

**ONLY
58P**

COMPUTER EXPRESS

BRITAIN'S BIGGEST SELLING COMPUTER WEEKLY

AMIGA

- Kick Off add-on
- Amazing animator
- Best new books

ST

- STE lightgun arrives
- Education software
- Protext database

PC

- Cheap upgrades
- File transfers
- Indie 500 game
- IBM trouble

ARCHIMEDES

- Pro Artisan reviewed

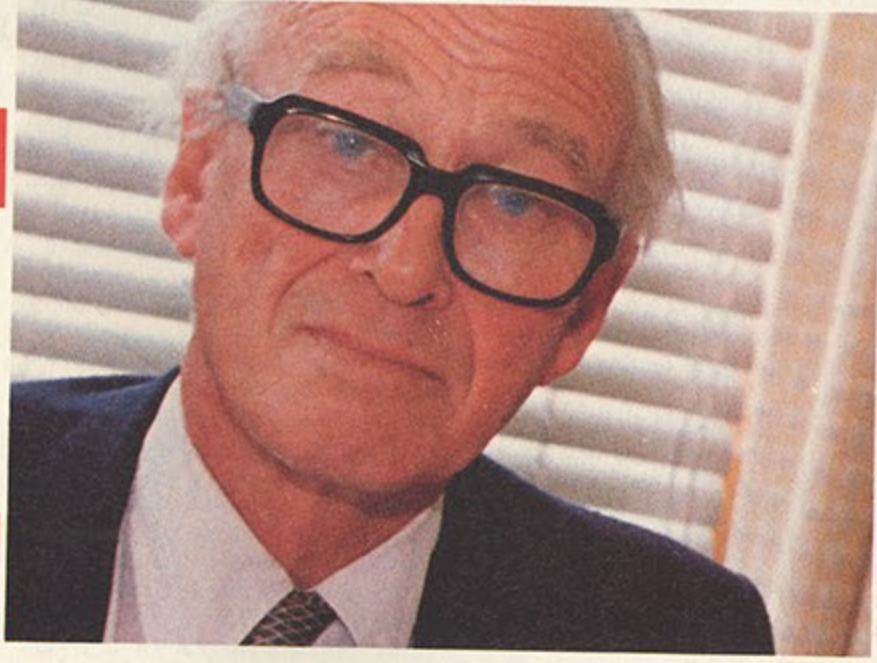
CPC

- New DTP program

**BBC • C64 • MSX
ATARI XE • PCW
SPECTRUM • QL**

SPECIALIST COLUMNS

FIASCO



How this man has helped the hackers

page 3

THE MOBILE MIRACLE



First full review of Psion's remarkable machine page 64

Man's world?



Women who've made it in computing page 69

50 BEST MUSIC PROGRAMS

36 PAGES PACKED WITH BRITAIN'S BEST COMPUTER BARGAINS

★ **SHOPPING EXPRESS** ★

CONTENTS

FEATURES

- BUYERS' GUIDE** 23
The very best in music software: what to buy, where to go, how much to pay
- ARTISAN FOR ART'S SAKE** 57
Is this the best Archimedes art package yet?
- COMDEX** 62
All the major happenings from America's greatest computer show
- PSION LANGUAGE** 66
The laptop that breaks new technological barriers arrives in the shops this weeks. Express gives the first hands-on test
- FAIR DEAL** 69
Women who've made it in a man's world
- WIN! WIN! WIN!** 72
Part two of the amazing Express competition. £12000 in prizes must be won. Don't miss out!

REGULARS

- COMMENT** 8
- VOUCHERS** 21
Shopping for hardware or software? Save £10 with the Express vouchers!
- READERS' CLASSIFIED ADS** 32
Hundreds of second-hand bargains could be yours
- EXPRESS SALES** 39
The best bargains in the observable universe
- JOBS** 52
Roll up!
- TECH TIPS** 58
- LETTERS** 70

YOUR MACHINE

- ST** 10
- Amiga** 11
- PC** 12
- Spectrum** 14
- MSX** 14
- PCW** 14
- BBC** 15
- CPC** 15
- Commodore 64** 18
- QL** 18
- Atari 8-bit** 18
- Archimedes** 18

Brilliant offer for first time gamers

RENT A SEGA



• Sega: one for the rent boys

A new generation of games players are to be given the chance to sample all action fun - by renting a games console.

Sega's busy UK distributor Virgin/Mastertronic has tied up a deal with sprawling entertainment company RCA/Columbia Pictures. The Sega console and twenty different games will be stocked in 1,200 video rental outlets around the UK.

Anyone can join up and rent the console with a game for as little as £5 a night. And satisfied customers can go back and buy the console.

Even better, it gives console owners (who are often in their mid-teens and therefore low wage earners) a chance to hire a game for a couple of quid before spending £25.

"When you've got a product as good as the Sega the last thing you want to do is keep it hidden. We want people to have a

chance to sample the machine," said Sega manager Philip Ley.

The firm is confident that the rent brigade will soon buy the hardware. "We plan to have a user base of 200,000 in the UK by February," boasted Ley.

• Meanwhile the national Sega games playing championships are in full swing. Heats are being held around the country with 11 of the 26 already completed. All the local winners will go through to a quarter final and the ultimate victor will test his skills against the Japanese and American champs live on ITV's *Motor-mouth* TV show. That should be screened in February.

Players are currently getting to grips with *Astro Warrior* but in the final stages of the championships challengers will be expected to master a variety of platform games, shoot-'em-ups and sports simulations. ■

MAKE MY DAY

Atari has shown off its first lightgun for the ST - or rather the spanking new 520STE.

The gun looks much the same as its sister for the Atari XE. It's able to run with the new STE because of the video chip included. Dave Staugas, an Atari software design engineer and author of *Neochrome*, (above) was getting to grips with Ocean's over the top 'blow-'em-away' *Operation Wolf* at the recent Comdex.

The gun should be here in the new year. However, Atari has yet to decide on an appropriate price point. ■



• Seeing the light: Atari's shooter

Deluxe delights



DeluxeVideo III is now available for the Amiga and as you can see from the accompanying animation sequence, the package takes Amiga desktop video and presentation to new heights.

The companion product to *DeluxePaint III* supports all resolution modes, super bitmaps, high speed animation, MIDI output and IFF sound and music files. Combine these with a variety of transition effects, frame accuracy of 1/60th second, overscan and auto-scrolling backgrounds and you have a desktop system able to produce sophisticated audio-visual presentations.

Supporting SSVx and SMUS music files, *DeluxeVideo III* is also completely compatible with *DeluxePaint III* Anim and AnimBrushes. A visual script lets you create and arrange videos using only the mouse enabling you to control motion editing and trace and edit object motion easily and effectively. Publisher Electronic Arts also claims this object-orientated interactivity gives you *HyperCard*-like flexibility. The only drawback to the range of features is a system requirement of 1 Meg of RAM or more and 2 disk drives. Given these requirements, pro-quality output is easily achieved. *DV III* can control MIDI, genlocks and videotape recorders enabling material to be recorded to both videotape and disc.

The package is available from Electronic Arts on 0753 49442 for £79.99 before March 1990 when it rises to £99.99. Upgrades for existing owners cost £45.

Tap into Minitel



• Minitel: Gallic comms

For many years the French have had their own version of the UK's highly popular Prestel.

Known as Minitel, the information service held on computer is larger and has many more users than our own. Everything from stock exchange data to the latest on French horse racing keep French comms enthusiasts well informed.

Unfortunately, prohibitive telephone charges and limited access to the system meant that British comms users couldn't enjoy the benefits of using the bulletin board - until now...

Communications specialist Aldoda International based in London is offering a subscription service providing access to all of the 10,000 functions of Minitel at a fraction of the normal cost.

All that's needed is a 1200 baud modem and comms software costing £149. Once up and running, users can access Minitel by buying 'blocks' of time from Aldoda. The blocks are in various sizes starting with two hours for £20.

Many large companies such as BP and Shell already make use of Minitel's extensive range of information and Aldoda expects interest in the service to be high.

Aldoda International can be contacted on 01 586 5686. ■

No computer legislation in Queen's speech

COMPUTER SNOOPS ESCAPE CRACKDOWN

Hackers and computer criminals were last week celebrating as the Government failed to include an anti-hacking bill in its proposed legislation for the year ahead.

As predicted in *Express* (Issue 52) the Secretary of State for Trade and Industry, Nicholas Ridley, has turned his back on warnings concerning the dangers of computer crime.

The Queen's speech listed 15 bills for the next year but didn't even mention computers. This is despite intense pressure from the computer industry and business in general to come down hard on hackers.

Ostensibly, the Government has decided to concentrate on more popular and sensitive legislation (such as 'green' bills). However, it is clear that the DTI does not regard computer misuse as a major problem.

Backbench MP Emma Nicholson has been campaigning hard for legislation and attempted to introduce a private member's bill last July. Despite her bill's failure the Government indicated at the time that it would be looking to include computer crime in the Queen's speech.



• State opening: but no computer talk

Law Commission Jeffrey Chapman commented: "One assumes that the reluctance to legislate is a reflection of the Cabinet's collective ignorance on the subject." He said it was "extraordinary from a Government that purports to support business and industry".

Tim Hackworth of the British Computer Society echoed many feelings about the Government's position: "We are facing a major calamity. If someone dies or a business goes under because of hacking then the Government may have to take the blame because they have done nothing about it."

Late last week the DTI handed a sop to its critics with the announcement that a private member's bill would attract Government support.

"There may be an opportunity for a private member to introduce the bill," a spokeswoman

said. "If that could be carried forward the Government would be very glad to see it and would give as much help as possible." This will not pacify disappointed campaigners.

Furious Nicholson has already branded Ridley "computer illiterate". ■

Art of the States

Electronic Arts has announced two new releases from the States for IBM PC compatibles, including a big name motor racing tie-in.

Indianapolis 500 is the only game that has ever been licensed from the famous Indy Motor Speedway. Electronic Arts claims the game captures all the feel and excitement of the classic racing event, including realistic competition and car handling. Players must compete against 32 other drivers in a full 200-lap race.

The other scheduled release is *Starflight 2*, to follow up on the success of the original (which is itself not due to be

released on the Amiga until the end of this year). Subtitled "Trade Routes of the Cloud Nebula", the new game provides the budding space trader with over 500 new worlds to explore and 30 new alien

species to talk to, each with its own history and culture.

Both games support CGA, EGA and VGA graphics formats and should be available in January at the usual price of £24.99. ■



• Indy 500: PC game soon



Mark Smart sat down with an Everex 386 PC, popped in Alumina Paint and, with a smattering of artistic talent, came up with the above.

For his efforts Smart has been awarded the 1989 Agfa Imaging Awards for best computer generated graphics. As well as a neat £1,000 prize he's also been commissioned to produce a computer portrait of the Prime Minister. That'll be shown at the two week Agfa Computer Images Exhibition at the Victoria and Albert museum from February 12th.

"This is a breath taking example of the creativity possible within computer graphics," said Agfa's Fintan O'Toole. "We'll definitely be running the awards again."

Supercomputers under attack from PC explosion

MAINFRAME "DINOSAURS" COULD BECOME EXTINCT

Mainframes and supercomputers could become the dinosaurs of the computer age as personal computers continue to increase in power, experts have warned.

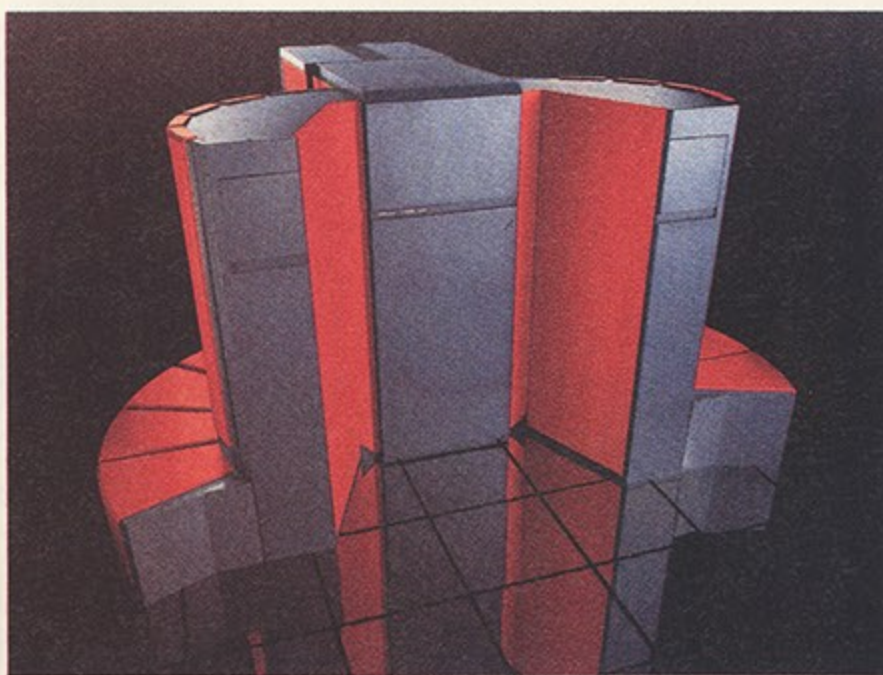
The ultra expensive machines are under threat from PCs which can rival their number crunching abilities. Experts warn that though supercomputers will always be that bit faster than personal computers they will be too expensive to compete.

Last week it emerged that personal computers are overtaking mainframes as IBM's biggest money-spinner - the first time in the company's 30 years as computer industry leader. Sales of IBM PCs last year rocketed to \$11.3 billion whilst mainframes were almost static at 15.2 billion.

The *Financial Times* called it "a dramatic turn with deep implications" and likened it to Boeing announcing that future growth would be in single engine executive flyabouts rather than jetliners.

IBM's main business has always been with supercomputers and it joined the PC market with some reluctance.

IBM dominates the mainframe market. More than 70 per cent of the world's biggest computers come from the com-



• Cray mainframe: personal computer attack

pany. But its personal computer business is growing at an amazing speed.

Supercomputer manufacturer Cray Electronics has recently announced a

sharp decrease in profits. It dipped from \$15 million last year to \$5.4 million before tax. The firm is currently looking closely at future plans.

At a supercomputing conference earlier this month Logica Cambridge chairman Dr Brian Oakley predicted that supercomputers would be a thing of the past within the next ten years.

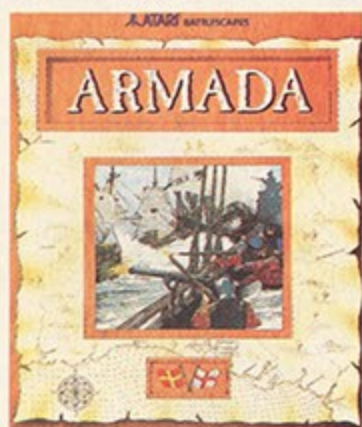
Delivering the Humphrey Davies lecture Oakley said that tomorrow's computer buyer would prefer to kit employees out with personal computers than spend millions on one mainframe.

He said that even though mainframes would always be faster, users prefer not have to compete for access time. He predicted that mainframe manufacturers such as Cray would face "formidable problems".

Supercomputers have always been extremely expensive. A \$2.5 million IBM 3090 may only cost the firm \$100,000 to make. The company has always looked to make margins of about 70 per cent on its larger computers.

But the arrival of the 486 chip is worrying the number crunching brigade. Olivetti's Mike McCormack last week told trade mag *PC Dealer* that "the need for mainframes only really exists in terms of huge database requirements, but they are not the best way of processing and using data." ■

ALL AT SEA



• Armada: phew, water scorcher

Computer wargamers who are tiring of the American Civil War or Napoleonic conquests might want to get to grips with the latest in bloodthirsty strategy.

Called *Armada*, it's a recreation of the famous sea battle 401 years ago between the English and the Spaniards. During the battle our "brave boys" gave King Phil's lot a jolly good thrashing; but software publisher Arc warns that it's going to be tough winning the computer game.

It's part of the Battlescape series which also bought you the brilliant *Borodino*. Arc says the communications system in *Armada* is faster than *Borodino*'s. It costs £29.99 on the ST, PC and Amiga. ■

Fun School tops education

Database is claiming to have produced the biggest selling educational software package of all time.

It reckons 60,000 computer users have bought the simple *Fun School 2* with a claimed 40,000 ready to splash out for it before the spring. *Fun School 2* was written by

teachers with a view to making computer learning fun. It actually made an appearance in the all formats games chart earlier in the year.

This week sees the Archimedes launch of the program - that'll cost £19.95. Database can be contacted on 0625 878888.



• Fun School 2: Biggest seller

IBM sold used computers as new

IBM has admitted that it sold used computers as new and that it certified some foreign products as being made in the US.

The wrongful claims were made in forms which were given to the US government for contracts awarded to IBM. The huge company says the cases are down to "administrative errors and not by any intent to deceive

the government". The US government could bring fines against the company or could temporarily bar it from lucrative contracts.

The hitches came to light after the government began investigating the US Navy's practice of awarding all data processing equipment contracts to IBM. The firm says jealous competitors are attempting to dredge up

small mistakes in order to obtain the big contracts.

The 1933 Buy America Act states that 50 per cent of all products bought by the US Government must be US made.

IBM says only 2 per cent of products sold to the government were used and has offered \$1.5 million in compensation.

Giant European Comdex planned

A massive European version of the Las Vegas Comdex computer show is being planned for next spring.

Comdex Europe will be held in Paris and is being organised jointly between the Comité de Expositions (current organiser of the French Sicob show) and The Interface Group, of Comdex fame.

It will be held at the Paris Nord Villepointe Centre every April and October and will be touted as the continent's premier computing event - even bigger than the extraordinary Hanover Messe.

This follows the news that the recent US Comdex broke all records with attendances up to 117,000 and exhibitors at 1,740.

"The growth and development of the European computer industry and the progress made by the EEC looking toward 1992 were factors in the decision to bring these two great high-tech events together," said Interface's Jason Chudnofsky.

Meantime, VNU says it will be attempting to set up a new PC Show in Birmingham's NEC for the autumn. This follows two rival shows being set up by EMAP (for games) and Montbuild (for business).

Squabbles between VNU and Montbuild have yet to be resolved.

Two worried men

Two of the industry's leading figures are surely scratching their heads, frowning their brows and generally racking their brains for good ideas.

Atari's boss Sam Tramiel last week posted a loss for the third quarter of this year (ending September 30th). And Amstrad's Alan Sugar could only watch as shares in his company dipped to an all time low of 40 pence.

Tramiel's firm sold \$81.4 million worth of kit (compared to \$98.8 for the same period in 1988) and lost \$5.4 million. Atari made \$900,000 profit for last year's third quarter. The poor performance has been put down to low profit margins on many lines.

Tramiel commented: "With the shipment of new products and less volatile DRAM chip costs in the fourth quarter, we



• Sugar: more bad news

anticipate normalisation of margins."

He went on to predict that the Portfolio Pocket PC and the new STE would improve financial results.

Last Thursday Alan Sugar woke up worth £10 million less than he had the day before. Four pence fell off Amstrad's share price as City analysts talked about the possibility in a downgrading of



• Tramiel: still confident

profit forecasts. Sugar, who owns 45 per cent of Amstrad, is now 'worth' about \$100 million - six months ago the figure was \$400 million.

But Atari and Amstrad aren't the only firms in trouble. Commodore has posted a loss of \$6.5 million on sales of \$165.3 million for the period July to September. This time last year Commodore made \$9.6 million. ■

Sparc of genius

By Jerry Glenwright

Today, most computer users are familiar with the concept of RISC technology. By using central processors with simplified instruction sets (the commands used to drive the chips) manufacturers are able to put the power of the mainframe in the box of a personal computer.

Now California-based electronics specialist Cypress Semiconductor has come up with what it believes to be the fastest RISC central processor in the world.

Based upon the popular SPARC chip used to power SUN Microsystems work-

stations, the new chip is capable of performing at a lightning fast 40MHz providing 29 MIPS of processing power. By comparison Acorn's RISC computer, the Archimedes, offers a measly 4 MIPS.

In order to achieve this phenomenal turn of speed the 7C601 CPU (as it is tentatively known) has, at its heart, a large windowed register file containing 136 general purpose registers. By reducing the number of load and store operations, these registers free the bus for other purposes, thus making computer operations as a whole much more efficient. The product costs \$85. ■

Techie feel to first Scots Micro Show

by Stuart Low

The first Scottish Micro Show, held in Livingston last week, left behind the glitz and glamour of the larger London shows to give a smaller and friendlier atmosphere.

Over half the exhibitors were from Scotland and 2,500 visitors came to see some delightful technical gadgetry for home computer owners. Another similar show has already been pencilled in for next year. Some of the highlights:

● The Atari ST was strongly represented, and BBDP Electronics from Fife demonstrated a new product for the machine - a DMA splitter. This enables up to eight DMA devices to be connected to the ST at once, and any of them



• Scottish show: old fashioned techno fun

can be powered down without corrupting the data flow to others in the chain. This would enable two hard disks to be run simultaneously on one ST through the DMA port.

An Amiga version of the splitter is said to be 'a strong possibility' but no other details have been confirmed. The company is on 0383 881768.

● Morse Master, also for the ST, is a morse code

trainer enabling the simulation of typical 'on air' reception conditions. The maker, Boscad, is on 0383 729584. Of interest to the growing number of radio hams, the radio simulator includes features such as frequency drift and channel interference.

● On the MIDI front, the Music Matrix was demonstrating its disk-based magazine aimed at the amateur and professional MIDI musician. More on 0592 714887.

● Miracle Systems from York demonstrated its new hard drive and interface card for the QL - at £425 it represents four times the cost of a new QL. However it speeds up access times and can load up to three 32K screens per second. Miracle's number is 0904 423986. ■

Computer crime syndicate smashed

HK PIRATES SCUPPERED

A massive computer piracy syndicate has been smashed by the authorities in Hong Kong.

Fifteen arrests were made early last week - software, hardware and manuals worth millions of pounds have been seized. The crime ring is understood to have been responsible for about two thirds of all piracy in the British colony.

Many of the pirated products were destined for the UK, and anti-piracy units around the world fear that Hong Kong is becoming central to worldwide distribution of illegal computer products.

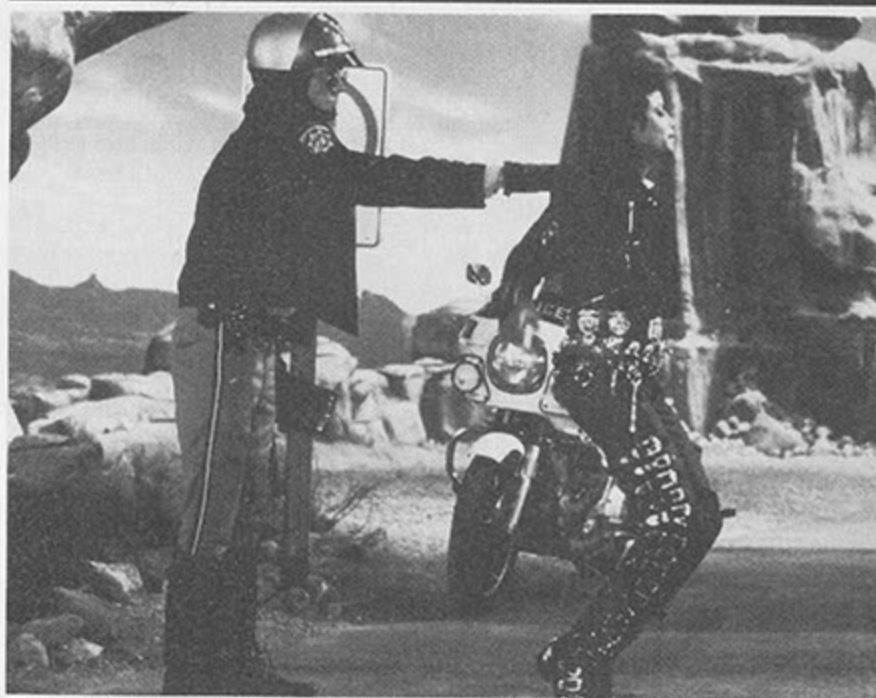
Hong Kong Customs and Excise authorities raided the syndicate's premises and confiscated nearly 110,000 counterfeit

manuals and 20,000 disks with a street value of about £3 million.

Most of the material was pirated from products produced by leading American business publishers such as Ashton-Tate and Lotus. The Business Software Association, of which those two companies are leading members, plans to prosecute. It is expected that only the ring leaders will be charged.

The BSA has praised the Hong Kong government for tackling piracy but urged other countries to take similar action. BSA president Douglas Phillips commented: "Other governments, not only in Asia but in Europe and elsewhere, should follow Hong Kong's lead." ■

JACKO POPS IN...



• Moonwalker: Jackson dazzle

Cuddly pop superstar Michael Jackson has finally arrived on home computer.

One of the world's most famous names has been turned into a computer game by US Gold - it's a silicon ver-

sion of his very strange movie *Moonwalker*.

One curious part of the deal with Jackson's agents is that the star must not get killed or maimed in the game. Instead, we are told, he pops away in

a burst of silvery dazzle every time a nasty thing catches up with him.

It's jolly good fun all round for ST and Amiga owners. Price is £24.99. The 8-bit versions will arrive soon. ■

Take a Test

PC software distributor Testware is offering a catalogue of commercial PC programs in the form of evaluation copies.

You can try out the software for thirty days at which point you either pay up or pass back. But don't expect to get your hands on the Lotus 1-2-3s of this world. The programs

available are along the lines of text editors, menu systems and screen capture utilities submitted by individuals rather than corporations.

