maggie goes Green" was very like Ben Elton in its content: a little bit of politics, a small amount of humour, and bags of animation.

It shows the Iron Lady herself, snapping up the green vote, until confronted by the spirit of green disarmament: at which point she turns into a horned devil and spits fire in the face of her foe. The sequence concludes with her face appearing instead of the Queen's on a pound coin (known up here north of the border as the "Brass Maggie"). A combination of political comment and humour, but above all, beautifully executed. The frames of animation, rendered with SA3D and *Digipaint 3*, numbered a full 170. The end result was a worthy winner, even though Mark said beforehand: "I won't be winning this year - although I'll go down fighting - the subject matter will be popular in Scotland anyway."

All in all, the animation festival was a great success within its current limitations, but deserves better. With more facilities, wider recognition and publicity and a bit of financial support it could become a massive, original and educative part of the Festival arts scene.

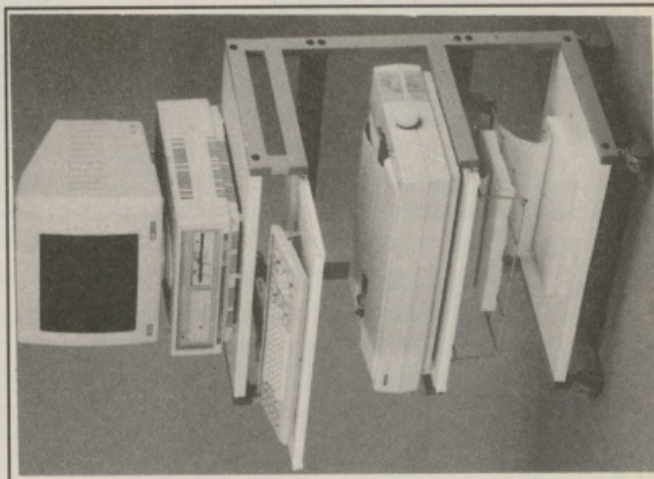
As it is, even those who stand to gain most (financially), Commodore themselves, can't be bothered to offer Martin Howe some support. Why not Commodore? Still - after that bit of politics - thank you and goodnight. ●

COMSEC

EUROPE

Comfort & Security

MANUFACTURING DIRECT
PRINTER SILENCERS / STANDS AND WORKSTATIONS
P.C. WORKSTATION REF G/1000



£95^{•65} + V.A.T.
FREE DELIVERY
UK MAINLAND

- Roll-Out Printer Shelf
- Slide Away Keyboard
- Lockable Castors
- Paper Tray & Catcher Basket
- Finished In Two Tone Grey
- Accommodate Both 80 & 132 Column Printers

This UNBEATABLE OFFER
(Normal RRP £145.50)

A Complete Workstation Direct From
The Manufacturer.....To You The User

To receive your P.C. Workstation just
complete the order form below and send it

with your cheque to:-
COMSEC EUROPE

17/18 Turnpike Blunsdon Swindon
Wiltshire SN3 - 4EE

TEL 0793 721717
FAX 0793 729207

Please supply ☐ Workstation(s) As
Illustrated Within 7 Days At £110 inc. V.A.T
And Deliver To:-

NAME _____
COMPANY _____
ADDRESS _____

TELEPHONE No. _____
AMOUNT ENCLOSED £ _____

NCE 2



Dear Reader

Another collection of comment, controversy, compliments... and Rob Ainsley's replies. Have you got something to say? Make your voice heard in computing's liveliest letters page! Send your contributions to:

Express Mail, 4 Queen Street, Bath, Avon BA1 1EJ

PS. Sorry, but we just don't have the time to give personal replies, whether you include an sae or not. We're too busy putting Express together!

HEAD CASE

Thought you might be interested in this shot of my partner, just after we bought our first computer. The game that requires such intense concentration and protection - he kept crashing hence the crash hat - is the Spectrum version of Nigel Mansell's Grand Prix...
Ms L Wilford, Hinckley, Leics



• The biggest Prix: playing Nigel Mansell on the Spectrum

• Hmph. Well, it looks a totally staged picture and letter to me, but then I'm just a cynical old journalist.

COURSE WORDS

We are writing to you as three undergraduates who are on their sandwich year in industry.

The three of us regularly read your magazine and were angered by the letter written by Mr John R Hudson (Express 42). His view of the computer industry was blinkered to say the least. Here are some points that Mr Hudson might like to consider:

1. As students on a degree course in computer science we have studied 15 subjects of which only two had mathematical content. This seems to show that mathematics does not go completely hand in hand with computer science.

2. Maths teachers may be in short supply, but this bears no relation to computing. It is more likely that these people can get jobs in the private sector more readily than arts degree graduates (who often want to teach anyway) so they take them.

3. Mr Hudson uses a computer to write as a journalist. This means he definitely does not have a career in computing. He gives little credit to the programmers

that often have to spend years on one project, keeping track of vast amounts of information and developing intricate code.

An example of Mr Hudson's argument is that if I use a cash card machine at a bank, I then become a merchant banker.

The computer industry does not just turn out technicians, but also highly skilled problem solvers and software programmers. You have to remember that the solvers are software programmers. You have also to remember that the hardware is the frame for any computer system, but only the software in ROM or RAM makes the system useful.

Chris, Gary and David, Guisborough, Cleveland

• I'm not quite sure what we're supposed to be arguing here. All I will say is that to me, mathematics and computing seem vaguely related but not closely so. You won't find many areas as illogical or inconsistent as computing, whereas as everyone knows, mathematics is totally

ANALYTICAL ENGINE

I would like to comment over the love your magazine seems to have for the PC Engine.

I think you are missing the point when making comments like "none of them could handle the graphics and sound" (Gunhed review Express 43) or "a perfect example of PC superiority over all other home games machines, as witnessed by US Gold's ST/Amiga conversions" (Sidearms review issue 43).

It's not the computer's capabilities at fault, but the programmers. I think if US Gold, Ocean etc used the same programmers as Nintendo, Sega and PC for their conversions then the results would be brilliant to say the least.

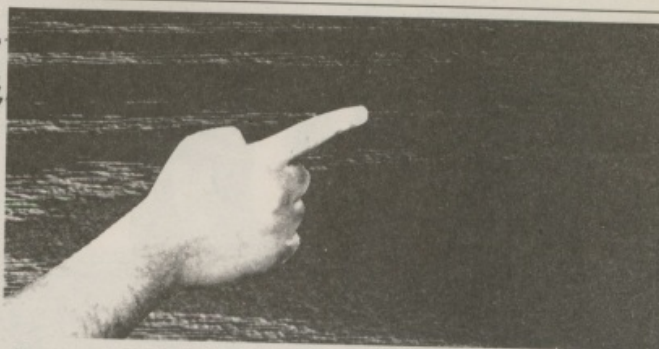
Jeff, North Shields, Tyne and Wear

PILE OF SNOB

There is now emerging a new type of computer snobbery in your illustrious pages. Up to now it's been the usual argument between Spectrum and Commodore 64 owners and the (boring) on going debate between ST and Amiga owners. Now there's the one man crusade by Rik Haynes for the PC Engine is better than any other computer you care to mention.

Well it's bound to be superior in the graphics and sound department that's all it can be used for. No comparison can be drawn between this and other home micros. If you are going to start expanding columns for operation specific machines, how about a 'Your Pocket Calculator' column, or a 'Your Digital Watch' feature.

Why not stick to computers (those with keyboards and the ability to be pro-



• There's such a thing as too much miniaturisation, says J Treeby

logical consistent, (though you can't prove it mathematically, but that's another story).

NIPPING IN

I agree small is beautiful, but miniature equipment to a point where it is impossible to repair is not. Not all Japanese products are good. As a person who has repaired music centres and televisions, I discovered the worst potentiometers and variable capacitors are Japanese designed. Also the MSX does not seem to have been successful, I wish it was.

Something I like about our Oriental friends is their circuit diagrams; the British Standards Institute have triggered a right mess of our drawings - everything is rectangular boxes now.

One problem I still have is to identify integrated circuits with queer numbers, especially those made in Indonesia.

J Treeby, Plymouth, Devon

• The things I like best about our Oriental friends are 1. They insist on going out after work 2. They insist on taking you out to really good night clubs and bars and 3. They insist on paying for all your beers when you do go out. Where this all falls down of course is that 4. Japanese beer is horrible.

FEMALE MAIL

Having read several copies of New Computer Express, I gather that you are interested in the computer habits of the female gender. As a 28-year-old mother

of three, I am not sure whether I qualify as a 'girlie' however, as a Spectrum +2 owner, I enjoy playing many different games. I particularly like adventure and arcade games.

Some of my favourite games are Atic Atic, Where Time Stood Still, Time & Magik, all the Freescape ones, Blasteroids and Cybernoid.

My daughter who is three (definitely qualifies as a 'girlie') plays Pacmania and WEC Le Mans. My other two children are boys and do not show as much enthusiasm as Stacey does. My next door neighbour has three girls who all enjoy playing computer games. So perhaps in several years we may no longer be such a small minority in a male dominated environment.

Angie Rogers, Peterborough, Cambs

• I hope so. What might a more female-dominated leisure software market come up with in the future? A working mother sim, where you have to bring up a family, hold down a full-time job and look after your slob of a husband - or would the male half of the market find it too challenging and 'unreal'?

DIDGERIDICKHEAD

On the subject of poor quality software. I do copy software, but rarely keep any of it for more than about two days. The reason for this is quite simply that 99 per cent of the software I receive is absolute rubbish. I mean that. Forgotten Worlds for example got fabulous reviews from

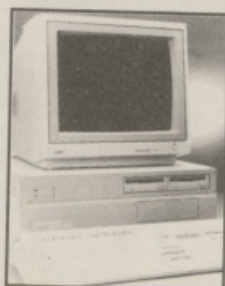
grammed), since that's what I thought the magazine was about.

R Dennis, South Yorks

DIFFERENCE ENGINE

As an Amiga owner, I feel it's my duty to absolutely contradict the Gunhed review (Express 43) I was reading the review for a laugh when I came to the Other Versions bit, and I was horrified! How dare you suggest the Amiga can't handle those mediocre graphics!
No name given

• We've had a bagful of letters from irate Amiga owners like this, all ever so ever so upset that we dared challenge the games capabilities of their beloved machine. Look, just accept it: the PC Engine plays more impressive games than the Amiga, end of story. Sorry if you can't handle it, but that's the way it is.



• Which of these is better for playing games? Here's a clue: it's the PC Engine.

nearly all the magazines but it was for too difficult and frustration quickly prevailed.

Indeed, the only games I have kept for the reason that they were in fact good are Kick Off and R-Type. Consider that I've got about 70 disks and the fact that very few games are actually worth keeping and you will realise what an absolute rip off software is. That is why I am going to purchase a PC Engine as soon as they are widely available.
Rolf Harris

• **Ah, Rolf Harris, as in the Monty Python Australian wine - Vieux Rolf Harris, a lot of sparkling confidence but no taste? And, they should have added, that makes you want to throw up?**

PRELIMINARY DILEMMA

I'm in a dilemma about which console to buy. The PC Engine looks very good, but so does the Sega Megadrive. I've read different reviews on both machines but the information on the Sega is always a bit vague. You said last week that there will be a 16 bit engine out next year; do you think it will be better than the Megadrive? Anyway enough speculation, what I really want to know is, can the Sega Megadrive outperform the PC Engine?

AL Patterson, Dudley, West Midlands

• **To be honest there isn't much between them; if anything the PC Engine's better because it's cheaper, but you'd be happy to get either one for Christmas.**

LYING DOWN

I wonder if you could give me a little advice. I have developed what I believe to be a marketable utility program for the Atari ST. The trouble is, how do I go about selling it? I don't really have the time, money to sell it myself and I have absolutely no idea who to approach. The program, called Enhancer, is a fully integrated Amiga emulator which will run 99% of Amiga software on the ST. I am also half way through developing an Atari ST emulator for the Amiga.

Jez Hanson, Sutton, Surrey

• **We'd like to hear from anyone else who has done the impossible like this. If you have written an Archie emulator for the ZX81, selected an England team to beat the West Indies, or eaten egg and pate sandwiches and survived, write to If You Believe This You Believe The Water Adverts, New Computer Express, 4 Queen St, Bath BA1 1EJ.**

HEAVY PET

This week I would like to tell you about a remarkable little machine known to many as the Commodore PET 2001. This incredible and phenomenal masterpiece has touched the hearts of many - in more ways than one. Yes it's true. The CBM PET's main processor is used as a central component in over 90% of British made pacemakers!

The tape deck mounted into the keyboard of the PET was installed in Voyager 2 to record flight data. NASA have also used the compact PET keyboard in several shuttle missions.

Amazing, but true: Dan Silva, author of the incredibly successful Deluxe Paint series, originally wrote the program for use with a PET.

Do you remember when Commodore recently had a PET in a glass case along with several other machines at the Personal Computer Show? The screen was

disabled and the computer was wired to control the lighting for the entire building.
David Carter, Woking Surrey

• **Not as amazing as the use I saw someone putting an MSX to once. They were using it as a computer.**

WATCH OUT

Your feature on Japanese technology in Express 46 was very interesting, but while you were all too keen to point out all the great Japanese innovations and the fact that Western companies like Amstrad are all keen to copy their ideas, you seem to have forgotten about a certain Englishman and his company, that came up with the digital watch, electronic calculator, pocket TV and the cheap home computer.

Who was copying who then eh?
Jonathan Tranter, Wolverhampton, S. Staffs



• **Clive Sinclair invented the digital watch, the pocket TV, the Spectrum and the C5. But he's not all bad**

• **Of course you're quite right, Sinkers was there first. But, as usual, the Japs came along and did everything better and smaller and cheaper.**

And in having devised the pocket TV and digital watch before anyone else, like the Chinese having invented paper and the Civil Service, Sir Clive very effectively took civilisation several huge leaps backwards.

THE PD RIPOFF - PART 972

Firstly I would like to chip into the argument about the price of public domain software. As a PC compatible user, with a 3.5-inch disk drive, I can pay anything between £2 and £7.50 for one disk up to 360K of data on it.

A library in Glasgow called Vastec charge £2.99 per disk plus £2.00 postage. For this, you get to choose from a quite comprehensive library of generally good software, a good quality disk and clear printed label.

On the other hand, from PDSL in Sussex, I get a choice from a very comprehensive library, a similarly good quality disk and a hand written disk label, stating only volume number and no sign of the contents, for a ridiculous £5.90 inclusive.

On the surface, there may seem little difference, but if you are ordering five disks at a time as I tend to, from Vastec you could get five disks for £16.95 inclusive of postage. From PDSL, five disks would cost you as a non member £29.50. Why? Surely it does not cost £6 to get a 3.5-inch disk, copy an archived file on it, write the appropriate volume

number on the label and post it in a plain manila envelope?

Secondly I think that software companies should get off their communal backside and turn their talents to supporting the Acorn A3000 as well as the rest of the Archimedes range. As your articles on the Aleph One Card and RISC technology proved, the Arch is truly a powerful micro computer. Before the software companies stand up and say that they will not support it until it gets a larger user base, think about this: admittedly £800 is a formidable investment to make and I would certainly not invest in a computer that has precious little support, however powerful it may be, but software companies, smugly wallowing in profits from software written for the Atari ST and the Commodore Amiga, have both the power and the capital required to change all of this.

From personal experience, I can tell your readers who have no experience of the Arch that the RISC-OS desktop envi-

ronment is truly a pleasure to do things from the command line or from within BASIC that I never thought possible outside of assembly routines. Even the programs on the RISC-OS Welcome disk are very good. What more can I say?
Paul Richardson, Sale, Cheshire

• **Nice to see someone who can be positive about a machine without going inevitably on to say how much better it is than everything else!**

What more can you say? Well, how about saying how the rest of us can afford to buy an Archie - I'd love to know...

NO MORE TOP TENS

Greetings from the sunny island of Malta. I would like to congratulate you on your magazine which keeps all of my computing friends and myself up to date with all the movements and landslides in the world of home computers. Just to show you that the average computer owner➤

CLUB NEWS

I am writing to you concerning Mr D Palmer's letter (Express 43) and the Guild of Unemployed ST Users.

The idea of such a club was based upon the original Spectrum unemployed user group (SUUG) which I began in 1985. I make this point to illustrate two important points.

1 A club such as this must be seen to act in a perfectly legitimate way, in order to encourage donations from sources such as retailers and magazines (NCE's offer of a free subscription is a perfect example of this). This honest approach, quite simply produces the best overall results for both the club and especially the members.

2 Creating a successful user group of this kind is hard, but entirely possible. SUUG still exists today, is professionally run and is still probably the only group of this kind in the world. (That's Life viewers will appreciate a "Unless you know better" line here).

ST owners should not be discouraged by the misleading or dishonest behaviour of one person. If any person is interested in starting a group, I would be glad to help them do so, if they can contact me via your magazine or at my home address.

Due to other commitments, I can only offer to put you in



contact with like-minded people in touch with each other and to offer advice gained through my experience with SUUG. However, anyone interested enough to contact me is probably the right type of person for the job - enthusiasm is the most important qualification.

I would like make to make two comments on the behaviour of the owners of the guild.

1 Pirated software is a fact of life. Providing the group is not part of such a practice, private arrangements made by members of the club can not really be helped. Remember that people eager to pirate software are attracted to all spheres of computing and that if they don't do it via club A, they will probably do it via club 'B' or elsewhere.

Even the owner of a club is able to do all this; he is no different to the rest of us. Providing he does not abuse the ethics of the club (ie obtaining software from retailers for the club and then pirating it) he should not be seen as being worse than any other pirate.

2 Disregarding the software piracy argu-

ment for a while (it is wrong, by the way), at least this person tried to set up a club for unemployed users. An admirable attempt regardless of his other failings or mistakes. There is a genuine need for clubs of this nature; hopefully they will exist for all major machines as time goes by.

Incidentally I also wrote to this person, offering help and advice, but never received a reply. Although I'm inclined to believe it was because I made no mention of software at all (ie not a very good contact) I am also willing to give him the benefit of the doubt.

In fact I offer him the chance to reply to me and the other people who wrote to him now. I hope that Express will do the same.

I repeat my offer to people interested in starting an unemployed user group whatever help and advice I can give for an SAE.

P. Bocij, 19 Moore Street, Normanton, Derby, DE3 6SN

• **Hear, hear - thanks for your letter. While the only practical help you can give the unemployed is a chance to earn a living, at least computer clubs can while away those long afternoons doing something fun and, who knows, useful too.**

We're sending you some Spectrum software as the winner of this week's prize letter.

in Malta is probably the same as his tired-eyed, square-backed empty-pocketed English counterpart I am sending you a list of the ten things I hate most about computing.

- 1 Cats, or at least the ones that think my mouse is for real and therefore chew through the tail/wire (honestly!)
- 2 Mice that get caught - try using an Amiga without one while it's at the vet being mended.
- 3 Reading all the latest on computing and then having to count on my fingers at work.
- 4 The prices - bad in England, even worse in Malta.
- 5 Comms networks that don't get as far as the Mediterranean
- 6 Games that look pretty, are pretty and are only pretty.
- 7 Gameplay, where gameplay means put the first disk in, take the first disk out, put the second disk in, and forget what it's all about.
- 8 Getting Express a month later than my English counterparts.
- 9 CLIs - Crazy Little Idea
- 10 People who write garbage just to earn a prize game to play on their computer. I won an Amiga and would love to obtain a copy of Balance of Power - 1990 edition which has yet to appear in Malta!

Do you know of anybody who scored more than 100 points in one game while playing Two vs Two Basketball? If so I coach a basketball team here in Malta...actually the most I've managed is 94 points with the help of Larry Berg. Stephen Buttigieg, Floriana, Malta

• Greetings from a rainy and grey England, and Happy Christmas if it's not too late. Sorry, no copies of Balance of Power on the Amiga!

NB To all the clever dicks who remember that I said last week would be the last Top Ten, well I was lying, and this is definitely the last.

GOOD NEWS

Thank you very much for printing my letter (Express 42). Within half an hour of your magazine landing on my mat this morning the phone rang - a near neighbour, delighted to know another computer nut. Then, blow me down, another chap rang; I've invited them both in for drink this evening. Should be fun as I can't get about much; obviously we'll raise our glasses to the continued success of your excellent magazine.

May I now use your columns to congratulate one of your "colourful" advertisers, Silica Shop. I brought from them, mentioning your mag., of course, an A500 monitor and expansion and just use up my Access limit a Seikosha 180 printer. I then found that the printer was not on the instal list, but a phone call to Silica shop brought an instant solution. The printer is now shrieking merrily away. Silica Shop is not exactly a cheapie, but a man has to be fairly stupid not to realise that their prices include a first rate after-sales service. Leslie Barratt, Torquay

• We often get letters from mail order outfits moaning that we only publish letters of complaint about the cowboys. Well, it's nice to get the chance to print a letter with positive things in it for a change! Have fun with your Amiga.

GIRL TALK

In reply to the pervie (sic) in Express 41 - yes there are "girlie" gamersplayers out

SNIPPETS

EVERY WHICH WAY BUT INVERTED

...Why did you print the picture of the 'mon-goose' (or was it a girlie?) in Express 42 the wrong way round? The Financial Times she's reading is mirror-image!

J Rowells, Birmingham

.sredaer drawkcb era sesoog-nom taht swonk enoyreve

esuaceb s'taht ,hA •

BEEB, BEEB

How dare you criticise the Beeb (Express 42)! It is still one of the best home machines and I have never used any other...

M Stone, Tiverton, Devon

• Er, how do you know if it's one of the best machines if you've never used any

other?

PCW PATCH UP

About time we PCW owners got justice! PCW Patch this week (Express 43) was a half page. Keep it up!

Ms M Hill, Kingston

• Sorry, it was only to fill out the gap left by the non-existent Atari eight-bit column.

in the world (though I'm a little old to be called a girlie). Favourite games? A little world domination (Populous) the occasional subterranean frolic (Dungeon Master) some aerial acrobatics (Falcon) lots and lots of brain-bashing (Archipelagos and Sentinel), but one of my all-time favourites is a budget game picked up for my first computer, a C64, called White Viper - it was brilliant!

Gilli Marsh, London

• My girlfriend thinks computer games are 'silly'. If only she knew much more about the home micro scene, she'd know just how right she is.

SUPER COMPUTER

Rather than all the moaning and groaning that's been going on in your letter page recently, why don't you ask your readers to write in with ideas for the best possible computer? Here's the specification for my computer:

- 1 Capable of running 4.5 billion instructions in a millisecond
- 2 Eight channel sound chip with rounded 'envelopes' and stereo sound
- 3 4000 x 7000 screen resolution
- 4 Five million colours on screen at once
- 5 Built in sound digitiser
- 6 10Mb RAM
- 7 A drive capable of holding 4Mb.
- 8 Built in microwave, alarm clock, stereo speakers, 10p slot (charge your friends)
- 9 Lap toppable (You'll need one helluva lap!)
- 10 £50 (Buy one get six free!)

No, seriously though it would be a good idea to hear of your readers' 'dream' computer or computer game. Who knows perhaps Jack Tramiel will be reading the mag?

Rob Chapman, Kenilworth, Warks

• I guarantee what will happen next. We'll get an MSX owner writing in saying that the MSX 2 has the above spec already.

SOCCER IT TO ME

Your feature on computer football got my mind whirring on what firms should sponsor particular teams.

I know Commodore sponsor Chelsea, but the only thing Amiga users and Chelsea seem to have in common is that they are a bunch of hackers.

Here are some other alliances which would be good:

- 1 NCube should sponsor Wimbledon as both their activities are above our heads
- 2 Amstrad could either sponsor Newcastle Utd or Notts County, The Magpies, 'cos they always steal other people's ideas.
- 3 Acorn and Nottingham Forest would go

together (work that one out for yourself!)

4 Mandarin Software might appeal to Ipswich Town - well they're virtually a right bunch of lemons.

5 Midland bank Automatic Cash Dispensers should be sent to Coventry City, nobody talks to them because they don't listen.

6 Virgin could have sponsored Maidstone Utd. until they discovered an interesting new place (don't be smutty, it's Dartford & the 4th Division).

7 The machine producing Access cards would be let in at Luton Town, both have nasty little pieces of plastic and it'll be only friend they'll ever have, flexible or otherwise.

8 Bubble Bus could sponsor the trip to away games for West Ham.

9 Okimate could adorn the vests of any Scottish club or perhaps the back of the shorts worn by Queen of the South.

10 Finally Middlesborough can choose from Zenith, Superior, Elite or Epyx, well you've got to have the best name for the best team.

I also wondered what would be the favourite computer games of people connected to football, here are a few suggestions:

Steve McMahon - Bonecruncher
Tony Gubba - Fish
Chris Waddle - Frogger
Man Utd. entire team - Impossible Mission
Notts. Forest pitch invaders - Run the Gauntlet
Graham Souness - Kick Off
Gazza - Pacman
Bernie Slaven - Predator
Tony Adams - Donkey Kong
Vinny Jones - Marble Madness
Alex Card, Aldeburgh, Suffolk

• Re Virgin's proposed sponsorship - is there a footy team in Maidenhead? Perhaps Terry Butcher could feature in Blood Money after the Sweden game?

On a completely irrelevant note, is anyone else getting irritated by David Locke's habit of putting a gratuitous pause two or three words before the end... of each sentence?

BOARD MEETING

Steven W. Green's letter sums up my view as a user of bulletin boards (BBS) and I feel that your editorial comment showed little empathy and over tones of ignorance. It certainly did not do anything to encourage anyone using one of the most interesting aspects of computer usage.

I have linked with many amateur bulletin boards received enormous help and advice, not to mention down loading utilities and games for my son. Keith Was-

sell the sysop of PC Forum (0322 335348) also runs echomail which provides the international communications that Steve referred to.

I have never had any problems with the downloaded software and have no complaints whatsoever - only praise - for these guys that have turned their expensive hobby into a useful means of sharing their time and expertise with others.

Print this letter to show Steve that he is appreciated and you are capable of positive press - even better - leave him a message on his Bulletin Board message area and see the response it gets - I will. Kevin Smith MSAET, West Hunsburg, Northampton

• Well, I can't leave him a message on his bulletin board because I'd find it quicker and more convenient to send him a letter. We're glad to print your comments and show the positive side of comms, but I'm afraid I remain to be convinced to take it up!

In an age where there are different types of computer, what we need most is some kind of compatibility, however weak it may be. Surely whenever a computer manufacturer launches his new machine he wants to be able to tell his customers that they can still at least read their old data, even if they can't execute their old programs. So why can't ANSI or BSI get together and design a disc format and make it suitable for every machine?

I believe the ST can read PC discs so full marks to them. Acorn seem to have made a half-hearted attempt with their Archie, by offering a PC emulator which will read the more widely accepted format, but why on earth they couldn't have made RISC OS read and write PC discs is beyond me.

Everybody knows that compatibility sells things - look at all those 1-2-3 clones!

Come on manufacturers, get your act together.

Dave Tonge, Manchester

PEDANT'S POINT

(strictly, a subset of two-dimensional space)

In the Shopping Express 50 Top PCs feature (Express 43) you list the Amstrad PC1640 as a CGA computer. Not so! All PC1640s are fitted with EGA display electronics, even those supplied with mono monitors.

True, if you buy the model with low resolution colour monitor instead of high resolution ECD monitor you will not be able to display the highest resolution EGA modes, but that does not make the computer a CGA machine. I note that you list a number of other computers as VGA equipped even though the version reviewed actually comes with a mono monitor.

It is the PC1512 which is CGA only, and to which the description "bottom of the usable-range Amstrad PC" might properly apply.

Come clean, you researched this piece in an afternoon at Dixons didn't you? Have you actually got a PC compatible of any kind in the Express office yet?

Iolo Davidson, Tetbury, Gloucestershire

• Yes, we have a PC compatible, an Opus IV. If you'd like to do the next PC round-up, we'd be glad to hear from you (no, seriously!)

MOVE ON UP

The revolutionary Konix multi-system will drastically affect the games market. Kim Harmagh looks at the implications

The struggle for realism has been the drive behind one game after another and with the emergence of new 16-bit consoles which have added extra colours and speed, real-life simulations from car games to space shoot-'em-ups are constantly leading the field.

The Konix multi-system has taken a gigantic step forward by providing a superb simulator environment in the shape of a powered chair which can toss you from side to side depending on the dictates of the game. The resulting system involves the player in a manner which goes far beyond just a visual and audio experience and has only been seen before in the *Thunderblade* arcade machine with its chair and helicopter control deck.

Affording the dosh

Creating the system is one thing but it won't sell unless the price can be kept down and the technology can still lead the field. The multi-system's advantage is that it's being sold as separate units to cater for the varying budgets of home users. The main console weighs in at £200 while the chair can be added on later for another £200. Additional extras like the light gun and helicopter stick all come at less than £50.

The forthcoming 16-bit Sega console and the PC Engine represent the main competition in terms of actual computer hardware, but the multi-system uses RISC-based technology with dedicated

hardware scrolling and an amazing sound system to compete in this department and all at an affordable price. Konix boss Wyn Holoway explained that with this combination Konix hoped to take 50% of the console market worldwide by the middle of 1990. That kind of following is sure to stir other console manufacturers into coming up with the same combination of price and technology.

Software support

Nevertheless, without the support of the software houses the multi-system will go the way of the Archimedes. The main reason that the 16-bit Sega console won't make an appearance in the UK much before Easter 1990 is that there is little software support for it. When it does eventually arrive, it will be able to run all the software available for the eight-bit Sega so that there will be as much support as possible. Konix have recognised the importance of software houses' support - right from the initial concept they've made sure that there will be games available. This has meant commissioning development as well as attracting the interest of a number of the software houses. Empire and US Gold are already showing an interest in the multi-system because they see it as a sure-fire success but still more companies must be won over.

At the moment the software is at the stage of ST and Amiga quality games. They employ more colours but they're no more than conversions of PC games. However the future of the multi-system looks healthy and it could lead the game market into a new dimension.

The emergence of this new system will have an impact on the ST and Amiga which have always tried to be consoles. Atari have recognised this and are concentrating their attentions on releasing the TT machine which will be a replacement for the ST, aimed at the serious user. To support their games front they have released their own console unit which goes to prove that even the big boys are aware of a big upheaval in the home computer scene.

In five years time we may well see the serious and games markets split totally in two. To play games you'll buy a console and to do wordprocessing you'll buy a business machine. Both will be light years ahead of current systems and it's great to see a British company like Konix on the cutting edge. ●



• The basic unit of the Konix system will cost around £200, with a chair as an optional extra

THE KONIX CONSOLE

The aim of the console is to provide a realistic environment for a number of different types of game. It's built like a W with one bar of the W housing the monitor and the other looking after the chair. The shorter rod in the middle supports the console unit as well as the gameplaying instruments. This is a plastic design which can be transformed simply into a steering wheel, handlebars or yoke.

What is most exciting about the multi-system is the way that the chair is moved under software control. A series of drives bolt the pivoting chair backwards and forwards depending on your reactions. A judder feature shakes the chair violently when you hit an obstacle.

But the unit isn't just capable of some nifty neuro operations. It's a 16-bit machine which can display 256 colours on screen in low-res mode, and 16

colours in two other modes. The machine comes with 256K of memory but using it in low-res. mode with the full range of colours instantly occupies another 50K so there are limitations which programmers will have to overcome.

Nevertheless, with dedicated hardware scrolling it's a 'well-wicked' machine, as software developer Jeff Minter is fond of saying.



• Bikers is a racing game and will be included free with every Konix system and has been written specifically to show the multi-system at its best



• Starray is a conversion of Logotron's hit designed for the multi-system and exploiting the 256-colour palette



• Konix Chess is based upon Pandix - the world amateur computer chess champion and will make use of the power chair



• Llamasoft's Jeff Minter goes to town with the full 256-colour palette in his Mutant Camels game



• Last Ninja 2 from System 3 with fast animation and great colour gives a whole new dimension to beat-'em-ups

Air flights are only marginally less dull than the airport lounges you sit in for hours just dying to leave. Once you're airborne and the stewardess has completed her Magnus Pike impressions there's nothing left to do except wait for your laptop lunch. Until now. Step in Plessey Avionics and its Integrated Flight Entertainment and Services System.

Costing £1.5 million per plane, IFESS is a computer-based system connected by a fibre optic network providing every passenger with a liquid crystal colour display, a headset and a keyboard at their seat. Besides being able to make phone calls to anywhere in the world, you'll also be able to access video games, video and audio channels, mail order shopping and business services. All, of course, for a price. You'll pay for the services and entertainments as you use them by simply slip-



• Your credit card slips into the back of the handset and

ping your credit card into your keyboard - remote purchasing which Plessey believe will generate revenues each year of around \$1 million for a single 450-seater 747. This is underlined by the fact that each time you click a choice of viewing, the wait-state endured while IFESS accesses its databanks is filled with a still-image commercial!

System check

With such lucrative profits in the air, it's no surprise that the IFESS system has been three years under development. It comes to you courtesy of the military technology Plessey developed for satellite-based airborne communications, navigation, surveillance and flight data recording. At its heart is an optical Ethernet, a Local Area Network running on fibre optic cables, which handles all communication and distribution functions and is driven by dual 570Mb mini-computers. With one running as a back-up, these hold the system database and handle the video, audio, data and voice communications switching.

THE SKY'S THE LIMIT

Airspace is nowadays crammed with over three million passengers flying each day and by 1995 it's estimated there'll be 10,000 airliners in flight at any one time.

Plessey expect the first IFESS to be installed by the end of the 1990 - in Paramount's aircraft. But most airlines won't be installing until 1991. At a cost of up to £2 million per plane, IFESS doesn't come cheap, but then this is offset by the huge revenues it's expected to generate.

Plessey's approached 80 airlines with the system of whom 40 are interested and six are under 'firm negotiation'. It's also approaching airport authorities with a view to installing IFESS in departure lounges - venues where, for most European destinations, you can be sat for longer than the flight itself!

AIR PLAY

By the end of next year you could be playing your favourite flight sim at 35,000 feet. Andy Storer takes a look at sky-high entertainments...



• IFESS installed - the 6.5-inch colour monitor will also come in arm and headrest formats

Each passenger has a network terminal comprising an adjustable high resolution video display installed in the headrest, bulkhead or armrest. Walkman-style headphones deliver stereo sound, while a hand-held keypad allows easy navigation of menu bars on the 6.5 inch display. Besides the entertainment and services at hand, the screen is

also linked to the flight deck such that instructions and messages can be flashed to passengers. An in-flight briefing service also allows you to call up flight information such as the aircraft's position, altitude, speed and expected time of arrival, and you may order meals and drinks on-screen too.

Passing clouds

But the bulk of the system's use is likely to be for entertainment and here the choice boils down to three areas. A choice of three top feature films and seven specialist programmes are accessed from recorders playing titles continuously - so until IFESS switches to its planned enhancement of multiple-head video discs you might find yourself flipping into the middle of a movie already running. Music selection is more straightforward, CD-quality audio can be piped to your headset in an instant. On the computer game front, IFESS is currently running products from an Australian software house, Aristocrat (*Who?* - Ed), featuring a Pacman clone and a passable arcade adventure based on Crocodile Dundee. Plessey's marketing men are open to licences though, so come on software houses, the sky's the limit, let's open up the airways to some ace product. ●

WHAT'LL BE AVAILABLE?

1. **VIDEO GAMES** • A choice of adventures and shoot-'em-ups, chess and card games
2. **FILMS** • Up to six feature films, documentaries and top 10 video clips showing continuously
3. **MUSIC AND AUDIO** • Stereo reproduction of music, book and language course tapes
4. **DESTINATION DATA** • Maps, restaurants, tours and hotels of your destination
5. **ON-LINE SHOPPING** • Facility to order duty free and gifts for collection on arrival
6. **SATELLITE COMMS** • The provision to call, fax and telex anywhere in the world
7. **TRAVEL SERVICES** • Ability to reserve hotels, flights and hire cars

BEST

- Bargains
- Advice
- Prices
- Offers
- Jobs

SHOPPING EXPRESS

The **weekly** computer market place for people **serious** about buying

● **THIS WEEK'S BUYERS' GUIDE**

50 PC ESSENTIALS

The best buys revealed! ● Word processors
● Spreadsheets ● Accounts ● Databases
● DTP ● Programming ● Utilities

JOB SHOPPING?

Check out our
recruitment section inside

ALSO INSIDE

- **Take** advantage of our latest mail order offers.
- **Benefit** from our reliable buyers' guides. No waffle, just facts.
- **Gain** more than £10 off mail order prices by using Express vouchers.
- **Score** on the free reader adverts. Sell your products for **absolutely no charge!**

**Save your cash,
save your time**

SAVE MONEY

Use these
Express Vouchers
with the ads
inside ►

Full details overleaf

EXPRESS
VOUCHER

50p

EXPRESS
VOUCHER

£3

EXPRESS
VOUCHER

£1

EXPRESS
VOUCHER

£6

JOHN RUSSELL & CO

VALUERS & AUCTIONEERS

FORTHCOMING AUCTIONS

of computer hardware & electronic equipment

Saturday 16th September 1989

Canons Leisure Centre, Madeira Road, Mitcham, Surrey

1200 lots of microcomputers & peripherals inc:

IBM & Compatible systems - IBM P/S 2 30,50,60 & 80 systems, Compaq 286 & 386, Deskpro & portable systems, Apple Mac Plus & SE systems, Laserwriters & other laser printers

Future Sale Dates:

Saturday 7th October 1989

Dacorum College, The Marlowes, Hemel Hempstead, Herts

Saturday 28th October 1989

Kempton Park Race Course, Staines Road East, Sunbury, Middx

Viewing & Testing 9.00am / Sales Start 10.30am

For further details and catalogue please contact:

01-681 5413

Selsdon House, 34 Selsdon Rd, South Croydon, Surrey CR2 6PB

SPECIALISING IN COMPUTER HARDWARE
& COMMERCIAL EQUIPMENT

EXPRESS VOUCHERS - How the scheme works

● The Express voucher scheme is a unique way of enabling you to save money when you buy goods by mail order.

● It offers you a discount of up to 5% off the prices printed in many advertisements in this magazine - and remember, many of these

prices are already much lower than in the shops.

● The vouchers are not limited to specific items - you can save on any purchase from one of the participating advertisers.

● Most of our advertisers are

taking part in this scheme - just look for this sign.

● Remember. By using this scheme you will almost always be able to buy goods cheaper from New Computer Express than anywhere else.

£1 voucher. Valid for orders above £20

This voucher may be used as £1.00 part payment on any order totalling over £20 from a participating advertiser in New Computer Express. You simply fill in the details below and send it off with your order.

NAME _____
ADDRESS _____
TEL. _____
ITEM PURCHASED _____

One voucher per order only. Voucher and order must reach the advertiser before **9am Monday Oct 2nd**

£6 voucher. Valid for orders over £120

This voucher may be used as £6.00 part payment on any order totalling over £120 from a participating advertiser in New Computer Express. You simply fill in the details below and send it off with your order.

NAME _____
ADDRESS _____
TEL. _____
ITEM PURCHASED _____

One voucher per order only. Voucher and order must reach advertiser before **9am Monday Oct 2nd**

50p voucher. Valid for orders over £10

This voucher may be used as 50p part payment on any order totalling over £10 from a participating advertiser in New Computer Express. You simply fill in the details below and send it off with your order.

NAME _____
ADDRESS _____
TEL. _____
ITEM PURCHASED _____

One voucher per order only. Voucher and order must reach the advertiser before **9am Monday Oct 2nd**

£3 voucher. Valid for orders over £60

This voucher may be used as £3.00 part payment on any order totalling over £60 from a participating advertiser in New Computer Express. You simply fill in the details below and send it off with your order.

NAME _____
ADDRESS _____
TEL. _____
ITEM PURCHASED _____

One voucher per order only. Voucher and order must reach the advertiser before **9am Monday Oct 2nd**

THE FIVE SIMPLE RULES

1. Express vouchers can be used to obtain discounts on purchases of goods advertised in this issue of *New Computer Express*, **provided** that they are bought directly from an advertiser taking part in the scheme. The vouchers are valid only for those advertisements which say "We accept Express vouchers".

2. Each voucher entitles you to a discount at the voucher's face value, **provided** that your overall order level is **higher** than the figure indicated on the back of the voucher.

3. To use a voucher, simply enclose it with your discounted payment when you order. You may use **only one** voucher in any one order.

4. The order including the voucher must be received by the advertiser before the closing date printed on the voucher.

5. You must fill in the details on the voucher.

50 PC ESSENTIALS

The PC has an enormous range of software available for it, but the choice can be bewildering. Read on to discover the Shopping Express guide to 50 indispensable programs

There's probably more software for the PC than for all other machines put together, so a comprehensive list is clearly impossible. Choosing 'the best' fifty programs is impossible too – it depends on what you want your PC to do. But here's the Express list of the 50 programs we think should be at the top of your shopping list. Word processors, home accounts, spreadsheets, programming utilities... the list goes on and on. We've cut down our categories to include software that you can't afford to be without, at home or at work; the essential PC software.

We give what we consider to be the all-round best program or programs in each section, together with a brief description of each, and a few highlights and drawbacks. There's also the availability details, though as ever, check the mail order ads in Shopping Express first. You're sure to find some excellent discounts available.

WORD PROCESSORS

● PROTEXT V4

£100 • Arnor • 0733 68909

For sheer text and file handling Protext stands out. It's fast, flexible and full of features; good spell checker and mail merge facilities so powerful you can write program-like text and file handling routines. For writers and journos this is a must.

- ▲ Fast
- ▲ Spell checker
- ▲ Powerful mail merger
- ▲ Powerful macros
- ▲ Loads of extras – calculator, word counter etc
- ▲ Two file editing

- ▼ No real graphics capability
- ▼ Not good at handling complex layouts

VALUE FOR MONEY *****

● TASWORD

£50 • Tasman Software • 0532 438301

Superb value and fast. A few odd limitations but an excellent basic word processor. TasSpell, the spell checker, also available, along with TasRes, the memory resident version of the processor.

- ▲ Memory resident and fast
- ▲ Easy to customise
- ▲ DOS shell macros
- ▲ Word count, notepad features etc

- ▼ Clumsy text insertion

- ▼ Some limitations – find and replace won't accept spaces, blocks must be whole lines etc

VALUE FOR MONEY *****

● CELEBRITY

£80 • Software Paradise • 0222 887521

A well designed word processor with a lot of extras and plenty of appeal for the first time user. It doesn't show the compromises usual with beginner's packages.

- ▲ Good clear command structure
- ▲ Calculator, calendar, DOS manager etc
- ▲ Thesaurus and spell checker
- ▲ Up to four text windows

- ▼ Thesaurus US and a bit slow
- ▼ Window dimensions fixed

VALUE FOR MONEY *****

● MULTIWRITER 2

£115 • NewStar Software • 0245 265017

A very powerful package that includes many features usually found only on really expensive word processors. WordStar dot commands can be included directly in a document so this may be ideal for WordStar diehards. Lots of extras – author's utilities and a filing program, for example.

- ▲ WordStar compatible
- ▲ Good menu and context sensitive help
- ▲ Extras: contents and index generator etc
- ▲ Filer utility

- ▼ Filer awkward to use

VALUE FOR MONEY *****

● BORLAND SPRINT

£199.95 • Borland • 0734 320022

A hugely powerful word processor – certainly worth looking at if you need the complete works. Breathtakingly fast with an autosave feature that means even if the power goes your document has been saved exactly as it was at that moment. Comes with front ends that make it look like WordStar, WordPerfect, MultiMate or Microsoft Word if you're used to those packages. A bit complicated to use though and modelled on C, which doesn't help.

- ▲ User interfaces for WordStar etc
- ▲ Thesaurus and check-as-you-type spell checker
- ▲ Cross-referencing
- ▲ Very powerful indexing facilities

- ▲ Laser and PostScript support
- ▼ Very complex to use – only get it if you really need all the power
- ▼ Still a few little bugettes

VALUE FOR MONEY *****

● MICROSOFT WORD

£395 • Microsoft • 0734 500741

Another of the heavyweights. Packed with every feature you can imagine, but you're paying for it. Easy and intuitive to use for such a high-powered package – ideas outliners, contents/ indexing and footnotes, very good graphics facilities – and of course it runs under windows and OS/2.

- ▲ All the heavyweight features: thesaurus, spell checker, author utilities
- ▲ Ideas outliner
- ▲ Good graphics import facilities
- ▲ Runs with windows and OS/2
- ▲ Easy to use

- ▼ Very pricey
- ▼ Need a powerful machine – slow unless you have a 286 or 386

● WORD PERFECT

£250 • Sentinel • 0932 231164

Supposedly the biggest selling word processor on the PCs. A huge program with everything you could ever need: thesaurus, spell checker, two column text, footnote and index generation, automatic date insertion, end notes, mathematical symbols etc etc etc. Frankly though a disappointment for the huge price; only any use if you're already committed to the program because of training – or if you can get it on expenses.