Bold Testware reckons it's on to a winner. Budding PC programmers or hardware owners can call Testware on 0423 886415.

Picture this



• Philips: in the picture

PC owners on the lookout for a colour VGA monitor have a new option in the shape of Philips' 3CM9609, priced at £349.

Philips is confident that demand for colour VGA monitors is taking off — "particularly as suppliers are bundling VGA cards with the CPU," says Philips' marketing man Ken Firth.

The 14-inch screen has a resolution of 640x350 lines or 640x480 (60Hz), can display all colours and has backwards compatibility with all other standards. More information on 01-222 0833. ■

Weighty manufacturing costs slashed

TEXAS WONDER CHIP TO CUT 386 PRICES

By Jerry Glenwright

High tech computer manufacturer Texas Instruments is about to launch a new chip set which will significantly reduce the component count of a 386-based machine.

The firm says that by cutting manufacturing costs computer companies will be able to offer cheaper 386 machines. Currently, manufacturers which want to build 386 PCs have to undergo the tortuous process of designing their own logic circuits to drive the 80386 CPU — this involves anything between 30 and 60 separate components.

But now, with the help of TACT83000,

the new TI chip set, the chip count can be reduced to eight. Using the new chips, an entire 386-based PC can be built on a circuit board measuring only four inches square.

Texas Instruments believes the new chips will attract a lot of interest from PC manufacturers desperately trying to cut costs in order to compete — "the HPs, NCRs and Olivettis of the world", says marketing manager Stephen Tang-Kong.

The company hopes to start shipping the chip set within the next two months. ■

• (right) 386 power: efficient chips could mean price cuts



QL 'ALIVE AND WELL'



• Richardson: QL corner

The £400 Quantum Leap of 1985 that took off, stumbled along and finally fell over, is back on its feet again at a knock-down price.

For as little as £65 you can get a 128K QL from EEC on 0753 888866. Bundled with word processor, database, spreadsheet and business graphics software from Psion, the multitasking machine also offers excellent built-in BASIC, CP/M and IBM emulators, and over 400 PD programs plus a wide range of commercially available software.

EEC's boss Bill Richardson reckons the machine's fraught history won't deter people from a good bargain.

Bravo Delta

Delta Five Release II, Compssoft's upgraded database management system goes on sale this week.

The souped-up system is said to have the relational and network capabilities of Delta Five Release I with the widely praised, simple approach of Delta Four. It boasts among other things an extended relational capability for auto windowing of data from multiple files, distributed data across a network, up to 16 indexes per header record and the chance for application developers to create context sensitive help screens.

Delta Five Release II costs £595, the add-on



• Delta Five: relational

graph package £295, and the two together £918. Details on pricing deals from Compssoft on 0483 860811.

Meanwhile, the firm is offering training courses to those people who really want to get the most out of their database. ■

Genius edition

Classic board game converter Leisure Genius has announced a compendium of its well worn trio Scrabble, Cluedo and Monopoly.

The three computer games have been selling well for some years, and interest is expected to be high among new computer owners looking for familiar fun.

The deal is open to Speccy, CPC and C64 owners for £20. A disk version is also available for the 64 and CPC — that's Scrabble and Monopoly for £20. ■

Amazing Amiga optical drive

Amiga owners can take their systems to the limits of known science with the announcement of an erasable optical drive from Direct Digital Disk.

Launched at last week's Shopper Show, the 650Mb optical disk works at the speed of a hard drive. Until now, Read-only and 'Write

One Read Many' drives were the state of the art in mass storage for mainframe and workstation systems, but it has only taken a year for software developers to come up with the necessary drivers to interface with 16-bit machines. Direct Digital has managed to link the Sony erasable optical drive

to the Amiga as well as the PC.

Unfortunately it's going to be something of a luxury. The hardware costs £4,900 while each compact disk is £350. If you happen to have five grand and need the storage space, DDD is on 0708 754704. ■

Sage stuffs opposition

Sagesoft, supplier of PC accounting software, was voted 'Company of the Year' in the Northern Business Awards last week, which were sponsored by the Newcastle Journal and Tyne Tees TV.

The company impressed the jury through its product development and marketing, particularly with such products as its networking system MainLan, which has taken a 46 per cent share of the market. ■

Christmas buyers get stuck into bargains

SPENDING SPREE AT SHOPPER SHOW

By Adam Waring

Thousands of pounds changed hands at the first Computer Shopper Show last weekend as bargain hunters tracked down the best buys for the festive season.

By Sunday afternoon the organisers were forced to lock hopeful punters out, and there were loudspeaker announcements asking those who had made their purchases to leave the building. Even on Friday, the least busy day, huge

queues stretched right around Alexandra Palace.

Those who gained entrance to the show were not disappointed in their quest for bargains - the box-shifting brigade were there in force to meet the demand, and publishers attending the show were offering many products at special prices.

It was the box pushers who dominated the show, some of them selling kit at silly prices. The cautious customer who had a good look around before buying could pick up an

Amiga Batman pack for under £345. On the first day of the show most of the retailers agreed that they had done tremendous trade.

The children's charity Childline was officially supported by the show's organisers. The public, pleased with their bargains and the money they had saved, gave generously, raising £1,300 on the first two days. A giant stocking hung from the scaffolding, and everyone who donated cash was invited to blow up a balloon to be put into it. It looks

like going in the Guinness Book Of Records as the largest Christmas stocking ever.

At the end of the first day of the show a jubilant Mike Cowley, one of the organisers, was jubilant. "It's quite fantastic really - a terrific show," he said.

"It's obviously now the show for pre-Christmas, no matter what sector of the market people are in. Everybody is thrilled and the exhibitors seem very happy about it as well." ■

Back to routes

Newstar has launched a rival to NextBase's popular route planning program *Autoroute*.

Navigator Plus follows the same basic principles as its predecessor with some clever graphics. The program was devised by William Poel, one-time Amstrad software manager. At present *Navigator Plus* is available only on PC compatibles, although conversions to the 16-bits are planned. It costs £299, the same price as *Autoroute*.

As well as the graphics enhancements, the program offers a number of other improvements including more vehicle types, user definable points, and automatic costing. Contact Newstar on 0245 265017. ■

Printing portability

Predominantly Amiga-based firm ASAP has launched itself into the printer market with a low cost portable machine.

The Personal Printer costs £100 and weighs about 11 ounces. Print speed is 86 characters per second, and the machine offers an 80-column width. ASAP - which developed the printer in-house - reckons it's going to sell thousands, especially to dynamic types on the move. Call 0724 280222. ■

CBM SHOWS ITS STUFF

Commodore is heralding its recent Christmas Computer Show as a resounding success despite attendance figures dropping from last year's winter event.

Around 8,200 Commodore fans turned up over the three days (17th to 19th November). Last year's Commodore Show attracted over 10,000 people. However, the firm is pointing out that this is the first time it has organised the event. In previous years the show was put together by Database. "We didn't have the advantage of free advertising in Database's magazines," explained a spokesman. Commodore had hoped



• Show goes on: but it's down on last year

to avoid the 'box-shifting' label of previous events. As such the show was split into two floors. Upstairs the 'classier' elements showed off their goodies, while the lower floor saw a large number of fivers changing hands. Radio person and Amiga fanatic David Jensen did the honours along with Commodore's UK boss Steve Franklin. ■

Shoot from the lip...

• "We can't have Sooty killing things. He has to be passive in the game." *Alternative's* Roger Hulley after picking up the big licence.

• "Sometimes an innovative technology falls into the hands of a weak or erratic management, Commodore International's seem to

be just such a management." *Feature on the Amiga manufacturer in US business mag Forbes.*

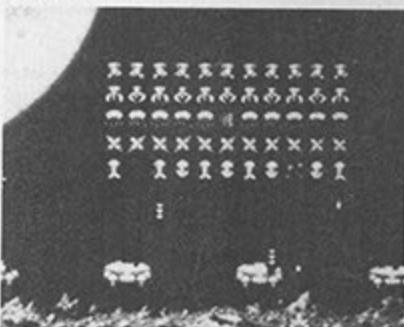
• "When it comes to the business sector Atari has a knack of clutching defeat from the jaws of victory." *Mike Dale of top end ST software house Signa.*

Return of the horrid Invaders

It's back! After many years, *Space Invaders* has returned for a further stint of chugging across your screen.

It's all thanks to games publisher Impressions which has bundled four 'timeless classics' together for the ST and Amiga. As well as *Invaders* there's also *Rockstorm*, *Megapede* and *Draxions*. It doesn't take a great deal of imagination to guess what they all resemble.

The whole thing is being called *Renaissance*, and Impressions claims buyers will be treated to all manner of 'new twists'. Price is £19.99. Call 01-384 2701.



• *Invaders*: "stunning new graphics" claim

MGT: now comes the software

Miles Gordon Technology, manufacturer of the near legendary Coupe, has been actively encouraging publishers of games, utility, educational and music software to commit themselves to working on the new Spectrum-compatible machine.

Big names such as US Gold, Activision, System 3, Codemasters, Virgin, Domark and Audiogenic are all on-line to join the ranks of producers after a recent Development Conference. The machine is due for shipping at the beginning of December. ■



Amiga club

WH Smith's mail order wing has at last set up an Amiga club with hundreds of products on offer.

The Home Computer Club now covers all major micros - a PC section was started only a few weeks ago. Amiga owners who join can expect a free copy of CRL's *Virus Killer*. ■

EXPRESS

EDITOR • Martyn Lester
FEATURES EDITOR • Andy Storer
NEWS EDITOR • Colin Campbell

CONTRIBUTORS • Steve Carey • Jerry Glenwright
Basil Pigg • Maff Evans • Simon Williams
Jason Holborn • Robin Alway • Bertrum Carrot
Rod Lawton • Andrew Brown • John Torofex
Pete Gerrard • Keith Neal • Edmund Blake

ART EDITOR • Angela Neal
PRODUCTION EDITOR • Stuart Anderton
PRODUCTION ASSISTANT • Ben Feinbaum

ADVERTISEMENT MANAGER • Mark Salmon
DEPUTY AD MANAGER • Adrian Taylor
AD EXECUTIVES • Simon Moss • Helen Kirkhope
AD PRODUCTION • Frances Wasem
AD TYPESETTING • Terry Turner

PUBLISHER • Greg Ingham
MANAGING DIRECTOR • Chris Anderson

© Future Publishing Ltd • 4 Queen St, Bath,
BA1 1EJ • Tel: 0225 446034 • Fax: 0225 446019
Subscriptions: The Old Barn, Somerton,
Somerset (0458) 74011 • Printed by Redwood
Web Offset, Trowbridge, Wilts • Distributed by
Comag, West Drayton, Middx

COMMENT

Why does the Department of Trade and Industry refuse to take the hacking question seriously?

Amazingly, it remains completely legal to sneak into somebody else's computer system and have a good look at what's on offer. Snoops can rest assured that, in the eyes of the law, they have done nothing wrong.

The Department of Trade and Industry has allowed the hackers to continue their intrusive games without so much as a squeak of resistance. The department's Secretary of State, Nicholas Ridley, was handed an ideal opportunity to stop this insidious activity. Why did he fail to take the simple course which common sense, and much of the computer world demands?

Despite her excesses, Emma Nicholson has been most enterprising in her campaign to outlaw hacking. It's a subject which she latched on to early, and she has

pushed it into the public eye with some skill. Predictably enough her private member's bill was shelved in order to study the full implications of hacking. Given that the Law Commission was only weeks away from publishing its report, the House's decision was a wise one.

Even though she knew her bill had no chance, it had served at least to make the country more conscious of the problem. The broadsheets are now running stories about hacking every week. Even the tabloids have approached the subject with a surprising degree of intelligence.

It was the Law Commission's report which Ridley should have heeded. It was written in as plain English as a legal report can be and managed to avoid technical waffle. The Commission knew that even

today computing is still a difficult subject for many people to get their teeth into, and did its level best to help them understand.

So it cannot be the case that Ridley ignored the report because it was over-technical or difficult to comprehend.

It is also absurd to suggest that Ridley subscribes to the foolish idea that hackers serve us well by exposing cracks in our computer systems' defences. We pay good hackers to look into vital computer systems and find the flaws. We don't need independent gangs of high-tech private detectives roaming around our networks at will.

Ridley's decision is based on the theory that an anti-hacking bill is not worth the Government's time. The DTI does not feel that hackers present a real danger to the community.

Talk of support for a private member's bill is vacuous. With a packed legislative programme ahead, it will have little chance of success. Hacking should not have been a peripheral problem - it should have been very much on the agenda.

Despite the DTI's lethargy on this subject, many in the Government feel that this activity has been tolerated for long enough, and Scotland Yard estimates that 90 per cent of hackers will give up the day it all becomes illegal.

Nobody relishes the thought of some stranger leafing through private documents at will - least of all, one would imagine, a Government Secretary of State.

Speculation that hacking will eventually cause a calamity and even loss of life is not so far-fetched, and sooner or later Mr Ridley will surely come to regret his short-sighted decision.

HIRE PRICE TO PAY

There can be few of us who have not forked out good money for a product which has come highly recommended, taken it home, and found that it's complete rubbish.

Good news then that Virgin/Mastertronic is offering Sega owners the chance to hire out games through RCA video outlets. Here's an opportunity to get to grips with a game and really find out if it is worth the £25 asking price.

The trouble with computing is the reliance on product reviews, and while most games reviewers know their stuff, some of them are surprisingly stupid. There are times when it's wise to review the reviews before parting with any cash.

It's always going to be touch and go, though, and once in a while you'll listen to the wrong recommendation.

This plan to give buyers a trial run with new games for just a couple of quid is surely destined to succeed. What a pity that the activities of games pirates mean that computer owners can't be trusted with a similar opportunity.

HP SAUCE

Computer manufacturers have been known to make a great deal of money, but the latest figures from Hewlett-Packard suggest that things have gone too far.

In a press release last Thursday the firm claimed to have reached a pretty staggering sales figure of ... wait for it ... \$11,899 billion. This figure is almost exactly three times larger than the Gross National Product of the United States of America.

A 'computer error', no doubt...

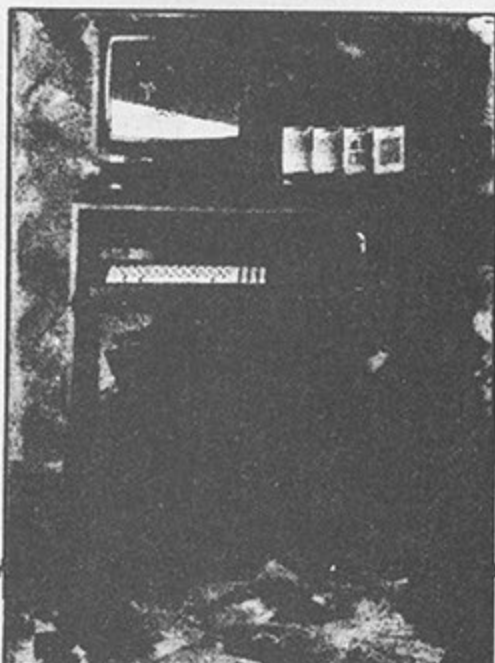
Colin Campbell

SENSATIONAL SCOOP PURCHASE

We have purchased the entire stocks of AMSTRADS super stylish Computer desks.

These modern stylish desks are in dark grey finish, and are self assembly. They can be assembled with a screwdriver in less than 10 minutes, and are extremely strong and practical. Normal price is £39.99 but we are offering these at the incredible low price of £9.99 + P.P. YES - only £9.99 for this superb computer desk.

To be sure of your order, and avoiding dissapointments rush the order form below with your remittance. Sorry no C.O.D.



CREDIT CARD
HOT-LINE

021-568 6464

ENQUIRIES: 021-568 6400 FAX: 021-588 6003
Anglo European Marketing (Mail order Div)
61-66 Owen Road Ind. Est. Willenhall West Midlands.

SAME DAY DESPATCH
BY POST

To: ANGLO EUROPEAN MARKETING (MAIL ORDER DIV)
61-66 OWEN ROAD IND EST WILLENHALL, WEST MIDS.
TEL:021 568 6464 FAX:021 568 6003 G Eng.

PLEASE RUSH ME AMSTRAD COMPUTER DESK(1)
AT £9.99 + £4.00P.P. I ENCLOSE CHEQUE/PO. Or charge my Access/Visa

Exp. Date _____

Name: _____

Signature: _____

Address: _____

Post Code: _____ Tel No. _____

CASH CALLERS WELCOME

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

Now includes Hyperpack

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

Now includes Hyperpack

- ★ 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 Super Pack

£439.00

- ★ Includes 1 megabyte keyboard PLUS £450 worth of software. Comprising 21 games and Organiser Business Software. Also includes Metacomco BASIC, Mouse Pad, all Leads, Manuals and Mouse.

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.....	£249.00
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.....	£239.00

Amiga A500 BAT Games Pack

£399.00

Inc VAT and Next Day Delivery

NEW!

BAT Games 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.
- ★ DELUXE PAINT II and PHOTON PAINT Graphic Packages WORTH over £100!
- ★ FREE, only-just-released BATMAN - THE MOVIE games software.
- ★ NEW ZEALAND STORY arcade games software.
- ★ F16 - INTERCEPTOR - amazing 3D flight simulator software.
- ★ A further £230 worth of Games Software, including BUGGY BOY, MERCENARY, BARBARIAN, WIZBALL & six more games.
- ★ 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 1 MEG BAT GAME PACK

£519.00

NEW!

1 Meg Bat Games Pack includes:

- ★ Fitted 1 Megabyte Memory Expansion + Real Time Clock Card
- ★ Everything listed for the A500 Bat Game Pack
- ★ DRAGON'S LAIR 1 MEG MEGAGAME!

AMIGA A500

CLASS OF THE 1990'S BUSINESS + EDUCATIONAL PACK

£549.00

FEATURES:

- ★ Amiga A500 + TV Modulator
- ★ Midi Interface + Software
- ★ Kind Words II word processor
- ★ Page Setter DTP
- ★ Super Base Personal Database
- ★ Maxiplan 500 Spreadsheet
- ★ Amiga Logo, BBC Emulator, Deluxe Paint II
- ★ Mouse mat, 10 blank disks and disk wallet

EXTERNAL DISK DRIVES

Atari SF314 1 Megabyte.....	£139.00
Amiga A1010 1 Megabyte.....	£109.00
Cumana 1 Megabyte Atari or Amiga.....	£89.95
NEC 1 Megabyte Atari or Amiga.....	£79.95
Atari Megafile 30 Hard Disk.....	£439.00
New! Commodore A590 20 meg hard disk.....	£369.00
A590 Hard Disk + Memory Upgrade installed.....	Phone

MONITORS

Commodore Amiga A1084 Stereo colour Monitor inc lead.....	£249.00
Atari SC1224 Colour Monitor inc lead.....	£259.00
Atari SM124 Mono Monitor including lead.....	£104.00
Philips CM8833 stereo colour monitor inc. lead for ST or Amiga.....	£259.00

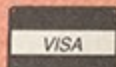
CREDIT CARD ORDERLINE ☎ 0908 378008 (Mon - Sat 9am - 6pm)

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



AMIGA

BEST EVER COMMODORE SHOW? (PART 2)

Since Commodore announced that it would be taking over the administration of the Commodore Show, many expected great things. Then came the news that Commodore had managed to tempt big names such as Ocean and Electronic Arts to the show. Was this to be the ultimate Commodore Show? Was it hell!

Past Commodore shows traditionally consisted of rows of box shifters trying to sell you everything from a roll of disk labels to an 8 Mb RAM expansion. Indeed, with such variety in evidence, Commodore Shows have always been a paradise for bargain hunters, and this latest show was no exception. Try to find new products, however, and there was nothing but disappointment!

Even the presence of the big games software houses such as Ocean, Electronic Arts, Domark and MirrorSoft, made no difference to the tedium of it all. Of all the games producers present, only EA and Domark were actually showing new products (Domark's *Hard Drivin'* did look rather impressive, though!). By the looks on the faces of those manning (personing?) the stands, most seemed to have been wishing that they'd never bothered turning up in the first place - by 2.30 in the afternoon, the show was practically devoid of punters!

Commodore certainly seems to view the Amiga's use in the music industry as all important: going by the obvious emphasis to MIDI and music on the stand. In fact, half of the entire stand was devoted entirely to Music-X linked to a host of MIDI devices (including my current dream keyboard, the Korg M1!). On the hardware front, Commodore didn't even show an A2500UX!

Those who kept their eyes open might have been lucky enough to catch a sneak preview of both the Enhanced Chip Set (ECS) and Kickstart/Workbench 1.4 running on the Bytes and Pieces stand (just don't tell Commodore will you!).

From what was shown, you can be sure that 1.4 is going on to totally revolutionize your Amiga when it finally arrives!

Hi-Tension showed a new realtime video digitiser that looks set to give JCL's SuperPic a run for its money. For video fanatics, the company also showed a new broadcast quality genlock. On the software front, the company were promoting its *Small Business Manager* package as well as previewing *The Tipster*, a race forecasting program which the company hope to sell for as little as £20. The program allows you to build up a database of race horses and race venues and then attempts to forecast the outcome of any race. Gamblers are sure to love the program!

Sadly, many of the Commodore show regulars that we've come to know and love were absent. There were no signs of HiSoft, George Thomson Services or even those lovable lot from Seventeen Bit Software (although to be entirely truthful, young Martyn popped in for a few jars on the Friday!).

LLAMASOFT COOL OUT

Will wonders never cease? After the recent news that Llamasoft are to release an Amiga version of the *Trip-A-Tron* light synthesiser, the company have also announced their intention to produce versions of its games software for the Amiga.

When I spoke to Jeff Minter at the Commodore show (which was one of the few highlights), Jeff informed me of the company's intentions to expand into the Amiga games market. While Jeff admitted that he wouldn't personally be programming anything on the Amiga himself (*Trip-A-Tron* was in fact written out of house by Andy Fowler of Video Images), Yak would be commissioning programmers to carry out the conversion work on future products. Hopefully, Jeff may decide to produce Amiga versions of such Llamasoft classics as *Metagalactic Llamas Battle at the Edge of Time* (I kid you not!), *Psychedelia* (a much underrated masterpiece), *Andes Attack* and *Revenge Of The Mutant Camels*.

ROUND UP

If you have any views on any issues raised within AmigaBLIT, then why not share your comments with the world by putting pen to paper and sending them into AmigaBLIT. Similarly, if you have any great tips or cheats for the latest Amiga games, then I'd also love to hear from you (every one printed gets a mystery game - they've got to be original though, matey!).

Send your tips to:
JASON HOLBORN, AMIGABLIT, 4 QUEEN STREET, BATH BA1 1EJ.

Jason Holborn

BOOK NEWS

Assembly language programmers everywhere will be pleased, nay, overjoyed to hear the news that Abacus are soon to release a follow up to their immensely successful *Amiga Systems Programmers Guide*.

At this point we only

know that the book is to be called *Advanced Amiga System Programmers Guide* and will no doubt contain more of the kind information that has made the original so indispensable to those of us into torturing ourselves with assembly lan-

guage programming.

On the subject of books, look out for a brand new release of the bible of Amiga programming, *The Hardware Reference Manual*, which is due for release soon(ish). I'll be first in the queue for this one!

FOOTBALL CRAZY!

The program that every Amiga gamer has been awaiting for has finally arrived. Yes folks, Anco's *Kick Off* expansion disk, *Extra Time*, is finally available for the very reasonable price of £9.95.

Extra Time enhances the original *Kick Off* (note that you do need to own the original) to include several new options to allow more precise control over both the playing conditions and actual play. For starters, *Extra Time* now automatically selects the type

of playing surface from four different types - Wet, Soggy, Hard and Artificial Turf. These surfaces have a marked effect on the speed, travel and the bounce of the ball. These conditions will also effect the pace and stamina of the players.

Extra Time also adds the unpredictability of cross winds that can range from a refreshing gentle breeze right up to a gale force. If the winds are on your side, it is even possible for your goalie to score a goal by kick-

ing the ball straight down the pitch!

To make the game more of an accurate simulation of the skills of football, *Extra Time* adds four new tactics: blitz, lockout, criss cross and falcon (football experts will hopefully know what these are!). Once you have control of the ball, you can directly aim the power of the shot and direction. Even the goalie gets a look in as *Extra Time* adds nine types of goal kick.

For dedicated *Kick Off* fans everywhere.

PLAYING TIP

OUT RUN

Anyone having trouble getting to the checkpoints before the timer runs out? The just follow this simple set of instructions...

Start the game and reach a high speed, then enter the phrase RED BARCHETTA (including spaces). The cheat mode will now be activated. If you now want an extra ten seconds, simply press T. To begin the level again press B, or press S to skip to the next level.

Amar Patel, Wapping, London.

★ Blitzer...SWITCHBLADE

Gremlin / £19.99
Imagine a time far off in the future. Technology has long since passed the stage of "Household Device" and entered the realms of religion.

For 10,000 years the Cyberworld of Thraxx has been ruled by the Bladeknights, under the power of the Fireblade. An evil renegade knight named Havok has awakened from suspended animation and smashed the Fireblade into 16 pieces, thus relieving the Bladeknights of their power. All the Knights were destroyed - except one...

One Bladeknight, Hiro, managed to escape and has set off on a quest to retrieve the pieces of the sword and restore order to the land.

Switchblade places you in control of Hiro on his quest. The game takes place for the most part in a series of underground caverns, which are revealed in gradual sections as Hiro pro-



gresses from room to room.

Finding your way around the caverns may seem difficult enough, but also to hinder you are all manner of cybernetic guards and creatures under Havok's influence. You must take out these guards by use of Hiro's fighting talents. Different moves are accessed by way of a power bar at the bottom of the screen. Below 1/3 power makes Hiro punch, 1/3 to 2/3 provides a high kick and full power gives a powerful leg sweep. Other weapons such as flames and bullets can be picked up on the way to deal with par-

ticularly nasty enemies.

The graphics and sound of *Switchblade* are first rate, exuding a wonderful Japanese cartoon-like atmosphere. From the snapshot opening sequence to the cute sprites, everything is superbly designed. Not that *Switchblade's* pleasure is purely superficial, beneath the slick exterior lies a compulsive and challenging arcade adventure which should have search and fight fans glued to their joysticks for many a long winter evening. But remember to stop long enough to say Merry Christmas to the rest of the family!

E IS FOR EXPECTED

The launch at the Las Vegas Comdex computer show of the Atari 520E – a limited memory version of the much vaunted (and disappointing) 1040STE – was reported in last week's NCE. Over in the States they're complaining about Europe receiving stocks of new Atari machines before they do, though I don't recall seeing too many STEs around in the shops here.

This latest move confirms what had been long suspected: Atari wants to lift the lower end machines up at least a notch. Given the STE's indifferent reception on the part of programmers, however, one may wonder why all the blithering bother.

Certainly the opinion of people such as Jez San (of *Starglider II* and *Afterburner* fame) is that hardware scrolling, for example – one of the features of the STE – is unnecessary and is unlikely to be used much. And what's the point of having eight times more colours (4096 instead of 512) if one can't display even a single additional colour on the screen?

Is it likely you'll be saying, "Well stone me if that colour isn't from a palette of 4096. Ooh whee blimey that just made all the difference to Xenon II"? Of course not: no-one except George Cole ever says "stone me."

But perhaps we shouldn't be too critical. After all, the bottom line is that Atari, out of the goodness of its wallet, is offering more for the same price. And that can't be bad.

EDSOFT SHOCK HORROR

It's one of those press releases, folks. "Parents who doubted whether it was worth spending £400 on a computer," it promises, "will now be able to buy an ST in the knowledge that, whatever age their children, there will be a comprehensive set of programs to help them with their school work."

It's the great unrealized promise of our time, that. All over the country parents are trying to convince themselves that shelling out four hundred big ones on a box of chips is The Right Answer and A Good Thing; and, all over the country children are trying to convince their parents that it really will help them to go to the top of the class and avoid becoming abject failures (or proven computer journalists).

DON'T DESPAIR

But today, *Express* is delighted to reveal, that LCL has released what is claimed to be the first ever complete GCSE course for the ST. Called *Micro Maths*, and consisting of 24 programs and two books, it's a sequel to *Primary Maths Course*, which is suitable for non-

PLAYING TIP

AFTER BURNER

Here are a series of cheats to gain you extra bonuses during Activision's arcade conversion:

Type THUNDERBLADE and then press the following keys:

- G – More missiles
- T – Less missiles
- < – Previous Stage
- > – Next stage
- N – Extra lives

computerphobic 3-12 year olds. (Three year olds? Talk about starting 'em young! But, heh, the younger the better!)

The senior version takes users through from secondary school entrance level to GCSE. Then, in a few weeks time comes *Mega Maths*, a step-by-step A-level course, making the range complete. "Virtually every Maths lesson a child ever has at school," claims a spokesperson, "has now been put onto the ST."

Micro Maths costs £24, and is available direct from LCL on 0491 579345.

GFA 3 COMPILER TO THE RESCUE

If you were one of the many who bought and relished GFA Basic 3 you'll be relieved to know that, at last, the updated Compiler is available. Why? Well, to compile and run your program you hitherto have had to convert it to GFA2 format and use that version's Compiler. Tedious.

Some very welcome changes have been made: besides faster execution and smaller programs, that old straitjacketed dialogue box has made way for a natty set of dropdown menus; you can also link in C code, and compile to Desktop accessories.

GFA3 Compiler costs £29.95: speak to the chaps on 0734 794941.

SAVE £75!

Some time ago there was rather a neat program for the ST called *Aegis Animator*. Jolly good it was, too, except for the wallet-mugging price: £79.95. Now author Jim Kent has recovered the rights to the program and is selling the very same item for the knockdown sum of £3 (p&p included).

Jim's offering *Aegis Animator* as shareware, with the suggested contribution "a smile" (oh *purlease* – pass the sick bag!). The newly rechristened *Ani-ST*, runs on a colour monitor in low resolution only,

is available from PD libraries. Now you will be sure to enclose a sickly grin with your order, won't you?

SAM SURPRISE

Forgive me for mentioning Miles Gordon's newly launched £150 eight-bit machine the SAM Coupé. If you read the computer press you'll be heartily sick of the damn thing by now. But what you may not already have heard is that it can actually read ST disks. Since, like the ST, the SAM uses the 1772 chip disk controller, you can save an ST screen on disk, bung it in the SAM and run a little utility that adapts it to the SAM screen. (It can also read disks from the Amiga, whatever that is.)

THOSE TILT AWARDS, NOT IN FULL

French magazine *Tilt* annually awards what are somewhat predictably called the French Oscars. This year there are some rather high highlights. So, without further ado – the envelope, please – and this year's winners are:

1. Best strategy game: *Populous* (Electronic Arts, and quite right too)
2. Best graphics utility: *Deluxe Paint III* (EA again: ditto)
3. Best simulation: *M1 Tank Platoon* (Microprose)



4. Best flight simulation: *Falcon* (Mirrorsoft)
5. Best English language adventure: *Indiana Jones and the Last Crusade* (Lucasfilms)
6. Best sports sim: *Great Courts* (Ubisoft) and *Kick Off* (Anco – though the ST version isn't that hot)
7. Best shoot-em-up: *Silkworm* (Virgin – I didn't rate it)
8. Most original game: *Sim City* (Infogrames – arriving on the ST very shortly)
9. Best action game: *Skweek* (Loricels – action?!)
10. Er... that's it.

Steve Carey

STunner...TOWER OF BABEL

Good strategy games don't come along too often, but when one does, it's always amongst a blaze of publicity. Indeed, the people at Microprose see *Tower of Babel* reaching lofty heights of fame, which is hardly surprising since the game has been in development for the last two years.

Tower of Babel is a 3D filled environment, and the object is to rid levels of green pyramids (klondikes, to the expert), using three robots – zapper, pusher and grabber. You direct these robots across squares at each level by using the mouse to push buttons on a control panel.

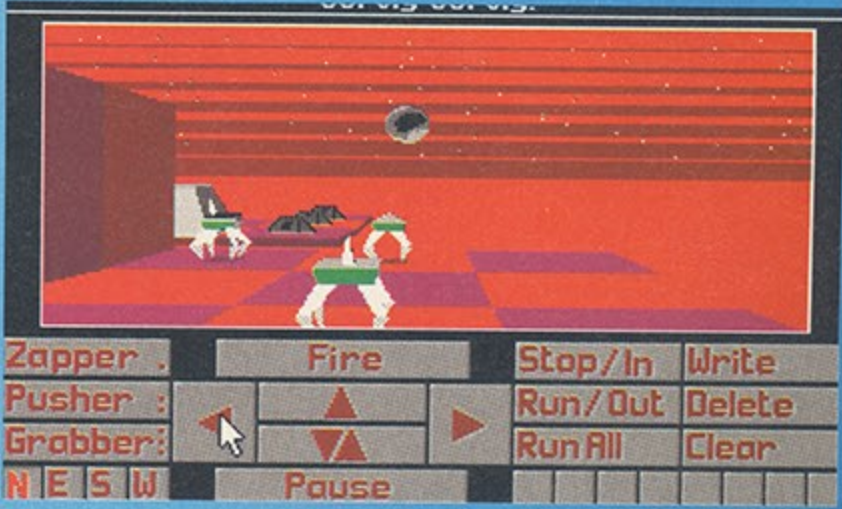
Since your path to the klondikes is invari-

ably pulsating with bricks, bullet-firing landmarks and even elevators, how you use zapper, pusher and grabber determines whether you will succeed or not.

The zapper will zap obstacles out of your path, the pusher will push blocks forward and the grabber is used to pick up the

klondikes. Sounds easy? You'll love it the moment you see the 3D animated obstacles. This is no game of chance, however – it's pure logic – which makes it one of the best strategy games on the ST.

Tower of Babel will be released in December, priced £24.95.



SON OF PROTEXT

Known until now for its rather spiffing word processor *Protext*, Arnor has been beavering away for yonks on that "difficult" second release. Now that new program, a *Protext* lookalike database, is here.

Called *Prodata*, it has the feel that will be instantly recognisable to anyone who's ever used the curiously anti-GEM *Protext*. For

whilst *Protext* dispenses with drop down-menus and effortless mouse control of cut and paste operations, the result is a word processor that shifts at the speed of light. So *Prodata* is bound to be one of the fastest databases you'll come across on the ST. At £79.95 – £55 until the end of the month – it's not an impulse purchase (but then, who

ever bought a database on impulse?). What it does have going for it is an unusually flexible layout and options enabling you to customise your database in any way you wish.

Those charming, suave, sophisticated Arnor blokes (*shome mishtake shurely* – ed) can be roused from their afternoon nap on 0733 68909.



DON'T BUY FRESH, UPGRADE!

There are a lot of people with more than one PC these days. This doesn't necessarily mean they are all rich executive types with a 386 at the office and a Compaq portable to take home with them each night. Often it's people who have upgraded and found that the second-hand price of their old machine means it's not worth trying to sell it.

Slow PC or XTs can still have their uses, however. For example, you can equip the older machine with dissimilar drives to aid in file copying. Or you can use it for a second opinion on new software. If it won't work on the Super-Wizzo 33MHz 486 with electric bread slicer and rotisserie, it's useful to know that a boggo-standard 4.77MHz CGA IBM-Pah! 8088 won't run it either. Just the job for complaining to the software house/dealer. Best of all, when finances permit, you can often upgrade an old crate (if it isn't an Amstrad), by fitting a replacement mother-board. They're getting cheaper and cheaper.

For example, Datamation (0753

696499) have a 1Mb, 12MHz AT mother-board with a Landmark speed of 15.9 for £299 plus VAT. An extra £100 buys you a 1Mb 20MHz 286 which whistles along with a Landmark of 32.7. You may need a new hard drive controller and possibly a beefier power supply as well, but it still works out a lot cheaper than buying a machine afresh. Mention where you read this offer and the good folks at Datamation will even swap the board out for you, as long as you can take the machine to them. To crown it all, they may offer part-exchange on your old PC or XT board.

In fact, even if you aren't thinking of keeping your existing machine, it's worth looking at how much it would cost to replace its guts rather than replacing the whole PC.

LINES OF MAGNETISM

If you have two PC's you no doubt need to transfer files between them. If each has a common drive type, you can do this by disk, but in many cases it's easier to do it through a cable. If you choose the serial link approach, you'll be after a piece of software along the lines of LapLink or FastLynx. The problem here is the £100 or so you'll have to pay.

Enter Magnet, a comms utility which will transfer files at up to 115Kbaud, but for £10. This bargain consists of two disks, one each in 3.5-inch and 5.25-inch formats, and the manual on disk. No lead is supplied, but a null modem lead can be had for around £15, so the whole setup need cost no more than £25.

Magnet works extremely well, too. Once you've sorted out the comms port you are going to use on each machine and once you configure the transfer rate, set one end to host mode and the other to control; with this set-up you can then send or receive files or chat from one

screen to the other.

If you would like to pick up a copy of this month's PC bargain, contact Media Magnetics at 18 Burfield Road, Halesowen, West Midlands B63 2XA.

A WEIGHT OF SMALL THINGS

Most floppy disk users never need to worry about the filename capacity of MS-DOS. If you happen to be filling a disk with very short files, though - like a collection of poems - you may hit the 112 file limit. In this case MS-DOS refuses to save any more files, even though there may be several hundred kilobytes available on the disk.

The obvious solution is to create a sub-directory or two, each of which can store another 112 files. Trouble is, DOS treats a sub-directory entry as a kind of filename, and since the root directory is full it won't allow entries even for sub-directories. The solution is to delete a file or two (copying them to another disk if necessary first) and then to create the sub-directory. Moving some of the files to the sub-directory will then release further space at the top level. This way, the complete works of Emily Dickinson can be held comfortably on a 720K disk.

MANAGER MOUSE

Mice are unobtrusive, tame little things, particularly if attached to the back of your PC by a serial lead. They just sit quietly on their mouse mats waiting to be of service, with not a care in their little bright buttons. Trust some clever American, then, to disturb the natural order of things.

Numonics, of Montgomeryville, PA, have introduced the Manager Mouse, a PC mouse-compatible three-button rodent which can also be made to emulate a Microsoft mouse. It has no ball, but a couple of little wheels underneath which serve the same purpose. Most

STAR TREK V



• From Mindscape on 0444 86545 is the latest in the Star Trek series - in EGA & VGA!

importantly, though, it has no tail. Instead a lead comes from the serial port and ends abruptly in a rectangular box. In this box is an infra-red transducer, and this links with a similar device inside the mouse - you may move the mouse entirely unencumbered. No tail is total freedom - my hype not theirs.

The problem, of course, comes from the fact that both ends of the link need power, and this can't be taken directly from the serial port. Instead, one of those integral plug/power supplies sticks in your three-pin socket and powers the rectangular box end. The mouse is powered by rechargeable cells which give it up to three hours continuous use. You have to remember to plug it in every few nights, so it can charge itself up again.

All in all a solution to something, which in my book at least, is no problem. And such a cumbersome solution as to convince me that my own little Microsoft beastly has a lot going for it.

WHATEVER NEXT

How many times have you been caught by the slogan 'Join our Book/Record/Cassette/Tiny, Hand-Made, Miniature Model of the Twentieth Century's Great Totalitarian Dictators Club and get the first three items for 5p? Just the once, eh? O.K., well anyway you might be interested to know that American Type Foundries (ATF) are using a similar technique to sell PostScript fonts.

Does this strike you as odd? It did me, too, but sure enough their flyer goes on to say 'Join the ATF-Type-Club™. Four typefaces for \$136. Compare this to the regular price of \$195. Each month, a selected new type package is available at a special introductory discount - usually 20% off'.

Actually the fonts themselves look very good, with ATF's own 'hints' (adjustments to the design of type to satisfy the eye at small point sizes). It doesn't say which faces ATF has access to, but you can investigate for yourself by writing to Kingsley/ATF Type Corporation, Software Division, 2559-2 E. Broadway, Tucson, Arizona 85716.

CONVERSION

The Word for Word document conversion program, which allows you to convert files from one word processor format to another, now supports more types of document, including those from Framework III and Manuscript. It costs £99.99 from Mindscape on 044 486545.

Simon Williams

PC PEEKETTES



KEYBOARDS

A weak point of many PC clones (most notoriously the Amstrads) is an appalling keyboard. If you want to stop 'punching rubber bands' try calling Access Keyboards. They also do various specialised keyboards for off-the-wall applications. Access is on 0734 663333.

PRINTERS

Logitek is selling the Canon LBP4 laser printer for £1195 plus VAT. Phone Logitek on 0257 426644.

Warranty is always a thorny subject with computers, so it is interesting to see that Microsales is offering 12 months on-site warranty with every dot matrix printer it sells. Reach Microsales: 0282 416677.

If you've got five PCs, you may be interested in the EQZ laser II, which allows five machines to share a single HP Laserjet. Auric International on: 0734 772734.

LANGUAGES (FOREIGN)

Topware's Euro-series of teach-yourself European language diskettes is now complete with the launch of The Secretary. This contains vocabulary in English, French, German, Italian and Spanish of the sort likely to be useful to a secretary/PA. Just the job for 1992, and available from 01-228 0242.

MONITORS

Taxan has launched a 14-inch monochrome low-radiation monitor using FST



(Flatter Squarer Tube) technology. It supports the VGA (Video Graphics Array) standard with 16 shades of grey and costs £249 from (0344) 867646.

RAW POWER

IBM has brought out a Wizard card (it sez 'ere) for its Microchannel-based PS/2s.

It uses the Intel i860 microprocessor to provide simply oodles of Megaflops and MIPS and things. For genuine speed-freaks only.

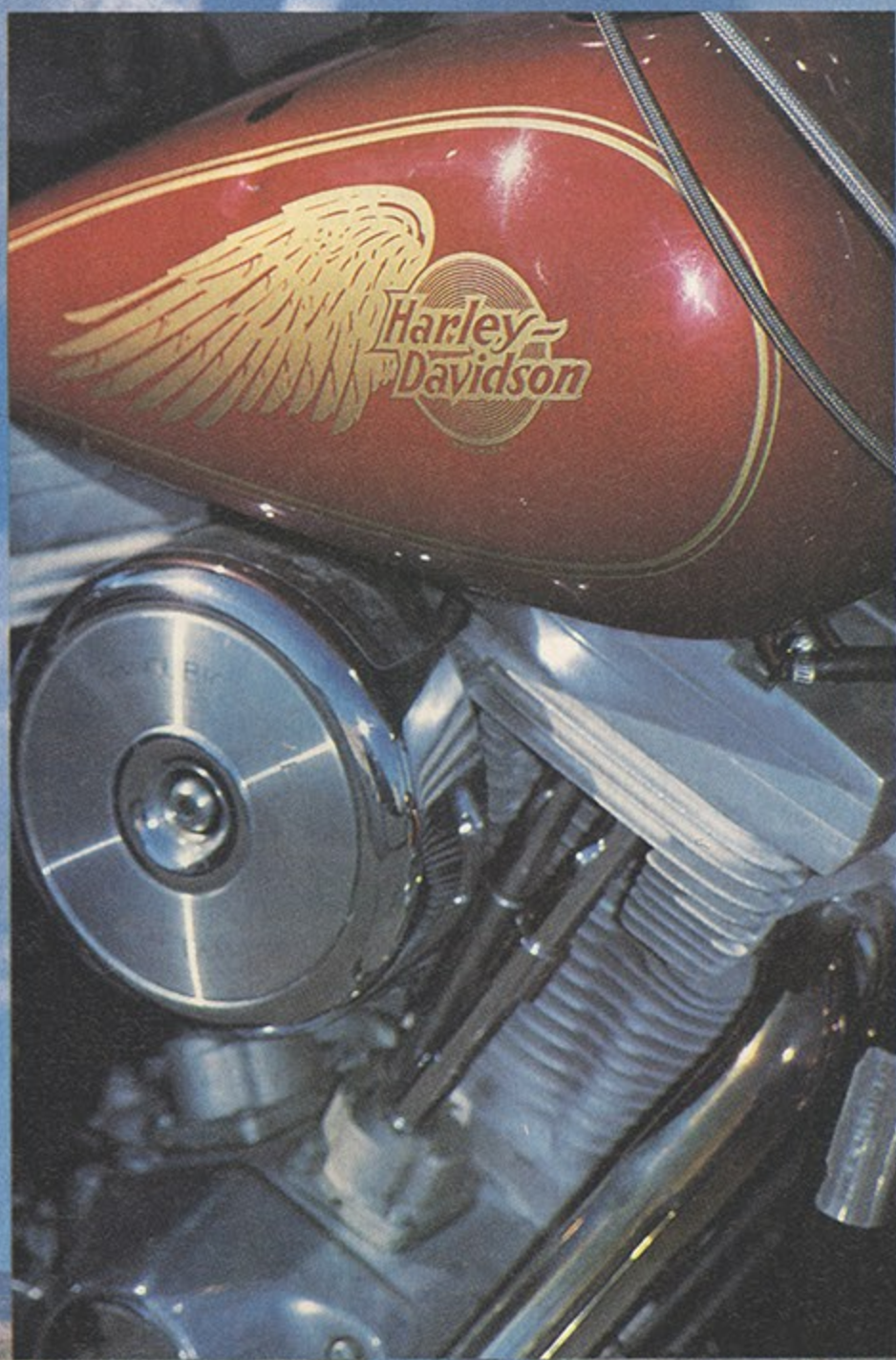
3L Limited has Tbug, a window-based interactive debugger for transputers in MS-DOS PCs. £220 from 0506 415959.

HARLEY-DAVIDSON: THE ROAD TO STURGIS

It's Harley heaven as you straddle your 1340c.c. Hog and scream through the box. You're off to the biggest bikers rally yet in Sturgis, South Dakota - if you can make it in time.

Speeding tickets, blow outs and plain dumb decisions could leave you eating dirt instead of burning rubber. There are five games with varying difficulty levels. The graphics are great and the sounds will outrage even the friendliest neighbour.

So climb on, max out and cruise the open road for the ride of your life.



Available for Amiga, Atari ST, IBM, Tandy and compatibles.



M I N D S C A P E

For further information on Mindscape products and your local Dealer, contact:
Mindscape International Limited, PO Box 1019, Lewes, East Sussex BN8 4DW. Tel. (044 486) 545/547.

SPECTRUM

THE GAME TRAIN IS IN

Spectrum adventure fanatics must be in a state of deep depression after the recent announcement that Level 9 has just written its last ever eight-bit title. But, fear not brave adventurers, because I've just been playing an excellent game which, while not quite up to Level 9's standards, should certainly fill that gaping hole in your life.

Polearn from newcomers Sheol Software is a good old fashioned text and graphics adventure for 128k/+2 machines with a decidedly spooky atmosphere. You're put in control of a Psychic Detective called Marcus Thornton, who, following the death of his fiancée, has decided to take a holiday in Cornwall, where, as you might have guessed, unexplained supernatural occurrences are only a move away.

Ghost stories aren't the easiest thing to do on a computer, but there's a genuinely chilling atmosphere in parts of *Polearn* thanks to some well written lightish purple prose and grainy black and white pictures.

Unusually for an indie product the game's professionally packaged and accompanied by an excellent little instruction book: all in all, well worth the £7.95 price of admission. A version for 128K/+2s is available from Sheol Software, Central Works, Peartree Lane, Dudley, West Midlands. DY2 0QU. 48k and +3 Polearns are also planned and you'd do well to send an s.a.e. to the above address if you're interested.

BARGAINS

Regular readers should know that every so often I get nostalgic spasms and froth over various classics that have just been reborn on one of the cheapo labels. Well, here I go again. Your collection will be incomplete, your life meaningless and your pocket abnormally full of dosh if you don't buy at least one of the following bargains.

The Great Escape (£2.99 hit Squad) Surely one of the best arcade adventures of all time that's thankfully not based on the film of the same name. It's set in a German prisoner of war camp with escape being the obvious but pretty complicated plan. Just about everything you'd expect to find in any respectable prison camp has been thrown in including underground tunnels, disguises, guard dogs and searchlights and when it comes to tension and suspense you won't find a, um, tenser or more suspenseful game on any computer, in my opinion anyway. The same programming team went onto program the highly regarded *When Time Stood Still* afterwards but personally I prefer this. Strike up a close friendship with it!

ONE HEWSON POKE

Please receive, with my blessing, a few more hacks for pacifying some classic Hewson games.

```
5 REM Impossaball poke
  (time+lives)
10 CLEAR 25599: LET t=0
20 FOR f=65437 TO 65479: READ a
30 POKE f,a: LET t=t+
  (f-65427)*a
40 NEXT f: READ a: IF t<>a
  THEN PRINT
  'DATA ERROR!!' : STOP
50 FOR f=65480 TO leg: READ a
60 IF a=999 THEN
  RANDOMIZE USR 65437
70 PRINT f,a: NEXT f
80 DATA 221,33,0,252,17
90 DATA 0,3,62,255,55
100 DATA 205,86,5,48,241
110 DATA 33,0,252,17,255
120 DATA 251,1,19,0,237
130 DATA 176,62,201,50,18
140 DATA 252,205,255,251,33
150 DATA 200,255,34,127,254
160 DATA 195,58,254,184,112
170 DATA 175,50,74,147
180 DATA 175,50,255,160
```

Ping Pong (Hit Squad £2.99) is another elderly Ocean game that's been given new life thanks to their Hit Squad label. *Ping Pong*'s the conversion of a slightly bizarre coin op based on the thrill packed spectacle of table tennis. Incredibly fast and with a very groovy soundtrack this one'll surprise you with it's addictiveness.

Renegade (Hit Squad £2.99) - is a bit violent this one, but good fun with it as you shatter the parenthood plans of countless unsavory types. About the only better beat em up for the Speccy is it's older brother *Target Renegade*.

MAGS

The deluge of fanzines I used to receive has now dwindled, wained and done other things described by similar depressing adjectives to just a few regular mags. This is a pity because the best indie publications, just like *Express*, can offer huge quantities of enthusiasm and low quantities of hype for a very reasonable price. So if you edit or read a fanzine that covers the Speccy in some way, boost your circulation (and photocopier bills) into double figures by sending me your latest issue forthwith for generous plugging.

In fact, bundle all mail to me: Robin Alway, at Spex, *New Computer Express*, 4 Queen Street, Bath BA1 1EJ.

Robin Alway

ANOTHER HEWSON POKE

```
5 REM Cybernoid poke
10 CLEAR 25999: LOAD "" CODE
20 FOR n=23392 TO leg: READ a
30 IF a>255 THEN GO TO 50
40 POKE n,a: NEXT n
50 POKE 64531,249: RANDOMIZE USR 64512
60 POKE 65149,91: RANDOMIZE USR 65082
70 DATA 175,50,72,134,175,50,235,153,62,195,
  50,165,153,195,96,109,999
```

PCW

TIME FLIES

The PCW is now four years old and has sold something like 1.5 million units throughout the world - nearly a million in the UK alone. Just thought you'd like to know.