- ▲ Everything you could ever need in a word processor
- ▲ Exemplary manual
- ▲ Available on minis, mainframes as well as micros

- ▼ Vastly expensive
- ▼ Some very complex keystrokes for functions – must be learned by rote

VALUE FOR MONEY *****

● CHIWRITER

£92 • Shareware Marketing • 0297 24088

The word processor for scientists. Originally a shareware product, this word processor lets you design and use predesigned fonts for scientific use. Can cope with any mathematical symbols – even the most complex integrals for example. The most impressive WYSIWYG you'll ever see! Might be worth hanging on a couple of months for the PC version

of LocoScript though, which will no doubt outperform Chiwriter for less money.

- ▲ Handles any maths – integrals, complex set theory symbols etc
- ▲ Does foreign characters too
- ▲ Footnotes and font designer

- ▼ Limited as a word processor: no mail merge, word count only after spell check
- ▼ Only one document at once
- ▼ Hidden extra costs for hi-res or screen

VALUE FOR MONEY *****

● TOPCOPY PLUS

£109 • Innova Software • 0453 835379

Big brother of Topcopy – a very powerful and well-featured word processor. Verging on the 'big league'. Very fast – memory resident – and keeps everything reformatting as you go. Multi document handling together with the speed of operation makes it ideal for people who shunt text around a lot. Good spell check and mail merge too.

- ▲ Memory resident
- ▲ Can import text from defined areas of underlying screens
- ▲ Auto reformats but still fast
- ▲ Three files on screen at once, handles up to six documents
- ▲ Spell checker and mail merge
- ▲ Very fast

- ▼ One or two useful commands missed (eg. swop letters)
- ▼ No auto backup of files

VALUE FOR MONEY *****

● GALAXY

PD (ie. free) • Advantage/ PDSL • 0242 224340/ 0892 663298

One of many public domain word processors that resembles WordStar. Doesn't compete with ones you pay a hundred quid for, but for the price of a disk you get a usable program ideal for occasional use.

- ▲ Menus
- ▲ Spell checker
- ▲ For the price of a disk!

- ▼ Restricted power – best for occasional user

SPREADSHEETS

Probably one of the primary uses for PCs, the spreadsheet is the staple of

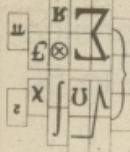
Gilroy Consultants Ltd

20 Fairways, Isleworth, Middlesex. TW7 4LB

Tel: 01 568 9183; 01 560 7366 Fax: 01 568 8357

PROFESSIONAL SOFTWARE

Hospitality - HOTEL ADMINISTRATION AND RESERVATION SYSTEM
Bookings, Reservations, Sales etc.



£650

ChiWriter - Scientific and Linguistic Word Processor
Standard Version, European Languages and Maths Symbols

£150

Deluxe Version, as above plus Russian and Chemistry Symbols

£230

The New Olivetti Colour Printer DM105S
ONLY £200.00

Video 1 - Video Club Administration System

Daily Transactions, Reservations, Stock and Customer Control,
Screen Enquiries, Print Reports

£100

Esti2 - Invoicing and Estimating System for the Printing Trade
Customer File, Calculations based on Stock and Action Codes held on disk

£120

QFile Utility - Selective Copying and deletion of
files held in various directories

£45

Prices are exclusive of VAT, but include P&P. User Guides supplied with software
and training given if required at moderate charges.

For All IBM PC and Compatibles

Terms: Postal Order/Cheque with order



PC TO TV AND VIDEO IN CGA AND EGA

Vine Micros can supply a large range of PC-TV Adaptors which allow the connection of PCs to standard TVs, Videos and Monitors. Both CGA and EGA versions are available - the latter being able to support 640 x 350 line modes (only 280 lines viewable at any one time) with a full 64 colour palette. Our UHF Adaptors (not suitable for PC1512) connect to both a TV, through its aerial socket and to a video recorder. The SCART Adaptor is only for TVs with a suitable connector but does give a near monitor quality. Other adaptors include a monochrome composite video version, a digital version for connection of BBC micro or Amstrad CPC colour monitors and a device to allow the Amstrad PC1512 to use a standard monitor.

CGA UHF
EGA UHF
1512 Monitor Adaptor
Monochrome CV

£44.95
£59.95

CGA SCART
EGA SCART
(PC1512 SCART
Digital)

£34.95
£39.95
£39.95
£34.95

All adaptors (except PC1512 monitor adaptor) require separate
12v mains adaptor £5.75.

All Prices exclude VAT - carriage free in mainland UK

EGA Genlock Video Adaptor

Vine Micros latest product is the EGA Genlock Adaptor - this allows overlaying of computer text/graphics on TV, Video recorder and camera displays. The adaptor will be demonstrated at the Personal Computer Show (Stand 2438). Available Oct/Nov RRP approx £120.

See us at the Personal Computer Show
Stand 2438

Ring/FAX 0843 225714

Vine Micros Ltd, 47/48 Hawley Sq, Margate, Kent, CT9 1NY

SHOPPING EXPRESS

BUYER'S GUIDE

the small business user and some of the best around are available for the PC.

● VFP PLANNER PLUS

£172 • Paperback Software • 0245 265017

Fully featured, Lotus 123 compatible, spreadsheet generally held to be the ultimate in PC spreadsheet programs. There's support for a mouse as well as multi-dimensional financial modelling.

▲ Comprehensive

▲ Complex modelling can be achieved

▲ Reasonably priced (there's a cut-down £115 version too)

▼ Difficult to learn

▼ Hard drive and printer required

● LUCID 3-D

£91 • PCSG Inc./Software Paradise • 0222 887521

Cheap spreadsheet from PCSG lacking graphics but with the ability to perform most of the necessary functions. There's no 'minimum hardware' requirement and it's cheap. Also features 3-Dimensional linking of cells from different spreadsheets.

▲ Cheap

▲ Linking of separate spreadsheets

▲ No minimum hardware requirement

▼ No graphics

● THE TWIN

£67 • Mosaic Software • 0604 830496

Cheap 'n' cheerful spreadsheet that is the younger sibling of the outrageously named Legend: Twin Level III. The Twin is an almost exact copy of Lotus 123 at a fraction of the cost of that eponymous program. Well worth 67 quid.

▲ Cheap

▲ All of the features of Lotus 123

▲ Powerful graphics

● LEGEND: TWIN LEVEL III

£207 • Mosaic Software • 0604 830496

The spreadsheet that sounds like an adventure game. Burrow deep into the powerful Lotus 123-like features such as 3-dimensional cell linking, graphics and database functions.

▲ 123 features provided

▲ 3-D cell linking

▲ Powerful

▼ Not for the spreadsheet novice

● PC-CALC PLUS

£57 • Shareware Marketing • 0297 24088

Extremely cheap basic shareware spreadsheet that is nonetheless good quality. All necessary spreadsheet functions implemented. You can get a version of this spreadsheet complete with - cut-down - manual for five quid from PC user groups. Full documentation will require registration with Shareware Marketing and the handing over of the full price.

▲ Cheap, cheap, cheap

▲ Easy to learn

▲ Widely available from user groups

▼ Basic

DATABASES

Everyone needs a database. From business use such as motor car parts, baked beans stocks and can opener suppliers to home uses such as stamp and record collections and train number cataloguing.

● DBASE IV

£595 • Ashton-Tate • 01-5699768

The database that's got it all. Spawned a huge range of clones for many other machines. Complex and all reaching, dBase is a database-specific programming language that allows you to build filing programs tailor-made to your own requirements.

▲ Complex

▲ Can be tailored to suit individual needs

▲ Industry standard

▼ Expensive

▼ Not for beginners

● DBXL 1.2 (DIAMOND RELEASE)

£115 • Software Paradise • 0222 887521

dBase clone featuring all the abilities of the original with a better text editor, variable arrays and user defined functions at an affordable price.

▲ Cheap

▲ Very powerful

▼ Difficult to master

▼ Not for beginners

● TAS PLUS

£120.75 • Megatech • 01 874 6511

Powerful database that allows you to spread a database over many files. It's programmable, relatively easy to use and cheap.

▲ Fully featured

▲ Easy to use

▲ Cheap

● HYPERPAD

£114 • Software Paradise • 0222 887521

Apple Macintosh users have long had the opportunity to use the definitive associative database handling of Hypercard based on the concept stacks of interconnected cards each containing various data, programs etc., all accessible via a series of icon 'buttons'. And now, at last, this power is available to the humble PC user with Software Paradise's Hyperpad. All the features of the original system are here.

▲ Comprehensive

▲ Easy to use

▲ Moderately priced

▼ Setting up may confuse absolute beginners

COMMUNICATIONS

Got a yen to communicate with your fellow PCers? Need to transfer data around the planet? Maybe you want to connect several computers together to maximise your peripherals?

MEMORY UPGRADES

From Europe's only dedicated manufacturer and distributor for value added memory products.
ALL EX-STOCK FULL WARRANTY.

MEMORY MODULES

Plug in (SIMMS) DRAM Modules to expand your PC Memory.

OEM PRICING

SIMM PRICING (Qty 1.49)	£
256K x 8 - 120	26
256K x 8 - 100	29
256K x 8 - 80	33
256K x 9 - 120	29
256K x 9 - 100	35
256K x 9 - 80	40
256K x 9 - 60	49
1M x 9 - 100	112
1M x 8 - 80	118
1M x 9 - 100	118
1M x 9 - 80	124
1M x 9 - 70	129
4M x 9 - 80	CALL

Call for SIP pricing, £200,000 of module stock at all times.
Upgrade your MAC, SUN, BELL, IBM, NOVELL, AST, AMSTRAD etc.

LASER PRINTER UPGRADES

For HP Laser Jet II, IID and compatibles
1MB £190 2MN £290
4MB £465 (User expandable)

CHIP SUPPORT PRODUCTS

Memory and Co-Processor EX.STOCK, Examples:
256K x 1 - 10 £3.50 1M x 1 - 10 £8.50
64K x 1 - 10 £3.50 256K x 4 - 10 £8.50

VGA BOARDS

Graphics cards for the IBM PC AT/XT and compatibles. Also PS/2 Models 25 and 30.

Typical Extended VGA Mode	Card Pricing (£)
800 x 600 18 colours	from 159
800 x 600 256 colours	from 199
1024 x 768 26 colours	from 299

100% register and BIOS compatible with EGA and all VGA nodes

COMPAQ UPGRADES

100% compatible in size, shape and performance

ADD ON CARDS AND EXPANSION BOARDS

1MB and 4MB for models
DESKPRO: 386/16, 386/20, 386/20e, 385/25
386/2, 286s. NEW 386/33
PORTABLE II, III, 386, SLT/285

CALL FOR PRICING

IBM XT/AT UPGRADES

Extended/Expanded memory for PC Bus

512K	£295	1MB	£725
2MB	£490	2MB	£1225

PS12 MOTHERBOARD UPGRADES

Model	Size	£	Model	Size	£
30	512KB	345	7C A.21	2MB	365
30	2MB	345	80	1MB	280
50.70	2MB	345	80	2MB	150

PS12 EMS UPGRADES

512KB	£315	4MB	£745
2MB	£520	8MB	£1270

COMMODORE/AMIGA 500

RAM 500 £85 (512KB only)

NEW MINIMAX: Expandable to 2MB
Call for Pricing

ACCELERATOR PRODUCTS

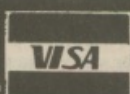
Speed up your PC XT-compatible, to run DTP Spreadsheet, Macros, etc.

Providing 80286 CPU power with co-processor socket.

Tiny Turbo 286	8MHZ	3.0 x speed of XT	£199
Tiny Turbo Extra	12MHZ	4.5 x speed of XT	£249



Volume & Dealer
Discounts Available



CALL 0252 3131 55

DATRONTECH LTD
DATONTECH HOUSE, 33 GROSVENOR ROAD
ALDERSHOT, HANTS, GU11 3DP

FAX 0252 341939.

ANDRON SOFTWARE
6 MOORS CLOSE
BUGBROOKE
NORTHAMPTON NN7 3PN

TEL: 0604 831427
(24 hours)

FAX: 0604 831427

Full range of quality shareware at extra low prices
only £1.25 per disc + VAT + Postage

Just a few examples

Galaxy.....WP (1)	Automenu.....MN (1)	Spoker.....AGame
NY. Word.....WP (2)	PC-Keydraw.....DP (4)	PCFile+.....DB (3)
Aseasyas.....SS (1)	Altimira.....DP (1)	Wampum.....DB (2)
EZ-Formlite.....(2)	Treeview.....UT (1)	LQ2.....PE (2)
EZ-Forms.EXE. (1)	Spell Check.....SP (2)	Black Magic.WP

Catalogue £1.00 or FREE with first order.

Unbranded blank discs at special prices with lifetime guarantee.

	each	10+	20+	50+	100
5.25 48 tpi	360k	25p	2.50	5.00	12.50
96 tpi	720k	40p	3.90	7.88	19.00
3.5 135 tpi	.5 meg	75p	7.50	14.50	36.50
135 tpi	1 meg	95p	9.50	18.50	45.00

Branded discs at low low prices with 2 for 1 lifetime guarantee with FREE storage box.

		50p	5.00	10.00	24.00	46.00
5.25 48 tpi	360K	84p	8.00	16.00	37.00	72.00
96 tpi	720K	1.30	12.50	24.50	58.00	114.00
3.5 135 tpi	.5 meg	1.20	12.00	23.00	45.00	88.00
135 tpi	1 meg	1.75	17.50	35.00	75.00	150.00
135 tpi	2 meg	3.50	35.00	75.00	150.00	300.00

Disc boxes at KNOCKDOWN PRICES

	100 cap	50 cap	25 cap
5.25	6.00	3.50	3.00
3.5		4.50	3.00

SOFTWARE, HARDWARE, DISCS

WHY NOT TAKE OUT CLUB MEMBERSHIP AT
ONLY £10 PER YEAR, SPECIAL PRICES ON
SOFTWARE, HARDWARE, DISCS



COMPUTERS + THE SMALL BUSINESS = SUCCESS

IF YOU CHOOSE THE RIGHT SYSTEM

In the busy and ever more complicated world of the small business you've got to run if you are going to retain or expand your position in the market. Nowadays this means the correct use of user-friendly computer technology - in other words, getting a business package that actually **DOES** what you bought it to do. Yet, in many firms this is not the case and expensive equipment lies idle, gathering dust, while better informed competitors steal a march on them... but it doesn't have to be this way.

Our **ABM System** could be just what you're looking for. A complete accounts and business management system that's tailor-made for the busy self-employed small business person.

ABM GIVES YOU: J Printout of end of year figures - accepted by Inland Revenue. Will you still need an accountant? J Overdraft alert J Complete cash analysis J Automatic invoicing J Automatic V.A.T. accounting J Quarterly accounts + printout.

EXCLUSIVELY WRITTEN FOR THE AMSTRAD PCW 8256/8512/9512.

THE PRICE IS RIGHT TOO JUST £149.95 inc. VAT

Complete Systems can also be supplied.

For more details contact:-

John Seymour Street, EMBLEFORD HI-TECH, 22 EMBLEFORD
CRESCENT, MORETONHAMPSTEAD, DEVON. TQ13 8LW.
Telephone: (0647) 40876. FAX (0647) 40735

● THE \$25 NETWORK

£25 • EQ Consultants • 0334 84248
Networks abound at the moment but you'd be hard pushed to find one that would set you back less than several hundred pounds, before, that is, the release of The \$25 Network from EQ Consultants. For the tiny figure of 25 quid (EQ alas, hold no stock in exchange rates) you can join two PCs in perfect harmony, to have, and to hold, from this day on...

- ▲ Amazingly cheap
- ▲ Everything you need (except a cheap null modem cable)
- ▲ Easy to use

● CALLBOX

£171.35 • Callbox Ltd • 0600 4478

A program which takes control of your telephone allowing you to perform all manner of snazzy dialing functions, number recalls, auto calls etc. All this for only one hundred and seventy one pounds, wow!

- ▲ Cheaper than equivalent hardware (i.e. telephone)

- ▼ Breath-takingly expensive
- ▼ Only for those without the energy to dial a number

● LINK MASTER

£19.95 • Amstrad Software • 0277 230222

Billed as the 'complete kit for file transfer between two PCs' thereby implying a hard/software cast of thousands, Link Master is a cable and bit of software for £20 that allows you to transfer files between two PCs. Why not just use floppy disks? Perhaps that would be asking too much...

- ▲ Cheap
- ▲ Easy to use

- ▼ Superfluous
- ▼ Unnecessary (unless you have machines with wildly differing drive formats)

● PROCOMM PLUS

£59 • Shareware Marketing • 0297 24088

Fully-featured general purpose communications program for use with modems. The program supports the industry-standard Hayes command language and seven file transfer protocols. There's an earlier version known as Procomm which can be had from the same supplier for a few quid.

- ▲ Reasonably cheap 'n' cheerful
- ▲ Hayes compatible
- ▲ Plenty of file transfer options

ACCOUNTING

The serious side of the PC. And let's face it, if you've spent the enormous sums necessary to buy the computer system, your going to need to save money somewhere.

● MICROSYSTEMS

£454 • Multisoft • 0420 85572

Very powerful accounting package emanating from well-known accounts software writers Multisoft. Menu driven

programs ensure ease of use and give access to virtually every possible accounts function necessary. There's some extremely good help screens too in case you should encounter difficulties.

- ▲ Menu driven
- ▲ Fully featured
- ▲ Easy to use

- ▼ Too expensive for the home or small business user

● A-B-C

£299 • A-B-C Systems • 01 661 0488

Quality accounting package that has the distinction of sporting a word processor, database and spreadsheet as well as the accounting module. All the features of a professional accounts application are built into A-B-C as well as good after sales service and help from A-B-C Systems.

- ▲ Built-in word processor, spreadsheet and database
- ▲ After sales service
- ▲ Can be used on single disk systems

- ▼ A little expensive for home users

● PENNYWISE

£50 • Buzz Software • 0865 56083
Simple to use, affordable accounts analysis software for the home and small business user.

- ▲ Cheap
- ▲ Easy to use

- ▼ Lacking in features
- ▼ Only for the smallest of business users

● CASH TRADER PLUS

£171 • IT Marketing • 08045 6566

For cash traders everywhere, the package that gives you everything necessary to facilitate easy wheeling and dealing. Why waste valuable brain cells computing exchange rates when the software can do it for you?

- ▲ Full of features
- ▲ Easy to use
- ▲ Cheap (if you're already making flipping great wages of cash playing the market)

- ▼ Not cheap if you're a home dabbler

● RETAILER

£185 • Ob-serve • 0258 451299

Calling small business persons everywhere. Tired with spending all day on your feet then all evening poring over barely intelligible ledgers, payroll files etc.? Worry no more, your problems are at an end. Retailer provides everything the busy money maker needs to wring even more time (and therefore profits) from their small holding.

- ▲ Powerful
- ▲ Feature packed
- ▲ Reasonably priced (when compared with the services of an accountant)

- ▼ You need to have a semblance of understanding of basic accounting before being able to use to the full

ATARI ST and AMIGA

Sixteen Bit Superdeals from the Sixteen Bit Specialists !

CUSTOMERS PLEASE NOTE! When comparing prices remember ours include fast delivery by courier.

NEW !!

520 STFM Power Pack £359.00

Inc. VAT and Next Day Delivery

Power Pack includes:

- ★ 520 STFM 512K Keyboard with Built-in 1 Megabyte disk drive and TV Modulator
 - ★ Over £550 worth of games software, including OutRun, Gauntlet 2, R-Type, Space Harrier, Super HangOn and 16 more Top Games
 - ★ Organiser Business Software including WORDPROCESSOR, SPREADSHEET and DATABASE.
 - ★ First BASIC and First Music Utility Software
 - ★ FREE JOYSTICK AND FREE MOUSE MAT WORTH £4.95
 - ★ All leads, manuals PLUS MOUSE and free mains plug!
- REMEMBER!** Many ST's do not come with BASIC - ours come with ST BASIC REV D by Metacomco.

520STFM Explorer Pack £279.00

- ★ Explorer Pack Includes 520STFM 512K Keyboard with built-in 1 Megabyte Disk Drive and TV Modulator
- ★ 1 FREE Game, ST Tutorial and METACOMCO Basic worth £25.00
- ★ All Leads, Manuals PLUS MOUSE and FREE Mains Plug! ★ Free mouse mat worth £4.95

1040STFM Midi Music Pack £439.00

- ★ Includes 1 megabyte keyboard plus Pro 12 Midi Music Software

1040STFM Business Pack £439.00

Business Pack includes:

- ★ Atari 1040STFM Keyboard with 1 meg memory and 1 meg built-in disk drive plus TV modulator.
- ★ £385 worth of Business Software including MICROSOFT WRITE word processor (£150), SUPERBASE PERSONAL Database (£60) and VIP PROFESSIONAL Lotus 123 Spreadsheet clone (£150), Metacomco Basic (£25.00)
- ★ All leads, manuals and mouse.

MEGA 1 BUSINESS PACK £529.00

Features:

- ★ Separate Keyboard and System Unit
 - ★ All the Software included with 1040 STFM Business Pack.
 - ★ Blitter chip installed for faster graphics
- Inc SM124 Mono Monitor..... £628.00*

ACCESSORIES

Quickshot II Turbo Joystick.....£9.95	Branded Memorex 3.5" DS DD Disks
Competition Pro 5000 Joystick.....£13.95	Box of 10.....£13.95
Competition Pro with Autofire.....£14.95	Memorex Disk Box
Konix Speedking Joystick.....£11.95	For 40 3.5" Disks.....£8.95
Red Mouse Mat with Amiga logo.....£5.95	Amiga 1/2 Meg Expansion.....£119.95
Plain blue Mouse Mat.....£4.95	Control Centre Atari or Amiga.....£39.95
Contriver Amiga and ST Mouse with FREE Holder and Mouse Pad £20.95	

PRINTERS

Star LC24-10 24 pin incl. lead ST/Amiga	£279.00
Star LC10 including interface lead for ST/Amiga.....	£169.00
Star LC10 colour including interface lead for ST/Amiga.....	£219.00
Citizen 120D including interface lead for ST/Amiga	£159.00
SEIKOSHA 80 COLUMN PRINTERS - AMAZING PRICES	
Seikosha 9 pin NLQ including interface lead for ST/Amiga.....	£139.00
Seikosha 24 pin LQ including interface lead for ST/Amiga.....	£259.00

Amiga A500 Games Pack £389.00

Inc VAT and Next Day Delivery

NEW LOW PRICES!

Game Pack includes:

- ★ Amiga A500 512K Keyboard with Built-in 1 Megabyte disk drive.
- ★ Free TV modulator worth £24.99 allowing you to use the Amiga with a normal TV.
- ★ £230 worth of Games Software, including BUGGY BOY, MERCENARY, BARBARIAN, WIZBALL & six more games.
- ★ PHOTON PAINT or SPRITZ GRAPHICS PACKAGE worth over £50.00.
- ★ FREE MOUSE MAT worth £4.95
- ★ Amiga BASIC, Amiga EXTRAS 1.3, Workbench 1.3 PLUS the Amiga Step by Step Tutorial.
- ★ All leads, manuals PLUS MOUSE and mains plug!

Amiga A500 StandAlone £369.00

- ★ Amiga A500 as above but without the £230.00 worth of Games Software

Amiga A500 Business & Games Pack £459.00

NEW !

includes everything in our Amiga Games Pack PLUS a Comprehensive Suite of Business Programs including, Scribble II WORDPROCESSOR, Analyze II Spreadsheet and Organise Database.

AMIGA 1 MEG! £499.00

Announcing the new Amiga 1 meg-an A500 system with fitted 1 megabyte memory expansion and clock card PLUS TV Modulator AND DRAGON'S LAIR a six disk 1 meg megagame!

AMIGA 1 MEG + £519.00

Our Amiga 1 meg + also includes the £230 worth of games software normally given with our A500 Games Pack.

EXTERNAL DISK DRIVES

Atari SF314 1 Megabyte.....	£139.00
Amiga A1010 1 Megabyte.....	£139.00
Cumana 1 Megabyte Atari or Amiga.....	£99.95
NEC 1 Megabyte Atari or Amiga.....	£89.95
Atari Megafile 30 Hard Disk.....	£449.00
New! Commodore A590 20 meg hard disk.....	£369.00

MONITORS

Commodore Amiga A1084 Stereo colour Monitor inc lead.....	£239.00
Atari SC1224 Colour Monitor inc lead.....	£249.00
Atari SM124 Mono Monitor including lead.....	£104.00
Philips CM8833 stereo colour monitor inc. lead for ST or Amiga.....	£229.00



CREDIT CARD ORDERLINE ☎ 0908 378008 (Mon - Sat 9am - 6pm)

To order either call the orderline above with your Credit Card details OR make a cheque or P.O. payable to Digicom Computer Services and send it with your order to the address below. Callers are also most welcome at the address below

DIGICOM

Unit 36, Wharfside, Fenny Stratford, MILTON KEYNES MK2 2AZ
All prices include VAT and delivery by courier



A SMALL SELECTION FROM OUR WAREHOUSE

HARDWARE & PERIPHERALS (OFFERS WHILE STOCKS LAST)

	RRP	WAVE
Amstrad PC1512 Double Drive Colour Home/Office Pack	688.85	583.22 ANC
Amstrad PC1640 Double Drive Mono	688.85	582.02 ANC
Amstrad PC2086 Single Drive 12" Mono 8086	688.85	603.75 ANC
Amstrad PC2086 Double Drive 12" Mono 8086	861.35	676.20 ANC
Bondwell BW34T Twin Drive 640K Green 8088	769.35	416.04 ANC
Bondwell BW36XT 20Mb 640K Green 8088	1263.85	827.08 ANC
Bondwell BW38-3 20Mb 640K Green 8088	1436.35	916.29 ANC
Star LC10 Parallel F&T NLQ Printer	297.85	158.01 A
PL2 Lead, PC to Parallel Printer (Round Cable)	14.95	8.97 E
Computer Labels 89mm x 36mm 1 Across	BOX1000 9.20	6.44 D
Croxley 11" x 9.5" Listing Paper 60G	BOX2000 24.93	9.76 B
Miniscribe 32Mb Hard Card Formatted(State which machine)	550.36	223.02 B
Miniscribe 40Mb Hard Card Formatted(State which machine)	598.00	239.20 B
Commodore PC10 III Double Drive Mono 8088	803.85	619.97 ANC
Commodore PC10 III Double Drive Colour 8088	976.35	775.2 ANC
Commodore PC10 III Double Drive ECD 8088	1140.85	930.47 ANC
SBC FDS PCXT Single Drive 12" Green 640K V40	688.85	619.97 ANC
SBC FDS PCXT Single Drive 14" Colour 640K V40	918.85	803.99 ANC
SBC FDS PCXT Single Drive 14" EGA Colour 640K V40	1033.85	930.47 ANC
SBC FDSV PCXT Single Drive 14" VGA Colour 640K V40	1263.85	1137.47 ANC
SBC FD PCXT Double Drive 12" Green 640K V40	803.85	603.27 ANC
SBC FDC PCXT Double Drive 14" Colour 640K V40	1033.85	852.95 ANC
SBC FDE PCXT Double Drive 14" EGA Colour 640K V40	1148.85	976.52 ANC
SBC FDV PCXT Double Drive 14" VGA Colour 640K V40	1378.85	1172.02 ANC
SBC HD30 PCXT 30Mb Hard Disc 12" Green 640K	1263.85	919.08 ANC
SBC HD30C PCXT 30Mb Hard Disc 14" Colour 640K	1378.85	1493.85 ANC
SBC HD30E PCXT 30 Mb Hard Disc 14" EGA Colour 640K	1493.85	1269.77 ANC
SBC HD30V PCXT 30Mb Hard Disc 14" VGA Colour 640K	1723.85	1465.27 ANC

AMSTRAD 2286/2386, BONDWELL, COMMODORE, SBC INC. FREE 12 MONTHS ON-SITE SERVICE

BLANK DISKS & SOFTWARE

Verbatim 3.5" DS/DD 135TPI Bulk Discs	PKT25	62.50	20.63 D
Verbatim 3.5" DS/HD 2Mb Bulk Discs	PKT10	33.95	20.37 E
Verbatim 5.25" DS/DD 40/80T Bulk Discs	PKT25	27.27	7.36 D
Large range of books & software/business/games/utilities etc. All at good discounts. Far too many items to list here. Send 3 19p stamps for lists, stating for which products.		286.35	200.45 C

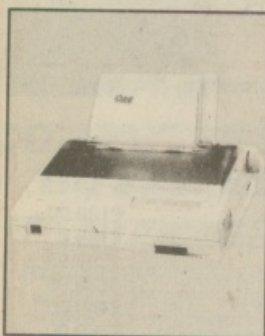
ENG. MAINLAND post & ins.: (A) £5.75, (B) £4.60, (C) £3.45, (D) £2.30, (E) £1.15, (F) 58p (ANC) 3 Day £10.35, Next Day £13.80, COD + £2.30, Max. UK Postal Charge. £6.90 per 20kg/£500 ALL PRICES INCLUDE V.A.T. All sales subject to our Trade Terms of Trading

W.A.V.E. (Trade Dept. NCE 1409)

WALNEY AUDIO VISUAL & ELECTRICAL DISTRIBUTION
1 Buccleuch Street, Barrow-In-Furness, Cumbria LA14 1SR
Tel: 0229-870000 (6 lines) Hours: Mon-Fri 10.00-5.00

star LC 24-10 £259.90 £226 + VAT

Including VAT and FREE lead
(PC Compatibles/Amstrad PC/ST/Amiga)
UK Version - Brand New - 1 Year Parts/Labour Warranty



Speed:	170 cps draft elite	CHARACTER SET:
Slewrate:	57 cps LQ Elite	ASCII,
LQ Matrix:	21 Lines per second (3.4" PS)	International, italic and IBM in both draft and LQ.
Graphics Resolution:	24 x 35	1 x draft font; 8 x LQ fonts: Courier, Courier italic, Prestige, Prestige italic, Orator, Orator italic, Script, Script italic.
Printing:	Bi-directional logic (short line) seeking	3 x print variations: Outline, shadow, shadowed outline, 50 downloadable characters (expandable to 221 with 32K RAM
Number of Pins:	24	
Interface:	Parallel, IBM Proprietary X24, Pro II, Proprietary, Epson LQ800, LQ1500.	
Buffer:	7K	
Dimensions:	410mm (w) 328mm (d) by 120mm (h)	

Original STAR Accessories - LOW PRICES -
Only if purchased with Printer (includes VAT)

Black Ribbon (LC24 -10)	£4.99	Cut Sheet Feeder	£59.95
Font Cartridges (LC24 -10)	£44.95	32KB RAM Card (LC24-10)	£54.95
Black Ribbon (LC10)	£3.99	Colour Ribbon (LC10 Colour)	£5.99

Printer Star LC10	£164.95
LC10 Colour	£214.95

HURRY LIMITED STOCK

EALING COMPUTER CENTRE

19, Queen's Parade, London. W5 3HU

Tel: 01 991 0928

For Next Day Courier add £7.99

Access and Visa - all offers subject to availability - E. & O.E.

SHOPPING EXPRESS

BUYER'S GUIDE

TAXCALC

£19.95 • Consumers Association • 0800 252100

Cheap personal tax planner which has some very good built-in help screens and the printout of which you can send directly to the Inland Revenue.

- ▲ Very cheap
- ▲ Easy to use
- ▲ Suitable for beginners

DESKTOP PUBLISHING

Need to produce the definitive subversive pamphlet? Lacking in a good display maybe, but the PC can boast a wealth of DTP programs...

FREEDOM OF PRESS

£431.25 • Ctrl-Alt-Deli • 0908 662759

A fully-featured DTP package that allows you to use any cheap dot matrix printer to reproduce PostScript documents. Powerful and moderately easy to use.

- ▲ Uses ordinary cheap dot matrix printers
- ▲ Lots of features

▼ Beyond the budget of the average home user

NEWSMASTER II

£70 • MGA Microsystems • 0233 83571

Straightforward, unpretentious little desktop publisher, providing most of the features necessary to produce newsletters, propaganda pamphlets, communist diatribes etc.

- ▲ Cheap
- ▲ Clip art library
- ▲ Can import graphics

FINESSE 2

£171 • Logi UK • 0925 413501
GEM-based, Ventura lookalike providing many of the abilities of the original for a fraction of the price.

- ▲ GEM/3 included
- ▲ Sensibly priced
- ▲ Good graphics import

▼ You must have a mouse

TIMEWORKS DTP

£129 • Electric Distribution • 0480 496789

Another desktop publisher with slightly more than a passing resemblance to industry-favourite Ventura. Lots of features, can use standard dot matrix printers and has a copy of GEM/3 included.

- ▲ GEM/3 included
- ▲ Powerful
- ▲ Reasonably priced

VALUETIME RANGE

£9.95 each • Electric Distribution • 0480 496789

The valuetime range provides you with the necessary tools to produce signs, banners greetings card etc., for a very reasonable price. Results can printed on a standard dot matrix machine. The packages are Signs and Banners, Greetings Cards, Calendars and Stationery.

- ▲ Very cheap
- ▲ Very easy to use
- ▲ Good results can be obtained

LANGUAGES

Don't buy commercial applications programs, write your own...

ZORTECH C V3.00

£57.44 • Zortech • 01 316 7777
Professional quality C compiler from well-known language producer Zortech. The package is cheap yet fully-featured. Very fast.

- ▲ Fast
- ▲ Cheap
- ▲ Widely available

▼ Standard C tutorial text necessary

DBFAST

£113.85 • Megatech • 01 874 6511
dBase clone at a fraction of the price of the original program. This is not for beginners but fortunately there is a small planet's worth of dBase text books on the shelves of your favourite bookstore. What are you waiting for?

- ▲ Very cheap
- ▲ Powerful

▼ Not for beginners
▼ Some minor bugs in first version

QUICKBASIC

£98 • Microsoft • 0734 576744
The standard for penning BASIC programs and peddling them to the business community. QuickBasic is the grown-up sibling of all those home computer BASICs. Lots of features and a moderately fast compiler.

- ▲ Industry standard
- ▲ Fast
- ▲ Powerful

TURBO PASCAL V5.00

£115 • Borland UK • 0734 320022
Known and loved by all, this is the Pascal compiler. It's fast, fully-featured has good editing facilities and is easy to get to grips with. Perhaps a little expensive.

- ▲ Powerful
- ▲ Good editor
- ▲ Can used on single drive systems

▼ A little overpriced

GAMES

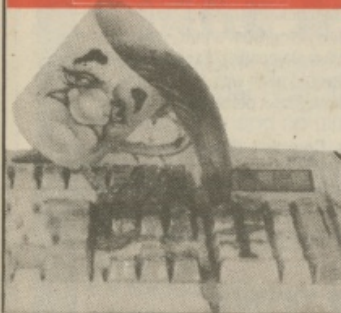
Not formerly associated with games playing, the drop in the price of the average PC compatible has set off a chain reaction amongst leisure software writers eager to cash in on a new market.

688 ATTACK SUB

£29.99 • Electronic Arts • 0753 46465

Send a mass of Eastern Bloc seafaring metal to Davy Jones'locker. Alternatively, take command of Soviet Russia's latest submarine and go fascist hunting. Either

Seal'n Type



Pat. Pending & Reg. Designs

TYPE-THROUGH PROTECTIVE KEYBOARD COVER

- Accidents can happen! Avoid costly repairs to delicate electronics.
 - Long lasting protection against spills, dust, ash, grime etc.
 - Made of clear, flexible PVC moulded to each key.
 - Available for over 200 popular computer keyboards.
 - Can be custom-made for any push-button machine.
- Manufactured by KADOR in UK

from £7.50

PEACE 'n QUIET: ACOUSTIC BOX for PRINTER

NOW you can hold a telephone conversation while your printer stays on.

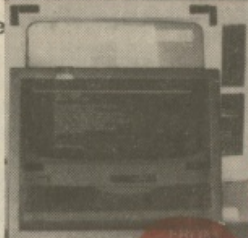
- ★ Lightweight, compact in silver grey.
- ★ Optional stand 7cm high.
- ★ Paper slots for single & continuous stationery.
- ★ Easy DIY & simple to use.
- ★ Available for most printers.



from £33.95

ANTI GLARE VDU FILTER, RE-INKING SERVICE

Quality ultra-fine framed mesh. Easy to apply velcro fittings.



£14.50

All types of fabric ribbons re-inked like new. Same day service. FREE transporter SAE From £1.90 each

LANGUAGE CONVERSION £19.95 KEYTOP SETS (one set) Alters the language of your keyboard

CONTACT KADOR

Unit 4 Pontcynon Ind. Est. ABERCYNON MID GLAM. CF45 4EP UK Tel: 0443 740281 Carriage free but add VAT

TRADE ENQUIRIES WELCOME



RING or WRITE for our FREE comprehensive CATALOGUE

Mention Technical Services

SEGA MEGADRIVE IN PAL/SCART IN STOCK
SCART - £179.95

PLUS 1 FREE Game from Below (P&P £5.00)

PAL - £199.95

PLUS 1 FREE Game from Below (P&P £5.00)

Free Game - Altered Beast/Space Harrier/Super Thunderblade/Alex Kid in Miracle Land.

NOTE: Mention SEGA's include:

1. UK Instructions. 2. UK Power Pack. 3. Full One Year Warranty

NEW PC ENGINE SOFTWARE IN STOCK NOW

Power League II	£29.95	Bloody Wolf	£29.95
Rock On	£29.95	Side Arms	£29.95
FI Dream	£29.95	Ninja Warriors	£29.95
Final Lap Twin	£29.95	Break In	£29.95
Yaksa	£29.95	Fantasm Soldier (CD)	£31.95

SEGA GAMES

Ghouls & Ghosts	£38.95	World Cup Soccer	£31.95
Black Belt	£29.95	Super League	£29.95

CREDIT CARD
HOTLINE
0203 611943

ENQUIRIES: For Full List of Hardware/Software, Send a Large S.A.E. to:

MENTION
P.O. Box 18

Helensburgh, Dunbartonshire

Trade PC Engines from Active Sales & Marketing
Telephone: 01 384 2701
Fax: 01 371 0839



KEMPSTON DIRECT

ORDER HOTLINE
0234 841224

FAST MAIL ORDER SERVICE

Please send me:

- ☐ KEMPSTON DAATAscan£229.95
- ☐ KEMPSTON Mouse£24.95
- ☐ KEMPSTON Disk Drive£84.95
- ☐ KEMPSTON DAATAfax£29.95
- ☐ MASTER SOUND£32.95
- ☐ Cheque payable to: KEMPSTON DATA LTD

☐ Please debit my Access/Visa Card No:

-----/-----/-----

Expiry date --/--

Signed

Name

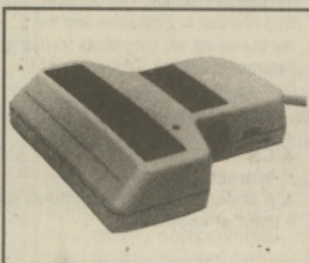
Address

Post Code

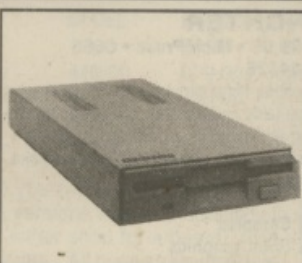
Send to:

KEMPSTON DIRECT
NCE 45
182A Bedford Road,
Kempston,
Bedford.
MK42 8BL

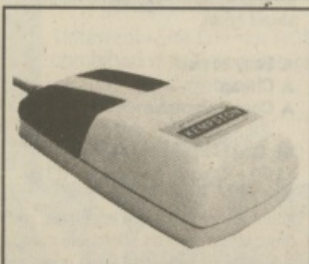
KEMPSTON



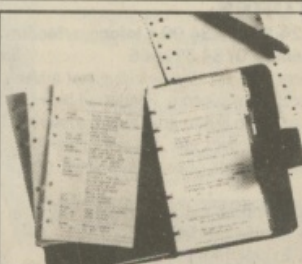
KEMPSTON DAATAscan
Highly-rated hand scanner complete with new DAATAscan Plus full featured editing software
KEMPSTON DIRECT
Price £229.95



KEMPSTON DISK DRIVE
Top Quality 3.5" KEMPSTON disk drive in an ultra slim case with integral power supply
KEMPSTON DIRECT
Price £84.95



KEMPSTON MOUSE
High Resolution KEMPSTON MOUSE complete with FREE Mouse Mat and Mouse House
KEMPSTON DIRECT
Price £24.95



KEMPSTON DAATAfax
Computerised Diary, Phonebook, Calendar and Notepad with FREE Organiser, Subject Tabs and Stationery
KEMPSTON DIRECT
Price £29.95



MASTER SOUND

Master Sound is a comprehensive new sampling package that transforms your computer into a powerful sound system.

The Package includes both a hardware cartridge and comprehensive sampling, editing and sequencing software.

Features include:
Realtime Recording of sequences,
34 bar spectrum analyser,
VU meter,
Oscilloscope, Full sequencing and playback, etc., etc.,

KEMPSTON DIRECT
Price £32.95

SHOPPING EXPRESS

BUYER'S GUIDE



EXPRESS VOUCHERS

DATAPEX

10 Petersfield Avenue, Slough,
Berkshire SL2 5DN
Tel 0753 35557

All prices excluding
VAT and delivery



EXPRESS VOUCHERS

AMIGA HARDWARE

A500 complete 279.00

A500 + TV Modulator 295.00

A500 + £200 worth games + TV Modulator
+ Joystick 305.00

Photon Paint Pack 335.00

Includes:
A500 + TV Modulator, Photon Paint, Tenstar Pack
(Games worth over £230)

1084S Monitor Pack £552.00

Includes:
A500 + TV Modulator, 1084S Colour Monitor,
Photon Paint, Tenstar Pack.

AMIGA ACCESSORIES

A501 - 512K Ram 113.00

FREE Fitting if bought with Amiga 500!

Amiga Joystick 8.00

TV Modulator 19.00

Mouse Mat 4.00

Amiga to Philips Lead 8.00

Amiga to Printer Lead 10.00

DATAPEX DRIVES

1MB 3.5" External Drive 68.00

1MB 3.5" Internal Drive 63.00

1MB 3.5" Floppy Drive 106.00

DATAPEX HARD DRIVES

20MB drive A500/1000 478.00

30MB drive A500/1000 529.00

60MB drive A500/1000 910.00

Please ring for other capacity drives.

PHILIPS MONITORS

CM8833 14" RGB/CVBS mon 189.00

BM7723 14" Amber Monitor 89.00

CM8852 hi res col.mon 249.00

PRINTERS

Amstrad LQ3500 DI 195.00

Amstrad DMP4000 207.00

Amstrad LQ5000 DI 310.00

DOT MATRIX RANGE

Citizen 1200 110.00

Citizen 180E 127.00

New 24pin swift 24 255.00

Colour upgrade for swift 42.00

All Citizen printers come with 2 year warranty

Epson LX400 145.00

Epson FX850 299.00

Epson FX1050 399.00

Epson EX800 425.00

Epson EX1000 581.00

Epson LQ500 249.00

Epson LQ1050 542.00

Epson LQ850 404.00

HEWLETT PACKARD

Thinkjet 265.00

Quietjet 343.00

Deskjet 412.00

Deskjet + 443.00

Paintjet 665.00

Rugged Writer 865.00

All Hewlett Packard printers come with
12 months on site warranty

Star LC10 mono 135.00

Star LC10 Colour 175.00

Star LC24 10 225.00

NEC P2200 265.00

NEC P565XL 814.99

NEC P6 + 80 character 414.00

NEC P7 136 character 534.00

Colour upgrade kit 80.00

Panasonic KXP 1081 128.00

Panasonic KXP 1124 249.00

Sheetfeeder 89.00

Panasonic KXP1180 253.00

Panasonic KXP1592 344.00

Panasonic KXP1540 428.00

**NEW MANNESMANN TALLY
LAUNCH OFFER**

MT81 (dot matrix) 110.00

Sheetfeeder 62.00

Serial I/F 62.00

Professional Repairs Carried Out On
Our Premises.

AMSTRAD

PCW8512 370.00

PCW9512 399.00

PC1512 bundle includes ability for games &
MT81 printer

PC1512 HD20 mono 664.00

PC1512 HD20 Colour 733.00

PC1640

PC1640 HD30 WES/D16 Mono 655.00

PC1640 HD30 WES/D16 Colour 744.00

PC1640 HD30 WES/D16 ECD 832.00

PC INTERNAL FLOPPY

3.5" 360K/720K 45.00

3.5" 1.44 Mb 59.00

5.25" 360K 45.00

5.25" 1.2 Mb 69.00

PC EXTERNAL FLOPPY

3.5" 360K/720K 75.00

3.5" 1.44 Mb 89.00

5.25" 360K 75.00

5.25" 1.2 Mb 95.00

C & M MICROS

HOME & BUSINESS COMPUTER SUPPLIES



★ NEW LOWER PRICES ★ ALL PRICES INCLUDE VAT. P&P FREE (UK ONLY).

Don't buy disks offering anything less!

Lifetime guarantee, certified 100% error free. Complete with labels and tabs (5.25"). Our 3.5" unbranded disks are manufactured by KAO in Canada to the highest specifications and are suitable for all 3.5" drives including Amiga's & ST's

Bulk Discs	10	25	50	100	150	200	300	500
3.5" DS/DD (135)	£7.50	£18	£34	£66	£96	£124	£180	£290
5.25" DS/QD (96)	£3.50	£8	£15	£28	£41	£52	£76	£125
3.5" DS (Amsoft)	£23	£57	£112	£219	£327	phone for prices		

Branded disks manufactured by the Sony Corporation of America.