PLAY IT RIGHT

I have a letter from Joyce McAllister who is writing a BBC Radio play on her PCW but is having trouble getting the indents right. If she types a paragraph like this:

SMITH: You realise, of course, that there's no escape?

...with a [RETURN] after the 'that' and a tab before the 'there's', then she gets into trouble if she edits the top line, with this sort of thing happening:

SMITH: You realise, of course, Mr Bond, that there's no escape?

Surely there's a way round this, but it's not mentioned in the manual, she says.

Well, yes there is, and it's definitely mentioned in the manual! (Look in the index under 'indent tabs' or 'hanging tabs'). Instead of a normal tab after the 'SMITH:' put an indent tab. This is just [ALT][TAB] and shows on screen as an arrow with a flat bottom.

Now you can type the rest of the speech and it'll automatically restrict itself to the indented margins, without

you having to type [RETURN]s and [TAB]s. And, if you subsequently edit the first line, the rest re-aligns and reformats nicely too:

SMITH: You realise, of course, Mr Bond, that there's no escape?

Hope this answers your question, Ms McAllister, and good luck with the play.

PHRASING IT RIGHT

A tip for the above situation is to make phrases of all your character's names with the indent tab at the end. Type SMITH: followed by [ALT][TAB]. Then press [COPY] and move back with the cursor keys until the whole of the name is highlighted. Then press [COPY] and press a letter to store the phrase under, such as S. From now on, pressing [PASTE] followed by S will insert the word SMITH: plus that alt tab. You carry on typing with the content of the speech and it'll automatically format itself. Good feature this.

NO COMPETITION

Looking through the prizes on offer in the *Express* competition (last week, this week and next) I can see very little for us PCW owners! Granted, I wouldn't be desperate to win a copy of *BMX Ninja Five-a-Side Alien Simulator*, even if it did run on the PCW. But it would have been nice to have a few more 'hard' prizes - a couple more modems maybe, a PC perhaps, a Psion laptop for the heck of it, or possibly, dare I say it, a laserjet printer...

Basil Pigg

MSX

SOFTWARE

Let's start this weeks column with news of yet more software for the MSX, this time imported from Japan, and available on cartridge.

The first is called the FM Pana Amusement Cartridge from Pana Soft, and is for the MSX 1 computer. This device is, I believe, a cartridge that allows you to compose music and sounds on your computer, save your compositions, and then replay them at your leisure. Until I can obtain a copy of this software, it's quality and usefulness will remain a mystery. I do know, however, that it has been available in Japan for quite a while, so could be a little dated, although it is obviously still available over there.

The second title from the same source, is a game called *Hydride 111*, from T & E Soft, and is (obviously) the third game in the *Hydride* series. Now, the first of the *Hydride* series was an arcade adventure, and this was presented in a pseudo 3D manner. *Hydride 111* I have not seen, but it was released on a 1 mega Rom cartridge, and was, I am informed, quite well written.

Hydride 111 must be in much the same vein as the first games in the series, so if you like arcade adventures, and are looking for quality, this game may fit the bill.

I hope that I will soon have both these pieces of software for review shortly, so if you want to know more about them, you are going to have to keep on buying

Express, aren't you? For more info on these titles and other MSX products Phone MPT Computers on 01 458 3310.

COMPILE WITH STYLE

I read in the computer press recently that Code Masters plan to release a compilation of games on a CD. Now this may be hot news in the UK but it is old hat for us MSX users. We have had CD based games on our format for over a year, (my Disc is copyright 1988), but no mention was made of its release in the British computer press. Maybe everyone simply takes for granted that MSX is always first with novel ideas in computing (eg built in digitisers, and computers that have FM sound generators and Midi as standards). Once again where MSX goes, others follow.

THE DOC IS IN

A few weeks ago, an MSX user wrote in, asking for help with *Robocop*, as he could not get further than the fourth stage of the game, the identitykit part.

Sure enough help is at hand, in the form of an MSX user by the name of Tim Turner from Garforth, Leeds. The secret is, to look carefully at the lips, as two of the top lips are very similar. Change your top lip for the other top lip, and you should complete this section.

Tim also mentions another useful tip for stage 6 of this game. When you are fighting ED209, dodge the bullets by ducking until they pass; and on level 9, shoot at Dick Jones' legs. I hope these tips help MSXers with this game, and thanks to Tim for writing in, even though he forgot to put the fiver in the envelope.

Keith Neal



HISTORY IN THE MAKING

When do you think the last development of the venerable BBC took place: 1986, when the Master 128 was launched? or would you say that it all ended with the B+? Well, both guesses would be wrong, I'm afraid. Indeed, I am currently in possession of a document that details all the newest and latest enhancements of the BBC operating system.

No doubt you are totally mystified by this possibility for advancement in the world of the BBC; so, I had better come clean and admit I'm actually talking about 165host, which runs on the Archimedes. The latest version of this BBC emulator provides support for Sideways RAM, faster screen access, better keyboard support and full sound chip emulation amongst other things. One unusual feature is that software developers can now write 6502 code ROM images which make use of RISC OS SWIs. This raises the intriguing possibility of dual purpose software, although I'm not quite sure what application it could have. More importantly though, it shows that Acorn has realised it cannot just ignore the vast hardware and software base of the BBC already installed. Primary schools for example are just not in a position to throw away their BBCs.

LITTLE JACK SPRAT

Games reviewers are fond of peppering text with such gems as "But on level 17 the monsters are twice as nasty" This implies they have played the game all the way through, gaining a thorough ground knowledge of it. Usually, however, the cheat mode or supplied password comes in very handy indeed!

My normal practice is to hand over the software and let someone play it, then edit the comments that result. In the case of *Sprat*, though, I have done without any such help. I must, therefore, comment on this game, as in my opinion it merits the attention.

You play a sunglasses wearing character called *Sprat* who literally bounces around a multi-level dungeon. The main novelty lies in the way of controlling *Sprat*; you must squidge him to temper the amount of bounce, but doing this is not easy, particularly as some of the movements require not a small portion of dexterity. Although this sounds similar to some other games (*Helter Skelter* etc) do not be deceived!

As is usual in games of this kind, in *Sprat* you must collect objects such as keys to complete the game. Fortunately there is a practice mode, which also gives you a good look around. Well, there you have it (as Barry Norman would say).

ADVANCEMENT FOR EDUCATORS

My tip for this week was prompted by a panic stricken phone call from a teacher running a course on *Advanced Folio*. It seems copy was sent up without the copy-protected key disk. If you have such software I suggest you contact the publisher and beg, borrow or steal at least two additional copies. Then, at least you won't be in trouble when the inevitable disaster happens.

Andrew Brown



SIREN'S HACK-EM-UP

Siren Software's Hackit, briefly mentioned last time, is a small, plain box which plugs into your CPC via a ribbon cable, à la Multiface. Like the Multiface, it freezes programs mid-application, and lets you do all sorts of things with the code in RAM.

Hackit does work rather differently than Multiface, however. Instead of freezing entire gobs of memory and letting you cart them about willy-nilly, Siren's gadget lets you examine and edit machine code. It's far more of a true hacking tool than Multiface, as Hackit lends itself to code editing and patching. For this reason, it's especially useful to programmers who want to work out why their latest epic has crashed (yet again).

Hackit naturally raises all the old issues about piracy and, especially with such a 'controversial' name, promises to fuel up the old debates about copying devices once more. The fact is, though, that Hackit lets you fiddle about with code quite happily on a line-by-line level, but it wouldn't be especially useful to a pirate trying to crack a game's copy protection. The reason is that anyone who knew that much about machine-code could crack protection via plenty of other, less cumbersome, means.

Hackit is, instead, an excellent tool for programmers - both professional and amateur. Price? £34.99. You can find out more from Siren Software at 84-86 Princess Street, Manchester M1 6NG (061 228 1831).

WARNING SIREN

As we discovered in the last section, the Hackit may be a bona fide programming gadget, but it also lets naughty coders poke about with commercial software. It could even, conceivably, be used to dismantle commercial copy-protection. Which is where Bob Hay of FAST comes in...

"From what you tell me, the device is not dedicated to copying software and so is unlikely to breach current legislation."

Ah, but what if it was used to break copy protection?

"Distributing pirated software is illegal, and offenders will be prosecuted."

But what if it's just a case of someone making a few copies for his or her friends?

"That too is illegal."

There you have it. The Hackit ain't illegal, but pirating games is. Note well.

A NEW LEAF

Page Publisher has been re-released by SD Microsystems. The program has been repackaged and is being touted as "affordable DTP for 128K Amstrad CPCs". It's an icon-driven package for either 6128 or expanded 464, and handles both text and graphics.

The Program might not trouble the likes of *Stop Press* too much, but at £24.95 complete with full manual, it costs substantially less. And SD is offering a special price at the moment. If you buy before the end of January 1990, you get *Page Publisher* for £19.95. Phone: 0462 675106.

DOUBLE TROUBLE

That long-awaited arcade mauler *Double Dragon* has at last made it onto the CPC! Trouble is, it's on compilation.

"How bizarre!" I hear you grumble. It certainly is, especially since the coin-op was such a classic, and the game was in the offing for well over a year - long enough to set the pulses of many a CPC owner a-flutter as they pondered all the serious development work that was presumably going into it during that time.

Alas the reality is a different thing entirely. It looks OK: it's just the speed - or lack of it. Your athletic toughs leap into the air performing all sorts of ninjasque fighting moves - but apparently in zero-G. Kicks and leaps are performed with all the vigour of a three-toed sloth on valium. Ah well.

DOWN THE WASTEGATE

Also bursting on the scene just in time for Christmas is *Turbo Out Run*. Is it the turgid plod that the original was, or has US Gold turned out a masterpiece?

Guess. Well, OK, it's a lot better than the original *Out Run*, but then so was having four impacted wisdom teeth taken out via the nose...

Seriously, though, the game looks really quite good, and plays pretty well too. Unfortunately, it's nowhere near as good as any number of racing games now available on the CPC. Get *Power Drift* instead, or *WEC Le Mans*, or *Continental Circus*, or...

DOWN THE TOOBS...

...or not, as it happens. You see Domark's Tengen conversion *Toobin* is actually very good indeed. Surprising considering that (a) it's a Spectrum port and (b) that it features the highly unlikely activity of floating down a river in an old inner tube.

Your task is simply to negotiate the various obstacles in your way - such as sticks,

rocks, irate fishermen and kamikaze penguins - while collecting points by sliding through the gates sprinkled along your route.

You move about by paddling with your hands, collecting coke cans to lob at obstacles and making good enough progress to keep clear of an extremely voracious alligator lurking in the background to pick up stragglers.

The control method takes a bit of getting used to because you have to rotate left or right and then push backwards or forwards to move. It's actually much better played on the keyboard, since joystick control has you spinning out of control most of the time.

If anything, *Toobin'* might be a little too easy to complete, but then it's so much fun that it's worth going back to even then. Highly recommended.

Rod Lawton



•Two-player 'Toobin'

YOUR FORMAT

spectrum	14
pcw	14
msx	14
bbc	15
cpc	15
atari 8 bit	18
ql	18
archimedes	18
c64	18

◆◆ VIRGIN

◆◆ VIRGIN'S SANTA ◆◆

◆◆ VIRGIN'S S

FREE
GAMES
THIS
WAY

Don't miss out on an extra special stocking this Christmas when Santa will be awarding the lucky winners with:

5 FIRST PRIZES OF

£1,000 worth of software of your choice, or an Amiga or ST plus £500 worth of software of your choice

10 SECOND PRIZES OF

£500 worth of software of your choice

20 THIRD PRIZES OF

£250 worth of software of your choice

1000 RUNNER UP PRIZES TOO!

Any one of the six Virgin Games arcade classics mentioned earlier.

**MAKE SURE SANTA
VISITS YOU
TWICE THIS YEAR!**

HERE WE GO!

Virgin Games have decided to become a Santa and hand out £30,000 worth of fabulous goodies. All you have to do to gain from Santa's generosity is to buy any three of these games:

**SHINOBI
DOUBLE DRAGON II
GEMINI WING**

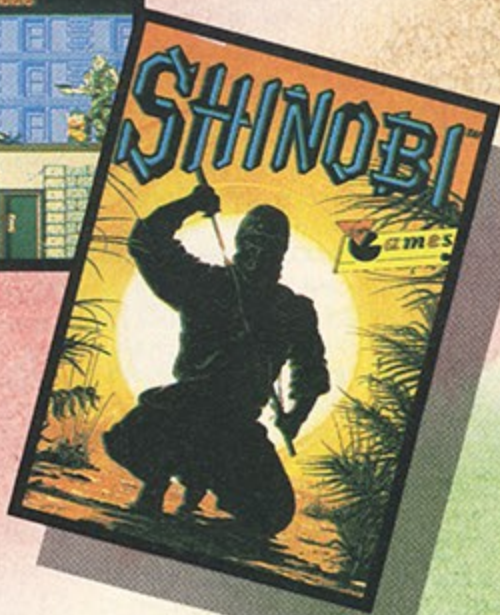
**CONTINENTAL CIRCUS
SILKWORM
NINJA WARRIORS**

Simply collect three tokens - you'll find one in each game - and send them to Virgin Games. The prize draw will take place on 29th January 1990.

WIN
£30,000
WORTH
OF
PRIZES

IN: SANTA VIRGIN: SANTA VIRGIN: SANTA VIRGIN: SANTA

discover why!



SHINOBI

You're masashi, a tough ninja warrior on a mission to clear the town from rebel martial arts fanatics. Explore the scrolling urban landscape and beat the hell out of your opponents, but watch out for the end-of-level guardians.



SILKWORM

It's not true! Ever after months of negotiation with the Ruski's and despite a mass exodus out of Afghanistan,

we're still under threat. There's no one left to press the Nuke button so the battle has switched to copters and plane. Non-stop shoot-'em-up arcade action.



CONTINENTAL CIRCUS

Compete in formula one races in Brazil, America, France, Monaco, Germany, Spain and Japan. Race hard, but watch out for other cars. Colliding can be fatal. And do visit the pits for fuel and repairs.

GEMINI WING

The aliens have had enough. They're not going to take their brethren being blasted on computer screen any more. So they've come down in their hordes to blast the pitiful race of carbon-based life forms called humans. Can you stop them? Somebody has to do it.



NINJA WARRIORS

Can you survive brutal enemy onslaught? Fight with hand, foot and dagger to rid the street of the scum that dare infest your home town. A classic arcade conversion.



COMING SOON!



DOUBLE DRAGON II

Ferocious two-player simultaneous martial arts mayhem. Evil fiends have captured your girlfriend - it's up to you and your brother to rescue her. Don't fail. Through the town, countryside, mountains and finally into the lair. Use whatever weapons you can find to stay alive.

ALL AVAILABLE ON

AMIGA	£19.99
ATARI ST	£19.99
C64 DISK	£14.99
C64 CASS	£9.99
SPECTRUM CASS	£9.99
SPECTRUM +3 DISK	£14.99
AMSTRAD CASS	£9.99
AMSTRAD DISK	£14.99



VIRGIN GAMES
2-4 VERNON YARD
119 PORTOBELLO ROAD
LONDON W11 2DX



QL EMULATOR FOR AMIGA

After trying out the QL Emulator on a few simple SuperBASIC programs, I thought I'd give it something meaty, so I loaded Quill. Whilst it appeared to take longer to load the program than on a genuine QL, Quill also appeared to be very much faster in operation. This new-found speed was most noticeable when doing things like block moves of text within a large document.

I mentioned the emulator to Freddy Vachha of Digital Precision, and he was very interested in seeing how it behaved with the DP DOS emulator, CONQUEROR. Phil Borman of QUANTA will be comparing it with the Atari emulator. I'll let you know their conclusions.

GROWLING GRIZZLY

I've had a word with Colin Adams, the Growling Grizzly BBS SysOp. The BBS uses the QBOX software package (developed by Jan Bredenbeek, in Holland), running on an Atari Mega ST with the QL emulator.

Because the hard disk drivers for the emulator are not yet available, the files are held on a large RAM disk. The modern used is the Astracom AC 1000T.

I asked Colin about the strange name he uses for his system. Apparently, his nickname at school was "Grizzly Adams", who we all recognize as the barrel-chested hero from the tv series.

MINIX

I'm very sorry about this, but it appears that the grapevine on which I heard about MINIX being available for the QL was suffering from blight, and my sources were incorrect.

MINIX is in fact available for the Atari ST, which can also emulate the QL, but that is the only connection between MINIX and the QL. Porting MINIX to the QL would probably be quite difficult, because of the limited amount of memory.

QLAF 8

I've just received Issue 8 of Richard Alexander's *QL Adventurers' Forum*. As usual, it is a good read, with reviews of *The Fugitive*, *3D-Wanderer*, *3D-Slime* and *Star Trek*.

I recall seeing *Wanderer* with its true 3D graphics - you wear spectacles with red and green lenses - ages ago (it's now available on the ST) but *3D Slime* is quite new. Unlike *Wanderer*, *3D Slime* doesn't have real 3D, however. An interesting feature of *Slime*, though, is a mock spreadsheet which is displayed when you press F5.

Back to the magazine: there are also several pages of hints, tips and maps for various adventures, a comms column, and PD News, wherein it is mentioned that CGH Services, who publish QLAF, has just received 10 disks of PD software from France.

You may contact CGH at Cwm Gwen Hall, Pencader, Dyfed, Cymru, SA39 9HA.

John Torofex



THE SIMPLE THINGS IN LIFE

We all know Datel Electronics, don't we? We don't? DE lives at Fenton Industrial Estate, Govan Road, Fenton, Stoke-on-Trent, without a zip-code. What it does have, though, is a vast range of C64-related products, the catalogue of which is enough to make any C64 owner wish that his bank account was a great deal healthier and able to withstand a vast computer shopping spree. Oceanic 118N Disk Drive for £129.99, including a free copy of the OCP *Advanced Art Studio* package, can't be bad.

DE also supplies the simple things in life, things that you'd never use until you had them, and then find you can't possibly live without once you've got them. A mouse mat is a good example (saves ruining the desk top) and, incredibly, a mouse holder. If you buy *Art Studio* on its own (for £34.99) you get a free mat and holder. This year it was filofaxes, next year, believe me, it will be mouse holders.

WHAT THEY DON'T TELL YOU

Have you been seduced by advertisements for colour printers for the c64, like the Star LC10 Colour printer? It costs round about £210, plus or minus ten pounds in either direction, depending on who you buy it from. But beware! There are naughty foreign-type impersonators around, pretending to be

British Star printers. A UK Star has a three pin plug moulded onto the cable attaching it to the printer; foreign ones do not, so be wary. What none of the adverts tell you is: having bought the thing, how on earth do you connect it to the computer? Interface cable? What interface cable? I got a colour printer minus connecting cable, and was told (by the shop, no reflection on Star) that it was my fault because I didn't ask for one. Check before you buy!

DAZED AND CONFUSED

I have been asked to point out that *Myth*, the Magnetic Scrolls adventure available only from Official Secrets, has absolutely nothing to do with System 3's *Myth - History in the Making*. Consider it pointed out.

AS IF I'D CHEAT AT GAMES

I wonder why people build cheat modes into games? Just so that other people can find them out, I suppose. I remember goat-ting my way along *Revenge of the Mutant Camels* aeons ago, when the programmer behind *Danger Freak* was a mere babe in arms, or around 13 years old anyway. Hence typing 170470 when that game asks you for the date will take you into cheat mode. Programmers, like policemen - they get younger and younger every day.

Pete Gerrard



POKE YOUR MACHINE

Mr Rob Davidson, who describes himself as 'the proud owner of an Atari 65XE computer', has accumulated a large collection of pokes, and he has decided to share them with the other readers of this infamous column.

Here, then are Rob's pokes for your delight and delectation:

```
Poke 731,x turn off keyboard click
poke 731,0 return keyboard click
poke 621,255 disable the keyboard
(reset enables it again)
poke 752,x turn off the cursor
poke 752,0 turn on the cursor
poke 755,0 normal inverse characters
poke 755,1 blank inverse characters
poke 755,2 normal characters
poke 755,3 solid inverse characters
poke 755,6 turn text upside down (!)
```

SHOWTIME

Will you all be trekking off to the Computer Shopper Show I wonder? I'll be going and anything Atari eight-bit will be duly reported (why do I get the horrible-feeling there won't be a single thing when I get there?).

STILL TRYING

I'm still trying to get ahold of the desk top publishing programs to do with the Atari for review in the column. If anyone has the programs I mean, or knows of a supplier, let me know. See you next time.

Edmund Blake.



GOING ALL FLOPPY

When I bought my 310, I had high hopes of fitting it up with a hard disk, which really brings the fast disk access on the machine into play. As things have happened, though, my money has been diverted to other things: specifically, an Atari ST on which I've been offered a good amount of work.

That being the case, the logical alternative was to add a second floppy, and since I have a substantial collection of BBC software, it makes sense to fit an 80 track 5.25-inch floppy. This can still take a full 800K of data as a Format E drive, can read DFS disks with the aid of a convertor such as that from CJE and can double-step to read MS-DOS 40 track disks.

BUT WITH EXTRA EFFORT

The Carrot is a frugal fellow (some might call him tight) and he decided he could undercut the £110 or so asked for a custom made external 5.25-inch. He managed to pick up a tape streamer box, complete with appropriate power supply, for £30. Combine this with a used 40-80 track drive (another £50) and the whole system should have been up and running for £30 under the odds.

The drive, however, turned out to be covered in gunk (I suspect dried coffee with two sugars, but it may very well have been Italian hot chocolate), especially the head slides, and the cables to

the drive had been badly crimped. Several of the data lines were not making connection, hence old Archie kept complaining 'Drive empty' every time I wanted him to read it.

Eventually, using another lead and with the aid of a good and dedicated Archie user, I managed to get the thing running on a 410. Bringing the drive back to base and shifting a few more links - there seem to be dozens on this NEC drive - finally got the whole shabang formatting, reading and writing format E disks.

Now all that remains is to transfer the software and see how many of the games run under the BBC emulator.

THE AWAITED MORAL

The moral of all this is not to be a skinflint, but to fork out for the commercial product in the first place. It's a lot cheaper in the time department, and, as for agro - well, enough said.

GAME OVER

Transferring games onto the Arch is not as easy as many would have you believe. Even assuming you can move them across, the chances of getting them to run are fairly slim in my, admittedly partial, estimation. In fact, once you're into the 65Host any number of CH.s, *RUNS and *EXECS produce only a modicum of success. A & F's *Chuckie Egg* seems to be the best so far, and

even that only allows the default keys while running painfully slowly.

Has anyone any tips - does anyone want to take his BBC games with him to help out?

OS BASICS

Perhaps the Carrot is old fashioned, (some might call him a fuddy-duddy) but he still believes that there are basic functions which any operating system should perform. Even if that operating system is a WIMP, it should be able to list an ASCII file and adjust the system clock, for instance. Neither of these facilities is directly available from the Archie Desktop, however, and if you're running from floppies you have to reload the Alarm utility to change the date or time.

ALARM BELLS

For the record, you can change date and time by running the alarm utility and selecting Set Time from its menu once it's on the menu bar. This calls up a separate sub-utility which allows you to set date and time.

Once set, the Archie's CMOS RAM is updated. The quickest way to type a file is by pressing [F12] to call up the CLI and typing TYPE <filename>. You can slow the scrolling speed by pressing [Ctrl] and stop it all together with [Shift] [Ctrl].

Bertrum Carrot

Dowling COMPUTERS

HEAD OFFICE:
Unit 48
Tyne Road
Sandy, Beds, SG19 1RB
Tel: 0767 81750/60
Fax: 0767 81730



If you're serious about Computing, FORGET the rest - TRUST the BEST!

BEDFORDSHIRE

3 Harpur Centre
Lower Floor
Harpur Street
Bedford

Tel: 0234 273090

CAMBRIDGESHIRE

Cromwell Mews
5 Station Road
St. Ives
Cambs

Tel: 0480 300800

HERTFORDSHIRE

49 Railway Street
Warren Place
Hertford
Herts

Tel: 0992 554469

ALL PRICES INCLUDE VAT, DELIVERY AND A FULL 1 YEAR GUARANTEE!

THE NEW Dowling MEGA PACK Atari 520STFM Computer featuring:

- 1 Meg Drive ● Quality Mouse Controller ● Quality Mouse Mat
- Organiser Business Software ● Hyper-Paint ● Hyper-Draw
- Borodino (war strategy game) ● £50 discount voucher
- 10 x 3 1/2" DS/DD disks

Plus £450 Super Software Pack Comprising of the following:

Arkanoid	Buggy Boy	Ikari Warriors	Return to Genesis
Beyond the Ice Palace	Chopper X	Marble Madness	Road Wars
Black Lamp	Eddie Edwards	Super Ski	Quadralien
Seconds Out	StarQuake	Thrust	Xenon
Ranarama	Summer Olympiad	Thundercats	Zynaps
Test Drive	Wizball		

ONLY £349.95

COMMODORE 64

LIGHT FANTASTIC PACK

- ★ 64C Computer
- ★ C2N Recorder
- ★ Light Gun
- ★ 3D Glasses
- ★ 9 Quality Software Titles

**ONLY
£149.99**

SPECTRUM +2

ACTION PACK

- ★ 128K Spectrum with built in tape recorder
- ★ Light Gun
- ★ Joystick
- ★ 6 Quality Games

**ONLY
£149.95**

AMIGA A500 BATMAN PACK

ONLY £399.99



★ FREE HOTEL ACCOMMODATION AROUND THE UK.

Why Dowling Computers?

Here are just a few reasons why customers prefer us:

- ★ First and Foremost, we really CARE about our customers' needs
- ★ ALL OUR STAFF are trained to give a friendly personal service.
- ★ EMPLOYING ENGINEERS ourselves, we won't send repairs away for weeks on end!
- ★ That's why we at Dowling say "FORGET THE REST - TRUST THE BEST"

ORDERING MADE EASY



Try to call in to one of our shops for the best possible service and advice



Order by phone by calling our Head Office quoting your Access/Visa Number



Order by Post - make Cheques, Building Society Drafts or Postal Orders payable to Dowling Computers

N.B. Please add £6 for Courier Delivery

SINCLAIR SPECTRUM ZX INTERFACE 1

- ★ Drives up to 8 ZX Microdrives
- ★ Provides RS232 Peripheral Interface
- ★ Sets up local area network for 2-64 ZX Spectrums
- ★ Accepts ZX interface 2 and ZX printer

ONLY A FEW LEFT AT

£49.95

Offer valid till 14/12/89 with this voucher only and on a one voucher per person basis

SINCLAIR SPECTRUM CRYSTAL CLEAR JOYSTICK INTERFACE

- ★ Fully Kempston compatible
- ★ Suitable for Spectrum +2/+3 Range

RRP £9.95

£6.95

Offer valid till 14/12/89 with this voucher only and on a one voucher per person basis

ATARI 520ST SUPER GAMES PACK

Arkanoid, Beyond the Ice Palace etc

ALL FOR ONLY £39.95

Offer valid till 14/12/89 with this voucher only and on a one voucher per person basis

STAR LC10 COLOUR PRINTER

FOR THE COMMODORE 64/128/+4

- ★ FREE CABLE
- ★ FREE 1 YEARS ON SITE MAINTENANCE

ONLY

£199.95

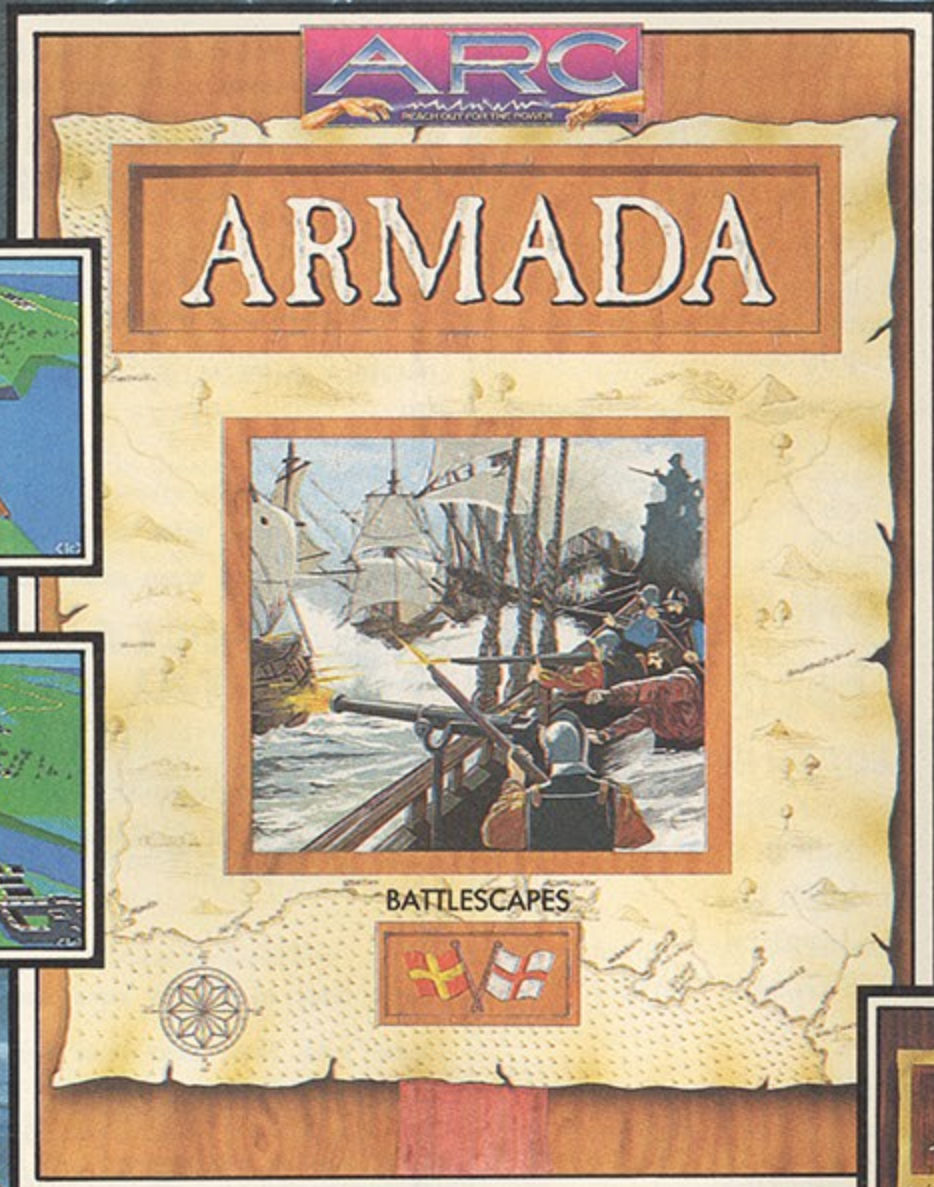


Offer valid till 14/12/89 with this voucher only and on a one voucher per person basis

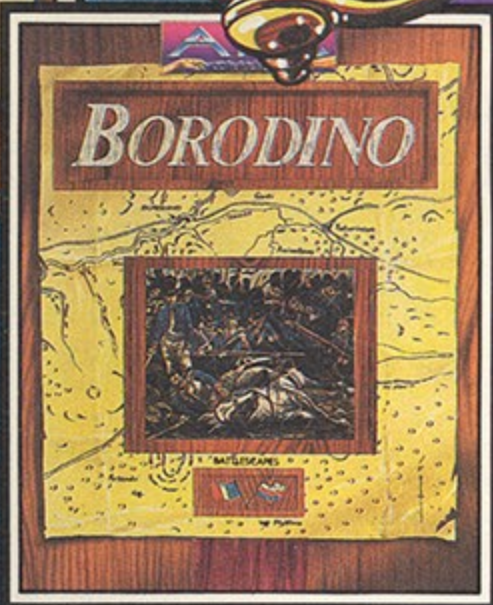
ATARI...THE POWER BEHIND



THE POWER OF THE SEA



Screen shots from various formats.



ARMADA Starting as a great adventure, ending in human tragedy, the five days the Spanish Armada laboured from Plymouth to the Isle of Wight is a classic episode in English history.

The Armada was a very real invasion threat, and the clash of politics, religion, intrigue and misunderstanding was significantly decisive. Take to the helm as Lord Howard and defend this realm against the Spaniards, or even rewrite history and lead the invasion fleet against the likes of Howard, Drake and Frobisher.

- Unique 3D battle representation.
- Revolutionary communication system.
- One and two player modes.

BORODINO Take the command from Napoleon and replan the strategy for one of his most disappointing encounters at Borodino where 131,000 French met 120,000 Russians, or take the role of Prince Kutusov and plan the Emperor's downfall. "Game of the Week" - Popular Computing Weekly.

ATARI ST · AMIGA · IBM PC — £29.95

REACH OUT FOR THE POWER OF ARC
ATARI ST · CBM AMIGA · IBM P.C.

ARC, P.O. Box 555, Slough SL2 5BZ.

BEST

- Bargains
- Advice
- Prices
- Offers
- Jobs

SHOPPING EXPRESS

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

● THIS WEEK'S BUYERS' GUIDE

MUSIC

The best buys revealed! ● The most musical machines ● Sound samplers ● Sequencers ● MIDI controllers ● Internal sound

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

£1

EXPRESS VOUCHER

£3

EXPRESS VOUCHER

£6

£399!

12MHz XT

- ★ 640Kb RAM (Expandable to 1Mb)
- ★ 12MHz 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. 4.01 & 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	£65

DOLAN ELECTRONICS LTD

DANFFORDDGAR 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)



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 December 18th

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 December 18th

£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 December 18th

£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 December 18th

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.

THE SHOPPING EXPRESS

GUIDE TO MUSIC:

SAMPLERS, SEQUENCERS AND INTERFACES

Computers can be of great help to musicians. As well as making noises from their own loudspeakers, musicians can sample sounds and replay them, or control a synthesiser via a MIDI connection.

The borders between music and software are becoming more blurred with each passing year, as music companies invest in both hard and software companies. The industries are working hand-in-hand to produce an ever wider range of products. Indeed, the choice is baffling and growing larger month by month. To some extent, of course, the choice of software and its possibilities are marked out by the computer that you choose to run it on. Now Express gives you a comparison of the major computers, followed by a comprehensive run down of the best software available across the board.

COMPUTERS

● ATARI ST SERIES

- ▲ Built-in MIDI ports
- ▲ No compatibility problems
- ▲ Large software base
- ▲ Not expensive
- ▼ Some programs require hi-res screen
- ▼ GEM environment can be slow
- ▼ Internal sound chip not very good

● COMMODORE AMIGA SERIES

- ▲ No MIDI compatibility problems
- ▲ Excellent internal sound chip

- ▲ Stereo output
- ▲ Multi tasking
- ▼ MIDI interface not included
- ▼ Software base not so large yet

● PC

- ▲ Large software base
- ▼ MIDI compatibility problems
- ▼ Poor internal sound chip
- ▼ interfaces relatively expensive

● ARCHIMEDES

- ▲ Excellent internal sound chip
- ▲ very fast processor
- ▲ Multi-tasking
- ▲ New models have built-in MIDI interface
- ▼ Small software base

SEQUENCERS

Perhaps the most widely available type of software. MIDI sequencers come in all shapes and sizes from the Public Domain to the bespoke facilities. The usual mark of excellence is ease of use coupled with hosts of labour-saving musically intelligent routines. Hopefully it will also be able to save in MIDI file format so that work on one sequencer can be transferred to another without tears.

● CREATOR

FOR Atari ST series
FROM C-Lab (Sound Technology): 0462 480000
PRICE £285

Becoming the most used of sequencers it has excellent editing and arranging features. Although not cheap, if you are serious about music then this is the one to

go for. Hardware expansion to control up to 64 instruments independently

- ▲ Excellent facilities
- ▲ MIDI file compatibility
- ▲ Will also adapt to video sync
- ▲ Good editing

- ▼ Handbook can be difficult
- ▼ Expensive if you are not serious

● TRACK 24

FOR Atari ST series and Amiga
FROM Comus/Soundbits: 021 733 2063
PRICE £75

Well priced budget sequencer with more features than you would expect, rivalling software twice its price. Compatible with more up-market sequencers and scoring packages.

- ▲ Cheap
- ▲ Good sequencing facilities including Mixdown
- ▲ MIDI File

- ▼ Editing is peculiar

● STEINBERG PRO 24

FOR Atari ST series and Amiga
FROM Evenlode: 099 389 8484
PRICE £285

The Steinberg Pro 24 has been the industry standard for many years. The soon-to-be-available Amiga version should prove interesting, if all the rumours are true. They are pushing their new program 'Cubase' at present but one should not neglect this easy to use and very popular program. Make sure you get at least version 3 though.

- ▲ Easy to use
- ▲ Established program
- ▲ Easy editing

- ▼ Price

● VIRTUOSO

FOR Atari ST series
FROM The Digital Muse: Audio Software: 01 586 3445
PRICE £225

A new all British program having its first outing this year. Initial reactions are very good and the program has, indeed, many things in its favour. It has all the features that are available on much more expensive packages and, yet, the Virtuoso still remains quite easy and friendly to use.

- ▲ Very fast - thanks to re-writing of screen management
- ▲ Very accurate
- ▲ Can perform disk operations whilst still running
- ▲ Many excellent features

- ▼ New and therefore untested in the general market
- ▼ Price

● K.C.S. 1.6

FOR Atari ST Amiga, Mac and PC
FROM Dr T: 01 258 3454
PRICE £199

Dr. T programs, are nearly all made to run in a Multi Program Environment, which means that you can work on several of them simultaneously. KCS runs on 48 tracks, has loads of features and is the most popular sequencer from the range. It can also be upgraded with add-on programs to enhance editing features. What is more the KCS can be enhanced as far as music printing goes as well.

- ▲ KCS is a very well established program
- ▲ Upgrades and works with other software
- ▲ MIDI file

- ▼ Editing not easy



RAMSOFT

FORMERLY 16 BIT SOFTWARE

UNIT 1 DRAKE HOUSE
160 DRAKE STREET
ROCHDALE
LANCS OL16 1PX
TEL: 0706 43519



*** A500 BAT PACK ***



A500, TV Modulator, Joystick, Deluxe Paint II, Interceptor. New Zealand Story, and Batman - The Movie

***** £369.00 *****



A500 BAT PACK +

This Pack as above
Plus Ten Star Pack.

1: Amegas, 2: Art of Chess, 3: Barbarian, 4: Buggy Boy, 5: Ikari Warriors 6: Insanity Flight, 7: Mercenary Comp, 8: Terrorpods, 9: Thundercats, 10: Wizball.

R.S. PRICE! £389.00

COMMODORE 1084S £255.00

PHILIPS CM 8833! £229.00

All Monitors Include Leads!

BASIC PACK

As Above Minus Bat Pack. Only a Few left at this price £349.00

MONITOR PACK
Buy any Pack & we will offer a Philips CM8833 for only £215.00 inc. lead.

Rom Upgrade
Upgrade your 1.2 Kickstart
New 1.3 Roms now available.
£29.00

PRINTERS

STAR LC 10 MONO £165.00

STAR LC 10 COL. £215.00

PRINTER RIBBONS
ALL MAKES AVAILABLE, LOW PRICE
EG; STAR LC-10 MONO £4.49.

ALL OUR PRINTER PRICES ARE INCLUSIVE OF LEADS

NEC 1 MEG 3.5" EXT. DRIVE, Low Power, Throughport, Slimline, Only £75.95

UNIVERSAL MONITOR/TV STANDS, LOCKABLE BASE.....ONLY £29.00

JOYSTICKS... KONIX NAVIGATOR £12.95....QUICKSHOT II TURBO £9.99

ACCESS
VISA
&
STYLE
WELCOME

Please note, all our prices include VAT & Courier Delivery. All items despatched within 24 hrs, dependant on availability & cheque clearance, prices subject to change without prior notice at any time. E & OE. Personal callers welcome.

BRANDED DISKETTES
100% ERROR FREE

Discount Offer until December 31

Minimum 3 boxes, 5% discount on 25:

3M, BASF, DYSAN, FUJI, IBM, KAO, MAXELL, NASHUA, PRECISION, SONY, VERBATIM and BULK.

Prices	3.5"	5.25"	8"
SS SD	-	-	15.95
SS DD	10.50	7.00	20.95
DS DD	10.95	7.50	23.95
SS QD96TPI	-	10.00	-
DS QD96TPI	-	10.50	-
DS HD	27.95	11.50	-

IBM Diskettes POA, Bulk/Colour Diskettes
from 46p per disk, prices are for 10/box.

Also we have:

PLOTTER PENS • DATA CARTRIDGES
DATA TAPES/CASSETTES • PRINTERS/RIBBONS
CO PROCESSORS/CPU
MEMORY CHIPS/CARDS • VGA/CHARGE CARDS
MODEM CARDS/SYSTEMS • OTHER ACCESSORIES

Please call for full price list and products. All prices are inclusive of VAT and Postage UK only. Goods full money back guarantee. Prices are for payment with order, C.O.D. for London postal areas only. Same day dispatch of orders of any size.

Cheques and Postal Orders payable to:

NADISYSTEMS

143 Fairfoot Road, London E3 4EJ. Tel: 01 537 2119.

● **M.R.S.**

FOR Atari ST, Amiga,
FROM Dr T: 01 258 3454
PRICE £59

The MRS is a low cost eight track sequencer that provides a decent introduction for the beginner. It has a few quirks in its operation, like defining song length from the length of track one. Generally, however, this has quite generous facilities. Indeed, the Amiga version will support the internal voices.

- ▲ Easy to use
- ▲ Low cost
- ▲ Can be upgraded to KCS
- ▲ Well documented

- ▼ Has a very laborious editing facility, that slows it down
- ▼ Has a few peculiarities

● **SUPER CONDUCTOR**

FOR Atari ST
FROM Microdeal: 0726 68020

This is a very popular little sequencer that will control the ST sound chip. It has been extremely well thought out, especially in the song arrange section. Can also cope with the fine details of MIDI including systems exclusive editing.

- ▲ Suitable for beginner
- ▲ Easy arrange section
- ▲ Well documented
- ▲ Controls internal sound chip
- ▲ Good if you want to control MIDI via data

- ▼ Editing not too easy
- ▼ Quantize limited

● **WADDINGTON SEQUENCER**

FOR Atari ST
FROM Public Domain
PRICE about £2

Canadian 64 track sequencer. Although limited in facilities like quantize and editing it is nevertheless a real bargain.

- ▲ Costs next to nothing
- ▲ Excellent introduction to MIDI
- ▲ Easy to use

- ▼ Limited facilities
- ▼ Can crash on occasions

● **EZ TRACK PLUS**

FOR Atari ST
FROM Syndromic Music: 01 444 9126
PRICE £49.95

This is a reasonable sequencer that is fairly easy to use. It is compatible with other Hybrid Arts programs that also boast a multi program environment. Limited on quantizing but not bad for the money. Editing in data only but good for organising songs.

- ▲ Good price
- ▲ Easy to use
- ▲ Compatible with Hybrid Arts EZ Score

- ▼ Unfortunately, limited on editing and quantizing

● **STUDIO 24 MK 1**

FOR Archimedes
FROM EMR: 0702 335747
PRICE £99

The cheapest sensible sequencer for the Archimedes. Cuts a few corners here and there but is not a bad sequencer with average editing facilities.

- ▲ Best for the Archimedes in this price range
- ▲ Can be upgraded to more powerful Mk2
- ▲ Very fast

- ▼ Poor documentation
- ▼ Editing of data non-graphic

SYNTHESISER VOICING SOFTWARE

One of the great boons of MIDI, especially with the complex multi-timbral synths/tone modules that are on the market. You are able to see the set-up on-screen instead of labouring over a LCD, which allows you to create sounds easily. Additionally, many programs have automatic voice generation to help with creating new sounds.

● **CZ ANDROID**

FOR Atari ST
FROM Syndromic Music: 01 444 9126
PRICE: £75

The most useful program to get if you have any of the Casio CZ series synths. On their own they are pigs to program and the preset sounds are rancid; use this and your CZ will never sound the same.

- ▲ Easy to use
- ▲ Excellent graphics
- ▲ Good library facilities

- ▼ Can't really think of any!

● **3D PROGRAMMER**

FOR Atari ST
FROM Soundbits: 021 733 2063

This is a smart piece of software that not only covers the Roland D110 but also covers the keyboard versions D10 and D20.

- ▲ Easy to use
- ▲ Configures a very difficult instrument

- ▼ Roland's version of D110 may not work with it (or any other software for that matter!)

● **X-ALYSER**

FOR Atari ST
FROM C Lab (Sound Technology): 0462 480000
PRICE £175

Very intelligent voicing program for the DX7 synth. It has a built in conversion to MIDI sample dump in order that the sound might be replayed from the sampler directly.

- ▲ Very easy to use

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.

Can You Afford to Shop Elsewhere? All Prices Inc. VAT

This company has given years of full support to computer 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 countrywide. 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.

Phone us for best prices. We will try to match any price.

Midistudio Low Price £49.99

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 and quantizing. *****Demo disk £3.99*****

Quality 3.5" Disks

Quantity	Unbranded		Sony
	Loose	Boxed	Boxed
10	£6.99	£7.99	£9.99
100	£64.99	£74.99	£89.99

All disks are quality Sony, Maxcell or Kao products. All disks carry an unconditional lifetime guarantee. Please add 60p P&P for each pack of ten disks.

A4 Flat bed Scanner £499.99

Low Price Quality Scanning

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

The IMG 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 Epson compatible printer. Images can be saved in raw data, Degas, Neo and IMG formats. Best results are achieved with photo copies. 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.

Scan at up to 1000 DPI for Only £59.99

Midistudio Master 30 + new features £129.99

Ladbroke Computing's A4 Flat bed scanners, scan at 200 dpi. The mechanism includes a thermal printer which can be used in conjunction with the scanner to photo copy documents or as a stand alone printer. The scanner comes complete with scanning software which incorporates graphics editing software for touching up of scanned images. The software is available for the ST or Amiga. Ideal for DTP. Probably the most cost effective piece of office equipment you could own.

Limited offer ex-demo £349.99

We are offering a range of high quality ST hard drives at ridiculously low prices. All have the following specification. Full metal case - same size/colour as Mega ST, 60 watt PSU, room for second mechanism. The low power controller is full SCSI and allows up to 8 drives on one controller. The software includes Autopark, Autoboot from any partition, partition size up to 1 Gigabyte, any number of partitions, 100% AHDI 3.2 compatible driver, write protect any partition.

Best Price Printers

Star LC-10	£159.99 *
Star LC-10 Mk II	£189.99 *
Star LC-10 Colour	£199.99 *
Star LC-24/10	£239.99 *
Epson LQ500	£319.99 *
Citizen 120D	£134.99 *

Disk drives

Cumana slim 1Mb (ST)	£89.99
Ladbroke's 1Mb (ST)	£74.99
Cumana internal 1Mb (ST kit/fitted)	£74.99

Please note, ST's case needs cutting to accommodate the above internal drive.

A/B boot switch (fitted) (ST)	£24.99
Cumana 1Mb slim, disable switch, through port (Amiga)	£74.99
Ladbroke's 1Mb, disable switch, through port (Amiga)	£69.99

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

Professional Printers

Star FR-10 9 pin	£ 399.99 *
Star FR-15 15" 9 pin	£ 514.99 *
Star XB-24/10 24 pin	£ 514.99 *
Star XB-24/10 24 pin colour	£ 554.99 *
Star XB-24/15 15" 24 pin	£ 699.99 *
Star XB-24/15 15" 24 pin colour	£ 739.99 *
Star Laser printer 8, 1 Megabyte RAM	£1599.99 *
Atari SLM804 Laser with 90 days on site warranty	£1099.99

All printers are quality products for the UK, not cheap imports.
* All these printers carry a 12 months on site warranty and come complete with cable. On site warranty UK Mainland only.

Monitors & Peripherals

SM 124 Mono	£ 99.99	Joysticks from	£ 4.99
SC 1224 Colour	£ 269.99	PRO 5000 joystick	£ 8.99
Philips 8833 Colour	£ 249.99	Trak ball (ST-Amiga)	£24.99
Philips 15" FST remote, Scart input, Tv with 60 tuner presets timer and teletext.	£ 259.99	Mouse/joystick extension	£ 5.99
Hawk scanner	£1249.99	Mouse Mats from	£ 5.99
		ST clock cartridge	£24.95
		Amiga Modulator	£19.99

All monitors come with scart to ST/Amiga.

40HD 42 Mb formatted, 11Ms average access time, 64K on board cache memory. £ 549.99

50HD 48 Mb formatted, 30Ms. £ 499.99

85HD 83 Mb formatted, 28Ms. £ 699.99

180HD 180 Mb formatted, 20Ms. £1299.99

Repair Centre & Upgrades

UPGRADES EX-STOCK

512K RAM upgrade STFM (kit)	£ 69.99 *	512K RAM upgrade STFM (fitted)	£ 94.99 *
512K RAM upgrade STM (fitted)	£ 94.99 *	512K and 2Mb upgrade boards (fitted) (ST)	£ 59.99
Board + 512K RAM (fitted) (ST)	£129.99	Board + 2Mb RAM (kit) (ST)	£249.99
Board + 2Mb RAM (fitted) (ST)	£299.99	Board + 4Mb RAM (fitted) (ST)	£499.99
STFM Blitter chip (kit)	£ 39.99 *	STFM Blitter chip (fitted)	£ 49.99 *
512K RAM board (Amiga)	£ 19.99	512K RAM board populated (Amiga)	£ 89.99
512K RAM board+clock (Amiga)	£ 29.99	512K RAM board+clock populated (Amiga)	£ 99.99

* Please check configuration before ordering. Our Atari trained engineers can repair all hardware, including Amigas, in minimum time at competitive prices. Fitting prices quoted for machines not previously tampered with. All upgrades and repairs carry our 3 months parts and labour guarantee.

SGSnet Networking for the ST

- Network up to 32 ST's
- Up to 500 ft between ST's
- Uses Midi Ports
- Supports up to 12 Hard disk or RAM disk partitions if present.
- Network permissions - node computers may be restricted from selected operations, such as file deletion, modification.
- Full data correction
- File locking
- Works in 512K

SGSnet Starter kit £149.95
SGSnet add-on-kit £ 99.95

Entertainment Packs

520 STFM Explorer Pack	£269.99
520 STFM Power Pack	£349.99
1040 STFM Power Pack	£459.99
1040 STFM Hyper Pack	£439.99
1040 STFM PRO 12 Pack	£439.99
Amiga Batman Pack	£369.99
Amiga Batman+Tenstar Pack	£399.99

Includes A500, mouse, mouse mat, joystick, modulator, Tenstar pack, Batman, Interceptor, New Zealand story, Deluxe Paint II.

The Power Pack consists of Organiser software, First BASIC, First Music, and games consisting of Afterburner, R-Type, Gauntlet II, Super Hangon, Space Harrier, Overlander, Super Huey, Starglider, Eliminator, Nebulus, Pacmania, Predator, Bombjack, Bombuzal, Xenon, Double Dragon, Blacklamp, Outrun, Stargoose, Starray.