Sony Brand	Boxes of 10	1+	3+	5+	10+
3.5" DS/DD (135)	£12.00	£11.50	£11.00	£10.50	£10.50
5.25" DS/QD (96)	£12.00	£11.50	£11.00	£10.50	£10.50

★ Special Offer ★ Latest COLOURS™ disk packs. 10 Coloured disks (2 of red, orange, yellow, green, fog-white) in a clear fronted flip-top case Only £9.50

Strong disk boxes. Lockable with 2 keys, dividers & recessed handle.

Add £1.50 P&P if not ordered with disks.

3.5"/3"	40 Capacity	80 Capacity	100 Capacity
5.25"	£3.95	£5.95	£5.95
	£3.95	£5.95	£5.95

Amiga 512K memory expansions. Just plug-in to upgrade your Amiga A500 to a full 1 megabyte. Both expansions are Commodore compatible and guaranteed for 12 months.

MX1 — 512K memory expansion £82.95

MX2 — 512K memory expansion with battery backed time & date £94.95

Disk drive head cleaners (3.5" or 5.25") £1.95 3" £2.95

Boxed anti-static mouse mats £3.50

Also Available: Large selection of books for Amiga's, ST's, PC's and general computer subjects, all below RRP. Printer & monitor stands, mouse houses?, etc.

Phone or write for a FREE price list detailing 100's of amazing offers for all computer users.

**C & M Micros, 25 Middlefield Road, Bessacarr,
Doncaster, S. Yorkshire, DN4 7EB.
Telephone: (0302) 539955**

way, this game provides everything necessary for superior submarine simulation. Ahoy m'heartsy.

▲ Wonderful graphics

▲ Complex

▲ Quality gameplay

▼ VGA necessary for best display

▼ Expensive

● FLIGHT SIMULATOR 3

£52 • MicroSoft • 0734 500741

The latest in a long line of definitive flight simulators from MicroSoft for the PC and its compatibles. This program has it all for those looking for quality simulation rather than blood 'n' guts. Expensive, but then the best always costs a little more. Invest a few quid and reach for the skies.

▲ Super graphics

▲ All controls found in a real aircraft are simulated

▲ Lots of places to fly around, through, up and over.

▼ Expensive

● ELITE

£24.95 • Firebird Software • 0666 504326

Originally for the BBC micro and now available to discerning PC game players everywhere. Improved graphics and speed but a similar plot (nothing wrong with that I hear you shout!).

▲ Old faithful too good to be missed

▲ Wonderful graphics

▲ Fast

▼ Expensive (the eternal PC games criticism)

● F-19 STEALTH FIGHTER

£39.95 • MicroProse • 0666 504326

Another flight simulator but this one pits you fairly and squarely against an attacking enemy bent on destruction. Good graphics and good fighting action make this a superior offering.

▲ Complex

▲ Good graphics

▼ Expensive

▼ A little boring in the learning stages

● INFOCOM ADVENTURES

£24.99 to £34.99 • Infocom/Medagenic • 0734 311666

Here they are. The definitive text adventures from Infocom. Renowned by by those who like to grub about in haunted houses, caves etc., the world over. Good plots and lots of puzzles to solve.

▲ Complex plots

▲ Intelligent dialogue

▲ Excellent input parsing

▼ Far too expensive for such a tired genre

● UNIVERSAL MILITARY SIMULATOR

£24.95 • Rainbird • 01 240 8838

The package that lets you simulate everything from a petty squabble to a full-scale conflict. Excite yourself to fevered pitch with every battle throughout personkind's history.

▲ Complex situations can be simulated

▲ Any and every altercation from the dawn of time can be played to its (un)natural conclusion

● TETRIS

£19.95 • Mirrorsoft • 01 928 1454

Tetris is a simple but highly addictive game in which you have to arrange into lines a series of tumbling coloured blocks into to clear screens and amass points. Defying categorisation the game has the added novelty of emanating from the USSR.

▲ Unique

▲ Addictive

▲ Colourful

● VP EXPERT

£115 • Paperback Software • 0245 265017

At last, an affordable expert system for your PC. Doctors! Why waste valuable drinking time skulking about in the surgery when your PC can have the punters diagnosed and through the consulting room doors in a trice. And what about you garage owners? Bamboozle the mugs with your 'intelligent' computer and relieve them of twice the cash...

▲ Lots of functions

▲ Affordable

▲ Fun?

● PC GLOBE +

£80.44 • Paperback Software • 0245 265017

Discover the gross national product of the Cayman Islands. The quota of dentists resident in Zimbabwe and the quantity of hearing aid specialists touting for business in Finland. Thousands of fun facts for all the family.

▲ Complex

▲ Colourful

▲ Instructive

▲ A boon for pre-school kiddies with a thirst of knowledge

● FILE RESCUE PLUS

£29.99 • Mirrorsoft • 01 928 1454

Go on. Admit it! How many times have you lost precious files due to your own severe ineptitude? Now you can retrieve them fast with File Rescue Plus. For just thirty quid you'll never need to look stupid again.

▲ Easy to use

▲ Cheap

▲ Comprehensive

● MICRODRAFT

£100 • Timatic Software • 0329 236727

And now, for all design engineers and draughtspersons an affordable computer aided design program. Don't pore over blue prints with a pencil and compass let this software do the hard work for you.

▲ Cheap

▲ Lots of functions

▲ Can achieve good results

TAKE A LOOK AT OUR BEST SELLING LIONS!

Callers welcome at both our shops - Birkenhead by Tranmere Rovers FC, and our new shop now open at New Ferry Wirral, at 63 New Chester Road. Open 9.15 to 5.30 six days. All the prices quoted include VAT and Carriage. The price you see is the price you pay and no hidden extras. Order by telephone, post, or by fax. Pay by cheque, postal order or credit card.

AMIGA - KING OF THE JUNGLE?

Featuring:
11 Wild Games

Amiga A500
T V Modulator
Mouse
Mouse Mat
Workbench 1.3
Amiga Basic
Amiga Extras

£389.95 inc. vat

Thundercats
Stargoose
Amigas
Art of Chess
Barbarian
Buggy Boy
Ikari Warriors
Insanity Fight
Mercenary
Terrapods
Wizball

OUR AMSTRAD PC2086 PACKAGES GIVE YOU MORE -

Latest Design - 3.5" inch disc drive. VGA monitors. Prices down. Lots of extras

DMP 3160 PRINTER ONLY £99 WITH ANY PC2086	MONO MONITOR	14" COL MONITOR	12" HIGH RES COL. MON	14" HIGH RES COL MON
Single Drive Version	679.95	799.95	909.95	1029.95
Double Drive Version	799.95	909.95	1029.95	1139.95
30 Meg Hard Disk Version	1029.95	1139.95	1259.95	1359.95

All our PC2086 packages include free mouse, free mouse mat, system software, free Lotus Symphony integrated software package (original price £500+), 10 free blank disks. Each system is double checked by our engineers prior to dispatch. Prompt delivery, carriage free, VAT included.

AMSTRAD SOFTWARE SPECIAL!

FOR PC's
BUY ACCOUNTS MASTER PRICE £169.95 AND
RECIEVE INFOMASTER
DATABASE, VALUE
£79.95 AND PAYMASTER
PAYROLL VALUE £56.35
ABSOLUTELY FREE !

COMMODORE

MP 1200 PRINTER

- * CITIZEN 1200 SPEC
- * PARALLEL CENTRONIC
- * 120 CPS DRAFT
- * 24 CPS NLQ
- * TRACTOR FEED
- * SINGLE SHEET

SUIT AMIGA, ST, PC, BBC AND
MANY OTHERS. EXCELLENT
VALUE, CHEAP ENOUGH FOR
THE CUBS.

£129.95 INC VAT

THE STAR OF THE SHOW

STAR LC24-10, 24 PIN DOT
MATRIX PRINTER, JUST REDUCED!
SUPERB FEATURES INCLUDE: 170 CPS IN
DRAFT/57 CPS NLQ
24 PIN. MULTIFONT. EXTRA FONT
£259.00 INCLUSIVE

Simply the best value printer around
LC24 10 AUTO SHEET FEEDER NOW
AVAILABLE AT
£74.75 INC



The Secretary
Bird: Best ever
all-in-one bud-
get package for
the PC?

- NC EXPRESS

WORD PROCESSOR . SPELL CHECKER
DATABASE & SPREADSHEET FOR ALL IBM
PC AND COMPATIBLES. BOTH SIZE DISKS
INCLUDED - DON'T MISS THIS FEAST
SPECIAL PRICE **£29.95 INC VAT**

Amstrad PC1512 Licks the Competition

No other compatible PC offers so much for so little. All these packs contain:
Free Mouse, Free Mouse Mat, Free Ability Integrated Software Package, Free
Systems Software, 4 US Gold Games Free.

	BASIC MODEL	20 MEG HARD CARD	30 MEG HARD CARD	40MEG HARD CARD
Single Disk Drive Mono Monitor	449.00	679.00	699.00	719.00
Single Disk Drive Colour Monitor	569.00	799.00	819.00	839.00
Dual Disk Drive Mono Monitor	569.00	799.00	819.00	839.00
Dual Disk Drive Colour Monitor	679.00	909.00	929.00	949.00

When purchasing any PC1512 you can also purchase an Amstrad DMP3160
Printer for just £99. Hard Card versions made up specially to your order using
best quality components. Visit either shop for a demo. One year service con-
tract on any system for £39.95 extra. -All prices fully inclusive.

star LC10 Printer

Our best selling printer. We use them our-
selves. Sturdy, Reliable, Superb Value, Push
Button Fonts. 144 CPS in draft, 36 NLQ.
Guaranteed UK specification, ideal Amiga, ST,
PC, BBC etc.

Standard Model (Parallel cent.).....	164.95
Standard Model Colour Print.....	209.95
Commodore 64 version	164.95
Commodore 64 Colour version	209.95

AMIGA A501 Upgrade
RAM expansion with built in clock
£129.95

Send any old stamp for our cur-
rent price lists. New 24 page
booklist now available on
request.

Timeworks Special Offer

-Must end soon -
Timeworks Lite DTP for PC's
combined with Typographica
Prime Collection.
Normal price £115.
Offer price £69.95
Closes September 15th 1989

Mini Office Professional Plus Amstrad PCW

Integrated Package for the
Amstrad PCW8512/9512
Featuring:
Word Processor • Graphics
Spreadsheet • Database
Communication • Thesaurus and
Spell Checker
Only **£39.95 inc.**

Present this
ad at either
shop for
these
special
prices

GIRD YOUR LOINS FOR THIS ONE - THE COMPLETE AMIGA!!!
We've put together a very special package comprising A500 Amiga, A501
memory upgrade, A1010 second drive, 10845 stereo colour monitor,
Commodore 1200 printer, 11 wild games, Photon Paint art package,
Kindwords 2 word processor, Digita Home Accounts, mouse, mousemat, man-
uals etc. The original price for that lot is a ridiculous £1527. Our price is
£1050 which is a lot of dosh - but you get a lot of meat.

AMSTRAD PCW'S

Still the best value word processing packages around.
Price includes keyboard monitor, printer, software, manu-
als & a free ream of bond paper.
PCW8256 **£399.95**, PCW8512 **£514.95**,
PCW9512 **£569.95**

DISK PRICES MAULED

3.5" Blank Disks DS DD
Certified/Guaranteed with labels
Boxes of 200 Disks.....**£118.50**
(sorry can't be split)

TO ORDER RING MAIL ORDER HOTLINES

051 255 0625. 051 255 0650
051 608 0435. 051 645 5325
Quoting your credit card details
Fax your order or enquiry on:
051 255 0640

We Accept
EXPRESS
VOUCHERS

Send your orders, enclosing cheque, postal order, or credit card
details with expiry date to:

LION COMPUTERS

778 Borough Road, Birkenhead, Merseyside L42 9JG

All offers subject unsold. Government, PLC and Educational Establishments
official orders very welcome. Send or Fax for our prompt attention.
Export enquiries dealt with promptly, VAT deducted.
All enquiries will receive our prompt and careful attention.

Licensed Credit
Broker

**NEW SHOP
NOW OPEN**
63 New Chester Rd
New Ferry, Wirral
Merseyside

Software

SUPERSTORE

YOUR ONE STOP SHOP

**MORE SOFTWARE THAN YOU CAN HANDLE!
MORE HARDWARE THAN YOU CAN USE!**

1 meg AMIGA

inc. FREE Modulator & Mouse

PLUS:- Workbench 1.3, Amiga Extras 1.3, Amiga Basic 1.2, Amiga "The Very First", Starglider, Knight Orc, Hell Bent, Zynaps, Eliminator, Powerplay, Custodian, Mercenary, PHOTON PAINT, Quickshot II Joystick, Dust Cover, Mouse Mat & House, 10 SONY Disks, 24 PD Games.

ONLY £499

OR £19* MONTHLY

**20Mb
A590 HARD DRIVE**
With space for 2mb Ram.

ONLY £399

1/2Mb Ram £79.99

**A500
Ram upgrade £79.99
WITH CLOCK £94.99**

*Subject to Status



Commodore 1230 Printer
C64 Interface plus standard
Centronics.
ONLY £149.99

FREE CABLE WITH ALL PRINTERS

FREE

Photon Paint

when you buy an

AMIGA

2nd Drive

OUR PRICE

ONLY £99.99

STAR Printers

LC10 £169.99

LC10 Colour £229.99

LC24-10 £259.99

OCEANIC DISK DRIVE

C64 Compatible

Plus FREE

First World
Logo
Intro to Basic II
Spirit of the Stones
Assembler/Monitor 64
Programmers Utilities
Zork III
Dragonworld

ONLY £129

WHY PAY MORE?

We may not be the very cheapest,
But when it's down to service,
selection and advice...

**WE CAN'T BE
BEATEN**

Visit us soon and find out why so
many wouldn't go elsewhere

MAIL ORDER:- Carriage at Cost

ADVICE HOTLINE

(0782) 268620

for FAST & FRIENDLY SERVICE



SEND S.A.E. FOR CATALOGUE

STOKE-ON-TRENT

11 Market Square Arcade, Hanley
Stoke-on-Trent
Manager: Wayne Tel: 0782 268620
Open 6 Days

ST HELENS

27 Baldwin Street, St Helens
Manager: Adrian
Tel: 0744 27941
Closed Thursday

SHEFFIELD

6 Waingate, Sheffield
Manager: Tony
Tel: 0742 721906
Closed Thursday

STOCKPORT

6 Mealhouse Brow,
(Off Little Underbank), Stockport
Manager: Ray
Tel: 061 480 2693
Closed Thursday

SHOPPING EXPRESS

READER ADS

● FOR SALE

'CRASH' Mag. Issues 1 to 64.
Offers? Trojan Light Pen for Spectrum +2 EIO. Tel. 0258 880394.

6L28/664 Disc Drive + Cable never used £45 + Postage Tel. 076483-458. Also 8 Slot Rom Board with Protex and Utilities Rom new £20.

48K SPECTRUM with £300 worth S/Ware £100 o.n.o. Tel. 0705 591965

48K SPECTRUM, Interface one microdrive RAM Turbo Joystick Interface, Multiface 128, Quickshot Two Joystick, 24 Microdrive Cartridges, Assorted Software £150 the lot or will split. Phone Andy on 0753 856494.

ABSOLUTE bargain Midi studio includes Casio HT6000 Synth Keyboard Kawai Kir Rack Synth Casio V28M Ditto Accessis MMT-8 Sequencer Stereo Amp Cassette Deck plus much more Phone 0784 431549 £950.

AMIGA A500, 2nd Drive, Mouse, Joysticks, Modulator et cetera. Over 40 games in two lockable disc boxes. Only 3 months old. £500 o.n.o. Phone after 7 p.m. (0227) 751025 ask for Wayne.

AMIGA Disk Drives inside and out from Abacus. One week old £15. Tel. Simon 0287 24167.

AMIGA Photon Paint, £25 (New) Phone Shaun (Croydon) 0689 45238.

AMIGA Public Domain - music, demos, graphics, utilities etc. - all software only 75p each for list and further details send S.A.E. to R. James, 19 Earn Court, Alloa FK10 1PT.

AMIGA Software Old but cheap. Phone Shaun (Croydon) 0689 45238.

AMSTRAD 2086 Hard-disk+ External 5 1/4 FDD Mono Monitor bought in April 89 - Price £850 - call Micheal Martin (Office) 01-995-0555 - machine sold with all original manuals and boxes + windows.

AMSTRAD 6128 Green Monitor. Excellent condition - Software includes Tasword masterfile, Super-call advanced Art Studio, At last pools winner £200 o.n.o. - Crowthorne 761086.

AMSTRAD 464 Computer £270 including colour monitor. Loads of games, 64K Upgrade, Joystick, Manual, Magazines, contact Fabio on Harrogate (0423) 883506.

AMSTRAD AMX Mouse (MK 1). Software on Disc + Tape. Good Condition £18 - Contact S. Carter, 47 Euclid Street, Swindon, Wilts. SN1 2JW.

AMSTRAD CPC 464 Colour TV Tuner, Disk Drive, Rom Board, Eprom Blower, 100+ Games, Maggs, £260. Tel. 091-522-9971.

AMSTRAD CPC 464 Computer and Colour Monitor in perfect condition,

plus free games and manuals for £150 o.n.o. Amstrad DMP 2000 Printer in perfect condition with manual for £100 o.n.o.

AMSTRAD CPC 464 with Greer Monitor, perfect condition (still boxed). Manual, books, mini office 2, games, perfect starter kit. £130 including postage and insurance. Stuart Miller, 53 Albert Street, Edinburgh.

AMSTRAD CPC Software and Hardware for sale. Very cheap and in good condition. For details send S.A.E. to Paul, 39 Guiton Ash, Near Canterbury, Kent CT3 2HL.

AMSTRAD CPC Software for sale - All originals all cheap. Send S.A.E. for full list to: M. Pinder, 4 Wham Hey, New Longton, Preston, Lancs., PR4 4XU.

AMSTRAD CPC6128 Colour Monitor, D I Drive, Multiface, Software Tape Player, Mags, sell £300 or swap QL with Colour Monitor Printer D I Drive and Psion Organiser - Phone (0883) 717946 (Surrey) after 6 p.m.

AMSTRAD CPC6128 colour monitor, built-in disk drive, joystick, cassette lead. Several original games. Excellent condition £150 for quick sale. Tel: 01-941-0611 now.

AMSTRAD CPC464 colour monitor, one joystick in good condition £300. Ring 0733-202382 ask for Mahol.

AMSTRAD CPC464, Joystick, Monitor, T.V. Modulator £330 of Software including Op. Wolf, Robocop, Budget Titles only £150 o.n.o. Phone Lincoln Area 0673 60871.

AMSTRAD 1512 640K 20 Meg Hard Disk. Good condition £320. Telephone Essex 0376 43666 Anytime.

AMSTRAD PC2086 HD30 Mono 640K 3 1/2" FDD Mouse Manuals Software. Good as new £695. External 5 1/4" FDD £69. Phone 0442 832879 - Hemel Hempstead.

AMSTRAD PC1512DDCM 640K, Micro Peripherals MPI65 Printer, Wordstar, other Software Printer Ribbons, Listing Paper, Floppy Disks, Dust Covers, Books, Excellent Condition. The complete package £700. St. Albans 0727 34608.

AMSTRAD PC1640 Mono with 5 1/4" and 3 1/2" Disk Drives plus Software £475 o.n.o. Tel. (0787) 310690.

AMSTRAD, 100 Amstrad magazines, CMTA, AA, Amix, - £40. Rombo with disable switch, Utopia, Protex, Naxan 1.5, £75. DMP 2160 Printer £100. Steve - 32 Lyceet Road, Wallasey, Merseyside.

ANIMATOR II and Poster Machine. Unused £6.00 o.n.o. or swap. Clayton. Carlisle 0228 32150.

ANTIQUES, Memotech, Dragon, 2 x 81 Offers, Phone Shaun (Croydon) 0689 45238.

APPLE IIe, Twin Drives, Green Screen Monitor, Printer, Cirtech 280,

Evesham Micros

WE ACCEPT
EXPRESS
VOUCHERS

All prices include VAT and Delivery



All our ST prices include: mouse etc. plus 5 disks of software including 'First Word' wordprocessor, utilities, 'Neochrome' graphics utility, game and demos.

520 STFM POWER PACK

Amazing value, all-new special ST package from Atari! Includes 520STFM with 1Mb drive, joystick, mouse, user guide, 5 disks of public domain software, plus an incredible selection of chart-topping software worth over £500! Software included is:

R-Type
Afterburner
Double Dragon
Super Hangon
Space Harrier
Overlander
Pacmania
Starglider
Super Huey
Super Hangon
Space Harrier
Overlander
Out Run
Bombuzal
Xenon
Gauntlet II
Black Lamp
Starray

All
for
only
Inc VAT & delivery

£349.00

520 STFM SUPER PACK

Fantastic value! Includes 520 STFM with 1Mb drive, over £620 worth of software, joystick, mouse, User Guide and 5 disks of Public Domain Software. Software includes:

Starglider I & II
Carrier Command
Marble Madness
Beyond Ice Palace
Thundercats
Summer Olympiad
Xenon
Wizball
Eddie Edwards Ski
Ikari Warriors
Tracker
Flying Shark
Test Drive
Buggy Boy
Quadrathlon
Xenon
Wizball
Seconds Out
Zynaps
Virus
Sentinel
Chopper X
Ranarama
Starquake
Genesis
Black Lamp
Thrust
Organiser

Same
price!
only
Inc VAT & delivery

£319.00

520 STFM with 1Mb internal drive fitted	£269.00
1040 STFM latest model, with built-in TV modulator	£399.00
1040 STFM Games Pack, includes 'Starglider I & II', 'Flying Shark', 'Carrier Command', 'Virus', 'Tracker' and 'Sentinel'	£419.00
1040 STFM Hyper Pack, including 'Hyper Paint', 'Hyper Draw', 'First BASIC', 'Organiser' plus £50 Atari Software Offer Voucher	£429.00
Buy a monochrome monitor with any ST from above for £110.00 extra	
Mega ST1 with mono monitor	£599.00
Mega ST2 with mono monitor	£849.00
SM124 mono monitor	£119.00
SC1224 colour monitor	£279.00
Philips CM8833 14" colour monitor c/w ST cable	£229.00
ITT CP3228 16.5" TV/Monitor with remote control & ST cable	£229.00

AMIGA ACCESSORIES

A501 RAM/Clock expansion unit for the Amiga 500	£119.00
External 5.25" 40/80 track switchable floppy drive	£114.95
Midi Interface by Omega Projects, including 30" serial connector	£29.95
Vortex 'System 2000' 40Mb hard disk, with interface & software	£529.00
ITT CP3228 16.5" TV/Monitor with full remote control and SCART cable	£229.00
Philips CM8832 14" colour monitor (SCART/RGB inputs), c/w Amiga cable	£219.00
Philips CM8833 stereo sound version of above, + video/audio inputs, c/w cable ..	£229.00
Amiga 500 dust cover	£4.95

DOUBLE TAKE!
PYE 15" FST
TV/MONITOR
(MODEL 1185)

Superb quality, stylish medium resolution FST colour TV/monitor, to suit the Amiga or Atari ST. Features teletext, full infra-red remote, SCART connector, Video/Audio inputs and headphone output, 40 tuner presets, ext. aerial connector and a loop aerial. Supplied with cable (please state computer type when ordering).

ALL THIS
FOR JUST
£269.00
Includes VAT
and computer
connection lead

Amiga & ST 3.5" Drives

- ★Very Quiet
- ★Slimline Styling
- ★Fully Compatible
- ★Top quality drive mechanism
- ★On/Off switch for Amiga
- ★External plug-in PSU for ST
- ★Throughport for Amiga
- ★1Mb unformatted capacity

Fully compatible, high quality 3.5" external drives for the ST and Amiga
Amiga version only £74.95
Atari ST version only £79.95
Prices include VAT & delivery

Western Digital Filecards

Upgrading your PC to hard disk? Look no further, we offer the best prices on top quality hardcards. Thorough documentation supplied, low power consumption, with free XTree file management software and Speedread. For Amstrad PC1512/1640 users we supply hardcards tested and formatted, with our simple software installation procedure. The best packages available!

20MB...£199.00 32MB...£229.00 40MB...£289.00

3.5" disks

10...£ 9.95 in plastic case £11.95
25...£22.95 in 40 cap case £29.95
Fully guaranteed double sided media

5.25" disks

25...£9.95 in 50 cap box £18.95
in 100 cap box £20.95
Fully guaranteed double sided media

Amstrad PC1512/1640/2086

We offer a wide choice of Amstrad PCs with many upgrade options, including the very latest PC2086 range. For the hard disk option, check our 'Evesham Upgraded Models'. Only the best will do - so we normally upgrade by means of a Western Digital Filecard, which includes XTree and SpeedRead software; however on single drive 1512/1640 models we can offer internal installations at the same price (leaving more expansion room but no upgrade opportunity for a 2nd floppy drive). On-site service contracts are available on any PC1512/1640 model for only £39.00 inc.VAT. Prices in lighter type exclude VAT.

Free with 1512 models... Ability and 4 US Gold Games

	SD	DD	AMS H.D.	SD 20MEG	DD 20MEG	SD 32MEG	DD 32MEG
EVESHAM UPGRADED MODELS							
MONO 1512	384.35 442.00	477.39 549.00	N/A N/A	557.39 641.00	650.44 748.00	583.48 671.00	676.52 778.00
COLOUR 1512	494.78 569.00	555.65 639.00	N/A N/A	667.63 768.00	728.70 838.00	693.91 798.00	754.78 868.00
MONO 1640	474.78 546.00	555.65 639.00	738.26 849.00	647.63 745.00	728.70 838.00	673.91 775.00	754.78 868.00
CGA (colour) 1640	581.74 669.00	651.30 743.00	825.22 949.00	754.78 868.00	824.35 948.00	780.87 898.00	850.43 978.00
EGA (ECD) 1640	677.39 779.00	738.26 849.00	938.26 1079.00	850.44 978.00	911.30 1048.00	876.52 1008.00	937.39 1078.00
2086 MONO	564.35 649.00	633.91 729.00	813.04 935.00	737.39 848.00	806.96 928.00	763.48 878.00	833.04 958.00
2086 CD	656.52 755.00	726.09 835.00	903.46 1039.00	829.56 954.00	899.13 1034.00	855.85 984.00	925.22 1064.00
2086 12" HRCD	746.96 859.00	813.04 935.00	995.65 1145.00	920.00 1058.00	986.09 1134.00	946.09 1088.00	1012.17 1164.00
2086 14" HRCD	833.91 959.00	903.48 1039.00	1086.09 1249.00	1006.96 1158.00	1076.52 1238.00	1033.04 1188.00	1102.61 1268.00

PC1512 special offer Buy an Amstrad DMP3160 10" carriage 9pin printer with any PC1512 model for only £120.00 extra!

upgrades / accessories

1512 memory upgrade to 640K	£39.95	Enhancer 101 replacement keyboard ...	£74.95
Maths Co-processor 8087-2	£129.00	3.5" drive (720K) for SD models	£79.95
NEC V30 (8086 replacement)	£24.95	PC2000 series compatible	
Cipher CT1525 tape streamer	£319.00	5.25" (360K) external drive	£100.00
Amstrad Modem Card V21/23	£99.00	Genius GM6+ Mouse package	£32.95
Communicate Fax Card SR	£199.00	Konix PC Joystick & Controller Card	£24.95

Amstrad PPCs

Low prices on all portable PCs - especially twin drive models
prices in brackets are excluding VAT

PPC512S	(£373.04) £429.00	PPC640S	(£477.39) £549.00
PPC512D	(£433.91) £499.00	PPC640D	(£546.96) £629.00

Low price External 3.5" floppy drive (720K), suits almost any Amstrad 1512 1640 inc. DD and HD models, uses no expansion slots £99.95

Central Point Software

For all your PC disk management requirements

PC Tools Deluxe Version 5... Other utilities may claim to 'do it all' but only PC Tools Deluxe is the complete disk utility package, providing a fast hard disk backup, the best undelete available, 100% safe formatting of floppy and hard disks, unformat, reliable disk caching, compress facility, in fact everything required to manage & protect your data at a sensible price.....£39.95

PRINTERS

All prices include VAT, delivery and cable



We use and recommend Star printers since they do offer an unbeatable combination of features, print quality, reliability and value. Make the sensible decision - get it right with a Star printer at our special, all in, prices.

Star LC24-10 feature-packed multifont 24 pin printer, amazing new price ...	£239.00
Star LC10 best-selling 144/36cps printer, 4 NLQ fonts, inc.2 extra ribbons free ..	£179.00
Star LC10 7-colour version of above printer, inc.2 extra black ribbons	£229.00
Star LC15 wide carriage version of LC10	£329.00
Star LC24-15 wide carriage version of LC24-10	£409.00
Star FR-10 new Professional 9pin 300/76 cps, 31K buffer, 16 NLQ fonts, EE-PROM configuration memory and 12 months on-site maintenance	£399.00
Star FR-15 9pin as FR10, wide carriage version	£499.00
Star XB24-10 Professional 24pin: 27K buffer, 4 SLQ & 25 LQ fonts with EE-PROM configuration memory and 12 months on-site maintenance	£499.00
Star XB24-15 wide carriage version of XB24-10, with 41K buffer	£649.00
NEC P2200 budget 24pin, great value 168/56 cps	£319.00
Hewlett-Packard 'Deskjet' inkjet printer 240/120 cps	£749.00
Amstrad DMP3160/3250DI good value 10" 9pin	£169.00
Panasonic KXP1081 reliable budget 10" printer 120/24 cps	£169.00
Panasonic KXP1180 super new 9pin with over 3400 typesets, 11" carriage	£199.00
Panasonic KXP1124 great new sturdy 11" multifont 24pin printer	£319.00
Epson LX800 popular 10" 180/25 cps	£179.00
Epson LQ550 (was LQ500) good 24pin printer 150/50 cps	£319.00
Citizen 120D good value 10" 120 cps	£139.00
Citizen HOP-45 wide carriage 24pin printer	£399.00
Mannesmann Tally MT-81 130/24 cps	£149.00

How to order

All prices VAT/delivery inclusive
Express courier delivery £5.00 extra
Send cheque, P.O. or ACCESS/VISA details
Phone with ACCESS/VISA details
Govt., educ. & PLC official orders welcome
All goods subject to availability E.&O.E.
Open to callers 6 days, 9.30-5.30
Telex: 333294 Fax: 0386 765354

Evesham Micros Ltd

63 Bridge Street
Evesham
Worcs WR11 4SF
Tel: 0386 765500

Also at: 1762 Pershore Rd., Cotteridge, Birmingham, B30 3BH Tel: 021 458 4564

CPM+, Printer Card, Wordstar, other Software, complete with all manuals and books, mint condition. £450.00 o.n.o. Tel. 0294 604833 anytime.

APPLE II Europlus Taxan Mono Monitor Twin 5 1/4" Disc Drives 280 Card 80 Column Card £80 - Mr. Clarke 01-693-3109.

APPLE III Computer 256K Twin D/d Monitor A3 Colour Plotter Apple II Emulator Software Leads Manuals - £300 - Buyer Collects. B. Ham 021-476-6736.

ARCHIMEDES 440 Base System with Riscos, new, unused, immaculate, £2000. Buyer collects. Superb machine, upgrading to new Archimedes. Phone Mike (05827) 65166 Weekdays between 10 and 5.

ATARI 520ST Power Pack plus Falcon, Thunder Blade etc. £250. P. Richardson, 52, Claife Avenue, Windermere, Cumbria LA23 2LJ.

ATARI 520STFM Loads of games and mags. Fast basic, Joystick etc. Just 200 of your used notes will square the lot. No questions asked. Tel. 0472 851209 after 6 p.m. Nuff-said.

ATARI 65 XE Computer with tape games and cartridges - it takes both. Worth about £200, sell for £140 Tel. 0442 214038 from 7 pm anytime Sunday.

ATARI 65XE, 410 Recorder plus Touch - Tablet £45 or offers, must sell. Phone 051-648-4926.

ATARI 1040 ST High-Res Mono Monitor. Lots Software, SI6NUN 2 1st Word+ Pro-24 C-Lab PCB-Designer super base prof. 6FA Draft plus sell £500 o.v.n.o. Tel. 01-959-3438.

ATARI 1040ST, boxed, mint condition, SCI224 Colour Monitor, SMM804 Printer, £800 Games Software, worth over £1,800, will sell for £700!!! Will separate Printer and Monitor. Phone 0322 863656 Darren.

ATARI PC3. Little used. Boxed. Disks Gem Software. SC3. 30Mk. Hard Disk. £700. Tel. 09442 654.

ATARI ST Adventure Creator, never used £15 or swap for any good adv game, also like to hear from other S.T.A.L. Users. Tel Rhooose 711392.

ATARI ST GFA basic manual (no disk) £10. Protek Accoustic Modem complete with C64 interface and software £12 inclusive. Glos. (0452) 304093.

ATARI ST Super Pack Software £450.00 Worth Software for only £30.00 inc. P+P. Tel Mark 0663 43388 Evenings.

ATARI St with extras £250 o.n.o. Phone 0902 22138 for details.

ATARI STFM 520 mint condition still under guarantee, boxed £500 + Software, STOS, 2 Joysticks including Comp. Pro Extra, Mouse lockable disk kox, Mags worth £800+ sell £360 o.n.o. Phone 021565 3399

ATARI ST with Imeg Drive, Modem, Multiface, Joystick, Mags, £1,000 Software, worth over £1,500 will sell for £480. Ring (0279) 505498 and ask for Dave. Note still boxed.

BBC Master compact colour system 3 1/2 inch Drive Plus 5 1/4 inch Second Drive Colour Monitor some books and Software £400 O.V.N.O. Phone 0924 894988.

BBC Master 128 with Disc Drive, Modem, Software, Manuals, and a Printer (Faulty) £350. 01-993-0299 Ealing.

BBCB with Datacorder Joystick and Loads of Software and Roms inc. Pascal, only £140. Tel. 0477 34601 - Cheshire.

BRAND new set of 16 Dram Chips 256K-15 with sockets suitable for memory upgrade £50 - 0924-498526.

BRILLIANT Commodore 64C with £350 worth of top Software, Joystick, Newish Citizen 120-D Printer all for just £200. Phone 0734 862562. Ask for Colin Neal. 64 = 110 Printer = 90.

BROTHER HR5 Thermal Printer. Battery or mains. Centronics I/Face. Two spare ribbons and paper. Complete with P.S.U. As new. £35 o.n.o. (0278) Somerset 459852.

BUSINESS Software: d Base, Lotus etc. Price from £5 to £150. Phone 0274 (Bradford) 687221 for list.

C64 CPU 1541 Disk, 1526 Printer C2N Cassette, Loads Software and Books boxed and mint. £250 o.n.o. Jeremy - 01-907-4667 Harrow.

C64 Disk Drive, with games, blank disks and back-up cartridge; £85 16 Kellas Road, Wellbank, By Dundee, Scotland, DD5 3PE. Phone Scott on 082 625 404. Also wanted; Amiga contacts.

C64 two tape decks, colour monitor, joystick, mouse, music maker, loads of games inc. Blasteriods, Deneris Op., Wolf Thunder, Blade, Emlyn Hughes + Lots more. Ring Reading (0734) 416115 Evenings. £275 o.n.o.

C64C Computer, Mouse, Joy-Ball, MPS-801 Printer, Loads of Software inc. Mini-Office II, Robocop, Afterburner Etc. Everything boxed. Immaculate. £135. Tel. 0563 35838 After 6.00 p.m.

CASIO CZ 2305 Midi Synth + ST Software £200. Tandy mixer desk also available £15. Tel. Philip Holland, 0684 572683 - Malvern, Wors.

Dunning COMPUTER SERVICES Help Line (0202) 431762

Dept NCE, 32 Granville Rd, Bournemouth, Dorset BH5 2AH

All prices INCLUDE VAT & CARRIAGE - no 'extras' to pay. Enquiries Welcome on our Help Line. Cheques/PO's with order please. All orders despatched same day subject to availability

DISKS

3" CF2 per 5	11.75
3" CF2 per 10	22.45
3 1/2" DS/130 TPI per 10	12.95
3 1/2" DS/130 TPI per 25	26.95
5 1/4" DS/96 TPI per 10	6.45
5 1/4" DS/96 TPI per 25	£14.45

CONTINUOUS STATIONERY

Full Range Available	Forms Price
11 x 9.5	Per Box Per Box
1 Part 60GSM (M) P1 or MRuled	2000 15.95
1 Part 70GSM (M) Plain	2000 17.95
1 Part 80GSM (M) Plain	2000 19.95
1 Part 85GSM (M) Plain	1000 13.52
2 Part NCR Plain	1000 21.39
3 Part NCR Plain	700 25.06
2 Part NCR TINT (white/pink)	1000 26.27
3 Part NCR TINT (white/yellow/pink)	750 £29.56
11.66 x 9.25 (A4 Size)	
1 Part 60GSM (M) Plain	2000 19.92
1 Part 70GSM (M) Plain	2000 20.61
1 Part 80GSM (M) Plain	2000 23.55
1 Part 85GSM (M) Plain	1000 14.67
2 Part NCR 80/57	1000 33.58
11 x 14.5	
1 Part 60GSM Plain or MRuled	2000 20.42
2 Part NCR Plain or MRuled	1000 27.14
3 Part NCR Plain or MRuled	700 33.61

LOOSE LEAF BOND PAPER

A4 80GSM white Per ream (500 Sheets)	7.95
--------------------------------------	------

COMPUTER LABELS

2000 10000		2000 10000		2000 10000	
£	£	£	£	£	£
1 ACROSS					
2 3/4 x 15/16	8.00 29.35				
2 3/4 x 1 7/16	9.75 36.95				
3 1/2 x 15/16	8.50 31.55				
3 1/2 x 1 7/16	10.95 42.35				
3 1/2 x 1 15/16	14.90 59.45				
4 x 15/16	8.95 33.95				
4 x 1 7/16	11.45 44.30				
4 x 1 15/16	15.05 59.95				
2 ACROSS					
2 3/4 x 15/16	7.35 26.50				
2 3/4 x 1 7/16	8.75 32.55				
3 1/2 x 15/16	8.20 30.10				
3 1/2 x 1 7/16	10.95 42.35				
3 1/2 x 1 15/16	14.90 59.45				
4 x 15/16	9.25 34.75				
4 x 1 7/16	11.45 44.30				
4 x 1 15/16	14.70 58.95				
3 ACROSS					
2 3/4 x 15/16	7.16 25.67				
2 3/4 x 1 7/16	8.64 31.97				
3 1/2 x 15/16	7.31 32.32				
3 1/2 x 1 7/16	9.75 36.95				
3 1/2 x 1 15/16	13.18 51.20				
4 x 15/16	8.20 30.10				
4 x 1 7/16	11.11 43.15				
4 x 1 15/16	14.58 58.37				

FREE TAPE DISPENSER/CUTTER (worth £5.75) with every 10000 labels!

ALL OUR PRICES INCLUDE VAT AND COURIER DELIVERY

STAR

LC - 10

£154.00

LC - 10C

Colour

LC - 24 24 PIN*

£235.00

ATARI

"XTRA" FREE Software with every ST Purchase inc Diagnostics Software, Blitter Plus loads of Desk-Top Accessories & Utilities

520STFM Explorer **£269.00**

Power Pack **£349.00**

1040 Hyper Art Pack

3.5" DS-DD Disks **£7.90** For ten

5.25" DS 96tpi Disks **£3.75** for 10

MEGA/ Prof. Pack £525.00

With SM124 Colour Monitor **£599.00**

XE 320 Custom

£149.00

ST "SWITCH BACK"

£69.95

AMIGA £229.00

MUSIC X

"A 250 Track, Multi-Tracking Midi Workstation"

COMPUTERHOUSE UK

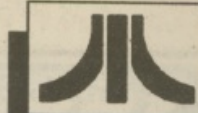
Telephone Sales : 01 731 1276

20% Discount on ST Software

VISA

Ladbroke Computing International

"The Country's Leading 16 Bit Specialist"



33 Ormskirk Road, Preston, PR1 2QP.
Open Mon. - Sat. 9:30 am to 5:00 pm
Dealer enquiries welcome.

YOU CAN'T AFFORD TO SHOP ELSEWHERE LOOK AT THESE PRICES (INC.VAT)

This company has given years of full support to Atari users from their premises at 33 Ormskirk Road Preston. Now from their Mail Order premises they can offer this "second to none" service to users country wide. All Software/Hardware is ex-stock and fully tested prior to purchase to ensure that returned goods are now a thing of the past. All hardware is supported by our on site engineers so that quick turn around on all repairs is guaranteed. There are no hidden extras WYSIWYG. ALL PRICES INCLUDE VAT AND DELIVERY on orders over £100 (Mainland UK) next day delivery +£5. All prices are correct at time of going to press and are subject to change without prior notice. Phone for latest prices, information advice we are always happy to help.



"will give Steinberg's Pro 24 a run for it's money"
ST WORLD March 89

Midistudio is an attractively priced 20 track Midi Sequencing package. It can record up to 682 bars per phrase (pattern) on up to 100 phrases. Any phrase can be placed on any track. Tracks can be soloed and muted and tracks and phrases can be named. Program numbers can be displayed in a variety of ways including 0-127, 1-128, in banks from a11-b88 or a01-b64. The desk features sliders to set relative volumes on each track and you can even do a mix on the fly. Midistudio also has a clock to display the length of the last playback. Midistudio has step time note edit functions including copy, split, merge, append, and transpose, velocity editing (including a humanize function), full controller editing, quantizing and a buffer which will store a copy of a phrase for recall after destructive editing. **Demo disk £3.99**

Software

At Least 20% discount off all 16 bit games software.

Minimum Discount		
E.G.	RRP	Our Price
	£19.99	£15.99
	£24.99	£19.99
	£29.99	£23.99
Maximum Discount		
	£19.99	£6.99
	£24.99	£9.99

Send SAE for full software catalogue.

Educational software Add with Oscar £7.99, Spell with Oscar £7.99, AB Animator £5.99 and Trilogy £5.99 still available also data disks for Spell with Oscar £4.99.

Phone for best prices

Free delivery (Mainland UK only) on orders over £40, for orders under £40 add £2.50.

A4 Flat bed Scanner £499.99

Ladbroke Computing's A4 Flat bed scanner is a great value 200dpi Scanner. Bring high quality scanning to your home for Desktop Publishing etc. (ST & Amiga)



SCAN AT UP TO 1000 DPI FOR ONLY £69.99

Demonstration disk (low res) £3.99 (£2.00 redeemable)

The Image Scanner can provide high quality graphics digitising for a tenth of the cost of other digitisers. This simple unit plugs into the cartridge port of the ST and accepts scanned information via optical cables which fix easily to the head of any printer. Scanned images can be saved in raw data, Degas, Neochrome and IMG formats, ideal for DTP applications. The Software supports scanning resolutions of 75,150,216,300,360 and 1000 dots per inch horizontally. An example disk is available which contains a slide show of low resolution images scanned with this product. The cost of this disk is £3.99, £2.00 of which is redeemable on purchase of a scanner.

New Low Price Printers

Star LC 10	£169.99
Star LC 10 Colour	£219.99
Star LC 24/10	£259.99 New Low
Epson LQ500	£319.99
Citizen 120D	£139.99
SLM 804 Laser	£1099.99



See special offers for Star Professional series printers.
Phone for others. All printers come complete with Parallel cable.

Hard drives

Vortex 40MB (ST & Amiga)	£499.99
Megafile 30 (ST)	£474.99
Megafile 60 (ST)	£599.99
Supra 30MB (ST)	£474.99
Third Coast 65 MB (ST)	£599.99
(Amiga)	£659.99



Ladbroke Computing 20Mb drive (ST) £349.99

Disk drives

Cumana 1Mg Drive (ST)	£89.99
Cumana internal 1Mg Drive (ST)	£159.99
(kit or fitted)	£74.99



Please note ST's case may need cutting for above internal drives.
Amiga 1 Mg Drive, disable switch & through port £79.99
A/B boot switch (fitted) (ST) £24.99

Peripherals & Dust Covers

Amiga Modulator	£24.99	Computers	£3.99
CRP Tablets A4	£414	Monitors	£4.99
A3	£818	Hard Drives	£2.99
Hawk scanner	£1250	Disk Disks	£4.99
Tracker ball (ST-Amiga)	£24.99	Printers	£7.99
80 / 100 disk box	£9.99	Others	phone

Phone for prices on all SIGMA products such as Colibri hand scanner with or without OCR, Signum 2, Augur OCR.

Monitors

SM 124 Monochrome Monitor.	£99.99
SC 1224 Colour Monitor.	£299.99
Philips 8833 Colour Monitor.	£249.99
Multisync colour Monitors.	£Phone
Philips 15" Remote, Scart, Tv with	
40 tuner presets.	£229.99



Monitors, deduct £10 if bought with Computer phone for TV's.
All monitors come with scart to ST/Amiga.