Next Day Delivery only £5 extra

Business Packs

1040 STFM Business Pack	£ 439.99
Mega ST 1 + Mono Monitor	£ 599.99
Mega ST 2 + Mono Monitor	£ 899.99
Mega ST 4 + Mono Monitor	£1199.99
A2000+PC-XT +HD+Monitor	£1584.99

The 1040 STFM Business Pack and the Mega ST's all come complete with the Professional software pack consisting of Microsoft Write wordprocessor, VIP Professional spreadsheet, Superbase Personal database and Metacomco BASIC language.

DTP and PC Systems

DTP Mega 2 Pack £1765

This pack consists of Mega 2, external 3.5" drive, SLM804 Laser printer, mono monitor, Professional software pack and 90 days on site maintenance (Mainland UK only). Phone for Mega 4 packs.

Atari Portfolio (pocket pc) £225

This amazing hand held computer is MS-DOS compatible and has resident software including address book, text editor, diary and a Lotus 123 file compatible spread-sheet. 128K free RAM, 256k ROM.

Atari PC 4 (80286) £1349

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 (Amber) monitor add £100. Phone for VGA.

Atari PC 5 (80386) £2069

The PC 5 has a 16MHz 80386 processor, math co-processor socket, 64K cache memory, 2 Mb RAM, 60 Mb hard disk with high performance controller, 4 AT and 1 XT slots. Phone for VGA.

Disk Boxes & Dustcovers

20 3.5" disk box	£4.99	Computer dustcover	£3.99
50 3.5" disk box	£6.99	Monitor dustcover	£4.99
80/100 3.5" disk box	£9.99	Printer dustcover	£7.99
3.5" disk care kit	£3.99	Hard disk cover	£4.99
Others	phone	Disk drive cover	£2.99



DATAPLEX

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

All prices excluding
VAT and delivery







AMIGA HARDWARE

Amiga 500 Complete £279
Amiga 500 + TV modulator £289
Amiga 500 + Batman Pack & 10 Star Pack, Photon Paint £345.00

NEW BATMAN PACK £317

New from Amiga

Includes: TV modulator, 3.5" Disk Drive with Amiga DOS Kickstart, Workbench and the very first software also includes Batman The Movie game, F18 Inceptor, Paint 2, New Zealand Story, + Free mouse mat.

AMIGA ACCESSORIES

Amiga A501 RAM pack + Clock (original).....£99
Amiga joystick£8
TV Modulator.....£15
Phillips CM8833 colour monitor.....£199
Phillips BM7502 12" green monitor.....£79
Phillips BM7522 12" amber monitor.....£89
Amiga To Philips cable.....£8

AMIGA DRIVE

1 Meg 3.5" external.....£68
1 Meg 3.5" internal.....£63
1 Meg 5.25" external.....£99

ATARI COMPUTERS

520 STFM Explorer Pack.....£234
520 STFM Power Pack.....£309
1040 STFM Professional Pack.....£379
SM124 mono monitor.....£99
CS1224 colour monitor.....£229

ATARI DRIVES

1 Meg 3.5 external.....£68
1 Meg 5.25 external.....£99
1 Meg 3.5 internal.....£63

STAR PRINTERS

Star LC10 mono.....£135
Star LC10 colour.....£168
Star 2410.....£225
Star LC15 9 Pin 136 column.....£264
Star LC2415 24 Pin.....£328

EPSON

Epson LX400.....£139
Epson LQ550.....£255

Many More Epson In Stock. Please call for prices.

PANASONIC

Unbeatable Prices!

Panasonic 1081.....£125
KXP 1124.....£229
KXP 1180.....£144

CITIZEN PRINTERS

Citizen 120D.....£115
Citizen 180E.....£127
Swift 24.....£255
Colour upgrade for Swift.....£42

MANNESMAN TALLY

Mannesman MT 81 Dot Matrix.....£115
Mannesman Sheetfeeder.....£62
Mannesman Serial Interface.....£49

REPAIRS FOR AMIGA AND ATARI

- ▲ Good library facilities
- ▲ Sample dump
- ▲ Use of graphics
- ▼ Price is on the hefty side

● SYNTH LIBRARIES VARIOUS

FOR Amiga, ST
FROM Public Domain
PRICE £2.95 approx.

It is worth noting that there are various Public Domain programs that will voice the most popular synths; e.g. DX7, CZ series, as a cheap cheerful introduction - they could well be your best bet.

- ▲ Price
- ▲ Usually have a set of new voices for your synth
- ▲ Sometimes have random voice generation

- ▼ Sometimes fail for no apparent reason
- ▼ Editing not always available
- ▼ Editing is nearly always numeric and not easy to understand

SAMPLERS

Samplers is another growth area for computers. In fact, the Public Domain market is full of samplers of all sorts, from well worn rock numbers to Thunderbirds! However to actually digitise sound you will need hardware and this is where the expense comes in. The main points to remember are that editing needs to be clear and easy, sounds should be able to be filed away to be re-used in other utilities and MIDI support is certainly a must for the serious user.

● FUTURESOUND 500

FOR Amiga
FROM HB Marketing: 0895 444433
PRICE £89.95

Very clean and clear sampling with good editing facilities.

- ▲ Easy to use
- ▲ High quality sound

- ▼ No MIDI
- ▼ Cost

● A.M.A.S.

FOR Amiga
FROM Microdeal: 0726 68020
PRICE £75

Quality sampling plus MIDI interface.

- ▲ Clean samples
- ▲ Comes with MIDI interface
- ▲ Well organised program

- ▼ None, unless you think it is too expensive

● PRO SOUND DESIGNER

FOR Amiga
FROM Eidersoft: 0234 273000
PRICE £75

If you get the 'Gold' version, you will get

a far superior program. MIDI is included but the interface is extra.

- ▲ Clean sounding samples
- ▲ Has many on-screen features

- ▼ MIDI interface is extra

● I.S. DIGITISER

FOR Atari ST
FROM Innovated Software: 0903 213614
PRICE £69

A sampling package with the options of buying extra software for MIDI and/or clever wave form displays.

- ▲ Very high sampling rate
- ▲ Good filters
- ▲ Program can be expanded

- ▼ MIDI not in original program
- ▼ Could be costly

● REPLAY 4

FOR Atari ST
FROM Microdeal: 0726 68020
PRICE £59.95

One of the first sampling packages not in it's fourth version. Earlier versions available on Public Domain as sample players only. MIDI well looked after.

- ▲ Editing very easy
- ▲ Samples sound very clean
- ▲ Tried and tested program

- ▼ The ST is not the best sample player.

● SAMPLER

FOR Archimedes
FROM EMR: 0702 335747
PRICE £126.50

Has all the functions for sampling plus the of the computer to make them very clean 8 bit samples.

- ▲ Fast
- ▲ Many good features
- ▲ Very smooth samples

- ▼ Price

MULTIPLE PURPOSE PROGRAMS

The 'all talking, all singing, and all dancing' section. These are programs that cross over from having just one dedicated function. In the case of Music-X you have a complete music studio under one roof. The rest are mainly for fun (but what's wrong with fun anyway?) although some serious work can be done on them.

● MUSIC-X

FOR Amiga
FROM SDL: 01 309 0300
PRICE £199.95

The best package in the market. It has every feature you could ever conceivably want. MUSIC-X will program synths, organise and store the MIDI data from anything and sequence in a very professional class. This package single-notedly establishes the Amiga in the

BEST PRICES!



**MANNESMANN
TALLY**

MANNESMANN TALLY MT81 PRINTER

- * 9 Pin Dot Matrix
- * Parallel I/face
- * 155 cps high speed
- * 130 cps draft
- * 26 cps NLQ
- * Epson/IBM compatible
- * Tractor feed
- * Single sheet feeder
- * Paper Parking
- * Includes cable

* 1 YEAR ON SITE WARRANTY FREE

£129.95

INC VAT AND DELIVERY

Panasonic KX-P1081

- * 9 Pin Dot Matrix
- * Parallel Interface
- * 120 cps draft
- * 102 cps condensed
- * 24 cps NLQ
- * Epson compatible
- * IBM compatible
- * Tractor feed
- * Single sheet feed
- * Includes cable

* 1 YEAR ON SITE WARRANTY FREE *

£159.95

INC VAT + DELIVERY

ATARI

SM124 HIGH RES MONO
MONITOR

£99.99

INC VAT + DELIVERY

MEGAFILE 30

30 Megabyte hard disk
drive for all Atari ST
computers. Mega styled
case. DMA thru port.
Includes VAT and delivery.

£429.95

ATARI ST SOFTWARE

Altered Beast	£13.95	First Word Plus	£56.99
Space Ace	£28.95	DataManager Pro	£49.99
Corvette	£20.95	Cyber Studio	£56.99
Oliver	£12.95	Cyber Paint	£56.99
Power Drift	£16.95	Timeworks DTP	£69.99
Turbo Outrun	£13.95		
Chambers/ShaoLin	£15.95		
Strider	£16.95		
Kenny Dalglish	£12.95		
Moonwalker	£13.95		
Ghouls N Ghosts	£13.95		
Paul Gascoign	£15.95		
Liverpool FC	£12.95		



**COMMODORE
IBM PC
COMPATIBLES**

ALL COMMODORE PC COMPATIBLES
SUPPLIED BY US COME WITH 1 YEARS ON
SITE WARRANTY FREE OF CHARGE !!

PC10 III Single Drive Mono XT	£514.99
PC10 III Single Drive Colour XT	£654.99
PC10 III Single Drive EGA XT	£789.99

PC10 III Dual Drive Mono XT	£574.99
PC10 III Dual Drive Colour XT	£714.99
PC10 III Dual Drive EGA XT	£859.99

PC20 III 20Mb Hard Disk Mono XT	£729.99
PC20 III 20Mb Hard Disk Colour XT	£859.99
PC20 III 20Mb Hard Disk EGA XT	£999.99

ALL COMMODORE PC PRICES INCLUDE
DELIVERY BUT EXCLUDE VAT at 15%

The ATARI "STACY"

The Portable Atari ST !!

The first STACY to be released will have a built in
high res mono display, 20mb hard disk and 1mb
ram..... order today to get yours first!!

£1369.99 inc vat

(RRP £1499.99)

Call us today for the latest news on the STACY



All Star prices include VAT,
parallel lead, delivery and
12 Months On Site Warranty

Star LC10 Mono	£169.00
Star LC10 II Mono	£209.95
Star LC10 Colour	£229.95
Star LC15 Mono	£349.95
Star LC24/10	£259.95
Star LC24/15	£429.95
Star FR10	£384.95
Star FR15	£499.95
Colour Upgrade FR Range	£34.95
Star XB24/10	£499.95
Star XB24/15	£659.95
Colour Upgrade XB Range	£34.95

Genuine Star LC10 Ribbons...

1 x Black Ribbon	£3.50
5 x Black Ribbons	£16.95
10 x Black Ribbons	£32.95
1 x Colour Ribbon	£5.20
5 x Colour Ribbons	£24.95
10 x Colour Ribbons	£47.95

PHILIPS

All Philips prices include
VAT & delivery.

PHILIPS 8833 - 14" med
res, RGB/RCBI composite and
audio inputs. Stereo and green
text mode. FOR USE WITH
ALL ST/AMIGA INCLUDES
LEAD £219.95

PHILIPS 9043 - 14" med
res colour. IBM CGA/EGA
compatible. TTL 640x350
pixels. £259.95

PHILIPS 9809 - 14" high
res colour VGA monitor. RGB
analog. 0.29mm dot pitch. 640x
480 pixels with stand. £399.95

EPSON

All Epson prices include VAT,
parallel lead, delivery and
12 Months On Site Warranty

Epson LX400	£189.95
Epson FX850	£399.95
Epson FX1050	£514.95
Epson EX800	£539.95
Epson EX1000	£699.95
Epson LQ500	£344.95
Epson LQ850	£564.95
Epson LQ1050	£699.95
Epson LQ2550	£1099.95

LEADS & CABLES

Pair of 2.5 metre MIDI cables
£6.95 inclusive
Parallel lead ST, PC, Amiga
£3.99 inclusive

THE ATARI PORTFOLIO

A full-featured personal computer in the
palm of your hand.

- * MS-DOS Compatible
- * LOTUS 1-2-3 spreadsheet
- * Full text editor
- * Address book
- * Tone dialing
- * Appointments diary
- * 128K Ram

And you used to say
your Filofax was a
godsend....

NEW LOW PRICES !!

Atari Portfolio	£229.95
Smart Parallel Interface	£38.95
Smart Parallel Interface - with IBM Parallel cable	£41.95
32K Memory Card	£46.95
64K Memory Card	£94.95
128K Memory Card	£118.95

A pocket sized
PC at a pocket
sized price....

BLANK DISKS

All of our blank 3.5" disks are
guaranteed double sided, double
density & are all supplied with
labels.

3.5" bulk disks

Quantity x 10	£6.85
Quantity x 20	£12.99
Quantity x 30	£18.99
Quantity x 50	£29.99
Quantity x 100	£56.99
Quantity x 200	£108.99
Quantity x 500	£264.99
Quantity x 1000	£529.99

All of our blank 5.25" disks are
guaranteed double sided, double
density & are all supplied with
labels.

5.25" bulk disks :

Quantity x 10	£3.28
Quantity x 20	£6.34
Quantity x 30	£9.38
Quantity x 50	£14.95
Quantity x 100	£27.95
Quantity x 200	£54.95
Quantity x 500	£129.95
Quantity x 1000	£254.95

PC MODEM CARD

AKHTER MDM2400 MODEM CARD

- * V21, V22, V22bis & V23
- * Auto Answer / Auto Dial
- * Pulse or Tone Dialing
- * Hayes Compatible
- * Automatic mode selection
- * Mirror II Comms s/ware
- * Call progress monitor
- * Plug straight into PC
- * Full instructions
- * Standard BT connector
- * BAPT Approved
- * RRP £228.85 inc vat

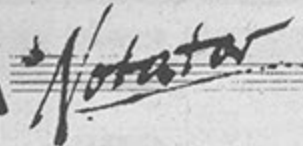


£139.95

including VAT and delivery



ST MIDI SOFTWARE



C-Lab Creator
C-Lab Notator
C-Lab Unitor/Notator
Steinberg Cubase
Steinberg Pro 24 Ver11
Hybrid Arts EZ Track Plus
Dr.T KCS 1.7MPE
all other top packages available.

Phone now for the
Best Price !!
(If we print 'em you
won't believe 'em !!)

BEST PRICES

(DEPT NCE), UNIT A, GRAFTON PLACE,
WORTHING, WEST SUSSEX. BN11 1QX



(0903) 700714

YOU CAN PLACE YOUR ORDER 24 HOURS A DAY



All prices include VAT and delivery unless otherwise stated. Goods despatched same day whenever possible.
All prices are subject to change without notice. BEST PRICES only supply original equipment and not grey imports. All of our
equipment is fully guaranteed. We stock all types of computer hardware and software - give us a call for our BEST PRICES.
Mail order only, callers and collections only by prior arrangement with us. Thank You.

MERLIN COMPUTERS

OUR PRICES ARE MAGIC
AMIGA 500 ONLY £379.00
INC BATMAN PACK

ATARI 520 STFM POWER PACK£359.99

TRY THE ST's MIDI POWER

CASIO MT 240 AN EXCELLENT LOW COST MIDI KEYBOARD £89.99
 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.....£215.00

STAR LC10 MONO PRINTER£169.99

STAR LC10 COLOUR HEAT TRANSFER RIBBONS - IDEAL

FOR PRINTING YOUR OWN T-SHIRTS ETC.....£17.99

BLANK DISKS AT AMAZING LOW PRICES

10 3.5" DS/DD life time guaranteed£7.50

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

All prices include VAT and P & P

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



WESTONING LTD

3 1/2 DISKS

	25	50	100	200	400	1000
880K	£17	£30	£53	£99	£169	£399
2Mb	£32	£60	£118	-	-	-

5 1/4 DISKS

	25	50	100	200
DS/DD	£8	£12	£22	£40
DS/HD	£14	£25	£48	£90

DISKS CERTIFIED 100% ERROR FREE

DISK BOXES

Capacity	3.5"	Capacity	5.25"
10	£2.50	10	£2.50
50	£3.75	70	£5.25
100	£6.50	110	£6.75

Add £2 P&P if not ordered with disks.



ACCESSORIES

Mouse Mat£2.99
 Ribbon Refresh.....£6.50
 1000 Disk Labels£10.00
 Cheetah 125 Joystick.....£5.50

AMIGA

A500 Modulator & Mouse£346
 A500 Batman Pack.....£359
 A500 Air Miles Pack£405
 512K RAM Pack.....£75
 3 1/2 External Drive£59
 20Mb Hard Disk.....£346
 40 Mb Hard Disk.....£480
 A1084 Colour Monitor.....£260

Add £6 for next day delivery

ATARI

Ultimate Pack£420
 Ultimate & Mono
 Monitor.....£504
 Power Pack£339
 Portfolio£210
 Explorer Pack£259
 720k Disk Drive£82

Add £6 for Next Day Delivery

ALL UK STOCK!

SAME DAY DESPATCH
 NO QUIBBLE GUARANTEE

Prices include VAT & Carriage

Department NCE, 12 Sanderson Road,
 Westoning, Bedford, MK45 5JY.

Tel: (0836) 775060 or (0525) 718668

music market.

- ▲ Many features all at professional level
- ▲ Very well documented
- ▲ Most comprehensive package you can buy
- ▲ Add-on modules available soon
- ▲ Well documented

▼ You might think it is expensive

DELUXE MUSIC CONSTRUCTION KIT

FOR Amiga
 FROM Electronic Arts
 PRICE £49.99

MIDI output, sample playing plus a sequencer.

- ▲ Comprehensive package
- ▲ Well tried and tested

▼ Sequencer uses all of the traditional notation

▼ A bit slow in operation

MUSIC STUDIO V. 3.0

FOR PC, ST and Amiga
 FROM Activision: 0734 311666
 PRICE £29.95

Has wave form editing, MIDI in and out and output. But, the versions differ in sound quality.

- ▲ Comprehensive program
- ▲ Price

▼ Uses traditional sequence notation

SYNTHESISERS

As mentioned earlier, at the beginning of this piece, the quality of sound does depend on the computer at your disposal. In truth, only the Archimedes and the Amiga are serious contenders for real sound synthesis at present, although Atari is attempting to fix this with the STE. Future computers will doubtless go even further down the road to having a synthesiser tucked under the housing. As a mark of just how far this is going, PC owners can actually now buy synthesizer cards from the likes of Roland. Indeed, it would not be unwarranted to expect a large growth in this field soon, moving away from just replaying sample files towards a more active music

synthesis with your computer, and of course, with your ear.

SOUND GENERATOR

FOR Atari ST
 FROM Public Domain
 PRICE £2.95 approx..

About the best you can get for the ST's miserly sound chip with on-screen sliders to alter the tone.

- ▲ Price
- ▲ East to use and understand

▼ Limited value

▼ Fun only program really

SONIX

FOR Amiga
 FROM HB Marketing: 0895 444433
 PRICE £56.48 but often cheaper

Actually lets you draw and/or create your own sounds imitating a real synthesizer. Has other features built in.

- ▲ Good sound quality
- ▲ MIDI functions
- ▲ Can file away sounds

▼ Price

SOUNDSYNTH

FOR Archimedes
 FROM EMR: 0702 335747
 PRICE £49.95

Good all rounder with fast display and waveform drawing facilities.

- ▲ Sounds can be filed for use in other programs.
- ▲ Very fast and accurate
- ▲ Good display

▼ Only works on samples sound, not synthesis from scratch

INSTANT MUSIC

FOR PC, ST and Amiga
 FROM Electronic Arts: 0753 49442
 PRICE £29.95

This is the easiest package for the non-musician. It is good fun, with intelligent programming to make sure you play the correct notes, chords and harmony. Sound skillfull with ease!

- ▲ Price
- ▲ Easy to use

IN NEXT WEEK'S SHOPPING EXPRESS: MONITORS

CASPELL COMPUTER ☎ 0202 666155 [24 hr]

RIBBONS

Amstrad DMP 2/3000 series	2482	A
Amstrad DMP 4000	2426	E
Amstrad PCW8256 (L/Life)	*2741	D
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 LQ-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	D
Seikosha 500/550	2236	D
Shirwa 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, Microperf all edges for letter-writing	£13.90

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-links 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

TELEGAMES

Europe's Largest Stock of Video Games & Cartridges For -



INTELLIVISION



Nintendo



NINTENDO GAMEBOY

SEGA MEGA DRIVE

The leading Video game specialists. Send for lists (state make of game)

Telegames, Wigston, Leicester, LE8 1TE.
Tel: 0533 880445 or 0533 813606
or fax your order on 0533 813437

SHEKHANA COMPUTERS

Sony disks 3.5" DSDD box of 10	£9.99
Sony disks 3.5" DSDD box of 50	£47.50
Sony disks 3.5" DSDD box of 100	£89.99
JVC disks 3.5" DSDD box of 10	£9.99
JVC disks 3.5" DSDD box of 50	£47.50
JVC disks 3.5" DSDD box of 100	£89.99
Sony bulk - unbranded 3.5" DSDD x 10	£7.99
Sony bulk - unbranded 3.5" DSDD x 50	£37.50
Sony bulk - unbranded 3.5" DSDD x 100	£69.90
JVC high density 3.5" DSHD x 10	£24.99
JVC high density 3.5" DSHD x 50	£119.95
JVC high density 3.5" DSHD x 100	£229.90
JVC 5.25" DSDD x box of 10	£6.99
JVC 5.25" DSDD x box of 50	£32.50
JVC 5.25" DSDD x box of 100	£59.90
JVC 5.25" high density DSHD x 10	£11.99
JVC 5.25" high density DSHD x 50	£54.95
JVC 5.25" high density DSHD x 100	£109.90
Maxell 5.25" high density DSHD x 10	£10.99
Maxell 5.25" high density DSHD x 50	£54.95
Maxell 5.25" high density DSHD x 100	£109.90
Unbranded 5.25" DSDD box of 10	£4.99
Unbranded 5.25" DSDD box of 50	£22.50
Unbranded 5.25" DSDD box of 100	£39.90
Maxell 3" CF2 box of 10	£24.99
Maxell 3" CF2 box of 50	£119.95
Maxell 3" CF2 box of 100	£229.90
Sega 16-bit Megadrive Console	£199.99
PC Engine games console	£199.99

All disks are genuine and are all guaranteed by us.

Cheques/P.O payable to:

SCS (E), 655 Green Lanes, London N8 0QY.
Ring 01-348 2907, or 01 889 9412 01-340 8565.
Fax your order to - 01-889 9413.
Please add 50p P+P per box of 10 disks.



SHOPPING EXPRESS READER ADS

There are great bargains to be had in our reader ads section, but remember to check before you buy - we cannot be held responsible for the quality of the goods on offer!

• FOR SALE

C64, 1541I drive, datacassette, freeze machine, original games on disk + cassette worth over £1000. Sell the lot for just £330 o.n.o. Phone: 0892 32911 now!

ATARI 520STFM, 1 Meg drive, over £450 original software, joystick, mags, books and disks. Boxed perfect condition. Ideal Xmas present. Genuine sale reason, £325. Tel: 061 764 9557 (Manchester).

SPECTRUM 128+2 as new, joysticks, light pen, 45 games: Double Dragon, After Burner, Red Heat etc. £100. Phone: Neale 0245 258022, Chelmsford, Essex.

MSX Sony HB-75B computer with built-in data bank plus JVC data recorder, HC-R105 also joystick £50. Phone: 036 287 340.

ST software: Virus, Pacmania, Outrun, Speedball, Space Harrier, Side Winder, Super Hangon Menace, Gauntlet II: each £6, all originals, boxed etc. Call 042 879 2396 from 7 pm - 9 pm weekdays. Ask Austin.

ZX81 Rampak, manual, books, machine code, software. In good working order. Offers or swap for any colour computer with at least 32k RAM. Also in good condition. Tel: 0246 207765.

SPECTRUM software for 48k, originals: Roadblasters, Streetfighter, Typhoon, Side Arms + 19 others. £37 for the lot. Phone Lee on: (0226) 758256, after 4.30 pm.

COMMODORE 64, 1541 disk drive, two cassette units, music keyboard, lots of software complete with books and manuals, £200 o.n.o. Also Einstein computer complete with manuals and software £95. Tel: 0532 610662.

AGENDA pocket computer, unused £120, plus a free 32k RAM pack. With all manuals, power supply and printer lead. Tel: 0532 842780, evenings and weekends only, ask for Simon.

PRIME dedicated office system (similar to PCW) 8086, 20Mb HD 5.25" FD. Full working including software £350 o.n.o. 30 MB hard drive Winchester F/HT untested therefore £75 o.n.o. Tel: 0532 654779.

C128 with 1570 disc drive 1801 monitor, datasette, mouse, DMP1101 daisy wheel printer, lots of software, freeze machine joystick, discs and manuals, value £900. sale £450. Phone 0782 712343 9-5pm.

AMSTRAD CPC tape and disc games for sale. Also books and singles, also help wanted for local secondary school

magazine. Contact: Chi Hun Wong, 10 Gerlan, Tywyn, Gwynedd, LL36 9DE.

YAMAHA P55680 stereo keyboard, 61 mini keys, 100 voices and styles, digital synth, custom drummer, 32 sound percussion midi, £145. Also games tape and disk. Phone Mark (0428) 717440, evenings.

Z88 computer with 128k plus mains adaptor, cover, QL link and 8056 thermal printer, £215. Tel: 0782 562479.

520STFM year old, 5.25" external, + 150 disks, machine books, summer pack, ST05, virus, VGC, all or nothing, buyer collects, £450 o.n.o. Phone Carl: (0329) 665953, after 6pm.

BBC B, Issue 7, DFS 40/80 DS/DD, Watford Lemodem, Olivetti ink jet printer, SWR/ROM board, view, speech and other ROMs plus lots more £420. Will split. Tel: (0639) 886525.

ATARI STFM for sale, 15 months old, some games and magazines, new mouse and mat, the lot £270 o.n.o. Phone: 061-766-5864, between 6 and 7pm weekdays.

COMMODORE 64 and data recorders, many games including Elite, Football Manager II, Music Maker, BMX, Designer Pencil, Fight Night, First Basic + all relevant manuals £120. North East (0670) 364257.

CBM 64 and 128 green screen monitor, also Seikosha GP100 VC printer. Will sell for £25 each. Tel: 0246 270673 after 6 pm.

AMSTRAD PCW8512 complete with Locoscript 2 word processor, dust covers, travel case, spare discs etc, hardly used, excellent condition, will deliver within 100 miles, Bristol £375 o.n.o. Tel: 0454 323051.

ST - fast BASIC ROM £35. Flight Simulator £15, Balance of Power £10, first 26 ST World £30 or will sap for original Amiga software. Tel: 041 7764305.

SWAP Yaesu FT290R transceiver with associated equipment for Amiga or Atari ST computer. Also original ST games to swap. Tel: 0302 876354, ask for Steve.

HP150 touchscreen, 15Mb hard disk, 3.5" floppy, thinkjet printer, all cables plus DBase II, wordstar GWBASIC, TPascal, Visicalc, Memomaker, PCF, Comms Prog, 21/23 IAD Modem £950, the lot. Tel: 0793 854571.

EPSON LX-80 printer, boxed and in first class condition with 32k, extra buffer, memory tractor and cut sheet feeds. Plus colour as well as black ribbons £200 o.n.o. Tel: (0204) 492207.

AMIGA half Meg expansion board and disable switch £70. Tel: Chris on 061 928 3087.

PANDORA - game writing utility for Amstrad CPC on disc. RRP is £30 any offers? Send your offer and name and address to: Paul 39 Fultton Road, Ash, Kent, CT3 2HL.

BBC B, 80/40 track, disk drive, tape recorder, many software discs and tapes. Joystick and manuals, £275 for the lot. Ring (0865) 739210 and ask for Ben.

AMSTRAD CPC 6128 computer, mono monitor, business and games software. Joystick, 10 blank disks. Cost £650, will accept £275 o.n.o. Tel: 0524 55295 (Morecambe).

ISSUES 1 to 52 of New Computer Express for sale, best offer secures. Contact T Halton, 3 Sketrick Island Park, Newtonwards, County Down, Northern Ireland. Tel: 0247 816678.

SPECTRUM +3 very good condition, includes cassette recorder, joystick and many good games, one year old, £130 o.n.o. Tel Stalbans 23822 (STD 0727).

ATARI 800XL, 1050 disk drive, XC12 data recorder, touch tablet, speech synthesiser, 1027 printer, 100's of games on disk. Joysticks, manuals, everything £190 for quick sale. Tel: 0236 721681 after 4pm.

SPECTRUM +2 for sale, +1 interface, micro cartridge disciple interface, lots of games on disk, all manuals, as new, boxed. Sell for just £250, no offers. Tel: 01-732 3769.

ST software, Flair Paint £20, OLP Art Studio, Licence To Kill, Stargoose, £10 each. Tel: (0723) 364910. Hi to Bill and Daz. Come Easter, the Three Amigos will ride again!

AMSTRAD CPC RS232 interface. Pace made, software on ROM, boxed, as new £25.00 o.n.o. Bound, Amstrad mags - 100 £35.00 o.n.o. Tel: 0704 73343.

SPECTRUM +3, as new, including multi-face 3, 40+ games, and brand new Cheetah joystick - £195 o.n.o. Also complete set of 4 volumes - input mags - £35 o.n.o. Tel: 0527 70407 (after 6) or (0543) 250505 (Day).

AMSTRAD 6128 with modulator, manual and system disks £130 o.n.o. Write to: M J Dyos, 58 Seymour Drive, Overpool, Ellesmere Port, South Wirral L66 1LX.

AMSTRAD 464 CPC with colour TV, 100 games and Mini Office II o.n.o. Tel: (0442) 65075 after 6 pm, £255.

ATARI 520 STFM, external 1 Meg drive, warranty. Spare mouse, joystick, 20 utility/demo disk. £700+ original software inc STOS, excellent condition. New £1200 + asking £475. Evenings only: Ambergate 856882.

MONITOR for IBM compatible, Amber screen EGA, CGA, HGC £60. Also original software games: Darkside £10, Enchanter £5. Tel: 0454 612939 (Bristol area).

DMP 2000 for sale £100. Ring 0344

421842.

FIDELITY CM/4 colour monitor £50. Ring 0344 421842.

48K ZX Spectrum+ set up including computer, disk drive, modem, printer, joystick interface, tape recorder and over £350 worth of games. Ideal Xmas present. Only £200 O.N.O. Tel: 0438 369706.

COMMODORE 64/128, disk drive, cassette unit, joysticks, monitor 40/80. All boxed, loads of software, games/utilities, manuals, back up cartridge, the lot, £500. Tel Mike on 0600 6790.

COMMODORE 64, new, still boxed with joystick, 40 games including: Times of Lore, W.I.M.E., The In Crowd etc. Selling due to getting Amiga. Bargain at £130. Phone Rob on (0530) 72564.

ELECTRON plus1, 3.5" disc drive, manuals, magazines and books plus games and educational software on tape and disc, all leads included. Excellent condition, £150. Tel Bromsgrove 71635.

ATARI 800 with 810 disk drive plus box of disk software. Good condition, £95. Tel Dagenham 01 592 5603.

XENON II Free! - Just give me your Amiga Falcon and it's yours! - Phone Andy on 01 397 3083.

ENJOY stereo sound from your Amstrad CPC with this superb AMP+ speaker system for £14.95 (£13.95 with headphones). Battery included. Contact: M. Pinder, 4 Wham Hey, New Longton, Preston, PR4 4XU.

PROJECT D for the Amiga. Disk copier, complete as new, 310. Phone Alan on 0703 766949 after 7pm.

BBC master 512 DOS plus 2.1, lots of software and ROMs in pristine condition, £400 O.N.O. Tel 0663 44997 after 6.30pm.

STAR NL10 printer with Commodore 64 interface, £80. Tel: 061 788 0817 after 6pm.

IBM compatible computer, twin 3 1/2" disk drives, colour monitor, stand, MSDOS, £390. Also IBM Olivetti 2 x 3 1/2" drives, £260 O.N.O. BBC 1557, cassette software, £99. Tel: 0753 26755 after 6pm.

BARGAIN, Amstrad colour CPC464 plus disc drive and printer. Includes HiSoft, Pascal, Mini Office, games manuals, books, magazines etc, all boxed, £200. Ring Cheltenham 0242 512314.

ATARI mega 2, mono monitor, 30 meg H.D, W.P., DTP and pro music software, £1100. Tel: 01 690 7106.

BBC issue 7, disk drive, 128K S/RAM, toolkit plus Dumpout 3 ROMs, EMR Midi interface, various games, joysticks, mini office, all manuals. Cost £1000, sell £425. Phone 0530 415535 after 6pm.

ATARI 8bit cartridges, ORC Attack, K-Star Patrol, Crossfire, Atari Basic, £4 each. Cassettes: Chuckie Egg, Mutant Camels, Airstrike, Diamonds, Tank Commander, Gridrunner, Leggit, Claymorgue Castle, £2 each. Tel 0983 840363.

Ring for SPECIAL OFFERS on ATARI, EXPLORER and POWER PACKS

ALL PRICES INCLUDE VAT AND FREE DELIVERY

LATEST 1.32 WORKBENCH REVISION NOW SUPPLIED FREE!

FREE Pocket Calculator with every AMIGA

AMIGA

A500 BAT-PACK

INCLUDES:

- Batman The Movie ● New Zealand Story ● F18 Interceptor ● "D" Paint II ● Workbench 1.3 ● Kickstart 1.3 ● Amiga Basic ● Desktop Utilities ● New Tutorial Pack ● TV Modulator

£379.00

WITH TENSTAR PACK £399.00

STAR

THE No. 1 NAME IN PRINTERS

HOME AND BUSINESS SERIES

- LC-10 9 PIN MONO£153.00
COMMENT: EXCELLENT NEAR LETTER QUALITY EVEN IN ITALICS MODE
- LC-10 II MONO.....£175.00
COMMENT: 25% FASTER, VERY ACCURATE LINEFEED FOR GRAPHICS
- LC-10 COLOUR.....£197.00
COMMENT: LC-10 SPECS. COLOUR FEATURES NOW WELL SUPPORTED
- LC-15 9 PIN MONO£306.00
COMMENT: IDEAL FOR LONG PRINT RUNS AND LABEL PRINTING
- LC24-10 24 PIN LQ£229.00
COMMENT: LETTER QUALITY. EXTENSIVE FONT RANGE INCLUDING SCRIPT
- LC24-15 24 PIN LQ£383.00

PROFESSIONAL SERIES

- FR-10 HI-SPEED£349.00
- FR-15 " "£457.00

COMMENT: THE FR SERIES IS DESIGNED FOR HEAVY DUTY WORKLOADS. IT IS CAPABLE OF 300CPS IN DRAFT AND 76CPS IN NLQ MODE. HAS AN ADVANCED PAPER PARKING SYSTEM, 16 BUILT-IN FONTS INCLUDING OCR, AND HAS A UNIQUE BATTERY BACKED-UP SYSTEM MEMORY SWITCH WHICH ENABLES THE USER TO CUSTOMIZE THE POWER UP SETTINGS.

- XB24-10 SLQ/LQ£457.00
- XB24-15 " "£599.00

COMMENT: INCREDIBLE PRINT QUALITY OFFERING 48 PIN EMULATION, 25 FONTS, MANY SPECIAL EFFECTS, ADVANCED PAPER PARKING, SYSTEM MEMORY SWITCH, LOW NOISE AND OCR/BARCODE FONTS. WITH A MAXIMUM BIT IMAGE (GRAPHICS) MODE OF 360 DPI THE XB RANGE CAN EASILY BE A COST EFFECTIVE ALTERNATIVE TO A LASER PRINTER.

- XB/FR COLOUR KIT£34.00

COMMENT: VERY EASY TO INSTALL. JX-80/LC10 COL. COMPATIBLE

SPARES AND SERVICE MANUALS AVAILABLE ON REQUEST

ATARI

- 520STFM POWER PACK £347.00
- 520 STFM EXPLORER PACK £269.00
- 1040 STFM HYPER ART PACK WITH BORRODINO 3D STRATEGY GAME £439.00
- ST MEGA 1 BUSINESS PACK £519.00
- MEGA 1 PACK WITH SM124 MONITOR £609.00

FREE! 16 DAY HOLIDAY FOR TWO WITH EVERY AMIGA FROM A CHOICE OF 300 HOTELS OR ANY COMBINATION OF PERSONS/HOTELS TO A TOTAL OF 16 NIGHTS.

CLASS of the 90's

AMIGA EDUCATION PACK

PACK BREAKDOWN

HARDWARE

- Amiga A500 Computer.....399.99
- Midi Master Interface34.99
- TV Modulator24.99

SOFTWARE

- Tutorial Pack
- Deluxe Paint II.....49.95
- Publishers Choice99.95
- Maxiplan 500.....99.95
- Superbase Personal59.95
- Dr. T's Recording Studio49.95
- Workbench 1.3.....
- Kickstart 1.3.....
- Desktop Utilities14.99
- BBC Software Emulator49.95
- Amiga Basic Language
- Amiga Logo Language.....82.00

ACCESSORIES

- Mouse Mat4.39
- 10 Blank 3.5" Diskettes9.99
- Disk Wallet12.95
- 1 yr. Sub to Amiga User23.00

TOTAL RRP = 1016.99
PACK DISCOUNT = 437.00

PROMOTION PRICE = 579.99

ART AND DESIGN
POWERFUL, YET EASY TO USE DRAWING AND DESIGN PACKAGE FOR ALL AREAS OF THE CURRICULUM.

WORD-PROCESSING
FRIENDLY AND FLEXIBLE, WITH 100,000 WORD SPELL CHECKER 470,000 WORD THESAURUS CLIP-ART (GRAPHICS) FACILITY MAIL-MERGE, SUPPORTS LC10 COLOUR PRINTER FOR COLOUR PRINTING

DESKTOP PUBLISHING
CREATE NEWSLETTERS, MAGAZINES AND FORMS USING PICTURES AND MULTIPLE FONTS.

DATABASE
RELATIONAL AND GRAPHIC DATABASE, VERY EXTENSIVE MATHEMATICS AND SEARCH OPERATIONS. INCLUDES VERY FLEXIBLE REPORT PRODUCTION GENERATOR.

SPREADSHEET
THE ESSENTIAL MATHEMATICIANS TOOL ANALYSE STATISTIC, ALGABRAIC, FINANCIAL EQUATIONS ETC. INCLUDES DATABASE MANAGEMENT AND BUSINESS GRAPHIC FACILITIES.

MUSIC
FULL EDITING, 8 TRACK, MIDI SYSTEM ALLOWING CUT, COPY, PASTE AND TRANSPOSE WITH HARD-COPY PRINT FACILITY.

THE EDUCATION SUPPORT FILE

An updateable educational support file consisting of practical user guides and national curriculum support materials in various subjects for students and teachers..

Upon registration each purchaser will receive a file containing:
Over 100 pages of advice, guidance and worksheets, relating to the national curriculum, product reviews, educational news from around the world, feature articles, lists of users in education, and information on public domain software.

EDUCATIONAL INSTITUTES

BUY 20 "CLASS OF THE 90's" AND GET ONE AMIGA A500 FREE!

AMIGA STARTER KIT

£59.95

Includes
KINDWORDS WORD-PROCESSOR
with 100,000 online Spell Checker, 470,000 Word Thesaurus, Colour Graphics and Professional Typefaces supports LC10 Colour Printer

FUSION PAINT
An advanced feature packed Art Package
CRAZY CARS/MINIATURE GOLF/SUPER SKI
Three top quality arcade games

** All packed in one presentation box **

FREE!! Utilities and tools pack with every ST purchase. Software Blitter, ST Diagnostics, Disk Editor/Custom Formatter, Disk Boot Construction Set, Alarm Clock, Quick Formatter, Calculator, Custom Format Disk Duplicator, Printer Customiser Tool, Desktop Games, ARC Construction Set, System Selector, 50/60 HZ Switcher and Synchronizer, Snapshot Dumper, RAM/Print Spooler, Word-processor AND MUCH MUCH MORE!!

SOFTWARE

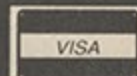
FED UP SPENDING YOUR HARD EARNED CASH ON RUBBISH SOFTWARE? EVERY GAME IS TRIED & TESTED!!

NEW SOFTWARE TITLES IN EVERYDAY FOR ST/AMIGA/PC

COMPUTERHOUSE UK

TEL: (01) - 731 - 1276

14, ROMILY COURT, LANDRIDGE ROAD, FULHAM, LONDON SW6 4LL



MAIN MEDIA

FREEPOST, ANDOVER, HANTS, SP10 3BR.
Tel: 0264 333830 (24 hrs)

BRANDED DISKS (per box of 10)

3m 5.25"	DS/DD.....48tpi @	£7.50
Verbatim 5.25"	DS/DD.....48tpi in free library case @	£7.50
Sony 3.5"	DS/DD.....135tpi @	£14.50

★ ★ UNBRANDED LIFETIME GUARANTEE ★ ★

	10	20	30	40	50	100
3.5" DS/DD	135TPI	£7.95	£15.50	£22.75	£29.50	£35.95
	25	50	100	250	500	
5.25" DS/DD	48TPI	£7.00	£13.75	£26.50	£64.00	£122.00
5.25" DS/QD	96TPI	£7.50	£14.75	£28.75	£70.00	£134.75

All 3.5" Disks come complete with labels. All 5.25" Disks come complete with Envelopes, Labels and Tabs. All disks come with our 'No Quibble Money Back or Replacement Guarantee'

DISKETTE STORAGE BOXES

		Price Each
50 x 5.25"	Hinged Lid Lockable	£5.00
100 x 5.25"	Hinged Lid Lockable	£7.00
140 x 5.25"	Hinged Lid Lockable	£9.00
50 x 3.5"	Hinged Lid Lockable	£5.00
100 x 3.5"	Hinged Lid Lockable	£7.00

DISK BOXES WITH DISKS

50 x 5.25" Hinged Lid Lockable with	25 DS/DD Disks	48 TPI	£11.00
50 x 5.25" Hinged Lid Lockable with	25 DS/QD Disks	96 TPI	£12.00
100 x 5.25" Hinged Lid Lockable with	50 DS/DD Disks	48 TPI	£20.00
100 x 5.25" Hinged Lid Lockable with	50 DS/QD Disks	96 TPI	£21.00
140 x 5.25" Hinged Lid Lockable with	100 DS/DD Disks	48 TPI	£34.00
140 x 5.25" Hinged Lid Lockable with	100 DS/QD Disks	96 TPI	£37.00
50 x 3.5" Hinged Lid Lockable with	20 DS/DD Disks	135 TPI	£20.00
100 x 3.5" Hinged Lid Lockable with	50 DS/DD Disks	135 TPI	£42.00

All prices include VAT and Carriage. All Goods despatched within 24 hours subject to availability.

Cheques/P.O.'s to:
MAIN MEDIA, Dept NCE, FREEPOST,
ANDOVER, HANTS, SP10 3BR
Telephone: Credit Card Hotline: 0264 333830 (24 hrs)

COMMODORE AMIGA A500

MEGA PACK Amiga A500, Workbench, Mouse, Extras Disk, Tutorial Disk, Owners Handbook, Basic Manual, TV Modulator, Mouse Mat, Ikari Warriors, Beyond The Ice Palace, Battleships, Buggy Boy, Xenon, Captain Blood, Arkonoid 2, Bomb Jack, Crazy Cars, Thundercats, Live and Let Die, SpaceHarrier, Joystick ONLY £399.95	BATMAN MOVIE PACK Amiga A500, Workbench, Mouse, Extras Disk, Tutorial Disk, Owners Handbook, Basic Manual, TV Modulator, Mouse Mat, Deluxe Paint 2, F18 Interceptor, New Zealand Story, Batman Movie Game ONLY £369.95	BATMAN MOVIE + PACK Amiga A500, Workbench, Mouse, Extras Disk, Tutorial Disk, Owners Handbook, Basic Manual, TV Modulator, Mouse Mat, Deluxe Paint 2, F18 Interceptor, New Zealand Story, Batman Movie Game, Ten Blank DSDD Disks, Disk Box holds 100 Disks, Vinyl Cover, Microswitch, Joystick ONLY £389.95
--	--	--

ALL AMIGA PRICES INCLUDE VAT, FITTED PLUG AND DELIVERY

ATARI 520STFM

EXPLORER PACK Atari 520STFM, Mouse, Owners Handbook, Metacomco Basic Rev D, Sourcebook + Tutorial, Ranarama Game ONLY £279.95	POWER PACK A Atari 520STFM, Mouse, Owners Handbook, First Basic, First Music, Business Organiser Software, 20 Great Games, Atari CX40 Joystick ONLY £359.95	POWER PACK B Atari 520STFM, Mouse, Owners Handbook, First Basic, First Music, Business Organiser Software, 20 Great Games, Atari CX40 Joystick, Vinyl Dust Cover, Twin Joystick Extend Lead, Disk Box for 100 Disks, Ten Blank DS/DD Disks, Second Joystick ONLY £389.95
---	---	--

★ ★ PLUS FREE - for a limited period only software pack RRP £79.00 ★ ★
 ★ ★ inc Hyperpaint Hyperdraw and Borodino ★ ★

Plus FREE!! with any of the above Atari Packs a Superb Software Starter Pack comprising: WordProcessor, Spreadsheet, Spellchecker, Word Count Program, Neochrome, Mono Monitor Emulator, Database, Towers of Hanoi Game, Pacman Game, Sensori Game, Fruit Machine Game.

PERIPHERALS

STAR LC10 COLOUR PRINTER	STAR LC10 PRINTER	CUMANA CAX 354 AMIGA DISK DRIVE	ATARI SM124 MONITOR	CITIZEN 120D PRINTER	PHILIPS CM8833 COLOUR MONITOR
£209.95	£169.95	£89.95	£109.95	£138.00	£229.95

ALL PERIPHERAL PRICES INCLUDE VAT, DELIVERY AND ANY LEADS NECESSARY TO CONNECT TO YOUR COMPUTER (PLEASE STATE)

MAIL-CENTA

17, Campbell Street, Belper, Derby, DE5 1AP. Tel: 0773 826830

All prices include VAT and Delivery. However for orders under £10.00 please add a 50p handling charge. Personal callers welcome at our retail shop but please bring this advert as prices may vary. Closed Wednesdays. All items despatched same day whenever possible. Cheques may require a seven day clearance period. Prop. Martin Bridges

★ sinclair QL ★

EEC LTD SUPPLIERS OF Sinclair QL COMPUTERS & PRINTERS
QLs FROM £65, NEW PRICE LIST

BACKUP QL THE QL ONLY. Assembled & tested not S/H. JM ROM £65
 Keep it as insurance, or for Networking JS ROM £80
 Cheaper than changing to another system

QL's COMPLETE, FULLY TESTED AND WITH 3 MONTHS WARRANTY INCLUDES:

TV LEAD, QL Software 2.3. Also complete bound User Guide for the QL, Superbasic & the Software; Quill-Word Processor, Abacus - Spreadsheet, Archive - For records, Easel - Business Graphics. Including FREE JOYSTICK if requested at time of order	JM ROM JS ROM	£120 £135
---	---------------	-----------

★ ★ FREE QUANTA MEMBERSHIP WORTH £14! CUSTOMERS BUYING A COMPLETE KIT GET A FREE 1ST YEAR MEMBERSHIP OF QUANTA WHICH ISSUES A REGULAR MONTHLY NEWSLETTER, ACCESS TO OVER 400 PROGRAMS AND REGIONAL WORKSHOPS WHERE MEMBERS CAN DISCUSS MATTERS OF INTEREST, SEE NEW PRODUCTS, BUY SPARES AND ENJOY SEMINARS. ★ ★

SPARES & ACCESSORIES

Complete User Guide	£15	QL Software 2.35	£15	QL Power Supply Unit	£22
Microdrive Units	£10	JM ROMS	£10	Joysticks	£13
Working P/C Boards JM	£45	Centronics Interface	£24	Microdrive Carts	10 for £18
QL ICs	Ask	Microdrive Carts.	£2 ea.		

SEIKOSHA GP100A CENTRONICS. 80 COL. 50 CPS. GRAPHICS TRACTOR FEED. ESPECIALLY SUITABLE AS A SECOND PRINTER FOR LISTING, & PRINTOUTS. CENTRONICS INTERFACE £20. IF BOUGHT WITH PRINTER. £80

NL 10 DOT MATRIX 120 CPS. NLQ. 30 CPS TRACTOR & SHEET FEED - WITH QL OR SPECTRUM INTERFACE 1 LEAD. £150

C. ITOH DAISYWHEEL. 20 CPS. SERIAL. WIDE CARRIAGE. UP TO 172 CHARACTERS. INCLUDING QL OR SPECTRUM LEAD. £140

QL SOFTWARE CLEARANCE

CASH TRADER, DECISION MAKER, HOME FINANCE, ENTREPRENEUR TOUCH & GO (Typing Tutor).	£18 ea
REVERSI, QL GAMES CARTRIDGE	£8 ea

TERMS CWO, ACCESS or VISA
 Minimum order £9. P&P £6.00 for Printers & QL. Other items £3.00. Overseas enquire. Fax No: 0753 - 887149

EEC LTD, NCE 2,
 18-21 MISBOURNE HOUSE, CHILTERN HILL,
 CHALFONT ST PETER, BUCKS, SL9 9UE
 TEL: 0753 888866

NEW COMPUTERS FOR OLD!

IS YOUR XT PAST IT?

Want a fast AT but can't afford one? The best answer is to fit a new motherboard....most XTs and XT clones can be upgraded easily with our 12MHz turbo AT board. In most cases it just replaces your old XT board, and you keep all your existing disk drives, controllers and display. We supply full instructions and will even give you £10 back if you return your old (but working) XT board! The AT turbo motherboard is a high quality board, with full manual and legal BIOS. It can hold up to 4Mbytes of RAM with EMS capability. We can also supply a similar board which also has a floppy controller, 2 serial ports and a parallel port all on the board!

VGA UPGRADE? Our VGA controller drives mono, CGA, EGA, VGA and Multisync monitors and supports MDA, Hercules, CGA, EGA and VGA modes too! It even detects the bus size and selects 8 or 16 bit operation! Just to help you, we will give you a fiver for your old Hercules or CGA board, and a tenner for your old EGA board!

AT Turbo motherboard	£172.00
AT Turbo motherboard with 512k RAM	£270.00
AT Turbo motherboard with 1Mbyte RAM	£370.00
AT All-in-one motherboard	£183.00
AT All-in-one motherboard with 512k RAM	£283.00
AT All-in-one motherboard with 1M RAM	£383.00
VGA/EGA/CGA/Hercules controller	£137.00
XT Turbo 12MHz motherboard, Ok, v20	£62.10
Serial 3 button mouse	£34.50
RS232 interface for XT	£16.10
NEW BOOK! "PC-DIY" How to build your own PC	£7.95

ACCESS or AMERICAN EXPRESS welcome by post or phone. Callers by appointment please. VAT INCLUDED. Please add £1 for post and packing. Catalogue free. No minimum order charge.