Special Offers

Star Laser printer 8, 1 Megabyte RAM as standard upgradeable to 2 Mb, 8 resident fonts, HP, IBM, Diablo, Epson emulation, 8 pages per minute, 300 dpi.
Star FR-10 9 pin £1599.99
Star FR-15 15" 9 pin £399.99
Star XB-24/10 24 pin £514.99
Star XB-24/15 15" 24 pin £699.99
These Star printers have 12 months on site warranty (UK Mainland)

Repair Centre & Upgrades

Our Atari trained engineers can repair all hardware, inc Amigas, in minimum time at competitive prices.

UPGRADES EX-STOCK

1 Mg STM (fitted)	£104.99	Board + 1 Mg upgrade (fitted) (ST)	£139.99
1 Mg STFM (kit)	£79.99	Board + 2.5 Mg upgrade (fitted) (ST)	£299.99
STFM upgrade fitting service	£25	Board + 4 Mg upgrade (fitted) (ST)	£499.99
512 K RAM Extension board (Amiga)	£19.99	RAM Extension populated (Amiga)	£87.99
RAM Extension board+clock (Amiga)	£26.99	RAM Extension+clock populated (Amiga)	£94.99

Please check machine configuration before ordering ST upgrades. All fitting prices quoted for machines not previously tampered with. Due to the complexity of the installation we must install and upgrade the ST board for you. All upgrades and repairs carry our 3 months parts and labour guarantee. Phone now for our ST Blitter chip upgrades which work with V1.09 OS (check machine revision before ordering).

New Low Price Quality Disks

All our disks are top quality Sony, Maxcell or Kao products, not cheap imports. All disks carry an unconditional lifetime guarantee. Please add 60p postage and packing for each pack of ten disks.

Quantity	3.5" D/S	Boxed	5.25" D/S	Boxed
10	£8.99	£9.99	£4.50	£5.50
Sony Branded	£79.99	£82.99	£40	£45
10			£10.99	
100			£99	

Phone for different capacity disk boxes and disk care kits.

** New Low Prices **

Computer Systems and Packs

** New Low Prices **

520 STFM Explorer Pack £269.99
Includes Atari 520 STFM with 1/2 Mg Memory, 1 Mg drive and mouse. Includes tutorial disk.

520 STFM Super Pack £329.99
Includes Atari 520 STFM with 1/2 Mg Memory, 1 Mg drive, mouse, joystick and a software pack including organiser software and 21 top quality games.

520 STFM Power Pack £359.99
Includes Atari 520 STFM with 1/2 Mg Memory, 1 Mg drive, mouse, joystick and software pack consisting of organiser software First BASIC, First Music and a selection of 20 top quality games.

1040 STFM Super Pack £449.99
Includes Atari 1040 STFM with 1 Mg Memory and drive and a choice of software packs which include a business pack with database, word processing, spreadsheet and BASIC software, a Midi pack with Pro 12, and a games pack with 21 top quality games.

Amiga A500 Pack £369.99
Includes best selling Amiga A500 computer with 1/2 Mg memory 1 Mg drive, mouse and Tenstar software pack worth £200.

Atari Mega ST 1+Mono Mon £599.99
The new Mega ST 1 includes separate keyboard and cpu, Blitter chip, clock, 1 MB RAM, mouse and a business software pack including database, word processor, spreadsheet and BASIC software.

Atari Mega ST 2+Mono Mon £931.49
The Mega ST 2 includes separate keyboard and cpu, Blitter chip, 2 MB RAM and mouse. The Mega ST 2 also includes a battery backed clock and business software.

Atari Mega ST 4+Mono Mon £1241.99
The Mega ST 4 includes separate keyboard and cpu, Blitter chip, 4 MB RAM and mouse. The Mega ST 4 also includes a battery backed clock and business software.

DTP Packs £phone

This pack consists of Mega 2/ or 4, external 3.5" drive 1 or 30 Mb hard drive, SLM804 Laser printer, Mono monitor, software, 90 days on site maintenance.
Atari Portfolio (pocket pc) £249.99
This amazing hand held computer is fully MS-DOS compatible and has built in software including address book, text editor, diary and a Lotus 123 file compatible spreadsheet. 128K free RAM, 256k ROM

Atari PC 4 (80286) £1499
The PC 4 has an 80286 processor running at 8 or 12 MHz, 1 MB of RAM, 60 MB hard drive, 5 AT and 1 XT expansion slots. For Mono monitor add £100. Phone for others.

Atari PC 5 (80386) £2599
The PC 5 has an 80386 processor running at 16 MHz, math coprocessor socket, 64K cache memory, 2 MB RAM, 60 MB hard disk with high performance controller, 4 AT and 1 XT slots. For Mono monitor add £100.

(0772) 203166 Fax 561071

Ladbroke Computing International is a trading name of Walton Marketing Limited.

USA

£399!

10MHz XT

- ★ 640Kb RAM
- ★ 10MHz CPU switchable to 4.77
- ★ 102 Key Keyboard
- ★ 360 Kb 5 1/4" Floppy Drive
- ★ 2 Parallel Ports
- ★ 2 Serial Ports
- ★ Real Time Clock/Calendar
- ★ 5/6 Free Expansion Slots
- ★ Hercules Graphics Card & High Res Mono Monitor
- ★ MS-DOS vers. 3.3 & GW-Basic
- ★ Microsoft Windows
- ★ Full Set of Manuals & Documentation

Rated
5 stars
by N.C.E.
Issue 43

Single Drive Complete System Mono.....	£399
40Mb 30Ms Complete System MONO	£599
14" EGA Colour Monitor add	£226
720Kb 3 1/2" Floppy Drive add	£60

DOLAN ELECTRONICS LTD

DANFFORDD GAR HOUSE,
CARMARTHEN, DYFED
SA32 7DU



£749!

16MHz AT

- ★ 1Mb RAM
- ★ 16MHz CPU switchable to 6
- ★ 102 Key Keyboard
- ★ 1.2Mb 5 1/4" FLOPPY DRIVE
- ★ 1 Parallel Port
- ★ 2 Serial Ports
- ★ Real Time Clock/Calendar
- ★ 5 Free Expansion Slots
- ★ Mono/CGA/EGA Card Included
- ★ High Res Mono Monitor
- ★ MS-DOS vers. 4.01 & GW-BASIC
- ★ Genuine Microsoft Mouse & Microsoft Window
- ★ Full Set of Manuals & Documentation
- ★ 1 YEAR ON SITE MAINTENANCE (Base Unit)

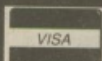
RATED
4 STARS
BY N.C.E.
ISSUE 43

Single Drive Complete System Mono	£749
45Mb 25Ms Complete System MONO	£1025
14" EGA Colour Monitor add	£200
1.44 Mb 3 1/2" Floppy Drive add	£85

SALES: 0267 84538

FAX: 0267 84617

All Prices ex. VAT & Delivery
C.W.O., C.O.D. AVAILABLE
(Specification Subject to change)



AMIGA

FREE GAMES

ST

>>>> BUY 2 GAMES & GET 1 FREE <<<<

Select any 2 of the following Amiga/ST games...

Xenon II	£24.95	Conflict Europe	£24.95
Tank Attack	£24.95	Rainbow Islands	£24.95
Buffalo Bill's Rodeo	£24.95	Populous	£24.95
Quartz	£24.95	Blood Money	£24.95
Chariots Of Wrath	£24.95	Life & Death	£24.95

And then select any 1 of the following games FREE...

Forgotten Worlds	£FREE	Licence To Kill	£FREE
Grand Monster Slam	£FREE	Strider	£FREE
Kick Off	£FREE	Gemini Wing	£FREE

Prices include VAT • Please Add £1.50 P&P • Send Orders To:-



CJC Marketing (Dept NCE5) • Unit 9 • The Maltings
High Street • Burwell • Cambridge • CB5 0HB
Tel: (0838) 742494

COMPUTER REPAIRS

Fixed Super Low Prices!

Inclusive of parts, labour and VAT

1 WEEK TURNROUND



FIRST AID
FOR
TECHNOLOGY

* AMSTRAD / SINCLAIR AUTHORISED *

SPECTRUM 48K	£14 + Free Game	C64	£22 + Free Game
SPECTRUM 128	£18	VIC 20, C+4	£22
SPECTRUM + 2	£27	1541 DISK DRIVE	£36
C128	£29	C2N TDECK	£19
C16	£18	C64 PSU for sale	£20
Amiga	POA	Atari ST	POA

Please enclose payment with item - 3 month warranty on repair
Please enclose advert with repair

W.T.S. ELECTRONICS LTD
(NCE 140989)

Studio Master House, Chaulend Lane, Luton, Beds. LU4 8EZ
Tel: 0582 491949
(4 lines)

Standard terms of business apply



MERLIN COMPUTERS

OUR PRICES ARE MAGIC

SPECIAL OFFER ON AMIGA 500 ONLY £355.00

Inc. FREE T.V. Modulator & 3 Games

(only while stocks last)

ATARI 520 STFM POWER PACK£359.99

TRY THE ST's MIDI POWER

CASIO MT 240 AN EXCELLENT LOW COST MIDI KEYBOARD £124.99
OTHER CASIO KEYBOARDS ALSO AVAILABLE

1 MEG 3.5" DISK DRIVES ST AND AMIGA£85.99

ATARI STFM 1 MEG INTERNAL DRIVE UPGRADE£74.99

1 MEG INTERNAL DRIVE FOR AMSTRAD 1512/1640£85.99

The above drive is an easy to fit 2nd drive complete with mounting tray/facia

STAR LC 10 COLOUR PRINTER.....£199.99

STAR LC10 MONO PRINTER£169.99

BLANK DISKS AT AMAZING LOW PRICES

10 3.5" DS/DD life time guaranteed£7.99

10 5.25" DS (per 10)£3.50

Bulk buyers please phone for bulk prices

WE STOCK MANY ITEMS NOT LISTED HERE PLEASE PHONE
FOR ANY ITEMS NOT LISTED

PLEASE NOTE ATARI 8-BIT OWNERS WE SUPPORT YOU
PLEASE PHONE FOR DETAILS

MERLIN COMPUTERS

154 Uplands Ave., Connah's Quay,
Deeside, Clwyd. CH5 4LG
Tel: 0244 821843





TREBLE



COMPUTING



★ NEW ★ POWER PACK PLUS

ATARI 520 STFM 1 MEG DRIVE
FIRST BASIC, ORGANISER, FIRST MUSIC, XENON,
DOUBLE DRAGON, NEBULUS, ELIMINATOR, OUT-
RUN, GAUNTLET II, SUPER HUEY, AFTERBURNER,
R-TYPE, PREDATOR, SUPER HANG-ON, BLACK
LAMP, STARGLIDER, SPACE HARRIER, BOMB
JACK, OVERLANDER, PACMANIA, STAR GOOSE,
STAR RAY, BOMBZUL.

• JOYSTICK + 80 CAP. DISK BOX
+ 10 x 3 1/2" DS/DD DISKS
+ MOUSE MAT

**ALL FOR ONLY
£384.99**

ATARI 520 STFM 1 Meg Drive.....	£269.99
ATARI 520 STFM 1 Meg Drive + Super Pack.....	£349.99
* NEW* ATARI 520 STFM 1 Meg Drive + Power Pack.....	£349.99
ATARI 1040 STFM + Professional or Games Pack.....	£439.99
ATARI 1040 STFM + Steinberg Pro-12.....	£439.99
* NEW * MEGA 1 ST Inc. Professional Pack.....	£519.99

+ ADD £99.99 TO INCLUDE SM124 MONO MONITOR WITH ANY OF ABOVE

AMIGA 500 Inc. Modulator.....	£359.99
AMIGA 500 + 1/2 RAM Expansion.....	£489.99
AMIGA 500 + 1084S Med. Res. Colour Monitor.....	£589.99
B2000 + XT Bridgeboard + A2040 20 Mb Hard Drive + 1084S Monitor.....	£1499.00
AMIGA Art & Animation Pack Amiga 500 + 1/2 Meg Expansion + Deluxe Paint III.....	£549.99



AMIGA

★ NEW ★ SPECIAL PACK

AMIGA 500 INC MODULATOR
WORKBENCH 1.3 AND MANUALS
10 GAMES AND PHOTON PAINT
OR 8 GAMES, 24 PD TITLES & JOYSTICK
EITHER OF ABOVE PLUS
80 CAPACITY DISK BOX
10 x 3 1/2" DISKS
MOUSE MAT
DUST COVER

**ALL FOR ONLY
£399.99**

ACCESSORIES

Amiga A501 RAM Upgrade.....	£129.99
Workbench 1.3.....	£13.50
Joystick/Mouse Extension.....	£5.50
Disk Drive Cleaner (3.5 or 5.25).....	£4.95
Mouse Mat (Soft).....	£4.50
ST or Amiga Dust Cover.....	£6.50
Amiga to Scart Lead (Not Sony).....	£9.95
ST to Scart Lead.....	£9.95
Quickshot II Joystick.....	£8.50
Cheetah 125+ Joystick.....	£6.95
DCOMJoystick (Fully Microswitched).....	£9.95
Competition Pro 5000 (Black).....	£11.50
Competition Pro 5000 (Clear).....	£12.50
50 x 3.5" Disk Labels.....	£1.20
80 Capacity 3.5" Disk Box.....	£6.50
Monitor Covers From.....	£6.95
Konix Speedking.....	£10.50
Konix Navigator.....	£12.25
ST Modulator.....	£59.95

GAMES SOFTWARE

ST SOFTWARE

3-D Pool.....	£16.50
Battle Chess.....	£16.50
Blood Money.....	£16.50
Blood Wych.....	£16.50
Daily Double Horse Racing.....	£13.50
F16 Combat Pilot.....	£16.50
Falcon.....	£16.50
Falcon Mission Disk.....	£13.50
Gunship.....	£16.50
Hawkeye.....	£13.50
Kick Off.....	£13.50
Kult.....	£16.50
Leonardo.....	£13.50
Lords of the Rising Sun.....	£20.99
Microprose Soccer.....	£16.50
Mr Heli.....	£16.50
North & South.....	£16.50
Passing Shot.....	£13.50
Quest for the Time Bird.....	£16.50
Rainbow Island.....	£16.50
Risk.....	£13.50
Robocop.....	£13.50
RVF Honda.....	£16.50
Shinobi.....	£13.50
Shufflepuck Cafe.....	£13.50
Targhan.....	£16.50
Vigilante.....	£13.50
Waterloo.....	£16.50
Wayne Gretzky Hockey.....	£16.50
Xenophobe.....	£16.50

AMIGA SOFTWARE

3-D Pool.....	£16.50
Battle Chess.....	£16.50
Blood Money.....	£16.50
Blood Wych.....	£16.50
Daily Double Horse Racing.....	£13.50
F16 Combat Pilot.....	£16.50
Falcon.....	£13.50
Falcon Mission Disk.....	£13.50
Gunship.....	£16.50
Hawkeye.....	£13.50
Kick Off.....	£13.50
Kult.....	£16.50
Leonardo.....	£13.50
Lords of the Rising Sun.....	£20.99
Microprose Soccer.....	£16.50
Mr Heli.....	£16.50
North & South.....	£16.50
Passing Shot.....	£13.50
Quest for the Time Bird.....	£16.50
Rainbow Island.....	£16.50
Risk.....	£16.50
Robocop.....	£13.50
RVF Honda.....	£13.50
Shinobi.....	£16.50
Shufflepuck Cafe.....	£13.50
Targhan.....	£13.50
Vigilante.....	£13.50
Waterloo.....	£16.50
Wayne Gretzky Hockey.....	£16.50
Xenophobe.....	£16.50

MONITORS

ATARI SM 124.....	£109.99
ATARI SC 1224.....	£264.99
COMMODORE 1084S.....	£259.99
PHILIPS 8833.....	£229.99

DRIVES

CUMANA 1 MEG 3.5" for ST.....	£99.99
CUMANA 1 MEG 3.5" for Amiga.....	£94.99
NEC 3.5" for ST.....	£94.99
NEC 3.5" for AMIGA.....	£84.99
PCML 5.25" for ST.....	£134.99
CUMANA 5.25" for AMIGA.....	£134.99

PRINTERS

STAR LC10 mono inc Cable.....	£179.99
STAR LC10 colour inc Cable.....	£219.99
CITIZEN 120/D inc Cable.....	£139.99
EPSON LX800.....	£189.99
STAR LC 24/10 inc Cable.....	£299.99

HARD DRIVES

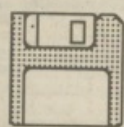
THIRD COAST, ATARI, SUPRA AND
COMMODORE A590, VORTEX AVAILABLE. PLEASE
CALL FOR
* BEST PRICES *

MUSIC AND SOUND

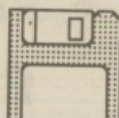
ST	
Steinberg Pro-24.....	£249.95
C-Lab Creator.....	£239.99
C-Lab Notator.....	£359.99
EZ Track Plus.....	£49.95
Super Conductor.....	£39.99
Pro Sound Designer.....	£49.99
ST Replay 4.....	£64.99

AMIGA	
Aegis Sonix V.2.....	£44.95
Aegis AudioMaster II.....	£59.95
Amas.....	£77.99
Future Sound.....	£74.99
Pro Sound Designer Gold.....	£74.99
Eidersoft Midi Interface.....	£24.95
Datel Midi Interface.....	£34.95
Music X Out Now!.....	£199.99
Dr T's KCS.....	£159.99
Dr T's Midi Recording Studio.....	£52.95
Deluxe Music.....	£59.95

DISKS



**TOP QUALITY
3 1/2" DS/DD
GUARANTEED
BULK DISKS**



NEW PRICES

10.....	£7.50
25.....	£16.90
50.....	£32.25
100.....	£62.50
200.....	£123.00

INCLUDING LABELS. Add £5.50 for 80 Capacity Disk Box when ordering disks
or £4.50 when ordering 50 or more Disks

ART & ANIMATION

ST	
Degas Elite.....	£19.95
Cyber Paint 2.....	£54.95
Cyber Studio CAD 3D.....	£69.95
Spectrum 512.....	£44.95
Quantum Paint Pro.....	£32.95

AMIGA

Lights, Camera, Action.....	£47.95
Zoetrope.....	£79.95
Aegis Videoscape 3D.....	£109.99
Comic Setter.....	£44.99
Mini-Gen (Genlock).....	£104.99
Moviesetter.....	£59.95
Deluxe Paint III.....	£69.95

ATARI PORTFOLIO POKET PC

NEW

Pocket sized PC with 128K internal RAM, 256K ROM containing
B105 operating system and full applications suite, 200 mm x 105 mm x 29 mm
casing opens to reveal 40 col x 8 lines LCD screen and 63 keys with buried numeric keypad.

Built in applications include:

Lotus 1-2-3 File Compatible Spreadsheet Spreadsheet with 127 Col x 255 ROM worksheet.
Calculations by natural order read and writes Lotus version 1 and 2.01 files. 123-like commands
supported such as range move, copy, titles, column and ROM insert/delete.

Diary Comprehensive calendar and diary. "Wake-up" alarms even when switched off. Repeat
entries daily, weekly or yearly. fast entry and movement of appointments.

Address and Phone Book Card index system. Automatic finding and dialling of any numbers V.A.
DTMF tone dialer. Entries sorted on entry and can be selected into
different categories.

Calculator Multiple display formats and memories. Factorial, power and root functions.
Calculations can be reviewed and edited.

Editor Comprehensive and easy to use text editor. Optional word wrap at any column width.
String search or replace.

Other Features Compatible with MS-DOS 2.11. Select screen
between 40x8 and 80x25 mode. RAM expandable to 640K
internal RAM disk configurable from 8K-2 way file transfer with a PC
and printing using the parallel port auto switch off screen contrast control.

£249.99

All prices include VAT. Please send Cheques/PO made payable to:-

**TREBLE H COMPUTING
DEPT NCE, CROMER HOUSE,
CAXTON WAY, STEVENAGE,
HERTS. SG1 2DF**

**★ CREDIT CARD HOTLINE: 0438 361738 ★
FAX: 0438 740 794**

If you do send cash please send it Registered.

All Goods are sent First Class/Registered. Please add £3.00 for outside U.K.

Large Orders ie. Amigas, ST, Monitors etc are always sent by courier.

Please add £6.00, if you require Next Day Courier Delivery on other items.

All prices are correct at time of going to Press, and are subject to change without prior notice

CBM 64 and two datasette units, freeze frame expert cartridge games include, Savage, Enchlon, Navigator Joystick, worth £280 will sell for £150. Phone Southend (0702) 471397.

CBM 64, Disk Drive, MP580I Printer, Loads of original software, Peripherals, Mags and Books. Offers. Tel. 0642 487213 - Redcar after 6 p.m. Buyer collects. May consider swap for Amiga Peripherals.

CBM 64, MPS 802 Printer, 2 Joysticks, Many games, books, £200. Phone 0483 571612.

CBM64 + Datacass Cheetah 125+, 117 Games including Robocop, Operation Wolf, Elite, Revs, FM1, FM2, Arcade Muscle, Matchday 2, Last Ninja, Gauntlet, Gauntlet 2, Magnificent Seven, £95 o.n.o. Phone 01-727-7866, Ask for Edward.

CBM64 +1541 Disk, 170I Monitor, Joysticks plus etc. £220 o.n.o. Jeff Groves 01-647-6139 Evns.

CBM64 CN2 Joysticks reset switch Clonemaster, books, magazines ect £900 of original software all latest titles including Forgotten Worlds, Running Man ect. Must sell, Hence Price £200. Tel 0908 79049 Bucks.

CHEETAH 125+ Joystick complete with Interface for ZX Spectrum £10 including postage. 0460-61191.

CHESS Computer Novag Super

Forte 5 mHz with V.S.S. Less than 12 months old B.C.F. 190. £155 o.n.o. Phone 021-453-1344 only 1/2 mile from Junction 4 - M5.

CITY DESK V.20, Pal version. Only £100. Great DTP Package. Amiga. Phone Lynda 01-458-5966 evenings.

CL6, Plus 4, VIC-20 Games for sale. All originals and boxed. Send stamped S.A.E. for list. Graham Vassie, 241 Lochfield Road, Paisley, Strathclyde, PA2 7QT, Scotland

COMMODORE 64, games for sale, loads dirt cheap, write with s.a.e. for list to: Richard, 4B Currents Lane, Harwich, Essex CO12 3DE, all games original and on tape.

COMMODORE 64, 8 months old, Games - Ninja II, Stealth Fighter, Gunship, Red Storm Rising, Total Eclipse etc. £100 - No offers. Penkridge, Staffs. 714376.

COMMODORE 128/64 Computer 1541 Drive MPS80I Printer 1520 Plotter 1702 Monitor and Green 12" Monitor with Disks, Books, J/Stick £450 or will sell separate. Phone 02575 3927 after 6 p.m.

COMMODORE 128 with 1541 Disk Drive and Datasette complete with Mouse, Joysticks. Lots of Software including Wordprocessors, Spreadsheets, Databases, books etc. all in good condition. Phone Wakefield 255524.

COMMODORE 128, 1571 Drive,

MPS1230 Printer, FM Sound Expander inc. Keyboard, Utility Cartridges 600 Disks/Tapes cost over £1,200 accept £500. Contact G. Hopwood, 126 Cefn Road, Wrexham, Clwd. Tel. 0978-365545.

COMPUTER books, Atari Commodore Amstrad BBC Dragon. As new £3 - £5 + Postage. Tel. 0202 632241 or s.a.e. list, "Purbeckville", Eldons Drove, Lytchett, Matravets, Poole, Dorset.

CPC6L28 - Colour, KXPIO8I Printer, Cassette Recorder. Over 60 games. Driller, Advanced Art Studio, Solid Gold, Magnificent & More. Lots of Mags and books. Sell for only £350-400. Best offer Tel. Frome (0373) 63389 Evenings.

CPC6L28 Colour Monitor, KDS 5 1/4" Disk Drive, DMP3000 Printer, Arnor C Compiler £400 the lot. Cumbria, buyer collects. 0946812193 Need a holiday more than I need a computer.

CPC6L28 extra drive mouse DTP and lots more. Write for details all sold separate if required. Steven Stewart, 63 Stirling Crescent, Hedge End, Southampton, Hampshire SO3 4SA, or daytime 0489 784755.

CRAY XMP, 1000 Gigabyte optical storage, 25 Terminals, Monitors, Atari YCS Adaptor + Carts, Games, Joystick, Mags Etc. Unwanted Birthday present. Swap for Bacon sandwich. Also Wanted - N - Cube contacts. Phone Alan 0977 51018.

CX5M Software: Music Composer 2, Voicing Program 1 ROM Cartridge (£10) ea. 'BIT-2' Multi-timbral performance program (£10). 600 voices on three cassettes. £10. Excellent condition. 0323-32833 David.

DATACHAT 1223 Modem, Baud Rate 1200/75, + Ruby Comm Software for Amiga. Ideal for Prestel, Micronet E.T.C. worth £200, will part for £90 Tel. 0923 893329 between 5-9 p.m.

DELUXE PAINT 3 for sale £40. Good condition - Phone Samir on Essex 5922117.

ELECTRONIC Organiser, very good cond. 8K Memory, 16 Alarms, Edit feature, on/off switch, time/date, secret code, backup battery+ normal ones included. Boxed £20 o.n.o. Call Markus on 0372 275098 Evenings.

FLEET ST Editor, Admin extra. Printmaster, Dumpout 3. Chauffeur, Printer, Monitor, Leads. Master Manuals 1 and 2 input course, 38 Discs. All for BBC £100 o.n.o. will split. Phone Mobberley 056587 3571 after 5 p.m.

FOR ATARI ST: Microtime clock card £15, Microstuffer printer buffer £29, Computer concepts back pack £15, Mouse £15, Monitor Stand £7, Professional software and games. Tel. Bristol 741421 Evenings.

FOR SALE for Atari St. UMS £12.00

HT COMPUTERS LTD

TEL:-01 948 1681

COMMODORE AMIGA

AMIGA 500	£305.00
AMIGA 500 + COLOUR MON	£540.00
AMIGA 2000	£665.00

ATARI

ATARI 520 ST	£235.00
ATARI 1040 ST	£387.80

MASTER SERIES

MASTER 128	£339.15
MASTER COMPACT	£296.65
COMPACT TV SYSTEM	£308.55
COMPACT MONO SYSTEM	£339.15
COMPACT COLOUR SYSTEM	£486.65

ZENITH DATA SYSTEMS

EASY PC	£447.00
EASY PC 2 DRIVES	£536.40
Z-159 MONO	£617.15
Z-159 COLOUR	£852.40
Z-159 20MB HD COLOUR	£1100.00
Z-386 120MB HD	£4100.00

AMSTRAD

PCW8256	£327.70	
PCW8512	£416.00	
PCW9512	£499.00	
		EGA
1512SD	£400.40	£479.60
1512DD	£483.96	£563.88
1640SD	£498.39	£592.48
1640DD	£562.00	£657.44
1640HD	£698.00	£798.00
		HI-RES
2086SD	£581.00	£715.00
2086HD	£910.05	£1067.00
2386HD	£2423.85	£2536.80
		£2740.00

PORTABLES

CAMBRIDGE Z88	£225.00
ZENITH Z-184	£1065.00
ZENITH Z-184 with 20MB Hard Disk	£1998.00
ZENITH SUPERSPORT 286 20MB HD	£2416.00
ZENITH SUPERSPORT 286 40MB HD	£3021.70
ZENITH SUPERSPORT 386 40MB HD	£3777.40

ARCHIMEDES

ARC 305 BASE	£599.50
ARC 303 MONO	£65.14
ARC 305 COLOUR	£794.76
ARC 310 BASE	£722.61
ARC 310 MONO	£767.91
ARC 310 COLOUR	£910.00
ARC 310M BASE	£767.80
ARC 310M MONO	£826.80
ARC 310M COLOUR	£965.36
ARC 440 BASE	£2188.92
ARC 440 MONO	£2221.37
ARC 440 COLOUR	£2356.42

COMMODORE PC1

PC1 MONO	£285.25
PC1 COLOUR	£388.72

PRINTERS

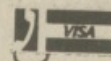
STAR LC-10	£213.68
STAR LC24-10	£333.00
STAR LASERPRINTER 6	£1640.93
EPSON LX800	£236.17
EPSON LQ500	£353.16
EPSON INK JET SQ2500	£1112.95

H T COMPUTERS LTD

1 ARLINGTON ROAD, PETERSHAM, RICHMOND, SURREY, TW10 7BZ. Tel: (01) 948 1681
N.B. Please telephone before calling. — Please add VAT @ 15% and £10 courier delivery



WE NOW TAKE VISA



PHONE FOR MANY MORE GREAT DEALS ONLY FROM H T COMPUTERS

Top Quality 3.5" Labels

3.5" Coloured Disk Labels - £2.50 per 100
Includes VAT, P&P. Many other items in stock. Mail Order Welcome

Exmouth Micros 13/15 South Street

Exmouth, Devon. EX8 2SX.

TEL: 0395 267734. FAX: 0395 272683

THE CHIP SHOP (SEMICON) LTD

DO YOU NEED INTEGRATED CIRCUITS? TRY US!

WE HAVE A FULL RANGE OF TTL, CPU'S, EPROMS, RAMS ETC
+ MEMORY UPGRADES FOR MOST MICROS.

FOR EXAMPLE V20 - 8 £13.50
V30 - 8 £10.50

SEND SAE FOR FULL LIST

6 BEAN LEACH DRIVE, OFFERTON, STOCKPORT, CHESHIRE, SK2 5HZ
VISA ACCESS HOTLINE 061 - 483 - 1989

BEST PRICE RAM CHIPS

ATARI - 512K Ram Upgrade Kit £65

AMIGA - 512K Ram Upgrade on PC Board - With Clock £97. Without Clock £77

Prices subject to change due to fluctuating RAM costs
Prices include P&P

Advanced Design Development Ltd

031 552 7501

Evenings: 031 331 2110 - 031 667 8886

J. D. LEWIS Computer & Repair Service

3 1/2" DSD (Bulk)/10 £9.00 Star LC10 Printer £175.00
5 1/4" DSD (Bulk)/10 £3.95 ST Joystick/Mouse Extension £4.95

Send Large S.A.E. for FREE Catalogue

Add 65p Postage on orders under £10

Send Payment to:

J.D. LEWIS, 97 CHAPLIN ROAD, LONGTON, STOKE-ON-TRENT, STAFFS. ST3 4RH
TEL: 0782 323348

DEE JAY SUPPLIES

GUARANTEED BULK DISCS

5 1/4" DSD 48 TPI £3.75 per 10
20+ at £3.50 per 10
3 1/2" DSD 135 TPI £6.25 per box of 10
20+ at £6.00 per 10
3 1/2" Coloured Disk Labels £2.00 per 100

LEADS

Atari 4 Players Leads £4.49
Atari Twin Joystick extension £4.49
PC Printer Leads £5.50

All prices are fully inclusive of P&P
Please ring for Price List

DEEJAY SUPPLIES, (Dept NCE), 50 Hawkshead Avenue,
Euxton, Chorley, Lancs. PR7 6N7.

Telephone:
0257 277482

COMPUTERS FOR PROFIT DO YOU WANT TO BE YOUR OWN BOSS?

Most people would like to have an income that reflects their worth and efforts. We can show you how to earn enough money to provide yourself with the standard of living that you would like to have and with the minimum amount of work and finance.

MAKE MONEY WITH YOUR MICRO

We have produced 2 manuals which are devoted to ways in which you can profit from your computer. Some of the topics covered, e.g. Software Hire, Word Processing Service and how to sell your own software. These manuals have been thoroughly researched by computer business men and contain over 5 years valuable research. We'll tell you everything you need to know to build a successful business.

Please send a Cheque/P.O. for £7.95 (Price includes a FREE manual update service)
MICRO BUSINESS CONSULTANTS, 22 BEACONVIEW ROAD, CLASE, SWANSEA, SA6 7HJ

Eigen PD Software

Public Domain & User-Supported Software
for the IBM PC Compatibles

£1.95

Per Disk (5 1/4")

Unlike other Libraries, we don't have any "hidden" costs, like VAT, P&P, Membership Fees, 0898 phone numbers etc.

The Price You See Is
The Price You Pay

Phone or send an A5 SAE for your FREE Catalogue of one of the Country's largest and best documented PD/Shareware Collections.

	5 1/4"	3 1/2"
1 Disk	£1.95	£2.50
5 Disks	£8.00*	£12.00
10 Disks	£15.00**	£22.50

* Includes FREE Library Case
** Includes 2 FREE Library Cases

Blank Disks: 5 1/4" DS/DD £9.50 for 25
3 1/2" DS/DD £10.50 for 10

Disk Head Cleaning Kits £3.50 (State 5 1/4" 3 1/2")

PO BOX 722, SWINDON, SN2 6YB. 0793 611270 & 061 748 4274

Colonial Conquest £12.00. Lords of Conquest £12.00. All in excellent condition. (All originals with instructions) Write to: Ian, 39 Elder Court, Middlesbrough, Cleveland TS1 2SJ.

FOR SALE

IBM Expansion Board 384KB Ram Parallel, Serial, Clock, Fully Populated £120. Immac Serial Line Booster with mains adaptor £60. O494-445838 after 7 p.m.

IBM Proprinter X-24. Reasonable offers. Marc or Martin 01-891-1271.

IK+ Game for Atari St. unwanted gift. Unused £8. Tel. Woking (04862) 71574.

L54L Disk Drive for C-64 lots of original Disk Games and Utilities plus Disk magazines and 40 spare Disks and Action Replay Cartridge £130. White, 9 Wood Street, Glasgow G3 3BZ.

LAPTOP Ovec Multi speed twin 3 1/2 inch Drive 640K Ram £700. Tel. Cirencester (0285) 658235.

MAGAZINES for sale, 38 ZZAP'S, 39 Commodore Users, 18 A.C.E'S, 21 C.C.I'S + ACTION REPLAY MK.5. Suitable offers for Mags + AR5 discussed. Phone Simon for details and collection arrangements 01-642-3665, S. London.

MCP40 Printer Plotter (Colour) Manual no leads £35. Hantarex Boxer 12 Green Screen Monitor new £50. Buyer collects 0703 268995.

MICROSOFT Mouse Windows version 2.0 PC Paintbrush boxed unused £80 BBC Master compact double 3.5in Drives Mouse W/P S/Sheet lots Software and Manuals £100. Tel. 01-659-7763.

MICROVITEC CUB Colour Monitor. Model 1451 with 6 Pin RGB TTL input for BBC. Never used, in original packing. Genuine bargain £100. Tel. 0274 875327.

MORLEY IBM Ram Disc. £120 - Tel. Bradford 0274 542098.

MSX Software S.A.E. for list. Write to Mike, 12 Serlo Road, Gloucester, GL1 2QW.

MULTIFACE St V200. The ultimate in "Freeze-Frame" devices for the St. £30. Tel Steve at Basildon 0268 557780 Eves.

MUSIC Keyboard for Spectrum 128. Phone Shaun (Croydon) 0689 45238.

NEC PC8201 Laptop with Wordpro D Base Software Inst. ROM £250. CASIO Electr. Typewriter with 8K Memory £110 - Both items in good cond. with manuals. Call: 0836-566712 - or 01-897-1155.

OLIVETTI PCI Twin Drive colour system with Seikosha printer 6 months old. Still under warranty. Joystick. £700 worth of software. Empty fridge forces reluctant sale £650 o.n.o. Tel. 0942 723132 any-time.

PAGE 6 new Atarist user issues 8-38 + over 30 assorted Computer mags £15 or swap for Software. West Malling (0732) 848315 - Buyer collects.

PC Engine games, Amstrad Disk games. All V.G.C. originals, light pen, printer, V.G.C. send s.a.e. for lists to Emma Broxup, Dalbeattie House, Oaky, Balis, Alnwick, Northland NE66 2QD. Write now!!

PC. Engine (Pal); with five games and Sega system with Lightgun and five games worth total £600+ sell £250 or swap Amiga A500. Write Ahmed, 32 Boverton, Roath, Cardiff, S. Wales CF2 5E5.

PCW 9512 Inc. Supercall and games £385 o.n.o. Tel. 0635 69534 Newbury.

PCW95L2 - 8 months old. Student overdraft forces sale. £460 o.v.n.o. Tel. (0225) 834583 ask for Neil. Buyer collects.

PERSONAL Computer IBM compatible mains transportable 640K RAM backlit LCD screen. Full sized keyboard 20 Meg harddisk, single floppy hardly used. Perfect condition £550.00 o.v.n.o. Ring Northampton 0604 401305.

PRINTER for sale Amstrad DMP 3160 complete with manual, lead and 8 Ribbons. Only 8 months old £100 o.n.o. Ring Neil 0432 266451.

PRINTER for sale S.C.A. Dot Matrix Tractor Feed fully working order £60 PC/XT+AT Compatible Keyboard Auto Sence brand new £50 for more details Phone 061 633-0824 after 6 p.m.

SAISHO PS222 Personal Stereo, Auto reverse, Auto stop, Fast forward and rewind, (Retail price £29.99) unused only 9.99. Tel. 0423 888471.

SALE cassette tapes 30p Wheels for the Mind Apple Magazine 60p Computer Education Magazine 30p M. Din, 4 Trelawney Drive, Tilehurst, Reading RG3 5WQ

SEGA Console PLVS six games, Outrun, Fantasy Zone etc. £100 o.n.o. Tel. 0246 864840 or 9, Beech Way, Danesmoor, Clay Cross, Chesterfield, Derbys

SEGA games console, three joysticks, light phaser II games including Double Dragon, Shinobi, Gangster Town - all for £145.00 o.n.o. Tel. Chris after 5 p.m. (0772-717607).

SEGA Systems, 3 games plus Jesan 40 Channel C.B. plus MSX-I for £175 or will accept swap of STAR LCIO/LC24 Printer - must have one Ribbon I - Phone Rob 0424 7416.

SHARP PC7000 mains portable, large backlit supertwist LCD screen, 2 x floppy drives, 640K. 100% IBM Compat. Citizen 120D printer. Both 8 months old and still under guarantee. Boxed and as new + S/Ware. £495. 0457 872221.

SINCLAIR +3 Plus all leads and manuals, multiface included. Ten Disks with Games - all for £135. Tel. 0382-74903.

SINCLAIR Spectrum +3, Multiface 3, Colour T.V., Games on tape + Disk, all leads, only £160. Phone Tim on (07456) 87373.

SPARK Datavue Laptop Twin 3 1/2 Disks 640K Ram 5/10 Mhz re-chargeable battery power pack serial parallel ports external 5 1/2 Disk Drive £500 or 250 for Laptop or 5 1/2 Drive. Ring 02407 71427.

SPEC 48K Opus double disk drive complete set of input many books all in mint condition. Forty disks plus monthly mags sell as a complete lot £500. R. Prior, 3 Gresley Close, Tottenham, London N15 5BQ.

SPEC 128K+ for sale bits and bobs included, including Colour T.V., Tape deck and cassettes. Offers - Mike on 0889 574070 any day after 7 p.m. Will Split.

SPECTRUM + 48K plus Tape Recorder, Joystick Etc. Lots of Software ZX Printer £75 or swap for Educational Software. Tel. Keith on 0287 34572 (Guisboro, Cleveland) after 6 p.m.

SPECTRUM + 128K with Epson P40 Printer RD Digital Tracer Comp Organ PRO Joystick Interface, Games Cassette Player, Selection of Games Boxed. £200 Tel. 570-4667.

SPECTRUM + 128K with Epson P40 Printer, Printer lead interface, RD Digital tracer, Computer organ PRO Joystick interface, Games cassette player, all in good condition, working order - boxed. £200 Tel. 5704667.

SPECTRUM 48K With Wafadrive and Wafers Multiface, Joystick Interface, including approx 50 Arcade Games, Word Processor, Magazines, Joystick. Computer recently serviced. All in good working order £100. Tel Nailsea 0272-851616.

SPECTRUM 128 with Disciple light pen, Disc Drive, 2 Joysticks and loads of games £200. Phone 091 2570799 after 4.30 p.m.

SPECTRUM 128K+2 with £150 worth games, Ram Music Machine, Joystick, all for £100 Phone 01-625-6815 evenings.

SPECTRUM: Alphacom Printer £25.00 power controller £2.00 Two way cassette switch £2.00 Micro drive boon £2.00 five learn to read cassettes £5.00 Alphabet games £1.50 Tasword Two £2.00 - 0332 831769.

ST ATARI original games. Conflict Europe, Vulcan, Millennium 2.2, Time Scanner, Fire Zone £12 each. Tangle Wood, Cards, Ultima II, £4 each. Postage Paid. Phone 0455 38518.

ST Originals, Millennium 2.2, Sleeping Gods, Virus, Guild of Thieves, Operation Wolf, Heros of the Lance, Ring Chris Bath (0225) 337403

evenings £7 each inc. Postage.

ST Software for sale unopened Captain Blood, Shackled, Driller, opened Licence to Kill, Robocop, Leviathan, Dungeon Master, Barbarian, Jewels of Darkness, Brattacus, offers on all original boxed. Tel. Brodie 265.

ST Software for sale. Prices from £5. All originals, Dungeon Master, Bards Tale, Sidewinder Etc. or consider swaps. Tel. 0209 214387 after 7 p.m.

ST Typesetter Elite D.T.P. only £18 o.n.o. Ring Simon 0904 625016.

TANDATA TM512 Modem V21/V23, Hayes, V256is, Intelligent. RS232, used on Amiga - £100. Phone 0722-790776 after 6 p.m.

TANDY Co-Co Computer 64K - Many books some Software Edasm Cartridge Speech Module £90 plus carriage. Prefer buyer collect books. Heavy call Penzance, Cornwall 0736 64890.

TAXAN Kaga Printer (Model 810). Perfect condition with 4 new ribbons - £100. Telephone 01-567-3678.

UNIX Books - R. Bird: The professional programmers guide to Unix £7.75 E. Foxley: Unix for Super users £17.60 - M. Din, 4 Trelawney Drive, Tilehurst, Reading RG3 5WQ.

WORDWISE Rom, Fitting instructions, Demo Cassette, Handbook, Function Strip, £15.00 inc. P & P - Phone 0484 854055 Evenings.

YAMAHA Digital Synth with Digital Headphones. Superb condition. Keyboard 4 months old, worth over £170 but will sell for £70 O.N.O. Model P55470. Phone Kes 0227 769189 after 6 p.m.

YAMAHA SHS-10 Midi Keyboard, boxed - As new - £60 or swap for 1 Meg St. Drive, Memory Upgrade or Multiface St + Money Game : Phone Richard on 0252 22411.

Z88 with mains adaptor 2 x 128K RAM 1 x 128K Eeprom manual £200.00 o.n.o. call 0506 411153 (Scotland) after 6 p.m.

ZX81 Complete Box, Manual, Adapter, all Leads, Two Games Cassettes. Offers R.P.S. 32 Elgar Road, Coventry CV6 7JH.

● PEN PALS

AMIGA Contacts wanted to swap P.D. and Software. Contact G. Smith 31 Foster St., Brotton, Saltburn Cleveland TS12 2TR. Hi to Faggy Robs Paw Gary 100% Reply.

AMIGA Contacts wanted: swap latest stuff 100% reliable, beginners welcome: Write as soon as possible for fast reply. G. Carr, 14 Poplar Court, Bramley, Leeds, LS13 4SW, Yorkshire.

AMIGA contacts wanted please send your list or disks to, Hubbit, 110 Welland Road, Dowthorpe, Peter-

EXPRESS SALES · EXPRESS SAL

WIZARD P.D.

178, Waverley Rd., Reading, Berks. RG3 2PZ

FOR YOUR
ATARI ST!

* HIGH QUALITY
* FULL RANGE

* LOW PRICES
* VIRUS FREE

* FAST SERVICE
* HELPLINE

MEGA PACKS You choose the disks not us!!
FULL DISKS Our s/sided disks average 325K
ALL DISKS Are verily copied & immunised!!
TOS 1.89 No problem all compatible!

SPECIAL OFFERS: 3 Disk Starter Pack £5.00
ARCADE CLASSICS: Colour versions of Asteroids, Breakout, Defender, Pacman, Pinball and Fruit Mach. All on 1 disk for only £2.00 inc P&P

FOR FREE CATALOGUE SEND SAE OR RING 0734 574685

HEYBRIDGE MICROS

PRINTER REPAIRS AND SPARES ALL MAKES

TELEPHONE: 01 679 7159
303-323 STREATHAM HIGH ROAD
LONDON SN16 3HP

COMPUTER REPAIRS & SALES

★ AMIGA ★ ATARI ★ COMPETITIVE PRICES ★

All types of home computers: Amstrad, Sinclair, etc. - prices from £7.00 inc. VAT and post and packaging and three month guarantee.
Also available: spares, software, cables, peripherals, etc.
SALE OF AMIGA AND ATARI COMPUTERS.
Tel: (0702) 618455 for immediate estimate

THE COMPUTER FACTORY, Analytic House Unit 18A,
Grainger Road Industrial Estate, Southend-on-Sea, Essex.

SOUTHEAST KENT SOFTWARE

78, Southfleet Road, Orpington, Kent. BR6 9SW.
0689 50204

Amiga 500 + FREE T.V. Modulator £350.00
Atari 520 STFM Superpack £360.00

30% OFF ATARI/AMIGA GAMES
Vigilante £11.50
The Last Crusade £13.95
Licence to Kill £13.95
Business Software for Amstrad PCW,
Atari & Amiga

SEGA SOFTWARE 10% OFF RETAIL PRICES
Vigilante £22.00
California Games £22.00
Outrun 3D £22.00
Alien Beast £22.00

Joystick 20% off Retail Prices

Cheque or P.O. payable to:
J Ferguson

COMPUTER REPAIRS

Fixed Price Repairs For:
ACORN, AMIGA's, AMSTRAD, ATARI, COMMODORE,
SPECTRUM's, ST's and QL's.

Includes - Delivery, Parts, Labour, Full Service
V.A.T., 90 Day Warranty and 5 Day Turnround
(Subject to Parts Availability) Collection can be arranged.

All our Engineers are fully experienced in 8 & 16 Bit Technology
We also repair Business Computers, Monitors, Printers and
Computer Terminals etc.

Low Cost Maintenance Contracts Available.
Educational & Dealer Discounts Given.

SHIELD COMPUTER SERVICES LTD
50 FLIXTON ROAD, URMSTON,
MANCHESTER M31 3AB

Telephone: 061 747 3185
Fax: 061 747 0515

ALL COMPUTER HARDWARE AND SOFTWARE WANTED FOR CASH OR EXCHANGE

NOTHING REFUSED!!

01 727 0424

CHAMELEON SOFTWARE - APPLE SPECIALISTS

Apple II, Apple Macintosh HARDWARE, SOFTWARE and ACCESSORIES including a wide range of GAMES.
BOOKS for most computers, over 1700 titles available.
Write or telephone for latest list - please state machine. 10 free 3.5 inch wrap around labels to all enquirers.
Sony branded discs - Special Offer - 5 boxes - £50.00 + VAT.



FREEPOST, Pinchbeck, SPALDING, Lincs. PE11 3BR.



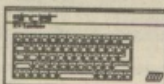
THIS SPACE ATTRACTS ATTENTION!!

Call Helen Kirkhope **NOW** to Reserve Your Space for as little as £56 on

0225 446034

P.C.G.

Dept NCE
61 School Street
Barrow-in-Furness
Cumbria
LA14 1EW



Desk Top Publishing Software:

WordMaster the word processor	£11.90
Headliner graphic & title designer	£8.95
Typeliner desktop publisher	£16.95
DTP Pack (all three above programs)	£35.95
DTP Font Packs now available	£6.95
Disk versions: +3 + £2.50; Disciple/Plus D + £1.50	

Professional Spectrum Software:

Devpac machine-code assembler	£15.95
HiSoft BASIC floating point compiler	£24.95
HiSoft C language system	£25.00
TasSign sign designer for 128's	£16.95
TasCalc spreadsheet for 128's	£16.95
CP/M Plus operating system for the +3	£25.95
Masterfile +3 powerful database	£25.95
TasWord + TasSpell +3 word processing	£30.95
Disk versions available: call for prices.	

For more details phone 0229-36957
now or send an SAE for catalogue.

Spectrum DTP

PCG's DTP Pack represents a revolution in Spectrum software. Compatible with ALL Spectrums this amazing set of programs drives your Epson-compatible printer to the limit using 12 NLQ fonts. Extra fonts are now available from PCG. The DTP Pack can be used with cassette, microdrive and disk systems, and with a wide variety of printers. Send now for details and sample prints.

FAST REPAIRS

WE HAVE A FULLY QUALIFIED ATARI TRAINED ENGINEER ON THE PREMISES TO UNDERTAKE REPAIRS OF:

COMPUTERS, DISC DRIVES, PRINTERS AND MONITORS.

ALL WORK GUARANTEED FOR 3 MONTHS
• FREE ESTIMATES • FREE POSTAGE ANYWHERE IN THE U.K. FOR REPAIRED ITEMS.

☎ **MARK OR MARTIN (0527 85) 3374**

HOURS OF BUSINESS: MON-FRI 9-8 SAT 9-9 SUN 1-8

AMPOWER
VIDEO & COMPUTERS

15a ALCESTER ROAD, STUDLEY, WARCS B80 7AG.

COMPUTER REPAIRS & SPARES

Spectrum 48K.....	£16.00	Commodore 64, 16+4.....	£25.00
128K, +2, +3.....	£22.00	Amiga 500.....	£40.00
Interface 1.....	£18.00	Amstrad CPC 464, 664.....	£23.00
Microdrive.....	£16.00	Amstrad CPC 6128.....	£25.00
QL.....	£27.00		

All prices include VAT and return postage
Many spares and leads stocked. Send 19p stamp for prices (state computer)
Send cheque or postal order and computer.

ACE REPAIRS, Outways Farm, Pelynt, Looe, Cornwall, PL13 2NW
Tel: 0503 20282

boro' PE1 3SH. Hello Tony, Stu, Quasi, Compo and all my mates who write. Thanks.

AMIGA contacts wanted to swap demos, utils etc. overseas welcome 100%. Reply write to Karl, 40 Ellesmere Street, Patricroft, Manchester M30 0JN, England. Yo! S.P.G. & The Rest!

AMIGA contacts. I get hot demos every day. Hot reliable people only. Paul, Hollyfarm, Ormskirk Road, Bickerstaffe, Lancs. L39 0HD, England. Hi to Jon, Colin, Hamish, Lawrence, Simon, Dave Cullen.

AMIGA Users: Got a good P.D. collection, then how about sharing it. Demos wanted and any programming tips etc. Send list to: Zobb, 30 Golf View, Ingol, Preston, Lancs. PR2 7EJ.

ATARI ST contacts required for Atari St user. Very friendly. Loves computing. Any age or sex not fussy. Please contact. Write to 34 Uplands Drive, Brookmans Park, Herts. AL9 6PT. Phone 47025(5107) Ashley.

CONTACTS wanted to swap all the new stuff. Write to M. Brooks, 51 Selwyn Close, Mildenhall, Suffolk IP28 7QB. Hi to Derek and Paul who work at Bussens + Parkin.

L28D user wishes to contact other L28D users world wide or anybody who bothers to write or send disks all lammers or no hoppers welcome, even girls or aliens! John Dickinson, 31 Carnforth Road, Monk Bretton, Barnsley, S. Yorks S71 2RB.

MATURE ST Contacts wanted. My interests include Flight Sims, GFA and Assembler Programming, PD Software and Utilities generally. No games list please. Mike O'Donnell, 5 Worthington Close, Runcorn, Cheshire, WA7 2QG

ST Contacts wanted, serious users only. I.e. DTP, Music, Utilities, Cad etc. 1 Meb drives preferred. Write now to Paul Stevenson, 142 Daventry Road, Rochdale, Lancs. OL11 2JE.

ST user wants contacts now! to swap with. Write or call me instantly. Phone (041) 944-3638, write: 17 Backmuir Road, Drumchapel, Glasgow G15 7YQ, Scotland (Ronnie Tucker).

● VIRUS WARNING

GAMES always come with tabs closed, always open tabs, power down between games. No virus can be transmitted with the tab open, no game is damaged with a closed tab!

KILL those Virus' with the best P.D. Virus killer with micromix 2 on the same disk. For the Atari St. send £1.25 to 18, Tor Avenue, Greenmount, Bury, Lancs.

PD Software users: Check your disks, I've just received two virus

infected disks from a PD library called seven disk.

ST users who have bought Master-sound may have caught the ghost virus. The actual mastersound disc appears to contain a carrier which copies the 'proper' virus onto other discs.

● MINI TIP

BBC B/MASTER: To hang up the computer on break type 18287 = 800028740. This does the machine code equivalent of IO GOTO IO.

DO not under any circumstances every buy Microprose Soccer, buy a blow football set instead.

ON who dares win I keep to left hand side of screen to be come invincible. For Spectrum version only.

SILKWORM AMSTRAD CPC: On title screen if player one only put controls under Joy 1 or keyboard for both Heli and Jeep you'll now control both and find silkworm easier.

WHEN coming off the frid in Amiga grand prix circuit at the start of a race you can drive down the pit lane to fain a lot of places easily.

● WANTED

AMIGA contacts wanted for the most fastest and reliable swapping of P.D. software etc. This side of the globe. Write to: 7 Robinson Way, Bangor, Northern Ireland. Ask for Dave.

AMIGA hardware reference manual. Will pay £15 (must be in good cond.). Tel. Friday, Saturday, Sunday, or Monday on (0204) 492310 (Works No.) between 12 p.m. and 6 p.m. Ask for Shads.

C64/C128 with tapestation. Please produce receipt for purchase. My last C128 got stolen. Any educational software around: Spelling, History, Maths 3. Tel. Ilkley O973 816543.

COMPLETE set of I.T.E.C. magazines (Information Technology Electronics Computers) published 1983. Please write to Stephen, 8 Roddens Gardens, Castlereagh, Belfast BT5 7JJ, Northern Ireland.

IBM/PC Clone desperately wanted. Must be cheap. Studying COBOL at College on very limited budget. Anything in working order considered. Can you help? Need to have it yesterday. Mr. G. McHendry, Deveron View Croft, Cairnie Huntly, Aberdeenshire AB5 5LT.

SWAP Bone Cruncher, Life of Repton, Around the World, Strikers Run for Computer Concepts, Spell Master, Rom. All Games are Original. Phone Chris on (0532) 523586.

SWAP my 1040 STF for your unused Mega ST2. I need extra RAM, but I'm skint. Has anyone got

EXPRESS SALES • EXPRESS SALES • EXPRESS SALES • EXPRESS

E.M.P.D.L.

Amiga Public Domain Library. Open 7 Days 9am - 9pm

Immediate Despatch on all orders
£5 per year subscription includes 3 Catalogue Disks (regularly updated FREE),
Range of accessories etc.
Write now for details

Cheques & P.O.'s payable to:
E.M.P.D.L. 54 WATNALL ROAD, HUCKNELL, NOTTS
0602 630071

G J Computer Supplies Summer Sale

3 1/2" Discs Branded (3M) £8.95 per Box 10 50 Capacity 3 1/2" disc box £4.95
3 1/2" Discs Unbranded £6.95 per Box 10 80 Capacity 3 1/2" disc box £5.95

New in stock Quickjoy 5 Superboard joystick was £18.95 now £14.95

HURRY WHILE STOCKS LAST!

Atari 520 STFM 1 Meg Drive & Mouse £259.00

Stockist of Atari spares. Send SAE for catalogue.

Prices include P&P. Send Cheques & Postal Orders to:

GJ Computer Supplies
1005/1009 Hedon Road, Hull, HU9 5QJ
Tel: 0482 791300

ATARI ST PUBLIC DOMAIN

Alpha's Autumn Catalogue now has hundreds of great programs including:

- * Desktop Publishers
- * Wordprocessors
- * Educational
- * Art & Design
- * Databases
- * Business
- * Copiers Galore
- * Spreadsheets
- * Accessories

High Quality Public Domain on top Quality Disks
Send a 19p stamp for FREE Catalogue or £1.50 for demo disk.

ALPHA COMPUTING. 32 Meadow Drive, Halifax, W. Yorks. HX3 5JZ

EAGLE SOFTWARE

Fully Guaranteed Double Sided Disks
at the Right Price

3.5" disks

10 in plastic case £7.99
25 in 40 cap case £19.99

5.25" disks

10 in plastic case £2.99
25 in 50 cap case £12.99

All prices include V.A.T. and P&P

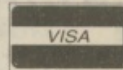
Cheques/PO to: **EAGLE SOFTWARE**

Lasyard House, Underhill St, Bridgenorth

Shropshire. WV6 4BB

Tel: 0746 862455

or 0746 767425



CAPITAL COMPUTERS (EDINBURGH)

031 228 4410

SPECIAL OFFER!

Amiga.....£359.00 Inc Software

Atari ST.....£279.00 Inc Software

Star LC10.....£199.00



GLASGOW COMPUTER
CENTRE 041 332 8246

Tired of the
large, impersonal
high street stores?
Yes? Then try us!

AmiMail Order: The Ultimate UK Dealer

A GREAT DISK DRIVE FOR YOUR AMIGA COMPUTER

**HOTTEST
BARGAIN**

£88

Daisy Chainable, NEC mechanism, Has front
door flap, 1 year guarantee, Includes cables,
Colour matches Amiga, True half height size

- * Free ability to turn drive off using a software switch, makes
drive compatible with 100% of games **GUARANTEED!**
- * Free demo disk from our own PD library

SELECTIONS FROM OUR CATALOGUE

3.5" blank disks, 100% error free with labels, £0.85 SPECIAL PRICE
Fish disks £1.90. Sony Branded Disks £1.00 each (min. 10)
Amiga 500, WB, Extras, £369.00

Phone before ordering
Photon Paint.....£25
DPaint III.....£58
DMCS.....£38

ALL PRICES FULLY INCLUSIVE, THE PRICE YOU SEE IS THE PRICE YOU PAY

Over 300 Games and 130 printer ribbons available. We have a tech. expert available to help you with
Amiga, DOS, Intuition, C Programming & Some Commercial Packages such as D.P. III & Sonix.

Give us a ring and ask for Jason

Send 26p SAE for free 60 page catalogue to:

3 Stonechat Close, Meadow Court, Durlford Road, Petersfield, Hampshire, GU31 4RE,
Telephone: 0730 69273 after 4pm

COMPUTER-WIZE

WELCOMES CUSTOMERS OLD & NEW

TO VISIT OUR NEW SHOP AT

394 BIRMINGHAM ROAD, WYLDE GREEN,

SUTTON COLDFIELD. B72 1YJ

See ATARI's Latest Baby - The Portfolio

£249.95

TEL: 021 382 3252



"Computer Repairs"

Guaranteed First Class Engineers

MENDITALL SERVICE CENTRES

Computer repairs, spares, parts & accessories

Amstrad, BBC, Acorn, Electron, Commodore, Dragon, Sinclair, IBM

Fixed Price repairs (ANY SINGLE FAULT) Fast Turnaround (Normally one week)

Commodore C64.....£22.00	Spectrum 48k/+.....£14.00	Amstrad CPC464.....£21.95
VIC 20.....£22.00	Spectrum +2.....£19.00	CPC664.....£24.95
Commodore C16/14.....£18.00	Spectrum +3.....£19.00	PCW8256.....£65.00
C16/C4ULA.....£24.95	Spectrum 128k.....£19.00	PCW8512.....£75.00
C128.....£19.00	Spectrum +2 cassette.....£27.95	PCW9512.....£95.00
Datarecorders from.....£22.00	Monitors from.....£34.95	
Printers from.....£38.00	B/W mono from.....£21.95	
	Interface's from.....£10.50	
	!! NEW !!	
	Spectrum +3 D/Drive.....£80.00	
	Spectrum +3 ULA.....£39.95	
	Sinclair QL.....£34.95	

If your computer is not listed just phone/SAE 0792 813607 (24 hrs). For computers with multiple
faults customers will be contacted with a FREE estimate before any work is carried out.

Send your computer together with a cheque or postal order to:

MENDITALL SERVICE CENTRES

Unit 3, Dept: NCE, Winifred Road, Skewen, Swansea, West Glam, South Wales SA10 6HP
0792 813607 (24 hours)

SOFTCELL SUPER SAVERS PC SHAREWARE

£1.75 Per Disk Fully Inclusive

Copy Master.....£1.75	Word Games.....£1.75
Tree View.....£1.75	PC Dash Board.....£1.75
Peasy Dos.....£1.75	Thesaurus.....£1.75
Dos Tech Ref.....£1.75	STD Codes.....£1.75
OS II Manual.....£1.75	*100's more

PC & AT Range

- * Quality
- * Value
- * Free Software

**SCHNEIDER
COMPUTERS**

10 5 1/4 Discs £16.00, 10 3 1/2 Discs £25.00. For further details write or phone for a FREE catalogue!

Softcell Services, Dept NCE, 9 St Wells St, Cardiff. CF1 8DW

Tel: Cardiff (0222) 222895 anytime

Multiworld Trading Company (UK limited)

WE ALWAYS HAVE IN STOCK, LIQUIDATED AND REDUNDANT NEW AND SECOND
USER TOP QUALITY COMPUTERS AT PRICES WE DARE TO ADVERTISE.

Every machine is checked out before collection.

Warranty available on certain machines

RIGHT NOW WE HAVE:

IBM PS2 Model 30/26, IBM PS2 Model 50, IBM PS2 Model 50Z,
IBM PS2 Model 70, IBM Model 60, IBM AT's, IBM XT's, IBM PC's

AMSTRAD (all ranges), APRICOT (all ranges including 386), Compaq.

Toshiba portable computers, Zenith portable computers,

APPLE (most of latest including Macintosh),
EPSON printers always available, STAR printers, HP laser printers, CANON
laser printers, D/RAM memory chips, Math Co-Processors.

WE ALWAYS HAVE IBM COMPATIBLE COMPUTERS IN STOCK

FOR ALL YOUR NEEDS, BUYING OR SELLING, PLEASE CONTACT US

ON 01-360-3305 FAX: 01 360 3757

OFFER OF THE MONTH

NEW HP SERIES 2 LASER PRINTERS.....£1195.00

NEW & BOXED GROUP 5 FAXES.....£445.00

HURRY AS STOCK IS LIMITED

TRADE ENQUIRIES ARE ALWAYS WELCOME ON 01-360-8095

WANTED FOR CASH

IBM COMPATIBLE COMPUTERS & EQUIPMENT

JOB LOT BUYER OF HARDWARE & SOFTWARE

PROMPT DECISION & COLLECTIONS

FOR YOUR BEST POSSIBLE DEAL CALL

EXPRESS COMPUTERS

(0604) 769808 OR FAX 705567

DAVID OR CHRIS (DEPT NCE 1)

SHOPPING EXPRESS

READER ADS

any good PD sound sampling software, for the ST? 027581 5496 Evenings.

WANTED - back issues of Micro adventurer magazine by Sunshine Books, Scot Press. Published around 1983/4 have some but not all. Ring Mike 0908 74316 Evenings or Weekends.

WANTED IBM Compatible. With hard disc at a reasonable price. Phone Steve (0526) 43716. Will collect from anywhere.

WANTED RPG games for C64, Disk, especially for SSI: e.g. Questron Phantasia Wizardry etc. Tel. 01-250-1910 - 24 hrs.

WISHBRINGER and deadline (Info-com) for PC, ST or CPC/PCW. Also want ST contacts. J. Ritchie, 28 North Bridge, Edinburgh EH1 1QG. Tel. 031-225-5204.

● OTHER

DEMOS! All the best PD Demos for the ST from only 75p (£1.75 if supplied with disk) send s.a.e. (A4) to: ST-PD, 210 Franklin Road, Bournville, B'Ham, B30 2HE.

EARN serious spare time cash. Genuine. It really works. Yes, it does! You really will be amazed. Send £1 to S. Ram, 11 Grange Road, Bishop's Stortford, Herts. CM23

5NG.

JACKPOT! Pools prediction program on disk for BBCB. Easy to use. English+ Scottish Leagues. State 40/80 track. Cheques to S. Ordish, 683 Shirley Road, Hall Green, Birmingham, B28 9JX. Only £4.95p.

PC ENGINE Fanzine. Monthly issue packed with news, reviews, tips, etc. Send s.a.e. for info. to Onn Lee, 125 Arnold Road, Bestwood Estate, Notts. NG5 5HR. Tel. 0602-606442.

● ANNOUNCEMENTS

ATARI ST IBM BBS lots of progs sales chat etc. speeds 1200/75 300/300 8N1 open weekends only from 1 p.m. to 11 p.m. Sat., Sun., Tel (0752) 330176 Plymouth Net.

COMPUMAG. For Spectrum 128K/+2 £1. Tape based machine - Cobe Mag. Includes reviews, music section, pokes, quality programs, send £1 to C. Gasson, 35 Rtuodye-nau Road, Cyncoed, Cardiff CF2 6PK. Free cassette supplied!

SKYFORCE send greets to all Amiga maniacs over the world. Especially Lee, Ice, Steve, Stefano, Dazza, Defjam, sae, Jum, Paul, Emma, Ivan, Subway, Quartex, Ora-

cle, and everybody else. Contact us!!! James Cocyer, 57 St. Thomas's Road, Hardway, Gosport, Hants. PO12 4JU.

THIS is an announcement. This ad is dead print proof that this mag prints strange things. So they must have a remote sense of humour (But don't quote me). James Farragher, 15 Whelan Way, Wallington, Surrey, SM6 7NG.

TROLL'S bottom game 135 - The Federation will tolerate no resistance. All offenders punished with death. Any problems, contact the President. We are now at war! Simon Ball, 1A, Castle Flats, South St., Ashby-De-La-Zouch, Leicestershire.

WATCH out for the new Intergalactic PD Demos on the Atari ST coming soon to a PD catalogue near you. Watch for the Maiden Demo and the Hackers Demo. R. Harris, 86 Devonshire Way, Shirley, Croydon, CRO 8BS.

● HELP OFFERED

AMIGA A2000 Bridgeboard JHO users, I have adapted WBI.3 for use with PC need help. Phone Jeremy 01-907-4667 - Harrow evenings.

HELP offered on any aspect of IBM Computing, especially M5-DOS and shareware/public domain programs. Phone Iain Arnell on 0705 321099 (Evenings only please). Can also help any speccy owners.

I'M offering help with Dungeon Master for the ST. specify problem, describe area and I will give help needed. Contact Paul, 37 High Street, Neilston, Glasgow, G78 3H5.

NEED HELP? Free advice on Computer/Software problems for price of phone call or write - Tony, 255 Kents Hill Road, Benfleet, SS7 5PX, U.K. (0268) 751406 will visit in S.E. Essex areas.

● BUGS DISCOVERED

LOMBARD RAC RALLY for Amiga. When you get a leg result and are asked to type name it freezes! Hi to Steven, Stuart, Martin, Jamie and Len! Bye!! From Timo!

C64 Hypersports. Keyboard incorrectly scanned in swimming. Hold down Rt.Shift and pump Lt.Shift to complete quickly. Also C64 Mike. Don't bother collecting all hearts on screen five for must remix. L.A. Nutkins, 17 Manchester Drive, Leigh-on-Sea, Essex SS9 3HP.

CASPELL COMPUTER ☎ 0202 666155 [24 hr]

RIBBONS

Amstrad DMP 2/3000 series	2482	A
Amstrad DMP 4000	2426	E
Amstrad PCW8256 (L/Life)	*2741	B
Amstrad PCW9512	*2746	B
Brother HR15/25/40	*2696	B
Canon PW1080A	2223	D
Centronics GLP	2412	D
Citizen 120D/180E/LSP10	2488	B
Citizen MSP-40/50	2477	D
Commodore MPS801	2236	D
Epson FX/LX-80	2273	B
Epson LX/GX-80	2454	B
Epson LC-500	2477	D
Epson RX-80	2273	B
Epson EX-800	2774	D
Epson Full Width	2320	D
Juki 6100 Daisywheel M/S	2563	B
NEC Pinwriter P1/P2	2254	D
NEC P2200	2844	D
NEC P6+/P7+	2870	E
Panasonic KXP-1081/1180	2228	D
Seikosha GP100	2317	B
Seikosha SL80 (L/Life)	*2741	B
Seikosha 500/550	2236	D
Shirawa CP80/MT80	*2698	D
Tatung/Commodore CP80	*2698	D
Star LC10	2861	B
Star LC24-10	2868	B
Star NL10	2761	D

Many others - please enquire!

* = Avail. in Fabric Nylon or M/Strike Film. Please choose!

(Fabrics offer longer life and may be used with Ribbon Refresh!)

PRICE STRUCTURE

	1 off	2 off	5 off
A	£2.95	£5.75	£12.95
B	£3.95	£7.45	£16.95
C	£4.45	£7.95	£18.45
D	£4.95	£8.95	£19.95
E	£5.95	£10.95	£24.95

Prices include VAT & post

WE ALSO HAVE DISKS

and a Technical Library of 1500 BOOKS!

Please enquire!

FREE SUPPLIES CATALOGUE

24-page FULL BOOKLIST 50p (Only with goods)



PAPER

All prices per 1000 sheets incl. VAT

* P&P £2.50 any quantity

11/9.5 60gsm Listing	£6.45
11/9.5 70gsm Microperf	£7.95
11/9.5 85gsm Letter Qual	£9.95
A4 size 70gsm Microperf	£9.70
A4 size 85gsm Letter Qual	£10.95
11/9.5 2 part NCR	£19.40

A5 size Letter Quality paper, Upright (Portrait) Orientation, £13.90 Microperf all edges for letter-writing

□ Address Labels □

3.5/1.5, 1- or 2- across £3.75 per 1000 (+£2.50 P&P)

At last - a unique new ink spray that restores ribbons in seconds

SAVE £££s ON RIBBONS

- Quick & Convenient.
- Restores & Re-inks faded ribbons in seconds!
- Refreshed ribbon lubricates print head for smoother running & enhanced printer life.
- Use on any fabric ribbon... again and again!
- Pays for itself the first two times you use it.



ONLY £8.95 inc VAT & post

Cheques/POs (no stamp needed) CASPELL COMPUTER SERVICES (Dept NCE) FREEPOST, Poole Dorset BH15 1BR Tel: 0202 666155 or 0202 35650 (24-hr) TRADE ENQUIRES & LOCAL AUTHORITY ORDERS WELCOMED Account enquires: 43 Emerson Rd., Poole Dorset BH15 1QS



BRITAIN'S BIGGEST SELLING PC MAGAZINE

PC PLUS

The complete package for all IBM-compatible personal computers



IN THIS MONTH'S ISSUE...

- THE BATTLE FOR THE MID-RANGE MARKET** Six VGA 286s slug it out Surprise winner named Amstrad's 286 given a good going over ●
- PRINT SPOOLERS** What they are and why you need one ●
- FROM 640K TO 1MBYTE** Two expansion cards compared ●
- PC NAVIGATOR** Howard's Way simulator? ●
- ADD-ON FONTS FOR DESKTOP PUBLISHERS** Glyphix vs Typographica ●
- DOS PROMPTS** More batch file tricks ●
- SIX PAGES OF PC TECHNICAL HELP** ●
- FULL REVIEWS OF OVER 30 PC PRODUCTS** ●



...AND ON THE SUPERDISK

FILE MANAGER
DOSMATE PLUS

PLUS Five other useful programs

SEPTEMBER ISSUE ON SALE NOW - JUST £2.30

PC PLUS

The complete package for all IBM-compatible personal computers

SEGA SENSATION

New magazine for Britain's fastest growing console!

Exciting news, Sega lovers. The publishers of New Computer Express are about to launch a new monthly magazine dedicated to your machine.

And now is your chance to make it what YOU want it to be. We want you to write to us with:

- Your views on all things Sega.
- Playing tips on your favourite software.
- The features you would like to see in the new magazine.

We'll be awarding exciting prizes for the best contributions, so don't miss out. Write to:

Steve Jarratt, Future Publishing Ltd, 4 Queen Street, Bath BA1 1EJ.

Oh, and if all you want to do is register for your FREE magazine information pack, just send your name and address on a post-card to **Sega Registrations** at the same address.

THE COMPUTER STORE

A500 Kickstart 1.3 + 8 Games + Joystick.....	£379
1 Meg Amiga Pack (as above plus Ram expansion)	£459
1 Meg Amiga Pack (Ram expansion with Clock).....	£469

These are new machines with full Commodore UK warranty mouse/modulator etc. and FREE courier delivery.

NEXT DAY COURIER DELIVERY TO UK MAINLAND ONLY £5

A500 Second Drive - Quiet NEC Mechanism	
Able/Disable Switch - Through Port	£79.95
Commodore A501 Ram Expansion	£129.95
1/2 Meg Ram Expansion (With Clock)	£99.95
1/2 Meg Ram Expansion (Without Clock)	£89.95

Commodore A590 20MEG HARD DRIVE	£399
A590 Drive Fitted with 1 meg memory	£529
A590 Drive Fitted with 2 meg memory	£629
1 Meg of Memory for A590	£159
2 Meg of Memory for A590	£299
256x4 CMOS DRAM 120ns	£25

Best Quality Guaranteed Disks New LOWER prices

3 1/2" DSDD with 1 for 1 guarantee (each)	£0.75
3 1/2" DSDD with 1 for 1 guarantee (50)	£37.00
3 1/2" DSDD with 1 for 1 guarantee (100)	£72.00
3 1/2" DSDD Branded with 2 for 1 Guarantee (10)	£12.95
Disc Box Holds 40 3 1/2" Discs	£4.99
Disc Box (Lockable) Holds 80 3 1/2" Discs	£7.99
Disc Box (Lockable) Holds 100 3 1/2" Discs	£8.99

PRINTERS

Star LC10 Mono	£179.00
Star LC10 Colour	£229.00

The Computer Store

Unit 82 In Shops, 2-8 Greenwood Way,
Chelmsley Wood Shopping Centre, Birmingham B37 5TL

Callers Welcome

021 770 0468



Post Free

MAKE YOUR MICRO EARN !

Yes making money with your micro becomes incidental when you know how. Your micro is, if only you knew it, a gold mine. The size and make is irrelevant. Make the initial effort **NOW** by starting your own

HOME BASED BUSINESS

This may be the most important move you will ever make!

REMEMBER: You'll never get rich by digging someone else's "ditch". Anyone in the country including YOU, can become very rich in a relatively short period of time just by doing a few basic things! It's more rewarding than playing games. The benefits are many and varied. Full or part time. For **FREE** details send S.A.E. to:



HOME BASED BUSINESS

31 PILTON PLACE (NCE 9)
KING AND QUEEN STREET
WALWORTH, LONDON SE17 1DR

DISKS 65p

3.5" DS/DD KAO UNBRANDED ALL DISKS

GUARANTEED (MIN. ORDER 30)

AMIGA A500 £330

PLEASE ADD P+P TO ALL ABOVE ITEMS

COMMARI COMPUTERS, 97 UPPER PARLIAMENT STREET,

NOTTINGHAM NG1 6LT TEL: 0602-507423/475166

HSV COMPUTER SERVICES LIMITED

Dept NCE, 23, Hampstead House, Town Centre, Basingstoke, RG21 1LG

All our prices include Carriage and VAT

Bulk Disks - Fully Guaranteed

	<u>25</u>	<u>50</u>	<u>75</u>	<u>100</u>	<u>200</u>	
5 1/4 DS/DD 48TPI	8.95	16.50	23.25	29.99	57.95	
5 1/4 DS/DD 96TPI	9.50	17.95	25.50	32.95	63.95	
	<u>10</u>	<u>20</u>	<u>30</u>	<u>40</u>	<u>50</u>	<u>100</u>
3 1/2 DS/DD 135	7.95	15.50	22.50	29.50	35.50	69.95

Lockable Disk Boxes

50 x 5 1/4"	£5.95
100 x 5 1/4"	£7.95
120/140 x 5 1/4"	£9.95
50 x 3 1/2"	£5.95
100 x 3 1/2"	£7.95

Stationery . . . Stationery . . . Stationery . . .

	500	1,000	2,000
9.5" x 11" 60gsm Micro-Perf all edges	-	£9.50	£15.95
True A4 70gsm Micro-Perf all edges	£8.50	£12.95	£23.95
True A4 90gsm Micro-Perf all edges	£9.75	£14.95	£27.95
True A4 100gsm Micro-Perf all edges	£16.95	£31.95	-
(coloured - Cream, Blue, Grey or White)			

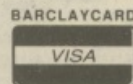
Credit Card

Hotline

(0256) 463507

Faxline

(0256) 841018



Orders under £8 in value carry a small order charge of £2

● BULLETIN BOARDS

BB USERS, SYSOPS. I am in the process of setting my own BB up and want contacts. Write to Gary, The Cottage, Church Road, Fundenhall, Norwich, Norfolk NR16 1EJ.

SAS BBS (0742) 325232, V21/22/23/22 BIS, 8NI, 24 Hrs., Ringback, Users of the SAS BBS can now send E-Mail to over 140 BBS World Wide, No Fees! Fnet Node 1022. Paul Smith, 54 Musgrave Road, Shirecliffe, Sheffield.

THE one to call, free for all. Bath BBS online 24 hours. Call now all speeds to 2400 Bath BBS 0225 835841. The Best (ST Board) in the West. M. Burridge, 43 Midford Road, Combe Down, Bath BA2 5RW.

● PERSONAL

AMIGA contacts wanted. PD, Hints, Swaps, etc. Contact F.J. Hume, 3 Carlcroft Place, Collingwood Grange, Cramlington, Northumberland, NE23 6ET. Phone 0670 731924 after 6 p.m.

C64 contacts wanted to swap games, mags cheats etc. All letters answered. Contact Ryan Donaghey, 23 Melmount Gardens, Strabane, Co. Tyrone, N. Ireland BT82 9EB.

CLARE I love you more than my Mega ST and my 20 Meg Hard Drive. From the Mad Doctor Phibes.

GRAPHIC Artist looking for Atari ST assembly language programmer to create entertainment software together, partly for fun possibly to publish. Phone Dave on (0764) 4537.

INFO on Slug or Marveymills PD Library wanted write: Paul Bines, 7 Essex Close, Laindon West, Basildon, Essex SS15 6PT. He owes me money and Software!!!

ST owner seeks contacts. 100% reply. Write too Richard Molland, 56 Meadowcroft, Sutton, St. Helens; Merseyside WA9 3XQ.

WORD Processing Service. Most tasks undertaken. sae for details. CV's, letterheads. I am offering you a friendly, reliable, efficient service. Andrew Parry, 14 Clayford Way, Stoneycroft, Liverpool L14 1PP.

● SERVICES

AMIGA public domain software free! For either Titanics Music, Chet Solace, or Miami Vice Remix, send disk and s.a.e. to Brian Roscoe, 14 Kingsmead Road, Moreton, Wirral, Merseyside, L46 1QU.

NEW WAVE; Fanzine for PC-Engine and general console news, with tips, reviews, previews, and much more. Send 50p+ s.a.e. to A. Broadstock, Hillside House, 124 Thrupp Lane, Stroud, GL5 2EH.

SINCLAIR Spectrum Screens

drawn. Enhance your games or fanzine! Give your product that 'Finishing Touch', low prices, great results. Write to Zenith, 42 Aldbourne Way, Hawkeslet, Kings Norton, B/Ham, B38 9UP.

CHEAP public domain disks from £1.00 each full range over 900 discs in stock for following machines Amiga; Atari; IBM PCS; AMSTRAD send s.a.e. 11 York Gardens, Paignton, S. Devon TQ4 5NP, Telephone 0803-528095.

● MISC.

WANTED; Good second hand basic compiler for Amiga. Must be cheap and in excellent cond. Tel. Nigel on 0222 888665 week days after 6.30 p.m.

WORLD Cup Manager PBM starts shortly turns every two weeks at only 50p. Free start-up-send two 19p stamps to A. Owen I Cae Ymryson, Caernarvon, Gwynedd LL55 2LR.

VIDEO Camera. Sanyo Macro Focus plus zoom colour V.G.C. perfect working order. Complete with tuner timer p.s.u. recorder battery. Swap for any Amiga hardware. White 9 Wood St., Glasgow G31 3BZ. **A** Low-cost Scanning service for the ST! Img. or Degas files produced from your own Artwork or Photocopies. Contact: Scans, 49, Haylett Gardens, Surbiton Crescent, Kingston, Surrey KT1 2ER.

I will swap my (ST) Falcon, F-16 Combat Pilot, Eliminator or Virus for your Popucous, Forgotten Worlds, Rocket Ranger, or Hostages. Phone Richard on (0252) 22411.

YAMAHA Digital Mega Synth-Key-board. Little used, I'll even throw in some Digital headphones!!! Synth Model PSS470. 4 months old £70 o.n.o. Phones Kes: (0227) 769189 after 6 p.m.

HIGH quality Spectrum screens drawn. Great for Fanziner or games writers, give your product that 'finishing touch'. Just write to: Zenith, 42 Aldbourne Way, Hawkesley, Kings Norton, Birmingham B38 9UP.

● HELP NEEDED

I need help with Police Quest II. Help needed in contacting Steelton Police from Airport. Contact Paul, 37 High Street, Neilston, Glasgow, G78 3HG. All help appreciated. Thanks!

PC Software for recruitment of personnel that profiles skills, interests, salaries, etc. to give personality profile. M. Tunnicliffe, 27 Green Bank Avenue, B'Ham, B28 8AP. Tel. 554 4221.

COLOUR emulator for B & W Atari ST System needed. Does this software exist? Plus, where are all the good B & W Atari demos? Please send discs to 15 Oakway Drive, Frimley, Camberley, Surrey GU16 5LF.



SCOTLAND

DMA Design, producers of high quality software including *MENACE* and *BLOOD MONEY*

are currently seeking dedicated programmers, artists and musicians to join our growing development team on a freelance basis, preferably based in Scotland or the North. We offer development equipment and technical backup on all major machines.

If you think you fit the bill, then send us a demonstration of your work, or phone Dave Jones for a chat.

Alternatively, if you will be visiting the PC show this month, drop in at the

PSYGNOSIS

stand and ask for Dave Jones.

We look forward to hearing from you.



Zeppelin Games live, eat and sleep computer games.

They produced the Budget Game of the Year and Kenny Dalglish Soccer Manager - THE soccer name game of 1989.

Zeppelin are shortly about to expand and move from Central Tyneside to the very heart of the Great North. If you reside in the North-East and eat, sleep and dream computer games then get in touch with Zeppelin - we're happening in the Great North, now.

Zeppelin Games also welcomes freelance programmers, artists and designers to join our European-wide out-of-house team.

Write in confidence to Amanda at:

Zeppelin Games,

Osborne House, 28 Osborne Rd, Jesmond, Newcastle upon Tyne NE2 2AJ

► **P R E P L A Y** ◀

AMIGA ARTISTS

Bright young London Computer Graphics House specialising in test advertising commercials seeks motivated, talented animation artists. Must have experience on Commodore Amiga, graphics programmes and ideally a working knowledge of the TV Business. Freelance and permanent posts may be available. Please send C.V.'s and sample disc of work to:

PREPLAY
HOLFORD MEWS, CRUIKSHANK STREET,
LONDON WC1X 9HD
TELEPHONE: 01 837 1242

TECHNICIAN REQUIRED

★ A vacancy exists in our ever expanding BBC technical section at our premises in Watford. ★

Duties will involve the diagnosis and repair of all BBC microcomputers including model B, B+, Master Compact, Master 128, and Archimedes. A sound knowledge of electronics theory would be a definite advantage as other duties will involve the repair or servicing of printers, monitors, disc drives and other add-on peripherals for the computer.

TRAINING WILL BE GIVEN.

Apply by telephone or in writing to Mr K Archer.

Watford Electronics
250 Lower High Street, Watford, WD1 2AN.
☎ 0923 37774 ☎



Programmers/Graphic Artists

What we have:

A great working environment.
Experienced co-workers.
The latest equipment.
Licensed projects ready and waiting

What we want:

Dedicated people who are not looking for a boring nine to five job.

If YOU fit the bill please write to:

Enigma Variations Ltd, 13 North Park Rd, Harrogate, North Yorkshire HG1 5PD or phone Mark or Richard on:

0423 501595 (Fax 0423 500291)

Track Computer Systems

Are one of the leading Computer Systems sales and development companies in the UK. We sell hardware and Software for all the leading makes of Computer. We also develop systems for the Insurance and Investment markets. We are to open our new retail division on Blacksmiths Yard in Derby during September. We are looking for a smart articulate person with computer and retail experience.

Please forward a full CV to Chris Harvey.

Track Computer Systems

28 Braemar Ave, Eastwood, Notts NG16 3JY
& Blacksmiths Yard, Derby DE1 3PD
Telephone 0773 531991 FAX 0773 765721

AMIGA®

Filmware Programmers

Extend your skill into motion

A computer systems house, the leader in its field and a subsidiary of an expanding plc with a turnover in excess of £75m, is currently developing a range of exciting simulation systems involving sound, computer graphics and motion. The company now requires two special individuals to join their team.

Probably aged between 23 and 30, you are an accomplished games programmer with at least two years' Commodore Amiga® experience during which you have published simulation material. You are likely to be a freelance programmer or working for

a company of games writers, and are now ready for the stimulus and excitement of state of the art simulation development in a stable environment.

Apart from the salary, negotiable around £15K, and other benefits including profit share, you will be offered the opportunity for career development and all the facilities to extend your creative imagination.

Please apply with C.V., quoting your accredited games or software, to Mr Harold Jones of Cripps, Sears & Partners, Senior Executive and Specialist Search Consultants, International Buildings, 71 Kingsway, London, WC2B 6ST.

Cripps, Sears

IT DOESN'T COST MUCH TO INCREASE YOUR SALARY

In fact you can find out for free. Return the coupon for details of how you can earn more by training for a job in computing. You don't need experience. Or even a stamp.

Name

Address

Postcode

Occupation Age

Tel. no. NCE/1409/C

Send to: Computech International Limited, FREEPOST, Stourbridge, West Midlands DY8 7BR. **FREEPHONE: 0800 626976.**



DOMARK

Your chance to enter the world of software publishing!

We are looking for someone to join our software department. No previous job experience necessary, just an interest in computers and willingness to learn.

A cheerful personality essential!

Salary negotiable. Please call.

Lizzie on 01-780-2222

Binary Design Ltd

Require experienced artists, animators and musicians for both in-house & freelance work. Applicants for artist & musician vacancies must supply examples of their work, and a C.V. Animators must be qualified to graduate calibre.

Contact:- **Nick Speakman, Binary Design Ltd, 1st Floor, Parsonage Chambers, 3 The Parsonage, Manchester, M3 2HB**
Tel: 061-832-4759



PROGRAMMERS - ARTISTS - MUSICIANS

Question:

What have the following got in common?
42 Mhz (Landmark) PC with Paradise VGA.
NEC Multisync II. 40 Mb Hard disk RAM,
PDS68000, Amiga 2000, Sculpt 4D, DPaint III

Answer:

They are the kind of tools Psygnosis developers are provided with to enable them to produce only the best in games software.

Psygnosis - simply the company to write for, ask any of our existing developer's

Find out for yourself by contacting us at the PC show.

If you cannot make it to the PC show please contact Ian Hetherington or John White on 051-709-5755. or send your demo to

Ian Hetherington - Psygnosis Ltd.
122 Century Buildings,
Tower Street,
Brunswick Business Park,
Liverpool L3 4BJ

Something Wonderful is happening in games software and I need more 68000 coders to join me to create the future

If you are excited by what's still to be done please contact me.

**Edward Grabowski,
6 Dykewood Close, Bexley, Kent DA5 2JN**

EXOCET WANTS SPORTS GAMES

If you have an unpublished product.

**Send a demo to Guy Spooner
Exocet Software, 14 Langton Way,
London SE3 7TL
or CALL 01-985-7232**

ACTUAL SCREENSHOTS

"What you see is what you get"

Actual screenshots is looking for the best programmers, graphics artists and new games for the Amiga, Atari ST and PC machines.

If you think your standards could match ours, send your demos with full details to:

**ACTUAL SCREENSHOTS, 7D KINGS YARD,
CARPENTERS ROAD, LONDON E15 2HD**

or contact MICHAEL HODGES or ADRIAN TURNER on
(01) 533 2918

Actual Screenshots

MOONLIGHTERS REQUIRED

Turn your spare time into

CASH

Tel/Write for more information to:
Lisa

**Danfforddgar House
Carmarthen, Dyfed SA32 7DU
Tel: 0267 84538**



WE ARE HEAD HUNTING PROGRAMMERS, ARTISTS AND DESIGNERS

If you have a desire to work on new innovative products based in our Sheffield Office. Freelance or as a development group, we would like to talk with you.

We are currently working on major releases for 1990, across all major formats, including nintendo.

For the right people and product, we can offer an excellent package.

Telephone us today and ask for James North-Hearn or Ian Stewart on 0742 753423 or call in to see us at the PC Show in the Cromwell Hall. Any contact will be treated with strictest confidence.

**IF YOU THINK YOU'RE
CUT OUT TO JOIN
THE GREMLIN TEAM**



**Gremlin Graphics,
Alpha House,
10 Carver Street,
Sheffield
S1 4FS**

**CALL IN TO SEE US AT
THE PC SHOW
CROMWELL
HALL**

FREE READER ADS!

- As a major new service to readers, we are now offering small ads of up to 30 words absolutely free of charge!
- It's an ideal opportunity to sell second-hand computer equipment or get in touch with other users, or even to print a simple tip you've discovered!
- Because Express is published every week, you can be sure that ads submitted here will appear more quickly than any other magazine can manage.
- We're particularly keen to receive ads from people offering free help to other users (see box).

Reader Ads order form

Name

Address

.....Tel

Write your FREE advert here! (30 words max. Repeat details above if you want them to appear in print.)

Please tick the category your ad should appear in:

- ☐ Help offered ☐ Mini-tips ☐ Help wanted ☐ For Sale ☐ Goods wanted ☐ Services
☐ Events ☐ Bugs discovered ☐ Virus warning ☐ Humour ☐ Announcements ☐ User Groups ☐ Bulletin boards ☐ Personal ☐ Misc

Please note:

- 1 Sorry, NO trade ads! All reader ads must be from private individuals
- 2 We cannot vouch for the quality of goods and/or services advertised in this section. All ads are accepted in good faith.
- 3 We reserve the right to amend or refuse ads at our discretion.
- 4 No pirated software may be sold through these columns. Any readers being offered non-originals should contact us.
- 5 We cannot guarantee that adverts will appear in a specific issue of New Computer Express.
- 6 The following declaration must be signed:

My advertisement conforms to the terms above and is legal, decent honest and true

Signed

● Don't miss out on this opportunity for speaking directly to Britain's liveliest computer users.

Send to **EXPRESS READER ADS, 4 QUEEN STREET, BATH BA1 1EJ.**

COULD YOU HELP ANOTHER USER?

Next month we're introducing a special reader-to-reader helpline and we'd like your help in setting it up. Are you knowledgeable about one or more of the following?

- One or more computers
- MS-DOS, TOS, AmigaDOS, CP/M.
- Any popular software package (serious or leisure).
- Any language.

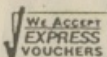
If you're prepared to pass on that knowledge to other

users, please use the free Reader Ad service below to list the areas in which you can help.

You may list either a phone number or an address. (Readers using the Helpline will be instructed not to call in anti-social hours and to enclose an SAE with any queries.)

What do you gain from it? Simply the prospect of getting in touch with other computer users who could do with your help.

ADVANTAGE PC SHAREWARE



- POPULAR TRIED & TESTED PROGRAMS
- FAST DESPATCH - FIRST CLASS
- EASY TO RUN AND USE

NEW!
ATARI OWNERS
SEND FOR YOUR
FREE
PUBLIC DOMAIN
SOFTWARE
CATALOGUE

**OUR PRICES INCLUDE
VAT AND POSTAGE**

5 DISCS	£13.25
4 DISCS	£11.25
3 DISCS	£9.45
2 DISCS	£6.95
1 DISC	£3.95

Over 5 Discs £2.50 each
for 3.5" Please Add £1 per Disc

CALL 0242 224340 NOW!
FAX: 0242 226755

WORDPROCESSING

- PC-WRITE The well-established multi-function WP
- PC TYPE+ Popular WP, Spell Checker, Undo, Help. 4 DISCS
- PC TYPE II Great new WP from Buttonware. 4 DISCS
- GALAXY Like WordStar with pull-down menus. 2 DISCS
- MINDREADER Clever WP anticipates what you're typing
- PC-OUTLINE Popular brain-storming ideas processor
- SPELLING CHECKER For most WP's. Can update dictionary
- THESAURUS Great when searching for alternative words
- TYPEWRITER EMULATOR For quick messages, envelopes etc

SPREADSHEETS

- PC-CALC+ Well-known Buttonware spreadsheet. 3 DISCS
- AS-EASY-AS Popular and easy to use. 123 Compatible
- GOALSEEKER Time-saving program helps create spreadsheets
- PIVOT! Prints spreadsheet in landscape or portrait mode

DATABASES

- PC-FILE+ Very popular database with mailmerge. 3 DISCS
- PC FILE-dB dBase power at shareware prices. 3 DISCS
- WAMPUM Implements dBase III language-hard disc. 2 DISCS
- RECORD COLLECTOR Catalogue and sort your LP's & CD's
- HOME VIDEO Catalogue and sort your videos. 2 DISCS
- GENE GENIE Outstanding, new genealogy program. UK author
- FAMILY HISTORY Comprehensive genealogy program. 2 DISCS

HOME & BUSINESS

- FREEWAY CASHBOOK UK home account and budget. 3 DISCS
- FAST BUCKS Full feature account and budget. 2 DISCS
- HOME INVENTORY/HOME INSURANCE Log your assets
- FREEWAY ACCOUNTS PLUS Popular UK Package with Sales, Purchase & Nominal Ledgers. 3 DISCS
- FREEWAY PAYROLL designed for UK businesses. 3 DISCS
- 100 STANDARD BUSINESS LETTERS to use and adapt
- EZ-FORMS standard business forms to use and adapt
- LABEL MAKER Simple mailing label database and printing
- PROJECT MANAGEMENT Critical Path Analysis, Gantt Charts
- PRO-COMM Definitive communications program. 2 DISCS
- EAZI-LINK Supports Prestel and ViewData comms. 2 DISCS
- PC-DESKTEAM Handy calculator, notepad, diary, Mem-res
- HOMEBASE The shareware answer to Sidekick. 3 DISCS
- POWER MENU Recommended hard disc menu from Brown Bag
- PACKDIBX Economise space and speed up your hard disc
- FLEXIBAK A fast easy to use hard disc backup program

EARLY LEARNING (AGE 3-8)

- AMANDA'S LETTER LOTTO Keyboard and letter skills
- ABC FUNKEYS Entertaining way to learn the alphabet
- AMY'S FIRST PRIMER Basic arithmetic and letters
- CHILDREN'S EDUCATION Teaching while at play: Alphabet, Animals, Clockgame, Hangman and Mosaic
- NUMBER PRIMER A good way to learn basic numeracy
- WORD PRIMER A good way to learn words and spelling
- ANDY'S WORD GAMES 7 UK programs on using words

EDUCATION (AGE 5-ADULT)

- EXPLORING WORDS Hangman, Spelling, WP, Letterfall
- EXPLORING MATHS Funnels & Buckets, Algebra, Prime
- EXPLORING TIME Telling, Speaking, World Timezones
- EXPLORING SCIENCES Physicalc, Equator, Planets
- EXPLORING YOUR IQ Brain-boggling tests and puzzles
- EXPLORING ELECTRONICS From Ohm's Law to Amplifiers
- EXPLORING GEOGRAPHY Gazetteer, 3D-World, Weather
- EXPLORING HISTORY Quiz on early American History
- EXPLORING MUSIC Player Piano, Composer, Polyphony
- EXPLORING GRAPHICS Animator, Etch-A-Sketch, 3DStar
- EXPLORING COMPUTERS Beginners guide to computers
- WIZ QUIZ Teaches maths in an entertaining way
- MATHS TUTOR Arithmetic through to higher maths
- STATISTICS Data manipulation & analysis. 3 DISCS
- PROBABILITY & STATISTICS curve-fit & simulation
- X-Y SEE Teach & test maths using graphics. 2 DISCS
- ELECTRONICS Multi-tool package for engineers
- PHYSICS GCSE REVISION A novel aid to study. UK
- COMPUTER SCIENCE GCSE REVISION Study aid. UK
- Learning a foreign language? Then try this selection of tutorials - each title on its own disc:-
- ★ FRENCH ★ SPANISH ★ ITALIAN ★ GERMAN ★ HEBREW
- ★ CANTONESE ★ SPANISH FOR TRAVELLERS
- ★ FRENCH VERBS ★ SPANISH VERBS ★ JAPANESE
- ★ FRENCH HANGMAN

PROGRAMMING

- SMALL C COMPILER C for yourself how to program in C
- PD PROLOG for Artificial Intelligence. 2 DISCS
- PASCAL COMPILER Good introduction to popular language
- MODULA-2 COMPILER with editor and linker. 2 DISCS
- LADYBUG LOGO Graphic educational language & examples
- CHASM Assembler with tutor for learning 8086 code.
- A86/D86 Best shareware assembler & debugger. 2 DISCS
- BASIC TUTOR Useful introduction to standard PC BASIC
- GETTING STARTED IN C Introductory lessons and examples
- GETTING STARTED IN ASSEMBLER Useful introduction
- C & TURBO C TUTOR with source code examples. 2 DISCS
- PASCAL & TURBO PASCAL TUTOR with examples. 2 DISCS
- MODULA-2 TUTOR with source code examples. 2 DISCS
- WINDOW BOSS Produce professional windows in C. 3 DISCS
- C TOOLS Source code for many programs in C. 2 DISCS
- TURBO PASCAL TOOLS Packed with source code. 4 DISCS

UTILITIES UNLIMITED

- ESSENTIAL UTILITIES Over 50 of the best utilities
- ADVANCED UTILITIES A more specialised collection
- TEXT PROCESSING UTILITIES Printer Control, Spooler, Sideways, Tally, Word Counter, Fog Finder, Lister
- LASER PRINTER FONTS & UTILITIES. 3 DISCS
- DISK COMMANDO Similar to Norton Utilities. 2 DISCS
- PROFESSIONAL MASTERKEY Powerful disc/file editor
- FLU-SHOT+ Helps you deal with and avoid PC viruses
- LQ Set of printer fonts to enhance your text output
- SIGNSMITH Create posters, leaflets and letter heads
- BRADFORD Typesetting quality on a dot matrix printer
- EZ-FORMAT Fast disc formatter - about 33% faster
- EZ-COPY LITE Fast multicopy from one read of master
- PC TESTER Test your PC's performance. 2 DISCS

GRAPHIC DESIGN

- DANCAD Accurate 3D frame drawing & animation. 2 DISCS
- IMAGE-3D create effective 3D drawings on CGA or EGA
- PC-KEY-DRAW The very popular Desk Top Publisher and scaled drawing package. 3 DISCS
- PC-KEY-DRAW LIBRARY Picture & Font Library Utilities
- FINGERPAINT Painting program runs on MSDOS not GEM
- FONT EDITOR Create your own on-screen character set
- EGA FONT EDITOR with several new fonts supplied
- FLO-DRAW Flow diagram text & graphics editor. 2 DISCS
- GRAPHIC ANIMATOR Create animated picture sequences.

Join the Advantage Independent Computer User Group
and choose any Shareware discs for just £2 each (3.5" £3)
★ PLUS ★ Monthly Newsletters
★ PLUS ★ Discounts on Software
★ PLUS ★ Technical Support & Advice
Annual Membership is:
£15 (EC Countries) £18 (Non-EC Countries)
Order by post or telephone. We accept Sterling Cheques,
Postal Orders, Eurocheques, Access and Visa

INFORMATION SYSTEMS

- MOVIE DATABASE Over 3000 films & videos. 2 DISCS
- GIFT IDEAS GENERATOR For birthdays & Christmas
- WORLD ATLAS Display map of any part of the world
- MICRO COOK Get your recipes organised
- NIGHTSKY Definitive computer planetarium UK. 2 DISCS
- HOROSCOPE Prints horoscope and astrological data
- ASTROL-95 Astrological charts & horoscopes. 2 DISCS
- BIORHYTHM MONTHLY Plot your biorhythms and compare
- GARDENER'S ASSISTANT Plan and plant your vegetables
- BARTENDER Learn how to mix those exotic cocktails
- WEIGHTWATCHER Control calories and lose weight
- FOOD & SMOKING ANALYST Info for calorie conscious

SPECIAL INTEREST

- PC-SPORT Useful PC-based league table generator
- PUNTER'S PAL Aims to improve your betting odds
- COMPOSER Create, edit and play your own tunes
- PIANOMAN Turns your PC into a musical keyboard
- CROSSWORD SOLVER and Anagram Generator
- CROSSWORD CREATOR Make your own puzzles. 2 DISCS
- KING JAMES OLD TESTAMENT Complete text. 5 DISCS
- KING JAMES NEW TESTAMENT Complete text. 4 DISCS
- BIBLE READER with index and text reader. 5 DISCS
- GOSPEL CONCORDANCE For studying/comparing. 3 DISCS

BOARD & CARD GAMES

- PC-OPOLY PC version of the well-known board game
- SCRABBLE Good implementation - updateable dictionary
- WORLD DOMINATION The classic game of Risk and strategy
- SLEUTH Exciting murder mystery solving game
- CHESS & CHECKERS Quality graphics versions of games
- GAMBLER'S DEN Craps, 21, Poker and Pontoon
- CARD SCHOOL Canasta, Gin Rummy, Heart and Lowball
- PUB GAMES features Dominoes and Cribbage

SIMULATIONS & ARCADE GAMES

- BASEBALL You act as manager, with choice of teams
- INSTANT REPLAY American Football simulation
- RAILROAD SIMULATION Novel set of animated layouts
- WAR GAME Strategy game based on war games rules
- FORD SIMULATOR Test drive a selection of Ford cars
- SOCCER GAME Manage your own soccer team to Div. 1
- MEGALOPOLY Speculate and be a big business tycoon
- STAR TREK puts you in command of the Enterprise
- STAR TREK II The next generation - with new gameplay
- PINBALL WIZARD Five different pinball machines
- CAPTAIN COMIC High quality animated graphics
- SNARF multi-level treasure-hunt game for EGA
- DRACULA IN LONDON role-playing game based on novel

PROJECTS & PASTIMES

- PC JOKES Hotboot, Insults, Drain, Locust, Hotlot
- Alien Name Generator, BackTalk, Buzzword Generator
- PC JOKES II April Fool, Deceive, Busy, Soap Opera Plot Generator, Headline Generator, Jive Talk, Madlib
- PAPER AEROPLANES Loads of designs ready to print out
- ORIGAMI Study the oriental art of paper folding
- POET'S CORNER Produce computer-created poems. 2 DISCS
- GET LUCKY Rather naughty Adult Trivia & Strip Poker
- PIN-UPS Selection of pin-up pictures to view or print
- ADULT HUMOUR Large collection of rather rude jokes
- ADULT ADVENTURES Bad-Bad, Drive-In and Fifi
- ADULT GAMES features rude Space Invaders & Sexware

GAME COMPENDIUMS

- CLASSIC GAMES Space Invaders, Pacman, Pacgirl, Ribit, Bricks, Donkey Kong, Q-Bert, Jumping Joe
- FUN AND GAMES Pango, Bouncing Babies, Elevator, Centipede, Pyramid, Dragons, Pac, Osbit
- MAZING GAMES Treasure Hunt, Amaze, Polymaze, Castle, 3-Demon, Fire, Chase
- LOST VEGAS One Arm Bandit, Roulette, Backgammon, Biorhythm, Keno and Casino featuring 4 more games
- SKILL & STRATEGY Frigate (Ships) Big Rig (Trucking simulation), Stock Exchange Game, Air Traffic Control
- COME IN PEACE Striker, Paratrooper, Round 42, Sopwith, Dragonfly, Landmine
- STAR WARRIORS Emergency Mission, Quantoid, Kamakaze, Rescue, Rockets, Spacewar
- PC CHALLENGE Chess, Othello, Entrap, Hexplode, Kalah
- JUNIOR CHALLENGE 3D TicTacTo, Dotto, Draughts, Mastermind, Brainstorm, Gomoku and Four-In-A-Row
- MONOGAMES 18 games for Mono/Hercules PC's. 2 DISCS
- KEEP THEM AMUSED Burger Blaster, Grime, Racer, Ninja, Caverns, Galaxy
- WIT YOUR PITS Battleships, Five-In-A-Line, Stock Game, Sales Game, Rogue (Artificial Intelligence), Eliza
- FACE THE ACTION Batalia (2 player) Tank (1/2 Player), Moonbase, Blort II, Gemini (can play 2-computer game)
- BLOCK & TACKLE Nemon, Qix, Xonix, Blockade, Ski-ing, Mummies, Lazer, Beast, Tron
- BASIC AMUSEMENTS Over 60 games to amuse and teach
- BASIC programming techniques (2 DISCS)
- SPY CATCHER Master Spy, Raid Over Auschwitz, Hostages, Brimstone, Mad Scientist (Mad Scientist is for BASIC2)
- GOOD SPORTS PC-Tennis, Teed Off (Golf) Sailing (in the Bermuda Triangle), Armchair Quarterback (Football)
- SEEK & DESTROY Galactic Conquest, Daleks, Deatchpage, Lazy Monday, Intercept, Berzerk
- SPACED OUT Saucer, Crisis, Encounter, Xo and Space
- UP AND AT 'EM Nightmare, BitBat, Droids, Robotron, Spyder, Eggs, Stun
- PLAYTIME Lotto, Bingo, The Story of Eli, Motoman, Slug
- SPORTING LIFE PC-Golf, PC-Pool, PC-Bowl, Basketball
- ARCADIA Killer Bees, Mario Brothers, Snipe, Snakepit, Pearl, Wimps, RLogic
- WILLY AND HIS FRIENDS Willy the Worm, Willy II, Willy Designer, Doctor Sleep, Disk Crash, Labbits & Voldrons

ADVANTAGE (NCE) 56 BATH ROAD, CHELTENHAM, GL53 7HJ. TEL: 0242 224340



THETFORD MICROS

Sales and Service:

14 CASTLE STREET, THETFORD, NORFOLK

Telephone: (0842) 761645/765897

Fax: (0842) 755641

COMPUTER REPAIR SERVICE

THETFORD MICROS offers you their experience and a fast efficient repair service with our guarantee that your computer is being diagnosed by the best and most up-to-date test equipment.

We are an approved - AMSTRAD (CPC & PC) SBC (PC)
BONDWELL (PC) AND ATARI SERVICE CENTRE.

WE OFFER YOU -

- * ON THE SPOT SPECTRUM & COMMODORE 64 REPAIRS
- * SAME DAY REPAIRS ON MAIL ORDER
- * THREE MONTH WARRANTY ON ALL PARTS REPAIRED
- * ALL COMPUTERS RETURNED POST PAID AND INSURED IF POSTED IN THE U.K.
- * FREE - ON/OFF SWITCH FITTED TO ANY SPECTRUM REPAIR (Fitted in Spectrum casing - Please state if required)
- * SPECTRUM + REPAIRS..... 16.00
- * SPECTRUM + 2 REPAIRS..... 19.50
- * SPECTRUM + 3 REPAIRS (excluding disc mechanism)..... 19.50
- * SPECTRUM KEYBOARD REPAIRS..... 10.00
- * MICRODRIVE REPAIRS..... 19.50
- * INTERFACE 1 REPAIRS..... 19.50
- * SINCLAIR QL REPAIRS..... 28.75
- * COMMODORE 64 REPAIRS..... 30.00
(Prices inclusive of parts, VAT & postage)

We make our own -

- * COMMODORE COMPATIBLE POWER SUPPLY..... 29.50
- * SPECTRUM POWER SUPPLY..... 12.95
(Both fully repairable)

Repairs undertaken on Amstrad, BBC, Atari, Amstrad PC, Bondwell PC and SBC PC.

Quotes given on repairing any Printers and Disk Drives.

FOR FAST DELIVERY SERVICE - SECURICOR 9.00 + VAT

MAIL ORDER taken on Computer Equipment and Software.

Payment can be made by Cheque, Postal Orders, Barclaycard, Access or American Express.

TRADE ENQUIRIES ALWAYS WELCOME.



URGENT



ANNOUNCEMENT FOR ATARI ST OWNERS

Blitz Turbo is a remarkable new disk to disk* backup system for the Atari ST that will back-up virtually any known Atari ST disk single or double, in roughly a quarter of the time it takes any other backup device!

Any single sided disk	23 seconds
Any double sided disk	41 seconds

Don't take our word for it! At the recent Atari show 100's of this incredible product* were sold to amazed customers, including competitive software producers and software professionals!

* Blitz Turbo not required to run backups

**Blitz Turbo is good... very good
and also very cheap!**

Blitz Turbo lead and software

1	£25
2-5	£20
10+	£18
Blitz Turbo with 3.5" NEC Drive	£90
Blitz Turbo with track counter drive	£129

1988 copyright act. **Blitz Turbo** is sold for backing up personal software. It is illegal to copy copyrighted material.

Order your copy today by sending your cheque to the address below or calling our free phone (orders only) and quoting your credit card number (Access or Visa)

0800-581-742

(Orders Only).

Orders and enquiries 0234 273000
All enquiries 0234 273000

Power Computing Ltd (Dept NCE)
44A Stanley Street, Bedford MK41 7RW

* Blitz Turbo requires a second disk drive

*Blitz 1.1 can upgrade to Turbo for £5.00 handling and shipping only. All upgrade orders by mail (cheque) only.

TECH TIPS



Personal computer problems? Express' Agony column has the answer. Write in strictest confidence to Uncle Techtip. The best tips win a freebie - so don't forget to tell us your address and machine

TIP Caught red handed?

Regarding your reply to Richard Meredith (*Express* 43) I think you may owe him an apology. I am not aware of any commercial program for the PC entitled *Rogue*, but there is a PD/shareware program of that name and judging by the rest of his letter I would think that that is what he is referring to.

Assuming that he hasn't already fled to Brazil in fear of retribution by FAST, the answer to his problem of how to restore a previously saved game is simply to type *Rogue* followed by the name he used to save the game. So if he saved the game as Richard typing *Rogue* Richard will both load the game and return him to the saved position.

S. Parker, London.

HELP! CPC troubles

I am writing to you in the hope that your expert knowledge and great connections in the computing world would be able to solve my computer queries. (Jeez, these kids go from bad to worse - *Uncle Techtip*.)

1. Is it possible to upgrade my CPC464 into a 664 or 6128 using a 3.5-inch disk drive? How much would this cost and what hardware would I need?

2. If 1 is possible, then would I be

able to acquire CPC commercial software on 3.5 inch disks?

3. Is there a backing up device which will back up tapes onto disk?

4. I use a modulator on my CPC (for my sins and for reasons of minuscule cash-flow) and in *Amstrad Action* I noticed a listing (issue 46) which gave a screen resolution of 400 pixels high using a monitor. My CPC with modulator automatically produces a screen res of 600 x 400 in all modes; has this anything to do with my modulator or do I need a new computer?

Mark Harrison, Redcar, Cleveland.

1. Upgrading a CPC464 to a 6128 is a simple operation requiring little technical knowledge on your part and with a modicum of care and patience can be easily achieved by even the most hardened computer illiterate. That's the sales blurb over, now down to business. You need to obtain a BASIC ROM (part number 40025) price around £20. Contact CPC Ltd on 0772 555034. The new ROM will allow your CPC to access the extended BASIC commands of the 6128. You'll also need to upgrade the memory of the machine with an extra 64K to that of the 6128. Have a rummage through the classifieds in *Express'* sister magazine *Amstrad Action* for a suitable RAM expansion pack (the DK'tronics RAM pack should be obtainable second hand and is the best). A DDI-1 disk drive completes

the package (necessary for running 6128 software). Contact Amstrad on 0277 228888 for current prices. Open the CPC case by undoing the screws on the underside and gently separating the upper and lower halves. In the process, you'll encounter a cable linking the keyboard in the upper half to the motherboard in the lower half. Unplug the cable from the motherboard. There's another plug just below the cassette player, unplug this too.

Locate the chip with Amstrad 40009 written on the surface (it's to the left of the circuit board). Remove any static electricity charge you may be carrying by touching a cold water or heating pipe. Gently insert the blade of a screwdriver under the BASIC chip and give a slight twist which should raise the chip slightly in its socket. Remove the screwdriver

you have it. But do not save it back on your *Interceptor* disk as it will not work.

T. Newton-syms, Chalfont St. Giles, Bucks.

TIP Spectrum transfer

In your August 25th issue a Belgian reader asked for help with Spectrum/ST transfer. During a conversation with a friend he mentioned a program called *Specport*. This apparently allows transfer each way via an RS232 cable. It is available on disk A75 from STUK of Bishops Stortford (0279 751692), cost? About £3. He informs me that they also have a very good catalogue.

J. Trollope, Alness, Ross-shire.



• Spectrum file transfer's a breeze with a PD program

and repeat the process at the other end. Continue in this manner until the chip is sufficiently elevated to allow you to remove it with your fingers.

Now plug the 40025 ROM in its place, reverse the case opening procedure and you have a powerful, sleek, up-to-the-minute home computer suitable for power computing at a reasonable bore, yawn etc.... Oh, and shelve the idea about 3.5-inch drives. They can't be used as a first drive for the Amstrad, neither can you purchase commercial software in this format.

2. Answered above.

3. There most certainly is. It labours under the title *Multiface* and is available from Romantic Robot contactable on 01-200 8870.

4. Very strange. Perhaps it's your modulator. I should leave well alone if you're not experiencing problems.

TIP Splish splash

Have you ever wanted to load the *Interceptor* loading screen onto say *Deluxe Paint* Amiga version? (Never - *Uncle Techtip*) Well now you can! All you do is load *DPaint* in low res and then insert the *Interceptor* disk and load pictures, go to drawer and click low res, then backspace it all off and press Return. Go to file "Pix (dir)" and click it. Now click "splsh" and now click the load box and now

TIP Head cases

In the Beeb version of *Codename: Droid*, it is possible to stand on the Volgan's heads without then noticing. This bug comes in handy when a Volgan is standing in front of an object. Simply jump on his head, jump past him the turn around and blow his brains out. He will not move a muscle during the whole performance.

Although I have not tried it, it should be perfectly possible to run along a passageway perched atop an unsuspecting Volgan's head.

Rafael Jay, Bath, Avon.

TIP Free advert

After reading your Tech Tips page last week I noticed a reader with a problem on the MSX.

To be more accurate (I'd just like you to be more succinct - *Uncle Techtip*) he needed help on the *Maze of Galious* by Konami. If you could please inform this person that I printed in the September issue of *MSX Gazette* a maze with all his answers on the *Maze of Galious*. I hold a regular cheats page and I'm sure that he'll find it useful.

R. Wilson, *MSX Gazette*, 47 Reedwood Road, Hastings, East Sussex TN38 8DW.



• Upgrading from a CPC464 into a 6128 is a fairly simple matter if you're feeling confident with a flat-blade screwdriver

HELP! Drive bug

I wonder if it is possible that you could help me with a problem concerning the Spectrum +3? Every so often I get the error report: DRIVE A: track 1, sector 1, missing address mark.

I cannot recover from this the only way out is to re-format the disk losing all my files. I've tried all makes of disk from Amsoft to Maxell to 'brand X' and they all do the same. What exactly does this mean? Is there any way out of it? Is it a drive fault? (find out in next week's thrilling instalment of... - Unc)

Barry Walton, Whitley Bay, Tyne & Wear.

Hmmm, seems to me there's a little bug lurking somewhere in the DOS. Any Techtipers know differently? Call your Uncle on the usual number. Don't format the disks. Try using a proprietary disk editor/doctor on them to determine faults and rebuild corrupt tracks. Several advertisers in Express offer these utilities at reasonable prices.

HELP! Regal rescue

My second ever purchase of Express (yes, I'm a new recruit) and it's straight to the problem pages. I own an Amstrad PC2086 with twin 3.5-inch drives and an external 5.25-inch drive (you have got problems - Unc). The system performs well with the High Street packages such as Lotus 1 2 3, dBase 4, WordStar etc., but when it comes to games it's the pits! I have difficulties in loading the King's Quest series (they don't load) and arcade coin-op games like Capcom's Street Fighter. I spend half of my lunch hours taking games back to the Virgin Games store. So tell me Unc., is there any hope for me in this world? Should I swap the Amstrad for an ST or Amiga.

The King of Siam, Woolwich, London.

Well your Royal Highness, Light of the East, Father of the World, the games appear not to like the external 5.25 inch drive. Are they copy protected? That could have some bearing on the matter. Other than that, I'm afraid my advice to you would be to adopt your own suggested course of action.

HELP! Which PC?

At present I use an Apricot F2 at home and find it very limited in the amount of software that is available. Software I have purchased from a number of suppliers allegedly suitable to operate, will not run. I also fell into the trap of joining a distant organisation claiming support, but which ended up being a get rich quick scheme for the proprietor (alas Apricot owners are easy game - Unc). At work I use an IBM PS/2 model 80 and the difference is outstanding as I am able to use Lotus 1 2 3 etc. I am now contemplating (getting to the point? - Uncle TT) obtaining a machine that I can use at home. I get lost in what is a compatible machine and would be most grateful to receive your advice. I had read that some of the Amstrad range are compatible and within a reasonable price range.

My Apricot has a 20Mb Winch-

ester hard drive and I use a Quen-Dat DWP1120 daisy-wheel printer. I assume that I could use the printer with PC software until I can afford a dot matrix? With respect to the Winchester, will I be able to use this with the likes of an Amstrad?

Hamish McNab, Glenrothes, Fife.

Compatible means that the machine sufficiently resembles an IBM PC to fool software into running on it. Take a look at the Shopping Express guide to 50 top PCs given free with Express issue 43. Back copies available for the ludicrously inflated sum of 75p from Express Back Issues, The Old Barn, Somerton, Somerset.

TIP Spare rib

I think I can help J. Lambton of Guisely, Yorks (Express 42). If he contacts me I can supply all the manuals for the Coleco Adam he wants.

L. Jarvis, 14, Pevensey Avenue, Arncliffe, Grove, London N11 2RD.

HELP! Amiga at Xmas

I have a few questions for you on the Amiga 500 as I am seriously considering buying one for Christmas.

1. I would like to use the Amiga for word processing but mainly for programming. My set-up would be a Star LC10 printer, second drive and 1Mb memory expansion. Is this a good set-up for the desired uses?

2. Is there a major difference (aside from memory) between the A500 and A2000?

3. What is DiskDoktor?

4. I have heard references to copying the Workbench. Is this easy to do?

5. Will proper computer centres upgrade the Workbench and Kickstart disks when improvements become available?

6. What are the chances of the A2500 or the A3000 superseding the A500?

Please, please, please print this letter for two reasons, 1. I've never had my name in print and 2. you're the best person I can think of who will answer my questions in a helpful, friendly and unbiased way (you better believe it kid! - Unc).

G. Ross, By-Tain, Ross-shire.

1. Perfectly. The extra memory will allow you to process large documents and write lengthy programs. A second drive is always useful no matter what your intended purpose.

2. Several, not least of which is a hefty increase in price. The A2000 has expansion ports to allow devices such as a PC compatible bridgeboard to be built in allowing it to run programs intended for use on the PC and its compatibles.

3. A utility program allowing you to examine and edit disks and retrieve corrupt files as well as many other DOS-level functions.

4. Don't worry about copying system and other files - it's all easy when you know how (especially with two drives). Just buy and enjoy the system.

5. Yes.

6. A500? There's a lot of life in the old dog yet...

HELP! QL printing

1. I am the proud owner of a Sinclair QL and am looking for a printer to go with it. From reading the article in Express a few weeks ago it seems the Star LC10 seems to be a very good printer. Is it possible for me to run this with the QL or do I need a special interface?

2. At present I am having some trouble getting the QL and its associated Psion software to run as I find the manual virtually incomprehensible. Could you recommend any books which might help me in this respect?

Stuart Smith, High Wycombe, Bucks.

1. You may be able to purchase the LC10 with a serial interface (contact Star on 01-840 1800). Otherwise you need to buy a parallel interface. Try grubbing about in one of the QL-specific magazines on the news stands for a supplier of these ubiquitous devices.

2. The manual is notorious for being incomprehensible, however our very own staff QL owner Andy Storer suggests a visit to your local library, where you'll be sure to discover texts detailing the QL (look out for the name Ian Sinclair - a prolific author of computer manuals who has written the necessary 30,000 words on just about every machine in the known Universe, one or two of them actually readable).

HELP! TV PC?

Reading the article headed Screening (Express 42) about IBM compatibles and different screen displays, prompted me to think about a question I would like answered, to assist me in deciding which machine to purchase to replace my MSX (an abacus would be a step up - Unc). The question: is it possible to attach a TV modulator to the Amstrad 1512 to enable me to play my favourite pastime backgammon on a larger screen?

A. Williams, Sth. Yardley, Birmingham.

No.

TIP WIMP out

I used to be a die-hard supporter of WIMPs and all that jazz until I had an interesting experience with an ST (oh yes? - Uncle T). After having transferred 30 odd Amiga pictures to ST disks I realised that the ST art package would only read in .IFF pictures. Since none of the Amiga pictures had any extensions, I came to the conclusion that it would be a very tedious job indeed to rename them all one by one using tedious GEM!

The answer? Simple, I use CLI. First in the line-up is a PD CLI which runs as a desk accessory. It renames files as ??????.IFF. Next comes Michtron's CLI utilities which promptly returned the message 'Wild card operations not allowed with this command'. I also tried the Gulam shell but all I got was an obscure message telling me I didn't know how to use it!

In the end the problem was solved by installing an IBM boot block on the disk and then doing a rename using PC-Ditto running MS-DOS. Hope this is of help to other users trying to perform the same feat.

Ahmad Alam, Old Trafford, Manchester.

HELP! Octopus' garden

I recently dopped into an Oxfam shop and bought an Octopus CP/M computer with two 5.25-inch disk drives and a Panasonic green-screen monitor for £75.

I have been happily finding my way around the assortment of CP/M software bundled with the machine but I gather from the manual that there is a combined word processor, financial planner and database available for this computer. Could anyone sell me a legitimate copy of this program?

Paul Sutherland, 13 Disraeli Rd., Putney, London SW15 2DR.

Any Techtipers with the relevant software write this guy direct.



• Use one of these with a TV? It'd be easier to program your video recorder to play backgammon



Microdeal on show

Last week Microdeal organised a press conference at the Novotel centre so that they could show off their new range of products before the forthcoming PCW show.

On display was *Goldrunner 3D* and several new music products. The new *Goldrunner* was first started with the objective being to create the most realistic space game yet and as a result the emphasis has been on designing 3D algorithms which will look as exciting as possible and still run fast enough to create an immensely playable game. It has taken nearly a year to do the main coding and graphics with the result being that *Goldrunner 3D* is able to generate 360 polygons per second across eight different missions.

In order to get all the necessary information on two single-sided disks, *Goldrunner* incorporates a special decompressor program which operates at 20K per second as well as a super-fast disk loader able to read 5K of data in 0.18 of a second. Microdeal is considering marketing the compacter and decompressor as a separate package next year.

Music to my ears

On the music front was *Replay Professional*, the best music package in that price range to date. For £130, you get three pieces of new software - *Replay Professional* (sample editor), *Drumbeat Professional* (sequencer) and *MIDIplay* (MIDI synthesiser). *Replay Professional* includes a new hardware cartridge which contains a 12-bit digital to analog converter that allows four channels of sound to be played simultaneously. The software permits sampling ranging from 4-48KHz as well as all sorts of special editing facilities including the ability to draw your own curve and thus edit out clicks and make volume adjustments. Effects can be performed on samples and midi shifting is possible.

Drumbeat Professional will let you sequence drums or other sounds to create your own compositions. A main editing screen lets you position up to 15 sample voices on a scale. The tempo can range from 50-240 beats per minute and up to ten songs may be held in memory at once. Playback



• *Drumbeat Professional* edit screen where sequences can be constructed.

can be synchronised with midi so that you can play along with the song.

Finally, *MIDIplay* turns your ST into a sound sampling synthesizer similar to dedicated keyboards which cost hundreds of pounds. Four-channel polyphonic sound is possible with 128 voices held in memory at once.

Viruses

Over the last few months ST owners are finding that their disks are coming under attack from the Ghost virus. Since this virus will copy itself to five other disks before becoming active, it's easy to be infected and not realise it for some time. The effect of the Ghost virus is to reverse the mouse Y co-ordinates so that pushing up on the mouse will cause the pointer to move down and vice versa. CRL have recently released a virus killer which does an excellent job of detecting all known ST viruses and killing them from the disk. On top of this it can immunise a disk. When a virus is in the memory of your machine, it looks at a disk to see if it is already held in the bootsector. If it detects that it is there then the virus will not copy itself to the bootsector again. Immunisation works by copying the relevant bytes into the bootsector but without copying the active virus. Thus, when the virus checks to see if it is already held on the disk, it will find the bytes which tell it that it's there and will not copy itself. Immunisation will not work for all viruses but the CRL version will work adequately with the Ghost virus and with the virulent Anti-Virus.

Modulators

Owners of the Mega range of STs and some 1040s which don't have an internal modulator cannot connect their machines to a TV and are thus compelled to purchase a colour monitor for playing games or using other software which only runs in low- or medium-resolution. However, there is a way around this problem. The London-based Silica Shop stocks a modulator box which plugs into the monitor port providing RF output that can be connected, via a standard television cable, to any TV. This nifty little box costs £59.95. Silica can be contacted on 01-309 1111.

Shopper show

The Computer Shopper Show, due to be held at Alexandra Palace from November 24th to 26th, will this year be transformed into one of the UK's biggest Atari events. Over 100 of the 250 stands will be selling Atari products with most of the big names in the Atari market in attendance. Many new ST products will be released at the show proving that it isn't just a big spree for the box-shifters.

Arnor will be releasing a new database for the ST and a selection of sound samplers will be available from Audio Visual Research. *Sound Master* is a new low-cost sampler with built-in sequencer priced at just £30 and thus set to overshadow *MasterSound* (now handled by Kempston and selling for just under £40). The ST14 sound module, a high quality 12/14 bit sampling system for the semi-professional music market will be there, priced at £245 and the A16 sample rack, providing a CD-quality, 16-bit sound-sampler with MIDI control and sequencer will be unveiled. This will cost £595.

The first ST genlock device, armed with its own processor, memory and power supply will make an appearance courtesy of Digita International. Frontier will also be unveiling a new disk duplication device which allows up to 32 floppy disk drives to be attached to the ST's floppy disk port for £150. And finally, Rombo Productions will be bringing out a VIDI system which will allow pictures to be grabbed from video, costing £100.

Kimberly Harmagh

AMIGA BLIT

ECS mystery solved!

After weeks of confusion surrounding the new 1Mb Agnus chips, all can finally be revealed thanks to AmigaBLIT, a few enquiries and a little help from those nice chaps at Commodore.

For the past few months, several computer suppliers have been selling 'grey import' Amiga 2000s from Germany that are fitted with a new Agnus chip, that allows access to a full megabyte of chip RAM. While this may seem OK, many users have experienced problems with these machines when running certain software packages.

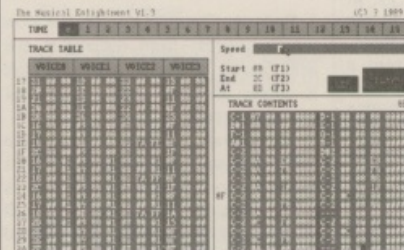
AmigaBLIT reader Bob Saunders of Reading, who is a documentary and film producer and uses the Amiga as a combination video/MIDI music workstation, wrote to me recently to tell me of the problems he had encountered. According to Bob, the Amiga 2000 he purchased was fitted with release 6 of the motherboard (which is 1.5 versions higher than current UK machines) and, in particular, he started experiencing problems with his B2000 when using PD software and Electronic Arts' *Deluxe Paint 3* package.

When I spoke to Commodore about the 1Mb Agnus, it confirmed that not only did grey import machines have the new Agnus, but that they themselves had already started shipping UK versions of the B2000 fitted with the new graphics chip. It will probably take a while before all retailers are selling this latest version of the 2000, but eventually all 2000s sold in the UK will have the new Agnus chip.

Where *Deluxe Paint 3* is concerned, Electronic Arts' became aware of the problem almost immediately after the program's launch and they have since fixed it. The reason for the problem was that the animation module within the program was requesting Fast memory for animations, but only chip memory exists on a 1 Mb Amiga with the new Agnus, and therefore *DPaint* crashed. This was quickly fixed by modifying the program to grab Public memory instead of Fast memory.

Making music with Grasshopper

UGA, who are probably better known to the vast majority of Amiga owners as suppliers and producers of some of the finest PD software, have expanded their operations to produce commercial products.



• *Sound Tracker* users will feel instantly at home with *Musical Enlightenment*

Their first release, *Musical Enlightenment*, is a product aimed fairly and squarely at the programmers and users who would have previously used the popular *Sound Tracker* utility to produce music scores for games/demos. *Musical Enlightenment* provides the Amiga user with a comprehensive collections of tools to aid the creation of

music scores. The program uses the same, drum machine-like system of composition as employed by *Sound Tracker* and will therefore be immediately usable to anyone used to working with that utility.

As well as song creation capabilities, *Musical Enlightenment* also includes a complete sample editor and effects generator which allows you to either tailor individual samples or create new instruments from scratch. *Musical Enlightenment* is still not finished, but when it is finally available, UGA hope to sell it for the amazing price of somewhere between £8 to £15. For further details, contact Seventeen Bit Software on 0924 366982.

Network news

Hydra Systems, a relatively unknown name within the Amiga market, has announced the release of their low cost networking system for the Amiga family of computers.

AmigaNet is an Ethernet network system that allows multiple Amigas to communicate and to share data. The hardware works on either the A500 or A2000 and provides some of the fastest communications systems currently available. According to Hydra, AmigaNet is the only system to allow true Amiga-to-Amiga communication and Amiga file server capabilities.

AmigaNet has been designed in such a way as to allow virtually instantaneous movement of data of varying types between any Amiga products. Subject to access permissions, any Amiga on the network can access any other screen, storage device or printer on the system as if it were physically plugged directly into the machine itself. For further info, contact Hydra Systems on 203 471111.

AMOS release delayed

Time to start sobbing. Mandarin Software have announced that the release of AMOS, the Amiga version of their popular STOS games writing system, has been put back until January due to the programmer having problems with the Amiga's quirky operating system.

Latest news on AMOS is that Mandarin have been flooded with requests by Amiga owners (the number of enquiries is already running into three figures!) for particular additions to the system. According to Chris Payne of Mandarin, they intend making AMOS the best it can possibly be and therefore they have been going through the requests very carefully. Already, several additions have been made to AMOS based around requests from potential users.

Unlike STOS, AMOS will have a compiler almost immediately. "Once the programmer has eventually finished AMOS, we're not letting him out from in front of his machine until he has also finished a compiler", commented Chris.

Message port

If you have any comments on any issues raised within AmigaBLIT, or in fact the Amiga scene in general, then why not jot them down and send them in. Similarly, if you have any great tips, tricks or cheats for the latest Amiga software, then I'd love to hear from you.

The address is: JASON HOLBORN, AMIGABLIT, 4 QUEEN STREET, BATH BA1 1EJ.

I'd like to take this opportunity to thank those of you who have sent in your idea of the 'Dream Amiga'. When a few more arrive, I'll draw up an overview of what you lot really want to see from Commodore.

Jason Holborn

PC UPDATE

Input on INPUT

Going back to BASIC, there is another problem which is addressed all too little in handbooks for the language, and in its syntax. If you want your program to request and receive input from a user, the most obvious choice of command is INPUT or INPUT\$. This has distinct shortcomings, though, as the command only provides very crude editing facilities. There are also no limits to the length of an entry a user can make (other than the length of the receiving variable), and this can lead to screen corruption and a very tatty result.

What is needed is a custom-written routine which provides the following facilities:

1. The ability to place a text input field anywhere on the screen.
2. The provision of a 'software cursor' within the field, which moves according to user input (cursor keys, etc).
3. Restriction of cursor movement to the limits of the field.
4. User entry of text or numbers and deletion of either, at the cursor with the [Delete] key and left from the cursor with the [Backspace] key.
5. Use of the [Insert] key to toggle between Insert and Overwrite modes of entry. Different cursor shapes to indicate these two modes.
6. The ability to restrict input to certain characters, e.g. numbers only, in numeric fields.

The routine should ideally be in the form of a procedure or sub-routine. Values to pass to it must include the x and y co-ordinates of the first character of the field, the field's length in characters, the type of entry allowed (numeric or alphanumeric) and the variable in which the routine should return the user entry.

This sounds increasingly like the basis for a small competition. If you'd like to send in source code for your best effort, I'll award a decent PC game and publication of the listing to the best entry received by the end of September. All entries must be on disk AND printed on paper (handwritten at a pinch). All entries will be tested under QuickBASIC 4.5 or BASIC 2, so anyone using GW BASIC or Turbo BASIC should also be OK. The NCE decision is final. Send your entries to *New Computer Express*, 4 Queen Street, Bath BA1 1EJ. I look forward to seeing them.

Hard disk DOS dumps

It's worth remembering that different versions of MS-DOS are non-compatible in at

least one important way. If you upgrade a hard disk machine from one version to another, you are unlikely to be able to use the machine again without reformatting the hard disk - at a low level. It is sometimes enough to use FORMAT to revitalise the format markings on your hard disk cylinders, but in many cases you'll have to use FDISK and HDPREP to reformat it at a lower level.

The error messages you'll get are inconsistent as well. Sometimes you'll get a polite, but annoying 'Wrong DOS version' error, at others your system will refuse to have anything to do with your hard disk, giving a data error. The best way out of this is to back up your hard disk and reformat the whole thing from scratch. It might take you an evening, but the whole machine will run sweeter for it.

In the JUG

We journo have a hard life, as I'm sure you know. Sweating night after night over a hot beer with only a couple of PCs down the local to take our minds off things. Well, just to give

us another excuse for a drink, we can now go along to a JUG meeting. JUG, the recently formed Journalists User Group, is an informal group of journalists who meet once a month to talk about the wonders of word processing in a pub off the Strand. They also put out a very passable newsletter.

One of the main aims of the group is to try and arrange journalist discounts

from computer suppliers. And not just for those of us who write about computers, either. The idea behind JUG is to present journalists as a special group worthy of consideration, and they've achieved good discounts from a fair selection of suppliers. Membership costs £10 per year and further details can be had from Simon Atkinson, Design Engineering, Morgan Gramplan, Morgan Gramplan House, Calderwood Street, London SE18 6QH.

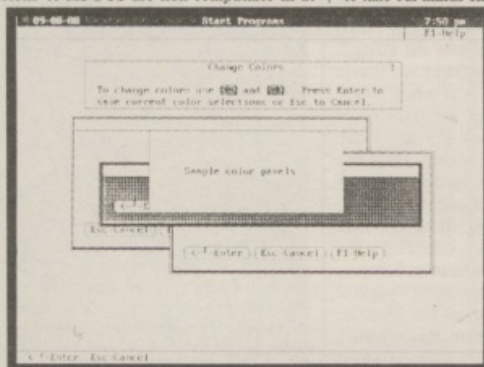
Synchronicity rules OK?

Those nice young things at PC PLUS finally persuaded me to forgo my lifelong hatred of comms and attempt to send my copy to them via modem. The logic was that they would receive my copy up to two days earlier and possibly therefore on time. They 'even' provided an Amstrad PPC portable complete with modem to send the stuff on, and a program called PC Anywhere which they assured me would ring me back so that they would pay for the call.

I was shown how to ring in using the system from one outside line within Future Towers to another. It all worked very smoothly and seemed totally automatic. When I got the machine home and came to send them my first bit of copy, I wired the PPC up to my business phone socket and set the whole thing dialling.

Now it just so happened that the software was still set up for the demo, which of course was a local call from Bath to Bath - no STD code. It further so happened that the first three digits of the PC PLUS direct line are the same as those of the private line on the small local exchange I was ringing from. The combination of these two facts lead to the PPC dialling in and trying to connect to the phone at the other end of my office!

Simon Williams



• You may want to reformat your hard disk under DOS 4, as you can have much larger partitions on it

COMPUTERS, SOFTWARE & PERIPHERALS AT DISCOUNT PRICES

AMSTRAD RANGE

	r.s.p. Ex VAT	Offer Ex VAT
PCW RANGE		
PCW 8256	£399.00	£315.00
PCW 8512	£449.00	£405.00
PCW 9512	£499.00	£439.00
Cut Sheet Feeder for PCW 9512		£89.00
PPC PORTABLE		
PPC 512S	£399.00	£369.00
PPC 512D	£549.00	£469.00
PPC 640S	£499.00	£449.00
PPC 640D	£649.00	£559.00
PPC 512S + 20mb Hard Disc		£819.00
PPC 640S + 20mb Hard Disc		£899.00
PC 1512		
SD-MM	£399.00	£369.00
SD-CM	£499.00	£449.00
DD-MM	£499.00	£449.00
DD-CM	£599.00	£529.00
PC 1640		
SD-MD	£499.00	£465.00
SD-CD	£599.00	£555.00
SD-ECD	£699.00	£650.00
DD-MD	£599.00	£520.00
DD-CD	£699.00	£609.00
DD-ECD	£799.00	£695.00
HD-MD	£799.00	£695.00
HD-CD	£899.00	£782.00
HD-ECD	£999.00	£869.00
PC 2086		
SD-12 MD	£599.00	£539.00
SD-14 CD	£699.00	£629.00
SD-12 HRCD	£799.00	£719.00
SD-14 HRCD	£899.00	£809.00
DD-12 MD	£699.00	£619.00
DD-14 CD	£799.00	£709.00
DD-12 HRCD	£899.00	£799.00
DD-14 HRCD	£999.00	£889.00
HD-12 MD	£899.00	£789.00

All prices exclude VAT and are available for a limited period and are subject to availability.

Phone for best price and products not listed.

We supply a full range of computers from EPSON, OLIVETTI, PHILIPS, SHARP, BROTHER, AST, ZENITH, SCHNEIDER, ACORN... Phone for prices.

WILLOW SOFTWARE Dept NCE

Mail Orders Office - Callers by appointment
Tel: (0934) 876031

SPECIAL OFFER FOR LIMITED PERIOD

Buy ANY PPC, PC1512 or PC1640 and get a Citizen 120D printer for only £120 or a Citizen MSP15E printer for only £220

HD-14 CD	£999.00	£879.00
HD-12 HRCD	£1,099.00	£969.00
HD-14 HRCD	£1,199.00	£1,059.00

SPECIAL OFFER FOR LIMITED PERIOD

Buy ANY PC2086 and get an Amstrad LQ3500di printer & LOTUS SYMPHONY for only £229 or an Amstrad LQ5000di printer & LOTUS SYMPHONY for only £349

COMMODORE PC10 III & PC20 III TURBO

High performance XT compatible business computers with the 8088 microprocessor with a choice of three clock speeds enabling you to select a processing speed to suit. Processing speeds: 4.77MHz, 7.16MHz or turbo 9.54MHz: MS DOS 3.21 - GW Basic - 5.25" discs - 640k ram (expandable) - AT style keyboard.

	r.s.p. Ex VAT	Offer Ex VAT
PC RANGE		
PC10 Single Disc - Mono display	£549.00	£480.00
PC10 Single Disc - CGA display	£699.00	£615.00
PC10 Single Disc - EGA display	£849.00	£735.00
PC10 Double Disc - Mono display	£599.00	£535.00
PC10 Double Disc - CGA display	£749.00	£670.00
PC10 Double Disc - EGA display	£899.00	£795.00
PC20 Hard Disc 20mb - Mono display	£799.00	£695.00
PC20 Hard Disc 20mb - CGA display	£969.00	£835.00
PC20 Hard Disc 20mb - EGA display	£1,099.00	£960.00

COMMODORE PC30

High performance AT business computers with the 80286/12 microprocessor with a choice of three clock speeds. Processing speeds: 6MHz, 8MHz or turbo 12MHz - AT extended keyboard

MS DOS 3.3 - GW Basic - 3.5" 1.44mb floppy - 20mb Hard Disc (Current price includes Windows & Mouse)
PC30 Hard Disc 20mb - Mono display ..£1,199.00...£1,050.00
PC30 Hard Disc 20mb - CGA display ..£1,349.00...£1,200.00
PC30 Hard Disc 20mb - EGA display ..£1,449.00...£1,300.00

COMMODORE PC40 III

High performance AT business computers with the 80286/12 microprocessor with a choice of three clock speeds. Processing speeds: 6MHz, 8MHz or turbo 12MHz: AT extended keyboard MS DOS 3.3 - GW Basic - 5.25" - 1 Mb ram

PC40 Hard Disc (40mb)	
PC40 Hard Disc - VGA Mono	£1,699.00...£1,429.00
PC40 Hard Disc - VGA Colour	£1,899.00...£1,629.00
PC40 Hard Disc (40mb + Tape Streamer)	
PC40 Hard Disc - VGA Mono	£1,949.00...£1,729.00
PC40 Hard Disc - VGA Colour	£2,199.00...£1,929.00

COMMODORE PC50 HD386 & PC60 TOWER 386

New Models.....Phone for prices

NOTE ★ ★ ALL COMMODORE COMPUTERS COME WITH 12 MONTHS ONSITE WARRANTY ★ ★

LASERS & PRINTERS

We supply the whole range of printers from most popular manufacturers including:

AMSTRAD	BROTHER	CANON	CITIZEN
EPSON	HP	JUKI	NEC
OLIVETTI	PANASONIC	QMS	QUME
SEIKOSHA	SIEMENS	STAR	

ALL AT HIGH DISCOUNT PHONE FOR LATEST OFFER PRICE

[Full DTP systems supplied including S/W, scanners etc]

AMSTRAD NETWORK

Connect up to 3 stations per pack (Max 6 stations).....£379.00

Willow Software
The Willows
Wrington Lane
Congresbury
Bristol
BS19 5BQ



Music Cortina

The Spectrum's not exactly renowned for its musical abilities and unless you're a good programmer everything you ask it to play comes out sounding like a wasp in a matchbox, only without the harmony. But now Torchraven Software have released *Music Maestro*, a music creation utility which lets you compose beautiful three channel pieces on the 128, +2 and +3 and nice bleeps and blurbles on the 48K Spectrum.

Unlike previous music construction kits for our machine, the RAM Music Machine and Spectrum for instance, it performs totally without the aid of a hardware add-on but still manages to coax excellent sound quality from the machine's darkest depths. Obviously, the absence of any hardware also means the price is low enough for anyone who wants to indulge in a bit of musical experimentation without having to take out a second mortgage.

Making music with the package is fairly easy even if your previous musical experience only extends to singing along to a Walkman on the train. The program's totally controlled with one key press menus and entering notes is particularly simple with cursor control used in conjunction with various keys to change length and pitch. You also hear the notes as they're selected. For multi-score extravaganzas you can compose individually on all three channels and there are options to turn tone and white noise on and off for each channel as well as a sound to light generator and a host of things worth its salt, like being able to change key, tempo etc.

What you perhaps wouldn't expect to find on a Spectrum package but do get in *Music Maestro* are pitch and amplitude (which basically means volume) envelopes for each channel. These can be altered and saved so

you can incorporate them in other work and the authors have provided a natty graphical display which shows you the current shape of the envelope.

No room for further details but going by the demo tunes supplied with the package, *Music Maestro* is capable of producing music that's well worth turning up the sound on the TV for. It's a fine program and if you want a cheapish introduction to making beautiful music on the Spectrum you won't find a better one than this.

Music Maestro is available by mail order only at the very reasonable sum of £9.95 on tape and £12.95 on +3 disk. Orders to Torchraven, King House, 60/64 Matthias Rd., London N16 8QD.

Not sick as a parrot

What else but a resounding chorus of "I'm over the moon, Brian" can possibly greet the news that Anco have decided to release a Spectrum version of their acclaimed footy simulator *Kick Off*. This is the game that assorted 16-bit owners have been raving about for the past few months and although that's not necessarily something you always want to take notice of, in this case they're probably right. Mind you, Anco's Spectrum track record up until now has been a tad dubious to say the least, so don't invade the pitch quite yet. The only Spectrum game of theirs I can even remember is *Maria Whittaker's Christmas Box*. Which apart from being rubbish, totally unexciting and completely sexist was released in February, suggesting a slight miscalculation on Anco's behalf. Still, it's good to see the Spectrum figuring in another software house's release schedule and if *Kick Off* comes close to *Matchday II* in terms of playability and realism we might still be playing it come the World Cup. Expect a full comparison play off in a future column.

Version saga continues

J R Cleveland of north London writes to say that despite what I said in this column recently, version 4.0 +3s with all their attendant sound problems, are still on sale. It seems that he's just bought an Action Pack which contained the older machine.

He also points out that Dixons at least seem unable to make up their mind how much to charge for the action Pack, with prices varying randomly between £200 and £220. The moral: shop around before you buy.

Even more enigmatic info

Third issue of Enigma, the 128K specific tape 'zine, has just reached me hot off the cassette recorder. No excuses for giving it another plug to add to the collection because it's definitely one of the best independent publications around at the moment. This latest edition looks and sounds very impressive with no fewer than 10 separate soundtracks to listen to while you read the news, chat, hacks and reviews. Recorded after that lot is a 3D ball game, code compressor and border effect routine making this a great package for anyone with a 128, +2 or +3 Spectrum. The tape version costs £1.99 (or £150 + C60 cassette) from 15 Westfield Rd., Inverurie, Aberdeenshire AB5 9YR. Co-editor Hamish Rust has also managed to find a lackey willing to copy and send out +3 disk versions of the mag. Send £3 or £1.50 and a formatted 3" for the disk based Enigma to 17 Louisville Ave., Aberdeen AB1 6TT (all cheques payable to Enigma).

Robin Alway



The great CP/M+ mystery

A Mr Dennis Francis of Reading has written to me with what initially appears rather alarming news.

Dennis sent off in January for a 6128 ROM and CP/M+ disc to upgrade his 464. Sensible

Cute, cuddly and rude

Did you see the story in NCE a few weeks ago about obscenities appearing in Skweek, US Gold's fabulous furry funster-type game? It appeared that in fact the rude ejaculations were the practical joke of some irresponsible Amiga programmer who forgot to remove the offending messages.

All this is by way of introduction to a poke for Skweek from the fabulous furry funster-type Mike Wong, whom God and the NHS preserve.

In order to avoid what would be a finger punishingly long poke, Mike has devised the following fiendishly clever method.

First, buy your copy of Skweek. Insert it in the drive; load "disk," edit 150, replacing the CALL &B010 with END. Then enter RUN and NEW. Now insert poke disk, LOAD "SKWEOKE (ie the poke below); re-insert game disk and then finally enter RUN.

```
10 DATA 21,89,be,22,1a,9f
20 DATA c3,10,80,3e,ff,32
30 DATA 74,99,32,82,99,c3
40 DATA 30,72
50 FOR n=4BE80 TO 4BE93
60 READ a$;a$=VAL("&"a$)
70 POKE n,a:NEXT
80 CALL 4BE94
```

Secondly this week, a Mr Tony Arnold of Brighton has sent in offers of a large bribe if I could help him with a poke for the old - nay, ancient - Mastertronic budget wizardly combat game Feud.

Now to be honest I'd never even heard of this one before, but in the interests of research and collecting that large bribe I raided the files of Amstrad Action (all good newsagents... astounding value... order yours etc) and came across this tape poke.

It gives you infinite energy and invulnerability to the herb keeper and Leanoric. Hope it's what you're after, Tony!

```
1 ' Feud - tape
2 ' by Peter Featherstone
3 ' from the files of Amstrad Action
10 FOR f=45a00 TO 45ale
20 READ a$
30 POKE f,VAL("&"a$)
40 NEXT
50 CALL 45a0c
60 DATA af,32,cd,1f,3e,c9
70 DATA 32,57,0e,c3,00,04
80 DATA 21,00,50,11,4c,01
90 DATA 3e,16,cd,a1,bc,3e
100 DATA 5a,32,08,50,c3,00
110 DATA 50
```

To use it, rewind the game tape to the start, type in the poke and then type RUN and press the small Enter key. Press play and any key and there you are!

● Written any good pokes lately? Send your infinite heads poke for Barbarian II to: Steve Carey's CPC Centre, NCE, 4 Queen St, Bath BA1 1EJ.

chap. Unfortunately, however, although he plugged in his nice new ROM chip with no problems, he still hasn't tracked down a CP/M+ disc. "One dealer I phoned," writes Dennis, "suggested that Amstrad was miffed about we 464ers upgrading for £16.90 instead of forking out the money for a 6128. I wonder if you could find out when, or if, I'm likely to get a legit copy of CP/M+. I presently have the disc on order with CPC Computing, as recommended by yourself."

Oh dear, I thought, and even, Oh crumbs. Amstrad playing hard to get with the CPC again? Well, no. At least, Gary Carter, CPC Computing's (0772 555034) buyer tells me that there has been a delay in the discs coming over from the Far East. I understand, however, that the discs for the PCW have now arrived, and the CPC ones are understood to have been on the same shipment. So Mr Francis, and anyone else in the same predicament, should soon find the postman delivering a pleasant surprise.

I hope.

Go on, argue with me!

A letter of a very different kind comes from a Mr John Fairlie of Bristol. "May I say," he writes, and of course he may, it's a free country, "may I say that, despite being a 6128 owner, I find all this talk about Amstrad's attitude to the future of the CPC range to be rather out of place."

Why's that, John? Well, Amstrad, John points out, is in business to make and sell computers and other products. When you buy a CPC you have no more right to the continuation of the range or any supporting rights beyond a guarantee than if you buy a car. Nor do you have the right to have your letters answered or to a free phone service.

"Of course it's nicer to have fellow users, software companies, firmware manuals, experienced repairers, good magazines and so on, and these are more likely to predominate while the range is current. But we have no right to their existence."

"If we don't have perfection - the continuation of the firmware manual, a distribution system in Australia, then so be it. I'd have liked a spreadsheet and database on ROM, and we never got that!"

In a sense John is perfectly correct, of course. We have no right to these things. But what I and others have been saying for so long is that Amstrad ought to keep the CPC going not for moral but for commercial reasons.

We've been insisting that Amstrad doesn't appreciate what a good machine it has, and that if only it would do a better job of selling the CPC it would do very nicely. After all the machine is five and a half years old, and must therefore need next to no development costs.

What do you think? Is there ever a moral responsibility on a company to keep producing its products? Would Amstrad be stupid and sentimental to do so, or would it be simple commercial sense? Write to Steve Carey, CPC Centre, NCE, 4 Queen St, Bath BA1 1EJ.

Good mo-o-orning Mini Office!

My interest in the hidden messages contained in Database's massive selling *Mini Office II* stirred up one Robin Williams to get in touch. He tells me that the disc protection XOR routine is a number that is really a message, say no more nudge nudge (cryptic or what?).

Next time you're loading up MOII, says Robin, try holding down the keys BUGS and see what happens. You'll have to be quick, though...

Steve Carey

Pokes with a difference

Here are a few pokes which just for a change don't give you infinite mutant train spotters, limitless ninja guinea pigs or other games related benefits.

POKE 23568,23	Unable to list program
POKE 23613,87	NEWS program
POKE 23743,80	Clears screen
POKE 23743,83	Returns screen
POKE 23692,255	Anti scroll
POKE 23570,10	Disables EDIT key
POKE 23570,16	Stops auto listing when ENTER is pressed

Cheers to Allan Garside for sending those in. The same man also offered the following listingette which prints everything on printer instead of the screen.

```
10 CLOSE #2
20 OPEN #2,"P"
30 REM rest of the program
9999 CLOSE #2: REM last line of program, press break after CLOSE #2
```


FREE! TENSTAR PACK WORTH OVER £229!



FREE! - AMEGAS - by Players



FREE! - INSANITY FIGHT - by Microdeal



FREE! - ART OF CHESS - by SPA



FREE! - MERCENARY COMP - by Novagen



FREE! - BARBARIAN, ULT WARRIOR - by Palace



FREE! - TERRORPODS - by Psygnosis



FREE! - BUGGY BOY - by Elite



FREE! - THUNDERCATS - by Elite



FREE! - IKARI WARRIORS - by Elite



FREE! - WIZBALL - by Ocean

Commodore AMIGA



£346.95
+VAT=
£399
INCLUDES
FREE UK
DELIVERY

The Amiga 500 is one of a new breed of technologically advanced computers, which are now emerging as the new standard for home computing, based around the new Motorola 68000 chip. The A500 has 512K RAM and a 1Mbyte double sided disk drive built-in. It can be connected directly to a wide range of monitors, or to a domestic TV set through a TV modulator. Designed with the user in mind, the A500 features a user friendly WIMP environment and comes supplied with a free mouse. And, when you buy your Amiga from Silica Shop, the UK's No1 Amiga specialists, you will experience an after sales service that is second to none, including a technical support helpline and free newsletters and price lists. Return the coupon below for our current information pack, which will give details of the Silica service and the very latest Silica Amiga offers. E&OE

WHY SILICA SHOP?

Before you decide when to buy your new Commodore Amiga computer, we suggest you consider very carefully WHERE you buy it. There are MANY companies who can offer you a computer, a few peripherals and the top ten selling titles. There are FEWER companies who can offer a wide range of products for your computer as well as expert advice and help when you need it. There is ONLY ONE company who can provide the largest range of Amiga related products in the UK, a full time Amiga specialist technical helpline and in-depth after sales support, including free newsletters and brochures delivered to your door for as long as you require after you purchase your computer. That one company is Silica Shop. We have been established in the home computer field for ten years and can now claim to meet our customers requirements with an accuracy and understanding which is second to none. Here are just some of the things we can offer you:

THE FULL STOCK RANGE: The largest range of Amiga related peripherals, accessories, books and software in the UK.

AFTER SALES SUPPORT: The staff at Silica Shop are dedicated to help you to get the best from your Amiga.

FREE NEWSLETTERS: Mailed direct to your home as soon as we print them, featuring offers and latest releases.

FREE OVERNIGHT DELIVERY: On all hardware orders shipped to Silica Shop customers within the UK mainland.

PRICE MATCH PROMISE: We will normally match our competitors offers on a 'same product same price' basis.

FREE TECHNICAL HELPLINE: Full time team of Amiga technical experts to help you with your technical queries.

But don't just take our word for it. Complete and return the coupon below for our latest Amiga literature and begin to experience the Silica Shop specialist Amiga service.

PHOTON PAINT PACK

A500 Computer	£399.99
TV Modulator	£24.99
Photon Paint	£69.95
TenStar Pack	£229.50
TOTAL RRP:	£724.43
LESS DISCOUNT:	£325.43
PACK PRICE INC VAT:	£399

1084S MONITOR PACK

A500 Computer	£399.99
1084S Colour Monitor	£299.99
Photon Paint	£69.95
TenStar Pack	£229.50
TOTAL RRP:	£999.43
LESS DISCOUNT:	£350.43
PACK PRICE INC VAT:	£649

FREE FROM SILICA

When you buy the Amiga 500 from Silica Shop, you will not only get a high power, value for money computer, we will also give you some spectacular free gifts. First of all, we are now including a TV modulator with every A500 stand alone keyboard, so you can plug your Amiga straight into your TV at home (the modulator is not included with the A500+A1084S pack as it is not required for use with monitors). Secondly, we have added a free copy of Photon Paint, an advanced graphics package with an RRP of £69.95. Last (and by no means least!), so that you can be up and running straight away, we are giving away the sensational TENSTAR GAMES PACK with every A500 purchased at Silica Shop. This pack features ten top Amiga titles which have a combined RRP of nearly £230! Return the coupon for details.

FREE TENSTAR PACK

When you buy your Amiga 500 from Silica Shop, we want to make sure you get the best deal possible. That is why we are giving away the TENSTAR GAMES PACK worth nearly £230, absolutely FREE with every A500 purchased from us. The TenStar Games Pack includes ten titles for the A500, each individually packaged in its own casing with instructions.	
Amegas	£14.95
Art Of Chess	£24.95
Barbarian, Ult Warrior	£19.95
Buggy Boy	£24.95
Ikari Warriors	£24.95
Insanity Fight	£24.95
Mercenary Comp	£19.95
Terrorpods	£24.95
Thundercats	£24.95
Wizball	£24.95
TOTAL RRP:	£229.50

INC VAT

DO YOU OWN AN AMIGA?

If you already own an Amiga computer and would like to be registered on our mailing list as an Amiga user, let us know. We will be pleased to send you copies of our price lists and newsletters FREE OF CHARGE as they become available. Complete the coupon and return it to our Sidcup branch and begin experiencing a specialist Amiga service that is second to none.

SILICA SHOP:

SIDCUP (& Mail Order)	01-309 1111
1-4 The Mews, Hatherley Road, Sidcup, Kent, DA14 4DX	
OPEN: MON-SAT 9am - 5.30pm	LATE NIGHT: FRIDAY 9am - 7pm
LONDON	01-580 4000
52 Tottenham Court Road, London, W1P 0BA	
OPEN: MON-SAT 9.30am - 6.00pm	LATE NIGHT: NONE
LONDON	01-629 1234 ext 3914
Selfridges (1st floor), Oxford Street, London, W1A 1AB	
OPEN: MON-SAT 9am - 6.00pm	LATE NIGHT: THURSDAY 9am - 8pm

To: Silica Shop Ltd, Dept NCE 0889, 1-4 The Mews, Hatherley Road, Sidcup, Kent, DA14 4DX

PLEASE SEND ME FREE LITERATURE ON THE AMIGA

Mr/Mrs/Ms: Initials: Surname:

Address:

Postcode:

Dept NCE 0889

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

STREET TALK

BY MIKE DUNN

FRANCE isn't the first place you associate with revolutionary new approaches to game design, but a French company, Delphine Software, has written a game called *Future Wars: Time Travellers*, which employs a radically different technique for adventure games. The system is called Cinematique, and mixes the adventure theme into an animated game, but without the



necessity to type in huge streams of instructions for your character. The Earth is under attack from an alien race, and it's the 43rd century (you'd think they'd have done something about this alien invasion business in the last two thousand years!). Unfortunately the aliens have worked out how to breach Earth's space defence program; they plan travel back in time and sabotage the defences before they are built! *Time Travellers* is already tipped to be major success on the other side of the Channel; it's being released across Europe at the end of October. Amiga and ST owners can get it then, courtesy of Palace Software. PC owners will have a version to follow.

SPECTRUM HoloByte have launched a special mission disk for owners of *Falcon*. *Operation Counterstrike*, on the Amiga and ST gives you 12 new missions, in a different landscape. There are four types of land enemy to take on; tanks, amphibious landing craft, trucks and trains, as well as the MiGs; the MiG 21 replaces the older MiG 29. One of the most exciting features about the new disk is that it allows the user to connect to another computer through a modem or direct link, and play a head-to-head dogfight. Of course, you'll need the old *Falcon* program to run these new missions; the disks will retail in the U.S. for \$24.95 - no UK details as yet.

TAME THE GAME

"For the IBM PC compatible versions of **PIRATES!**, when in a sword fight, select a rapier and keep slashing low (always good advice!). Winning should be no problem.

Here are the passwords for the computer terminal on level five of **TRAN-TOR**:

Kempston, Joystick, Spectrum, Computer, Keyboard, Sinclair, Software, Cassette, Graphics, Terminal, Hardware, Controls, Printers, Warriors, Wargames. Collect the three letter code, carry on to level 8 and enter it."

DANIEL KEEBLE, Chelmsley Wood, Birmingham.

-And apparently Daniel, it is true that WD-40 will work on used printer ribbons and rejuvenate them (so I'm told)!

A couple of tips to make **BBC** owners feel better;

"On **SPELLBINDER**, adding fleas to the end of each spell makes it more powerful.

On **EMPIRE STRIKES BACK**, pressing F6 then F0 on the title screen gives you infinite shields."

D. LANGTON, New Southgate, London N11

And a few for the **SPECTRUM**;

"**EMLYN HUGHES' INTERNATIONAL SOCCER**; on the easy level, try tackling the opponents when they kick off, take the ball up to their edge of the centre circle, hold down "lob" for about one second, then release and watch the ball fly over the goalie's head and into the back of the net! If you have the opponent's goal on screen, take the

ball up close to their goalie, stand about a character square away, then do a straight forward kick, and the ball should get past him. Also, be wary of some combinations of control keys; the wrong ones can make your players spin round before you can control their actions.

• **RENEGADE III**; on level 1, don't stay near the top for too long, and don't try to jump the wider rivers or any of the pits with more than two spikes in them, because you're unlikely to make it!

• **TETRIS**; Instead of playing on level 0, try levels 1 or 2, as the speed is more or less the same, but the points are higher. Don't wait for the thin yellow block as it probably won't arrive; this game tends to favour the oddly shaped magenta ones. Leave the backgrounds off; they're annoying.

• **MONTE CARLO CASINO**; despite the inlay telling you that the objective is to get a million dollars, the game doesn't stop when you succeed! On the sub-games;

• **ROULETTE**; great fun, although my copy tends to like 2, 5, 23 and 35. If any number in the middle row (2,5,8,11...) comes up, keep betting on it until it loses.

• **PONTOON**; Add ten to the dealer's card and if you've got less, then buy or twist. Although the inlay says that a five card trick should beat pontoon, watch what happens when you get a five card trick and the opponent gets pontoon!

• **POKER**; never gamble more than half your cash minus \$6000.

• **CRAPS**; this is boring; watch two tiny black squares fly around a green block and come up so as you lose nine times out of 10. Wow.

• **FRUIT MACHINE**; where's the million dollar jackpot, Codemasters? The highest win possible is only \$20,000.

• **STREET CRED FOOTBALL**; If anyone in the world is having trouble winning 25-0, here's some tips;

Don't change the payer positions. Take the ball off the computer player at the start by challenging him diagonally up and left. Go straight towards the goal, up and right, until you are centered on it, and then shoot. If you go too near the crates which mark the goalposts, then the goal won't count even if it looks like it went in.

• **FAST FOOD**; Always start on level one; by the time you get to level twenty

HIT LIST TOP 5 GAMES

We don't need this Gallup chart business! These are the *really* good games of the last few months. Cue *New Computer Express*' very own guide to what's worth buying...

1. GUNHED

Hudson Soft • PC Engine only
Oops! Don't know what happened to this last week, but the mighty PC Engine shoot-'em-up is well and truly back at no. 1.

2. BLOOD MONEY

Psygnosis • Amiga, ST, C64 and PC versions under development.
The ST version of this mega-hit Amiga shoot-'em-up has arrived. It sounds good, it looks good, it plays brilliantly!

3. NEW ZEALAND STORY

Ocean/ Spectrum, C64, CPC, ST, Amiga
Arrow-shooting bomb-dropping kiwis go wild; a direct conversion from the coin-op machine.

4. APB

Domark • Spectrum, C64, CPC, ST, Amiga
Cops 'n' robbers at its best; nick all the lawbreakers in this accurate conversion from the Tengen arcade game.

5. CARRIER COMMAND

Rainbird • Spectrum, CPC (disk only), ST, Amiga
A great strategy/arcade combination which lets you take total control of a whopping great aircraft carrier riding the ocean waves.

TOP 10 GALLUP CHART

The 10 best-selling games according to Gallup

1 INDIANA JONES AND THE LAST CRUSADE

US Gold's finally taken the top spot

2 ROBOCOP

Long-standing chart topper toppled

3 NEW ZEALAND STORY

Cutsey-cutesy kiwis

4 CRAZY CARS 2

New entry for Titus' racing game

5 DRAGON NINJA

One of five Ocean titles in the top 10

6 BATMAN

Riding the crest of the hype

7 OPERATION WOLF

Mayhem, violence and destruction

8 SILKWORM

Virgin's classic

9 LICENCE TO KILL

James Bond struggles on

10 DOUBLE DRAGON

Oriental violence from Melbourne House

DO YOU OWN THESE GAMES?

- **APB**
- **XENON II**
- **QUEST FOR THE TIME BIRD**
- **XYBOTS**
- **RIK DANGEROUS**

We've taken five of the best recent releases and declared war on them! Express needs you to

help tame them; have you discovered a hidden cheat mode, a poke, or a bug that makes the game easier? Or do you have some tips to share with everyone else?

If you've got the info, send it to;
Tame The Game
4 Queen Street
Bath
BA1 1EJ.
The best game tamers

from each issue win a prize; don't forget to tell us which computer you own!

We're also going to start a high score section to give you something to aim for, but we need some good scores from you - send us three tips on how you managed your score, and then achieve fame and er, more fame in the Game-

GAME

you'll have 6 or 7 lives (if you're any good, that is!).

• **MATCHDAY II:** Go up to the goalie and shoot diagonally away from him; he won't save it."

A.R. BEEBE, Hinkley, Leics.

"On the **C64** version of **NEW ZEALAND STORY**, hold down the TRY CHEATING keys (including the space) the border should turn grey. When you start the game you'll have infinite kiwis and the ability to get to the next level by pressing "<" (LEFT ARROW)"

KENDAL MAY, Faversham, Kent.

"When playing **SILKWORM**, a good way of getting the "kill counter" to go down faster is to use the helicopter to shoot the jeep when the jeep is carrying the shield.

• In **LASER SQUAD (64)**, when face to face with the battle droid in a single thickness passage, grenade or shoot (cannon only) at the wall next to the droid and you will do more damage than shooting directly at him."

JOHN MARSHALL, Emsworth, Hants.

Help for **AMIGA** owners with a copy of **RETURN OF THE JEDI...**

"On level one, if you miss a bike, do some evasive action, and it will disappear in a few moments. Never fly in a straight line if you're being tailed. The first level of the Death Star is easy enough but on later levels, you should accelerate the Millennium Falcon before the falling beam hits you. On the walker levels, destroy the logs for extra points. If you stay on the far right the rock throwing Ewoks will miss you. When you come to the two enemy walkers, blast the left one and move past; it's best not to try for the other one, as you'll probably get destroyed."

And for those with **CAPTAIN BLOOD;**

"If you try to land on a planet with defences and the missiles are coming right at you, stop and go to the bottom of the screen; they will retreat. This can be repeated until you reach the ravine."

ROWAN BARRETO, Brixton, London SW2.

On **C64 THUNDERBLADE**, POKE 4159,200 for 200 'choppers and SYS 4096 to restart.

On **OPERATION WOLF**, POKE 33359,165 for infinite energy and SYS 16963 to restart

On **DRAGON NINJA**, POKE 43123,0 for infinite energy and SYS 2016 to restart.

RYAN DONAGHEY, Co. Tyrone, N. Ireland

Select your mission on **AMIGA NEBULUS** then type on the title screen "HELLOIAMJMP" (no spaces); this gives you infinite lives and lets you select towers using the function keys F1-F8.

CHRIS CLIFFORD, Neath, West Glamorgan

GAME of the WEEK

Blood Money was an instant classic on the Amiga, now Psygnosis' top shoot-'em-up is out on the ST

BLOOD MONEY

From Psygnosis • ST version reviewed

GAMEPLAY • It has to be said; **Blood Money** is one the best shoot-'em-ups we've seen (not counting the PC Engine games!). Any sort of scenario or plot would almost be unnecessary in a shoot-'em-up of this calibre, but nonetheless the inlay is funny and manages to twist out some sort of story; you're on an alien safari have to shoot everything that moves! There are four levels, which range from the planet



VERSION	PRICE	DUE OUT
Spectrum	No version planned	
C64	?????	November
CPC	No version planned	
ST	£24.95	Now
Amiga	£24.95	Now
PC	?????	November

Gibba, which you see from a helicopter, to the planet Snuff, which we haven't seen at all yet! Every so often there's an equipment store, which allows you to buy add-on weapons for your vehicle, be it a jet pack, submarine or whatever; dead aliens leave behind the money necessary to get these goodies.

GRAPHICS AND SOUND • The soundtrack that accompanies **Blood Money** is fantastic; it adds atmosphere and gives you something tuneful to listen to into the bargain, but we found that the game was equally enjoyable with the FX option, as these too are very good. On the visuals too, it scores highly, with excellent use of colour, some superb animation on the aliens, and very smooth multi-directional scrolling. It's worth playing just to listen to the tune and watch the enemies float by!

OTHER VERSIONS • The only other version that currently exists is the Amiga one, and this is of the highest standard. In fact, the ST version is remarkably similar; it imitates the



effectively. Converting a game like **Blood Money** onto other formats is going to take a considerable amount of work, but Psygnosis are planning to release it on the C64 and PC in November. These should be well worth watching as they'll either be very disappointing or something that will take both

VERDICT

★★★★★
An impressive product. Slickly presented, in a large colourful box with an informative and amusing manual, detailing one of the most addictive shoot-'em-ups I've seen outside the console market; **Blood Money** is not a game to miss.

NAME BEHIND THE GAME

The original Amiga version of **Blood Money** was written by David Jones, and the graphics designed by Tony Smith. The ST version, on the other hand, was taken on by Wayne Smithson. Previously, he had done **Skyrider** and **Baal** for the ST; he claims to prefer working on original games, as opposed to conversions, but the ST version of **Blood Money** is proof that he can do an excellent job with both! It seems that the big

problem with the conversion of **Blood Money** was the graphics. Psygnosis weren't expecting all of the material to make it over onto the ST; on the Amiga, hardware routines were used to move the sprites around. On the ST, however, no such routines exist, so Smithson had to tackle the problem of writing the sprite handling routines himself. This special routine to control the graphics resulted in all the sprites

for each level being held in memory together; the only use of the disk within levels is for the big aliens at the end. Scrolling also presented a big problem, but by using a special technique which holds three screens in memory at a time, he managed to resolve it. His latest game is provisionally called "It Can't Be Done", and the scrolling on this is remarkably fast!

FIRST PEEK GHOSTBUSTERS II



An appetite-whetting shot, above, of *Ghostbusters II* from Activision. It's being programmed by Foursfield (famous for *Timescanner* and *Incredible Shrinking Sphere*), and should feature four stages taken from scenes in the film. The CPC version is the one featured in our screenshot, but it'll also be released on ST, Amiga, Spectrum and C64 in December, which is when the film goes on general British release.

Ghostbusters II achieved remarkable successes in the box-office: it grossed more than \$10 million in its first day of release in America, beating the record previously set by *Indiana Jones and the Last Crusade* (a mere \$7.9

million!) Very few people can possibly have missed the original 1984 classic, which featured among others, Dan Ackroyd (*The Blues Brothers*, *Trading Places*, *Dragnet* and millions of others) and Rik Moranis (*Little Shop Of Horrors*), but in case you did, it's about a team of friends with an interest in the paranormal who set themselves up as a ghost disposal service and eventually avert a major spook disaster in the city.

The original *Ghostbusters* game is one of the biggest selling computer games of the last few years, having sold more than two million copies; it looks as if the sequel might perform even more impressively.

ONE-LINERS • ONE-LINERS

- From Firebird in the future (about October) is a game called *Quartz* on the ST and Amiga; this will be followed by *Oriental Games* on the Spectrum, C64, Amiga and PC in November.
- Talking of PCs, there's now a version of the excellent eight-bit Firebird platform game *Rik Dangerous* for all those fun-loving IBM owners.
- Also on Firebird's release schedule are three promising arcade conversions; *Action Fighter*, *P-47* and *Rainbow Island*, on all formats. *Rainbow Island* (not to be confused with the Earth-saving Greenpeace game *Rainbow Warrior*) should be well worth seeing; for anyone who doesn't already know, it's the follow-up to *Bubble Bobble*, and hopefully will be even better than that ageless classic.
- *Pirates!*, an excellent strategy simulation of "high seas adventure" (something like that anyway) is coming up; to be released on the ST and Amiga, (already out on the PC) by Microprose.
- And while on the subject of strategy games, there is an ST version of *Red Storm Rising* out now, with an Amiga version following in December.
- Interesting things happening on the Style and Status label include *Xenophobe*, *Tower of Babel* and a big strategy game project called *Mid-Winter*. This will be designed by one of the team responsible for the epic *Carrier Command*, and will be set in a second Ice Age... The graphics are apparently going to be stunning, and we can expect to see them in November.
- PC owners who have felt left out with all the fuss that has been made about *Starglider II* and *Carrier Command* don't have to worry any longer; *Rainbird* have got versions of each on the way for them. *Carrier Command* will also come out in October for the C64.
- Ready for release on October 18th is Domark's *Pictionary*, the computer version of the arty board game, on all formats, to be followed by *Toobin'*, on November 8th. This is conversion of the Tengen coin-op in which lots of jolly little kiddies go racing down a river on inner tubes and fall in and get very wet. Ha ha. *Hard Driving*, again, a Tengen arcade conversion on all formats, is due out on November 22nd, well in time for Christmas.
- *Rainbird* have a shoot-'em-up called *Verminator* coming out, as well as their versions of *Wierd Dreams* on PC, 64 and Amiga. There's an adventure called *Epoch* due out in November on the Spectrum, C64, CPC, ST and PC, and the deviously and wittily titled *UMS-2*, (the follow-up to *UMS-1*) will be on the shelves at the end of the year on PC, ST and Amiga.
- Two interesting releases from Electronic Arts, which will be available as you read this, are *Populous: The Promised Lands*, a data disk for the ST and Amiga for £9.99, and the CPC version of *Skate or Die*, for £8.99 cassette and £14.99 disk.
- *Strider*, from U.S. Gold, is ready for a mid-October launch; this will happen on the C64, Spectrum, ST and Amiga. There's also a new SSI game coming up; *Dragons of Flame*, and a conversion of the Capcom arcade *Ghosts and Ghouls*.
- Michael Jackson's fans will doubtless be overjoyed to hear about the computer game *Moonwalker*, which is being programmed by Emerald Software.
- Last bit of information; Microprose have got a space strategy game under way; we don't know much about it yet except that it'll be out in January-February of next year, and it'll be a full blown affair with a big fat manual and all that jazz, so it should be quite an interesting product.

MINI REVIEWS...

VIGILANTE

★★★★

SEGA • £24.95

Yep, Maria, your beautiful girlfriend, has been kidnapped again. She must be getting really annoyed being abducted every 10 minutes by various gangs of baddies! Time to don your rescuing shoes and go get after her... This scenario has been seen a million times before but considered independently of the other games of its type, *Vigilante* isn't so bad. The soundtrack isn't the best we've ever heard, although the game is graphically very well presented. We found it generally likeable, with no significant faults other than the unoriginality. The five rounds offer a variety of opponents, giving *Vigilante* its fair share of content; it's a colourful and violent game which most Sega owners ought to think about buying!



SKATE OR DIE

★★

ELECTRONIC ARTS • AMSTRAD
£8.99 CASS £14.99 DK • Also on
Spectrum, C64, PC. ST version
under development

There are five events in *Skate Or Die*. Statistically surely at least one of them should be alright. Realistically, however, none of them are. The main menu is badly designed and awkward to use, and unfortunately it doesn't get any better from there.

Graphically it's very disappointing; the sprites are small, and even on the few events which are in colour, it's not used to any great effect. The other versions we've seen weren't stunning, but they weren't as bad as this. A few of the events have a tiny amount of playa-



bility attached to them, but we don't think it's the sort of game you'll want to come back to repeatedly.

Quite a surprise from Electronic Arts, actually, because a lot of their product has been of a high standard recently.

Play back

Your views on the latest software - call 0225 444439

"Timescanner is absolutely brilliant on the CPC! By the way, when is *Carrier Command* out for the CPC?"

NICHOLAS
HAWORTH, Duxford,
Cambridge

• Just in case you missed last week's one-liners, *Carrier Command* won't be released on cassette for the CPC but disk versions should be out now for £14.95.

"I don't like the Amiga; it's too gamey, and the operating system is so awkward; it may be technically better than the ST, but for the price (£400

compared to an ST I saw in Coventry for £150) it's one helluva rip-off. Instead of buying one of these (if I was going to) I'd leave it and wait for the next generation of micros."

THE INVISIBLE FLY,
Buzington, Buzziz.

"*Gunhed* may have amazing visuals and sound, but I reckon the Amiga could easily handle that; just look at *Xenon II*."

"I think that for £9.99 *World Class Leaderboard* on the Amiga is an excellent buy."

CRAIG HALL, Shybrook

"I know why there's a world-wide chip shortage: Brigitte Nielsen. Also, death to pirates!"

DARREN ROBINSON,
Carlisle

"*Gemini Wing* on the Amiga is far too easy; with two players, you can finish it on your first game."

DAVID BROOK,
Guernsey, Channel Islands

"*Batman* is sooo cool; you just have to go out and buy it. I'm going to get a SAM Coupe, because the games on the ST are useless."

SIMON THOMAS, Llanrysted

XENON TECHNOLOGY

71, Wadham Road, North End, Portsmouth, Hampshire, PO2 9ED

0705 670878

MAIL ORDER

**** AMIGA ****

MAIL ORDER

1. FALCON II-MISSION DISK (Mirrorsoft) £ 14.90
2. ROBOCOP (Ocean) £ 16.90
3. XENON II-MEGABLAST. (Image Works) £ 19.70
4. RED HEAT (Ocean) £ 16.90
5. BATMAN (Ocean) £ 16.90
6. GEMINI WING (Virgin Games) £ 13.80
7. INDY & LAST CRUSADE (US Gold) £ 13.80
8. SHOOT 'EM UP CONST. KIT ... (Palace) £ 19.80
9. BEACH VOLLEY (Ocean) £ 16.90
10. KICK OFF (Anco) £ 12.90
11. BALANCE OF POWER 1990... (M/soft) £ 18.80
12. XYBOTS (Domark) £ 13.80
13. HONDA RVF750 (Microstyle) £ 16.90
14. DRAGON NINJA (Ocean) £ 16.90
15. SLEEPING GODS LIE (Empire) £ 16.90
16. POPULOUS (Electronic Arts) £ 16.90
17. NAVY MOVES (Dynamic) £ 16.90
18. RICK DANGEROUS (Firebird) £ 16.90
19. PHOBIA (Image Works) £ 16.90
20. KNIGHT FORCE (Titus) £ 16.90
21. SILKWORM (Virgin) £ 13.80
22. KULT (Infogrames) £ 16.90
23. SKWEEK (Loriciels) £ 13.80
24. THE DUEL, TEST DRIVE 2... (Accolade) £ 16.90
25. F16 COMBAT PILOT (D.I.) £ 16.90
26. THE NEW ZEALAND STORY (Ocean) £ 16.90
27. FALCON (Mirrorsoft) £ 19.90
28. WICKED (Electric Dreams) £ 16.90
29. THUNDERBIRDS (Grandslam) £ 16.90
30. BLOOD MONEY (Psygnosis) £ 15.90

- Commodore A501 512k Ram/Clock £ 134.80
- Commodore A590 20MB Hard Disk £ 357.80
- 10 DS/DD (800k) Blank Disks £ 7.99

CREDIT FACILITIES

Terms: 100% down and nothing more to pay!

**ALL RELEASED SOFTWARE
DISPATCHED AT THE
SPEED OF SOUND!**

BOTH ACCESS & VISA TAKEN

--FULL PRICE LISTS SENT ON REQUEST--

*All orders are sent by First Class post within
24 hours (subject to availability).*

Now titles are sent day of release.

*All prices shown are inclusive of VAT, postage and packaging
(please add £1.35 per item overseas).*

*Please make cheques or postal orders payable to
"XENON TECHNOLOGY".*

*All items are fully guaranteed and if you experience any problems
just let us know and it will be replaced immediately*

← SPECIAL OFFERS →

Order
Falcon & Falcon 2
and receive a **FREE**
Amiga Mouse Mat.

Order
any 3 titles
and receive a **FREE**
Amiga Dust Cover.

Order
any 6 titles
and receive
10 **FREE** Blank Disks.

Order
any 8 titles
and receive a **FREE**
Konix Navigator J/S.

- Konix Navigator Joystick £ 9.20
- Ram Delta Joystick £ 8.80
- Zip Stick Joystick (Autofire) £ 13.80

Compact Discs are also available from
Xenon Technology.
For a full list send an S.A.E.

BEEB BOX

Educated guess

Many of the best educational software houses have been quiet for some while now. The reason for this low profile can be encompassed in one phrase, 'development time'. In other words they are quietly beavering away writing new programs, or more likely conversions for the A3000 series. It will be interesting to see whether some of the old favourites such as *Snatch* from 4matron make it over to the new range of machines. Certainly there is still a yawning gap for quality educational software in the Arc market. Unfortunately good software takes a long time to write, so I will be surprised if anything substantial comes out for that machine much before Christmas.

Take over bid

In the Beeb market however, there has been

a flurry of activity with software house ESM announcing its takeover of the *Advanced Folio* word processor. This is not a new product, although an Asian language version and more fonts have been made available. The new publishing agreement takes effect from January 1990, which coincides nicely with the BETT show. *Hands-on Spelling* is completely new though, and should be available by the time you read this article. The program is aimed at very young children and comes complete with a Concept Keyboard for £27.50. For those of you with short memories, a Concept Keyboard completely replaces the standard item, plugging into the user port. The child then touches a picture rather than pressing a key.

Modem hint

If you've just purchased a modem, and are about to move into the comms world here's some advice on how to keep that phone bill to reasonable proportions. Do as much preparation as possible before logging-on. It may take some time getting used to, but don't forget that every second you spend on line costs money, loads-a-money.

Andrew Brown

On the telly

Remember telesoftware? Cheap programs freely available to all. It all seems a bit quaint now, like *flower power* or *Lesley Judd on Micro Live*. With *Micronet* all but pulling the plug, and the BBC withdrawing from CEEFAX telesoftware altogether, the idea seemed to have been well and truly mugged. Teletext adapter owners in particular are absolutely furious. Let's face it,

who would want to pay £112 for a paper-weight. But all is not lost! Here comes *EI SID* (sorry about the pun) with loads of good software for all BBC micro Users. Well at least that's their story. I do have faith in Philip Colmer's ability to organise the system, but I somehow doubt whether he's got the time or the backup.

ARCHIMEDES LORE

Kirk to Enterprise

One of the nicest little gimmicks on the Apple Macintosh is its ability to assign sounds to the various actions of the computer. So, if it takes your fancy, you can have different noises for errors, disk eject, disk load and the like. These noises can be digitised noises or 'soundbites' and there are some interesting libraries available in the public domain.

Looking at the 'Voices' command on the Archie, it is certainly possible to load a different sound for the default beep on the machine. You can do this quite simply through the *!Configure* program and so install an annoying snare drum instead of Acorn's subdued *WaveSynth* beep. If you have *Voices* other than the default loaded, you can also, presumably, assign them to channel 1, and hence the system beep.

What I would like to know is whether you can turn digitised sounds into *Voices* and load them in this way. Also, is it possible on the Archie to assign different noises to different effects. Can we too have vomiting noises when we eject a disk, and phrases such as 'Oo...it's so big!' attached to the insertion of a new one?

Impression dongle

Computer Concepts DTP/word processor *Impression* is close to release. Charles Moir, the company's MD, was keen to stress that

the copy he promised me was pre-release and had some missing bits, but hoped that a production version would be out by the PC Show at the end of the month. CC has a stand as part of the Acorn entourage at the show.

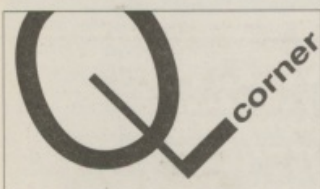
Charles also confirmed that *Impression* will come with a protective 'dongle' attached to the printer port. He feels the extra defence is necessary as the product won't be available on ROM, as were CC's best selling BBC products. We'll have to hope it doesn't interfere with other Archie programs, and that it isn't cracked too quickly. CC has made a huge investment in *Impression* so for all concerned let's hope it's a success.

Bertrum Carrot

Plastic Mach

Having sung the praises of *Mach Technology's* wide range of goodies, I have to join writers in other Archie mags with a note of caution. Despite having asked on several occasions for more details of their products, I have yet to receive any documentation at all. *Mach* wasn't at the Acorn User show in July and I haven't heard of no-one who actually uses a *Mach Technologies* hard disk, 286 module, memory upgrade or any of their software.

This could be coincidence, it could be a bit of pre-advertising, or it could be suspicious. Whichever way, it's worth waiting for a review before parting with cash. That way you'll know the stuff exists.



QL adventurerers forum

I've just received issue 7 of Richard Alexander's *QLAF* newsletter. Its 36 A4 pages contain an interesting mix of articles.

I especially liked Jean-Yves Rouffiac's account of how he developed an adventure game called *Dreamlands*. *QLAF* also contains several reviews, pages of hints, and news of forthcoming games from CGH Services, publishers of *QLAF*.

Richard also maintains a library of PD software for the QL. Several new programs developed in Germany, and translated into English, have been added recently.

These include a set of maths routines, a calendar program, a QDOS 'shell', and a window utility.

A four issue subscription to *QLAF* costs #5 from CGH Services, Cwm Gwen Hall, Pencader, Dyfed, Cymru, SA39 9HA.

A lack of precision?

If you need more precision than is available from the built-in SuperBASIC maths routines (about nine digits, with seven displayed), with fast program execution, I would advise the use of *Prospero Software's* excellent *ProFortran* compiler, which offers up to 16 digit accuracy.

Prospero is on 01-741 8531.

On the other hand, if you don't speak Fortran, and execution time is not particularly important, why not use the *Archive* programming language, which came free with your QL? The *Archive* language is very easy to use, and although *Archive* programs are not particularly fast, you get 14 digits of precision, which is probably plenty for most applications. *Archive* lacks arrays, but you might be able to manage without them.

PDQC and C-Port

The *PDQL* implementation of *Lattice C* for the QL is progressing quite well, they tell me. It has been on beta test for about a month, and the various bugs that have come to light are being eradicated.

Because the standard QL linker is very slow, a new, faster one is being developed. The price of £79 is considerably more than the provisional price of about £60 I quoted back in June, but is still good value, with *Lattice C* for the ST (a much bigger market) costing nearly £100.

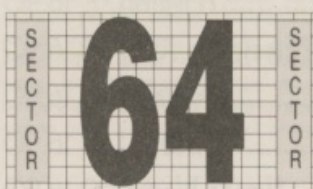
C-Port, *PDQL's* SuperBASIC to C translator program, has been considerably enhanced, and now produces code that is ANSI and *Lattice* compatible. *C-Port* also costs £79.

PDQL is on 021-200 2313

John Torofex

What's in a name?

Have you ever wondered why *Sinclair* used *AH*, *JM*, *JS*, etc. to identify the different versions of the QL ROM. It used to be thought that they were the initials of the machine's designers, but they are in fact the initials of sundry *Sinclair* tea ladies, the chauffeur, and others of that ilk.



Music lovers

A new music talent based in Darlington has come to town adding to a long string of musicians. These guys call themselves *Sonic Graffiti* and are made up of some experienced musicians and programmers from the great old world of CNET. *Andrew Lumley* (alias *Yat*) put together a nifty music player earlier this year and with fellow CNET *Giant Deek* (the music guy) they're doing some pretty hot stuff with the C64 for some games titles at the moment.

Softography, *Moving Target* (Players Premiers) and *Cobra Force* (Players Premiers) Plus many more on the way I'm sure. Both games are reviewed in *Sector 64* issue 43. Here are some other commercial musicians involved in software sound tracks: *Robb Hubbard*, *Martin Galway*, *Dave Whittaker*, *Jas. C. Brooke*, *We MUSIC*, *Tim Follin*, *Jonathon Dunn*, *Demon*, *Maniacs of Noise*, *Danish Music Company*, *Fred Gray*, *Musicon* design, *David Dunn*, *Martin Walker*, *Chris Huelsbeck*, *Hager* (now under his own name of *Wally Beben/Sounds Digital*).

And that's without listing all the thousands of amateur musicians.

Advice

We have had quite a few letters from a num-

ber of people asking how to get into the games industry, what to look out for and what companies are looking for.

Most games companies nowadays do not publish games written by the curtain freelancer who has just finished writing the game from home without showing anyone to get a contract, unless it is totally amazing of course. But you know as well as anybody, a large amount of software is awful!

Prospective games programmers begin by converting everything i.e. coin-ops to C64, other micro to C64 or design brief to C64.

When sending in a piece of software to a company, they mainly look for game routines i.e. scrolling, sprite formation, routines that make creatures walk and attack in different ways and with all the fighting games around in the arcades at the moment it's wise to include fighting formations, with maybe you fighting some big dragon with your sword. Basic fact, knock together a nice little game to show you've got what it takes.

A lot of 64 games now have to follow a certain standard, so the best direction to travel in is write a scrolling colour backdrop with multiplexed sprites overlaid for a hi-res and 16-bit fill.

If you're going to send your game to a company make sure that your name is all over it. Make a back-up then post the game to your self without opening when receiving it, is a good way of proving that it's entirely your own work.

Don't despair if you get an instant rejection - some companies even have a policy of never opening games sent to them in case they are later sued for breach of copyright if they later come up with a game of their own on similar lines.

Ian and Mick



No sexism please, we're PCW owners

Artronic has put together a compilation of games for the PCW. For £14.99 you get ACE (a flight sim), Formula 1 (a racing game), Sky War, and a 'very tame Strip Poker'. Given the high percentage of female PCW owners and the generally non-sexist and mature ownership, I can see the Strip Poker taking off like an Ilyushin. But a very good value bundle well worth a look - nice to see people still supporting the leisure side of the PCW. Some of the graphics are quite impressive too. Available from Artronic on 0423 525325.



• Stunning graphics on Artronic's compilation. Fortunately they didn't send us a shot of the Strip Poker

Be a columnist!

Here's how to put text into columns in LocoScript. You can't really do it on screen but you can do it on printout by printing first the left then the right hand side columns on

the same page.

Prepare your text as one long column. Print each page separately ('print some pages' from the print menu) and set the left offset to 40 for each even page, 0 for each odd page, putting even and odd on the same sheet. Your text is easy to edit and it comes out looking very smart.

Not the elite

Interested to see that in *Beginners* last week on page 11, Rod Lawton's archetypal buyer of the PCW was 'Lady Eleanor Ponsonby-Smythe'. Nice to think the PCW has an aristocratic touch, but come on Rod! At £500 for a complete (medium-) hi-tech word processing and computing setup it's a machine for The People, even plebs like me (325,807th in line to the throne... unless I can find a Princess to marry...)

Hold it

Barry Tucker bought a PCW from Dixons in St Neots, but the screen was wonky at the top. Dixons keep replacing the monitor but haven't addressed the problem, says Barry.

This is a frequent complaint and the solution which always seems to work is just to fiddle with the horizontal and vertical hold controls at the back of the monitor. If this doesn't work, go to a TV engineer.

Basil Pigg

Pigg Book of Records

Most laboured definition

Hope this description of the END command found in a standard university text on Fortran is clear enough for you.

'The command END', it says, 'consists of the letters E, N and D, each occurring once only, and in that order'.



High quality

The quality of the games now being made available to the MSX user seems to be improving all the time, if the latest issues from Melbourne House are anything to go by. I have already raved over MSX Xenon, and can now tell you that Melbourne House's *Terrorpods* is equally good, although the game has virtually nothing in common with the former title, apart from a certain amount of hunting and killing.

Briefly the game involves the destruction of marauding *Terrorpods* that have taken over sectors of a mining colony, and the collection of *Terrorpod* components from each sector for delivery to the federation. Fuel and explosives can be collected from mining units that are scattered around the colony, your DSV being able to "lock on" to these units. Clear one sector of the colony, and collect the *Terrorpod* component, and you can then proceed to the next of the six sectors. The *Terrorpods* in each sector are destroyed by well aimed laser shots, the first disabling the *Terrorpod*, and subsequent shots reducing its power until it has zero energy and is destroyed. If you leave a *Terrorpod* partially damaged, it will regenerate, and start destroying the mining installations once again. Your DSV has the power to repair mining units that are damaged, but take care, you can soon run

out of energy yourself, and the *Terrorpod* mothership can then easily pick you off and destroy you.

That's the game, "what's it like to play?" I hear you all cry. I found *Terrorpods* very interesting and involving, as there isn't really anything else like it on the MSX. Graphics are very good, with a 3D perspective being displayed as if viewed from your DSV cockpit. Although little use of colour is used in the playing area, it is mainly black on green, colour is used well on your display panel. The scrolling and movement of on screen graphics is well done though, with realistic movement of your vehicle. Sound effects are perfectly adequate for this type of game, after all with strategy games like this, music etc is too distracting. I liked *Terrorpods* a lot, and am sure you will too.

Loading problems

Many MSX 2 owners have been finding that quite a few MSX 1 tape based games will not load and run on their machines. I think I have the solution. If you purchase a 64k expansion rom, such as those available from D L Chittendens, and you then plug the device into the cartridge port of your computer, most MSX 1 games will load and run. As a 64K expansion will set you back about £50, it's an expensive way to make your software run.

Mice magic

The NEOS MSX mouse works very well on the Philips MSX 2s as it is £49.95 including graphics software as opposed to £90 for the Philips device. The NEOS mouse worked with all the Philips home office style software and is robust and well-designed device.

Keith Neale

WESTONING LTD

3 1/2 DS/DD
10 INC PLASTIC
STORAGE BOX
£8

5 1/4" DS/DD

25	50	100
£7	£12	£22

Including Sleeves & Labels

Disks certified 100% Error Free

3 1/2" DS/DD

	25	50	100	200	400	600
720k	£17	£31	£60	£115	£225	£334
880k	£18	£33	£63	£120	£235	£345

Including Labels

DISK BOXES

Hinged Lid, Lockable
3 1/2 or 5 1/4
Capacity 50 100
£3.25 £5.75

Add £2 P&P if not ordered with disks.

Prices Include
VAT & Carriage

VISA



3 1/2" Disk Labels

100	1000
£2.50	£10

State either coloured or white tractor feed

**SAME DAY DESPATCH
NO QUIBBLE GUARANTEE!**

P.S. New low prices on Amigas - Phone

WESTONING LTD Dept NCE
12, Sanderson Road, Westoning,
Bedford MK45 5JY

Tel: (0836) 775060 (0525) 718668

FUTURE VACANCY • FUTURE VACANCY • FUTURE

ST FORMAT

- PRODUCTION EDITOR

Due to internal promotion Future Publishing, publishers of *New Computer Express*, is looking for a Production Editor to work on *ST Format*, the market leading magazine plus disk for the ST. Pay is good and prospects are excellent. Literacy and accuracy are more important than computer skills. So if you aren't frightened of computers, apostrophes, pressure or deadlines and you fancy the idea of working for the country's most dynamic and fastest growing computing title publishers in Britain's most beautiful city, write to Greg Ingham, Future Publishing, 4 Queen St, Bath BA1 1EJ before September 21st.

future
PUBLISHING

Future Publishing, based in one of Britain's most beautiful cities, is a young, friendly company which in just four years has grown into a £5 million turnover business employing 90 staff. We publish six computer magazines, sold through newsagents nationwide, and there are exciting plans for new titles.

Future Publishing Ltd • 4 Queen St • Bath • Avon • BA1 1EJ • Tel. 0225 446034

EXPRESS LISTINGS!

The listings page with a difference: they're all in plain English...

Ten essentials for the self-respecting techie

- 10 Pocket TV, modem and fax
- 20 Pocket Organiser
- 30 Pocket PC
- 40 Handy sewing kit to mend pockets
- 50 Calculator watch
- 60 Database watch
- 70 Occam reference guide
- 80 Byte magazine open at page 327
- 90 Anorak
- 100 NHS Spectacles held together with Elastoplast

Ten things which we're still waiting for

- 10 Atari's TT
April 1985, Sam Tramiel tells the computer press at Hanover (launch of the ST in Europe), that the TT would be ready for June that year. We're still waiting...
- 20 Dick Special
After writing the brilliant Ant Attack on the Spectrum, Sandy White shows a game called Dick Special at the PCW show 1987 on the Amiga. It wasn't complete then...
- 30 Atari CD ROM
First mentioned in mid 1985, still something you can't see in your average computer shop...
- 40 Atari SH317 Hard Drive
A 10Mb hard disk for all we poor folk who can't afford the big ones. Was meant to be £400 in 1985. How about one now for under £200?
- 50 Atari PS3000
A hi-res colour monitor, which was meant to include a disk drive within it at some stage...
- 60 Atari SDM124
A daisy-wheel printer for the ST, which met the fate of many an Atari product.
- 70 Video Vault's Spectrum

emulator for the CBM64

Yup! It was in the early months of 1984 when Video Vault said that they could make your 64 run all those Speccy proggies for a mere £13.95.

80 Bandersnatch for the QL

Originally meant to be a mega-game for the Spectrum, after Imagine folded Sinclair purchased the licence.

90 Elite II (or whatever the sequel to Elite will be called?)

Well? Where is it? We've been waiting a long, long time...

100 The ST emulator

An ST emulator for the CBM Amiga announced in mid 1987. A mere snip at £15 + £5 towards one of the six charities, from AI & R Limited. Yes, it was a lot of air, wasn't it?

Ahmad Alam

Ten stylish pieces of kit to be seen with driving your Porsche in the Docklands

- 10 Compaq portable with colour VGA screen
A snip at £5,000
- 20 Philips flat monitor
- 30 Sony Watchman
So you don't miss 'Neighbours'
- 40 Mac II CX
So you can be just like Ben Elton
- 50 A Bit Bopper
The £22,000 nightclub laser video unit will do for those little parties
- 60 HyperCard 2
- 70 Sony erasable optical disk
- 80 NCube
The 500 million Mb, 60,000 Mips, £20 million machine should help with those household accounts
- 90 General Dynamics AH64 Attack Helicopter simulator
- 100 General Dynamics AH64 Attack Helicopter

Ten machines that never were.

10 Sinclair Spectrum Loki

A machine which existed for two issues of Sinclair User featuring an 8MHz Z80H and Amiga-like custom chips...

20 Atari 130ST

Early 1985: Not initially launched because GEM and TOS came as a 192K program on disk.

30 Oric Stratos

Late 1984: Vanished without a trace, along with Tangerine.

40 Sinclair Enigma

The follow up to the Sinclair QL, featuring a complete WIMP environment, two 3.5 inch drives and monitor in one unit, the Psion Xchange suite on ROM and 1Mb of RAM. Sighted in diagram form in an issue of Your Computer, never heard of again.

50 Acorn ABC

Late 1984: An entire range of machines, featuring at least three different operating systems (Xenix, CP/M80 and MS-DOS) and a variety of word processors including a certain 16032.

60 Commodore V364

Early 1984: A machine with the same specs as the Plus 4 but with built in speech synthesis (250 words) and a full size keyboard.

70 Atari 65XEP

Early 1985: What was meant to be a portable version of the 65XE with a built in 3.5 inch drive and a mono monitor

80 Atari 65XEM

Early 1985: Another variant, this time with an eight channel sound chip.

90 Atari 260XE

Mid 1985: Yes, a 256K version of the 130XE in the days when the ST was £750 and definitely not a home machine.

100 Sinclair Pandora

This is possibly what lead to the Z88, but it was meant to feature Spectrum

and CP/M compatibility with either a disk drive or a smart card device for storage...

Ahmad Alam



FOOTBALL BONKERS WINNERS

The incredibly lucky winner of two tickets to see a home international, the complete range of D&H software and a football strip was G. J Galloway of Liverpool.

Almost similarly fortunate were Wayne Morrison of Gateshead, Steve Carter of Gillingham in Kent, A. Ives of Abingdon, David Ovington of Worcester, M. Pinder of Preston, Sajid Safiq of Bolton, René Tym of Ashford in Kent, J. Brown of Cumbernauld, Matt Price of Woodchurch, and G. D. Mann of Walsall.

They collect a copy of Football Director.



NEXT WEEK ■ NEXT WEEK ■ NEXT WEEK

SHOPPING EXPRESS Buyers' guide MUSIC

Software and hardware to make your micro sing
Plus: 32 pages of the best computing bargains

PC SHOW PREVIEW

Full details of the year's biggest computing show, with Express' pull-out guide to the exhibitors

CHRISTMAS IS COMING...

At least as far as the games companies are concerned. A look at 1989's stocking fillers to be

PLUS...

- How students make their grant stretch to a micro
- The beginner's guide to desktop publishing
- Great computing disasters

WITH...

Lively letters, terrific tech tips, fierce features, racy reviews, brilliant bargains, juicy jobs, value-added vouchers, hard-hitting humour

Only
58p!

AND ALSO...

The very latest in news and comment on today's computing scene

520ST-FM SUPER PACK



The Atari Super Pack is ideal for you if you want to get off to a flying start with the best in entertainment software. The Pack includes a 520ST-FM with 1Mb RAM, a built-in 1Mb disk drive, over £450 of top games and a joystick. If you buy the Super Pack at Silica Shop, we will add our own ST Starter Kit (worth over £200), Free Of Charge. Return the coupon for details.

£399

INCLUDING VAT

With SM124 mono monitor: £498 INC VAT

With SC1224 colour monitor: £698 INC VAT

1Mb DISK DRIVE £450 OF SOFTWARE ARCADE GAMES

Arkanoid II	Imagine	£19.95
Beyond The Ice Palace	Elite	£19.95
Black Lamp	Firebird	£19.95
Buggy Boy	Elite	£19.95
Chopper X	Mastertronic	£9.99
Ikari Warriors	Elite	£14.95
Marble Madness	Electronic Arts	£24.95
Quadrailen	Logotron	£19.95
Ranarama	Hewson Consultants	£19.95
Return To Genesis	Firebird	£19.95
Roadwars	Melbourne House	£19.95
Starquake	Mandarin	£19.95
Test Drive	Electronic Arts	£24.95
Thrust	Firebird	£9.95
Thundercats	Elite	£19.95
Wizball	Ocean	£19.95
Xenon	Melbourne House	£19.95
Zynaps	Hewson Consultants	£19.99

SPORTS SIMULATIONS

Eddie Edwards Super Ski	Elite	£19.95
Seconds Out	Tynesoft	£19.95
Summer Olympiad '88	Tynesoft	£19.95

PRODUCTIVITY SOFTWARE

Organiser	Triangle Publishing	£49.95
-----------	---------------------	--------

JOYSTICK

Atari CX40 Joystick	Atari Corp	£4.99
---------------------	------------	-------

FREE ATARI BUNDLE VALUE: £458.97

ATARI ST

ST COMPUTERS

The range of Atari ST computers offers something for everyone. From the games enthusiast who wants the challenge of the very best in arcade action, to the businessman who wants to make financial forecasts or faultless presentations. The ST offers high quality graphics, sound and speed for the gamer, whilst providing a fast, user friendly and affordable solution to business. The ST is now firmly established in the home environment and boasts a wealth of users in education, local government, television, and a variety of different businesses. Software for the range stretches to cover applications as diverse as ENTERTAINMENT, ACCOUNTS, ART, COMMUNICATIONS, COMPUTER AIDED DESIGN, DATABASES, DESKTOP PUBLISHING, EDUCATION, MUSIC, PROGRAMMING, SPREADSHEETS, WORD PROCESSING and more. For a full list of the software available, as well as details of the ST range, complete and return the coupon below.

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

520ST-FM EXPLORER PACK WITH BUILT-IN 1Mb DISK DRIVE



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.

£260

ONLY £2.51 PER WEEK
RETURN COUPON FOR DETAILS
+ VAT = £299

+ SM124 mono monitor: £398 INC VAT

+ SC1224 colour monitor: £598 INC VAT

1040ST-FM PROFESSIONAL PACK

NOW WITH TV MODULATOR

For the serious home user and the small business, we are pleased to announce a new package based around the 1040ST-FM. The 1040ST-FM has 1Mbyte RAM and a 1Mbyte built-in disk drive. In addition, the 1040ST-FM now comes with a TV modulator built-in. (The previously available 1040ST-F was designed for use with a monitor only and did not come with a modulator.) This modulator allows the 1040ST-F to be plugged directly into any domestic TV set, and comes complete with a lead to allow you to do so. The new 'Professional Pack' from Silica includes the new 1040ST-FM with modulator plus four high quality software packages including a spreadsheet, database, word processor and programming language. This 'Professional Pack' software will enable you to get straight down to business with your new computer. In addition to this software (worth £384.84), if you buy the Professional Pack from Silica Shop, you will also receive the Silica ST Starter Kit (worth over £200), Free Of Charge. Return the coupon for further information.

£499

INCLUDING VAT

With SM124 mono monitor: £598 INC VAT

With SC1224 colour monitor: £798 INC VAT



ATARI 1040ST-FM	(Computer)	£499.99
VIP PROFESSIONAL	(Spreadsheet)	£149.95
MICROSOFT WRITE	(Word Processor)	£149.95
SUPERBASE PERSONAL	(Database)	£59.95
BASIC DISK & MANUAL	(Language)	£24.98

NORMAL RRP: £884.82

LESS DISCOUNT: £385.82

PROFESSIONAL PACK PRICE: £499.00

2Mb & 4Mb MEGA ST

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 STs 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.

2Mb MEGA ST

£899 INC VAT

+ mono monitor = £998

+ colour monitor = £1198

4Mb MEGA ST

£1199 INC VAT

+ mono monitor = £1298

+ colour monitor = £1498



DTP PageStream £149 +VAT = £171.35

Desktop Publishing (DTP) is one of the fastest growing applications for personal computers. We are pleased to announce a powerful low cost package for the Atari ST called PageStream. PageStream costs only £149 (incl. VAT £171.35) and, because it works with an Atari 1040ST and a Seikosha SP-190AI printer, you can be up and running with a complete system for less than £1000. Some of the features of PageStream are listed to the right. If you would like further information on this program, complete and return the coupon below, ticking the 'DTP' box in the corner.

- * TEXT-FLOW AROUND GRAPHICS
- * ROTATION OF TEXT & GRAPHICS
- * SLANT OR TWIST ANY OBJECT
- * POSTSCRIPT COMPATIBLE
- * TAG FUNCTION
- * AUTO/MANUAL KERNING & HYPHENATION
- * GROUPING OF OBJECTS

WHY SILICA SHOP?

Before you decide when to buy your new Atari ST computer, we suggest you consider very carefully WHERE you buy it. There are MANY companies who can offer you a computer, a few peripherals and the top ten selling titles. There are FEWER companies who can offer a wide range of products for your computer and expert advice and help when you need it. There is ONLY ONE company who can provide the largest range of Atari ST related products in the UK, a full time Atari ST specialist technical helpline and in-depth after sales support, including free newsletters and brochures delivered to your door for as long as you require after you purchase your computer. That one company is Silica Shop. We have been established in the home computer field for ten years with an annual turnover in excess of £5 million and can now claim to meet our customers requirements with an accuracy and understanding which is second to none. But don't just take our word for it. Complete and return the coupon below for our latest literature and begin to experience the Silica Shop specialist ST service.

SILICA STARTER KIT: Worth over £200, FREE with every Atari ST computer bought from Silica.

PROFESSIONAL PACK: Free business software with 1040ST-FM and MEGA STs bought from Silica.

DEDICATED SERVICING: 7 full-time Atari trained staff with years of experience on Atari servicing.

THE FULL STOCK RANGE: All of your Atari requirements from one place.

AFTER SALES SUPPORT: The staff at Silica are dedicated to help you get the best from your ST.

FREE CATALOGUES: Mailed direct to your home as soon as we print them, featuring offers as well as all of the new releases.

FREE OVERNIGHT DELIVERY: On all hardware orders shipped within the UK mainland.

PRICE MATCH PROMISE: We will match competitors on a 'same product same price' basis.

FREE TECHNICAL HELPLINE: Full time team of Atari technical experts always at your service.

FREE SILICA STARTER KIT WORTH OVER £200

WITH EVERY ST - RETURN COUPON FOR DETAILS
ALL PRICES QUOTED INCLUDE FREE UK DELIVERY

DO YOU OWN AN ATARI ST?

If you already own an Atari ST computer and would like to be registered on our mailing list as an ST user, let us know. We will be pleased to send you copies of our price lists and newsletters FREE OF CHARGE as they become available. Complete the coupon and return it to our Sidcup branch and begin experiencing a specialist ST service that is second to none.

SILICA SHOP:

SIDCUP (& Mail Order) 01-309 1111
1-4 The Mews, Hatherley Road, Sidcup, Kent, DA14 4DX
OPEN: MON-SAT 9am - 5.30pm LATE NIGHT: FRIDAY 9am - 7pm

LONDON 01-580 4000
52 Tottenham Court Road, London, W1P 0BA
OPEN: MON-SAT 9.30am - 6.00pm LATE NIGHT: NONE

LONDON 01-629 1234 ext 3914
Selfridges (1st floor), Oxford Street, London, W1A 1AB
OPEN: MON-SAT 9am - 6.00pm LATE NIGHT: THURSDAY 9am - 8pm

To: Silica Shop Ltd, Dept NCE 0989, 1-4 The Mews, Hatherley Road, Sidcup, Kent, DA14 4DX

PLEASE SEND FREE LITERATURE ON THE ATARI ST

Mr/Mrs/Ms: Initials: Surname:

Address:

Postcode:

NCE 8

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

DTP ☐



FLIPPERING GOOD PRICES

ESTABLISHED 1979
The leading mail order computer firm in the UK.
OVER £1 MILLION OF STOCK
Rapid despatch of all popular items.
NATIONWIDE SHOWROOMS
Friendly personal service and sales advice.
TECHNICAL & HOT LINE SUPPORT
Don't worry - if you bought it from us we're happy to help.
SPECIAL SERVICE
- ON-SITE MAINTENANCE CONTRACTS
- INSTALLATION AND TRAINING - NETWORKING
ALL GOODS GUARANTEED



Only Genuine UK software. (Savings available on US versions. Ask for Details.)

COMPUTERS

	No Monitor	Mono	Colour	14"EGA	12"VGA	14"VGA
AMSTRAD						
PC2086 Single Floppy		£569	£664	-	£759	£854
PC2086 Double Floppy			£664	£759	-	£854
PC2086 30Mb Hard Disk		£854	£949	-	£1044	£1139
PC2286 Double Floppy		£949	£1069	-	£1149	£1259
PC2286 40Mb Hard Disk		£1149	£1249	-	£1349	£1449
PC2386 65Mb Hard Disk		£1949	£2049	-	£2149	£2249
PC1640 Single Floppy		£474	£569	£664	-	-
PC1640 Double Drive		£569	£664	£759	-	-
PC1640 20Mb Hard Disk		£759	£854	£949	-	-
PC1512 Single Floppy		£379	£474	-	-	-
PC1512 Double Floppy		£474	£569	-	-	-
TANDON						
PCA 12/5L Single Drive		-	£943	-	£1216	£1332
PCA 12/5L 20Mb Hard Disk		-	£1084	-	£1357	£1473
PCA 12/5L 40Mb Hard Disk		-	£1226	-	£1499	£1615
PCA 12 Single Floppy		-	£1424	-	£1683	£1799
PCA 12 20Mb Hard Disk		-	£1759	-	£2014	£2134
PCA 12 40Mb Hard Disk		-	£2010	-	£2268	£2385
PAC 286/12 & 30Mb Datapac		-	£1676	-	£1939	£2055
386/16-SF Single Floppy		-	£2178	-	£2437	£2553
386/16-40 40Mb Hard Disk		-	£2513	-	£2772	£2889
386/20-SF Single Floppy		-	£2513	-	£2772	£2889
386/20-40 40Mb Hard Disk		-	£2890	-	£3150	£3265
386/20-70 70Mb Hard Disk		-	£3121	-	£3389	£3505
386/20-110 110Mb Hard Disk		-	£3247	-	£3485	£3601
386/33-110 110Mb Hard Disk		-	£4869	-	£5107	£5223
ATARI PCs						
PC3-DD Double Floppy	£439	£550*	-	£850	-	£989
PC3-30 30Mb Hard Disk	£539	£639	-	£939	-	£1079
PC4-60 60Mb Hard Disk	£1199	£1399	-	£1699	-	£1839
PC5-60 60Mb Hard Disk	£1999	£2259	-	£2399	-	£2799
EPSON PCs						
AX2 20Mb Hard Disk	£1099	-	-	£1249	£1279	£1379
AX-40 40Mb Hard Disk	£1449	-	-	£1599	£1599	£1799
AX-80 80Mb Hard Disk	£1899	-	-	£2259	£2289	£2379
PCe 20Mb Hard Disk	£1059	-	-	£1165	-	-
PCe Double Floppy	£719	-	-	£1029	-	-
IBM						
PS/2 Model 30 Twin Floppy	-	£849	£999	£1199	£1099	£1199
PS/2 Model 30 Mb Disk	-	£1079	£1119	£1319	£1219	£1319
PS/2 30-286 Hard Disk	-	£1449	£1549	£1749	£1599	£1749
SCHNIIDER						
Euro PC	-	£399	£549	-	-	-
286 AT 512K Single Floppy	-	-	-	£779	£929	£1029
286 AT 1Mb 20Mb Hard Disk	-	-	-	£1579	£1679	£1779
OLIVETTI PCs						
M250 20Mb Hard Disk	-	£1799	-	£2199	-	-
M290 AT 20Mb Hard Disk	-	£2199	-	£2399	-	-
M290 AT 40Mb Hard Disk	-	£2599	-	£2899	-	-
M380 386 60Mb Hard Disk	-	£3099	-	-	-	£2979
M200 20Mb HD Twin Floppy	-	£1099	-	-	-	-

* Atari Mono Monitor is an EGA Mono. † Tandon VGA White Monitor. * Amstrad 12" EGA (ECU)

PORTABLES

	CPU	No of Flops	Hard Disk	Screen Type	Our Price
TOSHIBA					
TS200	386	20MHz	1x1.44	100Mb	£5095
TS100	386	16MHz	1x1.44	40Mb	£3599
TS200	286	12MHz	1x1.44	40Mb	£2995
TS1600	286	12MHz	1x1.44	20Mb	£2599
TS1200HD	8086	10MHz	1x720	20Mb	£1795
TS1200FD	8086	10MHz	1x720	-	£1299
TS1100 Plus	8086	4.7MHz	1x720	-	£1039
SHARP					
PC-4602	8086	2x720	-	LCD	£1099
PC-4641	8086	1x720	20Mb	LCD	£1859
PC-5541	286	12MHz	1x720	LCD	£2969
EPSON					
Portable FDD	V30	10MHz	2x720	-	£925
Portable HDD	V30	10MHz	1x720	20Mb	£1479
AMSTRAD					
PPC512	8086	8MHz	1x720	-	£379
PPC512D	8086	8MHz	1x720	-	£521
PPC640	8086	8MHz	1x720	-	£474
PPC640D	8086	8MHz	2x720	-	£617
ZENITH					
184	8088	8MHz	2x720	-	£1255
184-2	8088	8MHz	1x720	20Mb	£2069
2P 286-02	286	12MHz	1x720	20Mb	£2795
2P 286-04	286	12MHz	1x720	40Mb	£3595
2P 386-04	386	12MHz	1x720	40Mb	£4495

MICE

Logitech Logimouse C7 with Plus Software Package	£79
Mouse Systems Optical Serial or Bus Mouse w/Pop-Up Menus	£105
Microsoft Bus or Serial Mouse - Mouse Menus/Paintbrush	£99
Microsoft Bus or Serial Mouse - With Paintbrush/Windows	£109

HARD DISKS

Western Digital 32Mb FileCard - Hard Disk On A Card	£221
Seagate ST225 20Mb Hard Disk w/WD controller & cables	£214
Seagate ST251 40Mb Hard Disk - 40ms Access & Controller	£350
Seagate ST251 40Mb Hard Disk 29ms Access (Drive only)	£372
Plus HardCard 20Mb or 40Mb - the original Hard Card	£499/£36

Let us quote you for supply of all computing equipment.
Extra volume discounts for the large user. Regular special offers. Ask for details of our latest savings when you call. Export enquiries welcome. Credit accounts for large buyers. Send us details of your bankers and two trade references. Terms strictly 30 days net. Peace of Mind - If you rely on your computing equipment then our On-Site Maintenance Contract will have it repaired quickly.
Next Day Delivery Service on most popular items.

PRINTERS

	Speed	Price
9-PIN NARROW DOT MATRIX		
Epson LX800 - The Brand Leader! Best Seller!	150/40	£155
Epson FX850 - The Quality Choice.	220/45	£359
Epson EX800 - Super Fast, Super Value!	250/50	£440
Panasonic L1180 - 4 Fonts and More Speed.	192/38	£170
Panasonic 1081 - For Low Price Performance.	120/24	£151
Star LC10 - Everybody's Favourite Budget Printer!	144/36	£153
9-PIN WIDE DOT MATRIX		
Epson FX1050 - Its new and even faster.	220/45	£429
Epson EX1000 - A Popular Workhorse!	250/50	£599
Panasonic P1592 - A Real Bargain, Mate!	120/24	£290
Star NX-15 - Rugged, Reliable and Fast.	120/30	£279
24-PIN DOT MATRIX NARROW		
Epson LQ860 - New 24-Pin, Colour As Standard.	290/88	£580
NEC P2200 - Low Cost But Great Value.	150/50	£299
NEC P2200 - The NEC Challenge in Price/Performance!	168/56	£289
Oki Microline 390 - Rugged and Feature Packed.	270/90	£480
Seikosha SL80 - Perfect Letter Quality.	135/54	£289
Star LC24-10 - Low cost alternative to Epson.	170/57	£299
Star NB24-10 - With Versatile Font Options.	216/72	£457
24-PIN DOT MATRIX WIDE		
Epson LQ2550 - The Ultimate Printer.	333/111	£899
Epson LQ1050 - The Most Popular Wide Carriage.	290/88	£599
Epson LQ1060 - New 24-Pin, Colour As Standard.	290/88	£699
NEC P6 Plus - The New Reliable 24-pin Printer.	265/90	£479
NEC P7 Plus - One of the Best 24-Pin Sellers Ever.	265/90	£629
HIGH SPEED PRINTERS		
Epson DF5000 - With Automatic Paper Feed.	533/90	£1159
Hewlett Packard RuggedWriter - Reliability Itself.	480/240	£399
Oki 393 - Will Run For Years And Years.	450/120	£799
DAISY WHEEL		
Brother HR20 - True Letter Quality.	20	£429
Brother HR40 - Quality With Free Sheet Feeder.	40	£785
Juki 6300 - The Champion of Champions.	40	£630
COLOUR		
Star LC-10 Colour - Best Cheap 80 column Colour!	144/36	£195
Canon Ink Jet - 7 Colour Wide Carriage.	37	£459
HP PaintJet - 1,000s of Colour Shades.	-	£799
NEC P65XL - Heavy-Duty Colour Favourite!	-	£746
Oki 393C - Rugged, Reliable Colour Printer.	450/120	£912
Xerox 4020 - Colour Printer for Ventura.	133	£1099
INK JET		
Canon Bubblejet - Silence At Last!	-	£755
Epson SQ2550 - Epson's Ink Jet Winner	540/90	£890
HP DeskJet - Now Even Lower in Price.	-	£340

LASERS

	Speed Bppm	Price
HP LaserJet Series II - The Best Laser Printer.		
HP LaserJet II - With Dual Bin and Feeds Envelope.	8ppm	£2174
Brother HL-8 - The Reviewers Love This Laser.	8ppm	£1529
Canon LBP-8II - T-Twin Bin with Cannon Quality.	8ppm	£1779
Canon LBP-8II - Scalable Fonts, and 1.5Mb RAM.	8ppm	£2145
Epson G05000 - Now with Free On-Site Maintenance.	6ppm	£1287
Kyocera F1000 - High Quality for the Professional.	10ppm	£1589
Panasonic KX-P4450 - Super-Fast and Compatible.	11ppm	£1489
Quam CrystalPrint VP - Crystal Quality. A Gem Price.	6ppm	£970
HP DeskJet Plus - LaserJet Quality at InkJet Price.	3.5ppm	£619

PLOTTERS & DIGITIZERS

	Size	Price
Rolland DXY-880A - Low on Cost, High on Features.		
Rolland DXY-1100 - New Range of Fast Plotters.	A3	£562
Rolland DXY-1200 - 8 Pen with Dual Interface.	A3	£679
Rolland DXY-1300 - 8 Pen Memory Plotter.	A3	£949
Rolland DPX-2200 - Flat-Bed Plotter.	A3	£1111
Hewlett-Packard HP-7400A Colourplot.	A2	£2815
Hewlett-Packard HP-7475A Graphics.	A4	£1719
Hewlett-Packard HP-7550 Graphics Plus, 8 pen	A3/4	£2079
Hewlett-Packard HP-7570A Draftplot.	A3/4	£2689
Cherry A3 Digitizer Tablet.	A1/2	£2789
	A3	£453

MONITORS

	Price
Multisynch	
NEC Multisynch II - 800x600 res with VGA, EGA, CGA Herc.	£419
NEC Multisynch GS - 14" Paper White Mono 720x480 res.	£169
NEC Multisynch Plus - 15" Colour.	£799
NEC Multisynch XL - 20" Colour with flat square screen, 1024x768 resolution, ideal for CAD and DTP applications.	£1690
Enhanced Graphics	
InterQuadram 14" EGA Colour Monitor tilt/swivel	£299
Philips 9043 Medium Resolution 14" EGA	£259
Colour	
Philips 8833 14in Colour Stereo Monitor.	£244
Mono	
Everex Evershion 100 14" in Green, Amber or White.	£109

CHIPS & CO-PROCESSORS

	Price
64K dRAM chips (nine to make 64K).	£3.69
256K dRAM chips 12 nanoseconds (nine to make 256K).	£7.19
Intel 8087 5MHz Maths Co-Processor.	£94
Intel 8087 2MHz Maths Co-Processor.	£134
Intel 80287 8MHz Maths Co-Processor.	£215
Intel 80287 10MHz Maths Co-Processor.	£248
Intel 80387 20MHz Maths Co-Processor.	£443

All Prices Exclude VAT and Delivery.
All goods guaranteed.

All prices subject to change without notice.
Official purchase orders accepted from Government, Local Authorities, Universities and PLCs. Prices/Specifications subject to change without notice. All special offers are subject to availability. Credit Cards not debited until despatch. No returns or repairs accepted without our Returns Authorisation number. Defective dead-on-arrival merchandise repaired or replaced at our charge expense. Carriage on Warranty repairs to be paid by buyer. Non-defective credit return subject to 15% restocking fee.

SOFTWARE

	Price
WORD PROCESSING	
Borland Sprint - The Critics Rave About This Package.	£147.09
GEM First Word Plus - Ideal for Self-Teach WP.	£158.68
Lotus Manuscript II - All Singing, All Dancing WP.	£225.23
Lotus Agenda - Manages Your Words Professionally.	£222.11
Microsoft Word 5 - Number 2 WP Package.	£275.64
Multimate Advantage II - You Too Can Have An Advantage.	£297.04
PFS: First Choice - Good and Cheap.	£106.08
PFS: Professional Write - Great For Education	£190.95
Sage PC Write - Our Cheapest Word Processor.	£77.83
WordStar 2000 Plus release 3 - The New Winner!	£254.04
WordStar Professional 5 - The Tops.	£211.93
Word Perfect ver 5 - The New Number One Word Processor!	£225.92
Word Perfect Library - The Word Perfect Front End.	£99.49
Word Perfect Executive - For the Exec on the Go.	£159.12
INTEGRATED PACKAGES	
Framework III - The Ashton-Tate Gets It Together.	£349.87
Lotus Symphony version 2 - Number 2 Best Seller.	£374.10
Microsoft Works - It Works Despite Our Low Price.	£103.97
Migant Ability Plus - The World-Famous Cheap Package.	£137.91
SmartWare II - Even The Best Has Now Been Improved.	£378.27
DATABASES	
Ashton-Tate Rapid File - The Co-Resident Database.	£201.56
Borland Paradox 3.0i - The Latest Multi-User Database!	£401.71
Cardbox Plus V4 - Works Just Like Index Cards.	£249.00
Cardbase - Applications Galore!	£530.22
dBase IV - Top Selling Professional Database.	£392.52
FileBase Plus - Famous dBase III+ Rip-off	£286.43
Superbase 4 - Now with Free Mouse, Works Under Windows.	£369.00
SPREADSHEETS	
Borland Quattro - Low Cost 1-2-3 Work Alike!	£139.91
Lotus 1-2-3 - Top Selling Package In The World.	£274.89
Lotus 1-2-3 V3 - New 3D Power for 386 machines.	£281.99
Microsoft Excel - Unbeatable for Graphics.	£275.82
Supercalc Version 5 - New Improved Lotus-Beater!	£212.82
VP Planner Plus - Multidimensional Database.	£117.39
GRAPHICS	
Freelance Plus - Market Leading Graphics Package.	£278.14
Harvard Graphics - The Package the Professionals Use.	£254.87
Graphwriter II - Ideal for Regular Fast Graph Production.	£318.00
GEM Artline - Graphics Like You've Never Seen Before.	£389.87
PC Paintbrush Plus - Move Over Michelangelo.	£96.00
VP Graphics - Cheap and Effective.	£65.76
DESK TOP PUBLISHING	
Xerox Ventura DTP Version 2 - Best In Its Class.	£508.71
Fleet Street Editor - Watch Out Murdoch Here We Come.	£159.12
PageMaker 3 - The Aldus Claimed Market Leader.	£499.81
Timeworks DTP - Celebrated Ventura Clone!	£96.00