BLACKMORE ELECTRONICS LTD.

FREEPOST, Blandford Forum
 Dorset DT11 7BR
 Office address: 4 The Plocks, Blandford
 0258 451347 (24 hr answerphone)

olivetti

Two names
you can trust

at **Evesham Micros**

**SPECIAL
PURCHASES**

olivetti PC1

Incredible value IBM PC compatible



- Single or Twin 3.5" (720K) disk drives
- IBM PC compatible MS-DOS computer
- Serial, parallel and mouse ports
- 512K RAM (upgradeable to 640K on board)
- Covered by 12 months on-site warranty
- Cheapest PC ever ??

Single drive with monochrome monitor only £ 259.00

Dual drive with monochrome monitor only £ 299.00

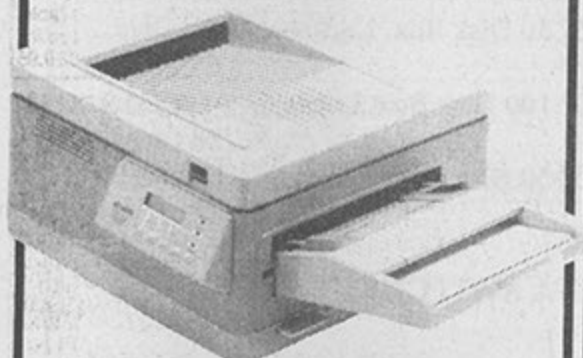
Prices Include VAT, delivery and 1 year on-site warranty !!!

2 slot expansion box £39.00 5.25" External drive £99.00
 Memory upgrade kit (to 640K) £29.95 - fitted by us £39.95
 Logotron 8-in-1 Integrated software package, includes:
 word processor, database, spreadsheet, spell checker etc. £29.95

Olivetti PCS series:

TOP QUALITY - HIGH PERFORMANCE!
All prices shown include VAT, delivery
and 12 months on-site maintenance

PG-306 LASERPRINTER



- High performing HP-Laserjet compatible laserprinter
- 300/150/100/75dpi graphics resolution
- 6 pages/min. Portrait or landscape, (A4/B5/letter/legal) automatically from paper tray, or manually
- 8 resident fonts including Courier & Lineprinter
- 512K RAM : upgradeable using 1Mb or 2Mb boards
- Standard Centronics Parallel interface
- Expansion possibilities include RS232-C serial interface and PostScript board
- Supports all the most popular PC applications !
- Toner cartridge supplied (life: 1500 pages) and Drum (life: 10,000 pages)

£1144.25

including VAT, delivery and
12 months on-site warranty



PCS 86

	14" MONO	14" COLOUR
SINGLE FD	£688.85	£918.85
TWIN FD	£803.85	£1033.85
20MB HD	£1033.85	£1263.85

- ◆ NEC-V30 microprocessor 10Mhz clock speed, 0 wait states
- ◆ 640K RAM standard, upgradeable to 2.5Mb on motherboard
- ◆ Single or Double 3.5" floppy drives with 720K formatted capacity
- ◆ Optional 20Mb Hard Drive version also available, with 27ms access time
- ◆ 3 Full size 8-bit XT-compatible expansion slots
- ◆ Socket for 8087 maths co-processor
- ◆ 1 x RS232 Serial interface and 1 x Centronics Parallel interface
- ◆ VGA compatible (OVC) display controller fitted standard
- ◆ VGA monitor supplied: 14" Colour or 14" Flat-screen Mono. (dot pitch 0.39mm)
- ◆ Mini-din PS/2 interface sockets for keyboard and mouse
- ◆ 101/102 key AT-layout PS/2 compatible keyboard
- ◆ Optional 'Logitech C7' hi-res mouse available for only £69.00 inc.VAT
- ◆ Optional external 5.25" drive also available - phone to check availability.
- ◆ Plus: 'Logotron 8-in-1 Professional' integrated package, free with all models.

PCS 286

	14" MONO	14" COLOUR
TWIN FD	£1148.85	£1378.85
20MB HD	£1263.85	£1493.85
40MB HD	£1378.85	£1608.85

**FREE WITH ANY PCS 286 - OLIVETTI DM100S PRINTER
AND 'LOGOTRON EIGHT-IN-ONE PROFESSIONAL' !**

- ◆ Intel 80286 microprocessor 12MHz clock speed, 1 wait states
- ◆ 1Mb RAM standard, upgradeable to 4Mb on motherboard
- ◆ Single or Twin 3.5" floppy drives with 1.44Mb formatted capacity
- ◆ Optional Hard Drive versions: 20Mb (27ms access time) or 40Mb (29ms)
- ◆ 3 Full size expansion slots; 1 x 8bit and 2 x 16bit XT/AT-compatible
- ◆ Socket for 80287 maths co-processor
- ◆ 1 x RS232 Serial interface and 1 x Centronics Parallel interface
- ◆ VGA compatible (OVC) display controller fitted standard
- ◆ VGA monitor supplied: 14" Colour or 14" Flat-screen Mono. (dot pitch 0.39mm)
- ◆ Optional 'Logitech C7' hi-res mouse available for only £69.00 inc.VAT
- ◆ Optional external 5.25" drive also available - phone to check availability.



OLIVETTI DM100S

- Top value, high performance
9-pin dot matrix printer
- 200 cps draft, 30 cps NLQ
 - Pica, Elite and Condensed printing
 - Standard Parallel Interface
 - Friction and tractor feed
 - Optional automatic cut sheet feeder available for only £79.95
 - 12 months on-site maintenance

**- ONLY -
£129.95**
INC.VAT, DELIVERY
AND 12 MONTHS
ON-SITE WARRANTY

How to order from Evesham Micros



Phone us with your
ACCESS or VISA
card details on:
☎ 0386-765500

All prices include VAT and delivery. Express Courier delivery £5.00 extra.

Send cheque, Postal Order
or ACCESS/VISA card details

Govt., educ. & PLC orders welcome
Same day despatch whenever possible
All goods subject to availability, E.&O.E.
Open to callers 6 days, 9.30-5.30

Retail outlets also at:
1762 Pershore Road, Cotteridge, Birmingham B30 3BH Tel: 021 458 4564
5 Glisson Road, Cambridge CB1 2HA Tel: 0223 323898

Evesham Micros Ltd
63 BRIDGE STREET
EVESHAM
WORCS WR11 4SF
☎ 0386-765500
fax 0386-765354

Just Discs

DISCOUNT COMPUTERS SUPPLIES

346c High Street,
Chatham,
Kent,
ME4 4NP

Tel: (0634) 831970
Fax: (0634) 831971

PRICE LIST

SONY DISKETTES

5.25" 3.50"

DS/DD 48tpi N/AV SS/DD 135tpi £8.80
DS/DD 48tpi £4.90 DS/DD 135tpi £9.90
DS/QD 96TPI £8.40 DS/HD 135tpi £24.40
DS/HD 1.6mb £9.99

VERBATIM DISKETTES

5.25" 3.50"

SS/DD 48tpi £4.80 SS/DD 135tpi £8.80
DS/DD 48tpi £5.20 DS/DD 135tpi £9.85
DS/QD 96TPI £8.30 DS/HD 135tpi £24.00
DS/HD 1.6mb £8.70

3" DISKETTES

Maxell per 10 £18.75
CF2's per 10 £18.75

3M DISKETTES

5.25" 3.50"

SS/DD 48tpi £4.80 SS/DD 135tpi £8.90
DS/DD 48tpi £5.30 DS/DD 135tpi £9.90
DS/QD 96tpi £8.50 DS/HD 2.0mb £24.50
DS/HD 1.6mb £8.80

3M DATA CARTRIDGES (PRICE PER CARTRIDGE)

DC1000	£10.65
DC1000A	£10.63
DC2000	£12.74
DC3000A	£13.23
DC300HD	£19.29
DC300XL	£20.80
DC300XLHD	£22.18
DC300XLP	£19.96
DC600A	£15.26
DC600HC	£19.07
DC600XTD	£17.81
DC6150	£14.57

BULK DISKETTES (UNBRANDED)

5.25" 25 250 500 1000
DS/DD 48tpi 25p each 22p each 19p each 18p each
DS/QD 96tpi .31p .28p .27p .25p
DS/HD 1.6mb .51p .48p .47p .46p

3.5"

DS/DD 135pi .78p .74p .72p .71p
DS/HD 2.0mb £1.68 £1.64 £1.57 £1.48

AMSTRAD COMPUTERS

MODEL

1512 SD Mono £374.00 + V.A.T.
1512 DD Mono £461.00 + V.A.T.
1512 SD Colour £461.00 + V.A.T.
1512 DD Colour £543.00 + V.A.T.

1640 SD Mono £460.00 + V.A.T.
1640 DD Mono £532.00 + V.A.T.
1640 HD/30 Mono £712.00 + V.A.T.
1640 SD/CD Colour £559.00 + V.A.T.
1640 DD/CD Colour £632.00 + V.A.T.
1640 HD/30 CD Colour £802.00 + V.A.T.
1640 SD ECD £654.00 + V.A.T.
1640 DD ECD £722.00 + V.A.T.
1640 HD/30 ECD £902.00 + V.A.T.

2086 SD 12 MD £530.00 + V.A.T.
2086 SD 12 HRCD £746.00 + V.A.T.
2086 SD 14 HRCD £826.00 + V.A.T.
2086 DD 12 MD £630.00 + V.A.T.
2086 DD 14 MD £740.00 + V.A.T.
2086 DD 12 HRCD £820.00 + V.A.T.
2086 DD 14 HRCD £910.00 + V.A.T.
2086 HD/30 12 MD £860.00 + V.A.T.
2086 HD/30 12 HRCD £1020.00 + V.A.T.
2086 HD/30 14 HFCD £1120.00 + V.A.T.

PRINTERS

AMSTRAD

DMP 3250di £143.75 + VAT
DMP 4000 £207.00 + V.A.T.
LQ 3500di £244.38 + V.A.T.
LQ 5000di £341.55 + V.A.T.

BROTHER

M1109 £138.86 + VAT
M1209 £177.10 + V.A.T.
M1709 £469.63 + V.A.T.
M2524 £944.00 + V.A.T.
M3524 £1359.87 + V.A.T.

EPSON

LX 800 £144.21 + V.A.T.
LX 850 £435.47 + V.A.T.
EX 800 £596.77 + V.A.T.
LQ 1050 £631.23 + V.A.T.
LQ 2550 £1232.39 + V.A.T.

STAR

LC-10 £158.12 + VAT
LC-10 Colour £207.46 + VAT
LC-24 10 £255.30 + V.A.T.
FR 10 £392.12 + V.A.T.
FR 15 £512.32 + V.A.T.
XB 24 10 £512.32 + V.A.T.
XB 24 15 £676.77 + V.A.T.

PANASONIC

KXP 1081 £175.87 + V.A.T.
KXP 1180 £189.75 + V.A.T.
KXP 1124 £341.54 + V.A.T.
KXP 1592 £347.88 + V.A.T.
KXP 1595 £474.38 + V.A.T.
KXP 1540 £580.64 + V.A.T.

LASER PRINTERS

SHARP JX9300 £1236.25 + V.A.T.
HP Laser Jet II £1631.85 + V.A.T.
HP Laser Jet IID £2492.05 + V.A.T.

DISK BOXES

5.25" V10 (not lockable) Library Case to hold 10 discs £1.20 each
3.50" V10 (not lockable) Library Case to hold 10 discs £1.20 each
5.25" 100 Disk Box. Lockable + Dividers £6.00 each
5.25" 50 Disk Box. Lockable + Dividers £5.20 each
3.50" 100 Disk Box. Lockable + Dividers £6.00 each
3.50" 50 Disk Box. Lockable + Dividers £5.20 each

DATA SWITCHES

	PARALLEL	SERIAL
2 WAY	£17.00	£15.86
4 WAY	£24.00	£18.98
CROSS OVER	£26.00	£22.50

Bankers Draft, Money Orders and 30 Day account enquiries welcome.

Barclaycard & Access Telephone Orders Taken.

Please Allow 4 1/2 days for cheques to clear before orders are dispatched. £8.40

Just Discs

DISCOUNT COMPUTERS SUPPLIES

RIBBONS		SOFTWARE		ACCOUNTING	
MINIMUM ORDER 2 PRICE EACH		WORDPROCESSING		Sage Bookkeeper	£78.00
NL10	£5.00	WORDPROCESSING V5	£245.00	Accountant	£114.00
LC10 Black	£5.00	Junior	£70.00	Accountant Plus	£177.00
LC 2410	£5.75	Wordstar Price	£235.00	Financial Controller	£279.00
LC10 Colour	£6.50	Protect 4	£65.00	Account Ability	£99.00
P 1081/1082/1090	£4.50	Top Copy Plus	£79.00		
DMP 9000/3160/3350	£4.75				
LQ 500/800/850	£5.40				
MANY MORE AVAILABLE PLEASE TELEPHONE FOR PRICES					

Special Offer

Purchase Any Printer & Deduct 5%
 Purchase Any Computer & Deduct 5%
 Purchase Printer & Computer
 Deduct 12% and Recieve
 Printer Cable
 Dust Cover &
 Box of Discs FREE!
 Deductions to be made before the
 addition of VAT.

MOUSE AND ADD ONS		DATABASE		DUST COVERS	
PC Mouse 11 Serial	£84.95	dBase III +	£329.00	PC 1512/1640 2 PCS	£9.00
PC Mouse 11 Bus	£93.95	dBase IV	£375.00	PC 2086/2286/2386	
Super Mouse Serial	£33.95	Retrieve	£119.00	12" & 14" Mono PCS	£9.00
Logitech Serial	£75.00			PCW 9512 3 PCS	£10.90
Logitech Bus	£75.00	GRAPHICS		DMP 3000/3160/3250	£6.50
Mouse Mat	£05.05	Vp Graphics	£76.00	DMP 4000	£7.75
Anti Surge Plus	£10.50	Harvard Graphics	£289.00	LQ 3500	£6.50
4 Way Strip	£17.95	Freelance Plus	£275.00	LQ 5000	£7.75
Enhanced Keyboard				LC10 Colour	£6.25
PC 1512/1640	£79.95	DESKTOP PUBLISHING		LC24/10	£6.25
Head Cleaners		Timeworks	£85.00	LQ500	£6.25
3", 3.5", 5.25"	£04.25	Timeworks Lite	£37.00		
		Finesse 11	£114.00		

ALL MAKES AVAILABLE IF NOT LISTED PLEASE TELEPHONE.

lot. Tel: Paul on (091) 4872367.

PACE Linnet Modem incl. Commstar II £75. BBC 6502 2nd Processor £45 2x Thorn E.M.I Prism modem 2000 1200/75 £15 each. Phone 0742 551013 Pref daytime or weekends.

MODEM (12/75) and leads + S/w for ST/PC or Amiga. £30 only. Also 1/2 meg drive for ST, as new. £25 Tel: (061) 797 4287.

AMSTRAD CPC464 Colour Monitor 64K Rampack Stereo AMP with 2x20W Speakers + Headphones joystick, games and utilities inc. Mini-Office, OP Wolf worth over £300. Bargain £280 ring Bob 214540 Wigan.

AMIGA 512K ram expansion with Battery backed clock. Brand new, untouched and unfitted would make ideal Xmas present only £80 O.N.O. Phone 0942 604434 after 6pm.

AMSTRAD Colour CPC 464 £200 worth of games, software, magazines all for £180 call George at 01 348-7317.

VIDEO Camera, Panasonic 1410 B/W as new, Line Lock or internal sync with lens and Bracket £50.00 Tel: 061 798 0456.

BBC B32K games tapes books £120 Einstein 64K games disks books £60 Bickleigh EXETER 478.

ELECTRON with plus1 interface plus software and leads. Joysticks available too, will sell for £49 only. Ideal Xmas present. Phone 0494 721895 after 6pm. Ask for David.

AMSTRAD CPC modem, RS232, 2nd disc drive, DMP2000 printer with 8k Buffer, Rombo Rom box with Protext, Prospell, Light Pen, loads of games etc. Will split, phone Grimsby 814085 offers.

ATARI 520STFM + ext meg DRV. 250 + games Turbo Blitz £450 ring Ray Day-time 0472 347612 also has Abba Switch incorporated.

APRICOT Twin double sided PC 256K RAM high resolution monitor £240 Apricot portable 720K disk drive 256K RAM LCD Screen, manuals, voice input, cables, cased £160 0245 441934.

K.D.S. 51/4 disc drive for the CPC6128 + Micro power ROM board + ROMS + ROM blower + 35 games. The lot £80 phone (0977) 516103.

AMIGA software. Publishers choice £50. X copy 2-£16. 1) Paint 2 £25. Photon Paint £10. Combat Pilot £10. Interceptor £10. Ten Star Pack £22. Gold Hits £7 + More. Ring Ely (0353) 661080.

2 Meg memory expansion for A500. Fully populated own power supply. Plugs in expansion port. £300 O.N.O.. Ring Neil on (0532) 668385.

APPLE II Europlus + Twin Disc Drive Mono monitor and expansion cards no software on manual £130 contact Dave 061 775 8635 after 6.30pm.

AMIGA A590 hard drive brand new and unused complete with guarantee cards and box etc cost £400 sell for £300. No offers, No time wasters please 0634 408268 day. 0622 691577 eve.

IBM PC convertible plus Scart, CRT/Display Adaptors excellent condition owner moving onto DTP. Collect if you can or meet you half way (Devon) £640 O.N.O. phone Evenings 0548 2720.

AMSTRAD PC2086 12" Hi Res colour screen still in box never been used sale in shops at £1040 offers please ring 01 303 7210.

SONY Printer/Plotter for Amiga 500, 4 Colours, as new with lead needs software. 0932 243421. Ring after 7.30pm.

C64 software including games, Business, utilities, back-up cartridges from £0.50p to £15. Also MPS801 printer £60. Tel Stevevna (0438) 359183 Eves, W/Ends for further information.

ST, SF 354 1/2 meg drive £25, Expansion modem £15. Lets Make Calendars, Greeting cards £5 each, Art Lib I £5, 14 ST games, £20. 01 501 2820.

AMSTRAD CPC 464 excellent condition, colour monitor, joystick, lots of original games plus over £70 of books plus manuals £165, no offers please. Phone Wilenhall 630023.

ATARI 520STFM (Double sided Drive) plus loads of original software £250 tel (0254) (Blackburn) 54317 anytime (up to 10pm) Also anyone got Elite or Collosus X, and wants to swap ring.

SPECTRUM 48K, with Saga Elite keyboard an Opus Discovery disc drive. Also Swapshot Device disc and Tapot £175 O.N.O. phone Martin 0978 366055.

PRINT master ROM £10: 4SP Rom £12:

Aids (debug) Rom: £10: All for BBC B. Phone 061 973 5387 or write 2, Taunton Road, Sale, Ches. M33 5DH.

ATARI 800xL plus spare, 1050 disk 1010 tape manuals all boxed, plus over £600.00 software on disk tape and cartridge, two remote joysticks £250 O.N.O. Tel: (0543) 77206 Evenings/Weekends.

PCW software, Starglider, Corruption, Armageddon, Man Mop, Clock Chess 88, Gnome Ranger, DTP all for £45 or swap mouse 0920 468264 Radio Caroline 558 lives! Call the CM infoline 0884 258641.

Z88 for sale with 128K ROM, 128K ram packs. 32k PC to Z88 ROM and floppy disk to drive PC - Z88 link £350 phone 0742 330243 after 6.30pm.

2 Metre hand held Rig Sim Dup tone burst 142 - 149 MHZ offered for Amiga. Wanted info contacts ring Paul 0332 760353.

PSION IxP and comms link. both as new boxed etc, etc!! Will separate offers to: Stuart Gladwell on Blandford (0258) 880680 anytime.

AMIGA A1000, Monitor, Drive, complete Developers Pack, Languages, Paint, Music, manuals, utilities, kicks, games, 100 + disks, etc £850 O.V.N.O. Write to B. Coburn, Powderham Castle, Caravan Park, Lanlivery, Bodmin, Cornwall PL30 5BU.

AMIGA Original software, Powerdrome, War In Middle Earth, Def Con5, Chuckie Egg, Speedball, Thunder Blade, Outrun

A.D.S MAIL ORDER

78 Marsh Lane, Mill Hill,

London. NW7 4NX

Tel: 01 - 906 - 3572

C64C Light
Fantastic Pack
£145.00

A500
Bat Pack
xxx £375.00 xxx

A500 Class Of
The 90's Pack
£515.00

A500 Bat Pack + Software Pack

1. Eliminator 2. No Excuses 3. Power Play 4. Mercenary
5. Quadralien 6. Backlash 7. Interceptor
8. D Paint 2 9. New Zealand
Story

£389.00 ONLY

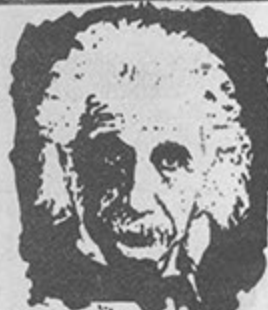
Commodore 1084S Monitor -£249.00
Philips CM8833 Monitor -£223.00

Amiga Software Pack £35.00
1. Eliminator 2. No Excuses 3. Power Play
4. Mercenary 5. Quadralien 6. Backlash
Any Amiga Packs can be made up at the Best Prices

ATARI
520 ST Power Pack
£345.00
520 ST Explorer Pack
£269.00
ST Mega 1 Business
Pack
£515.00

If you do not see what you require then please phone us on our 24HR Credit Card Hotline. We will try to Beat Any Prices Quoted Anywhere Else. Prices include V.A.T. and Courier. Any software listed Elsewhere is available from us at THE BEST PRICES! A.D.S - Dealers in Computers, Telephone Systems, Fax Machines and Mobile Communications. We sell everything that is computer related. If you are looking for anything, leave a message as to what it is and how much you would expect to pay! We will aim to find it.

We only use 10% of our mental potential



Have you ever asked yourself WHY that is? What is it that blocks us from really being and doing what we want in life, and achieving those things we most desire?

We are all born with a state-of-the-art mental computer that is far more sophisticated than the most advanced computers in the world today. But there is no operator's manual to tell us how to unblock its full capacity.

DIANETICS is that operators manual, and reveals the HIDDEN barriers to your success.

READ DIANETICS by L. Ron Hubbard and you'll discover:

- * The true causes of insecurity, worry and lack of self respect.
- * Techniques for unblocking your own potential and really feeling in control of your own life.

Buy and read DIANETICS by L. Ron Hubbard.



Price: £4.00 (inc p&p), UK Cheques/PO's made payable to: 'Hubbard Dianetics Foundation'. Order your copy NOW from: **Hubbard Dianetics Foundation**, London Day (E1), 68 Tottenham Court Road, London W1. Your book will be delivered within 24 hrs of receipt of your order.

WITH EVERY BOOK ORDER, YOU GET A FREE PERSONALITY TEST

★ **DYNAMIC OFFER** ★
Amiga 500 512k MEMORY EXPANSION
 ★ on/off switch ★ high quality ★ installed in seconds ★ fast efficient service
ONLY £55!
 Please send your cheque (+£1 p&p) to:
SPEED COMPUTERS LTD,
 41 Weymede, Byfleet, Weybridge, Surrey, KT14 7DQ
 Tel: 09323 52277 (24 hours)




J. D. LEWIS
Computer & Repair Service

3 1/2" DSDD (Bulk)/10.....£8.50	Star LC10 Printer.....£175.00
5 1/4" DSDD (Bulk)/10.....£3.95	ST Joystick/Mouse Extension.....£4.95

3 1/2" Disk Labels 100 for £2.25 inc P+P
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

ELECTRIC PD
MAIL ORDER

Write or phone for your FREE list quoting the name of your computer

AMIGA

Superbase Personal II	£79.00
MCC Assembler	£60.00
Devpac version 2	£51.00
Kindwords 2	£45.00

We also do games, business software. Educational software for the Amstrad, Atari, ST, Commodore 64, Amiga, IBM PC and Spectrum. Also stocked are games for Nintendo, the PC engine and Sega.

Prices include VAT and UK Postage & Packaging. Europe - add 70p per game. Outside Europe add £1 per game. Cheques and P.O.'s to:

ELECTRIC P.D.
 7 Park Road, Haltwhistle, Northumberland, NE49 9AR
 TEL: (0434) 321942

COMPUTER REPAIRS

ATARI ST, COMMODORE AMIGA,
 Estimates given free of charge if required.
 Three months warranty, quick turnaround

ATARI upgrade to 1 meg.....£85 Memory fitted
 ATARI upgrade to 1 meg.....£85 Disc Drive fitted
 ATARI Drive Reverse Make External Drive "A" Internal "B"
 ATARI Mouse/Joy extension leads.....£7.50

Very cheap repair rates
Damaged unwanted computers bought for cash
Coffee removed from keyboard?

Please send computer to address shown below with history of fault and leads, etc.
 No charge if no repair carried out.

FUTURE ELECTRICAL & INSTRUMENT SERVICES
 10 WEBER ROAD, MERSEYSIDE, L33 7SW
 TELEPHONE: 051 548 6940 or 0695 25881 (evenings)

SAMDALE COMPUTERS
 24 HOUR ANSAFONE (0621-742617) ACCESS & VISA ACCEPTED

FAST, FRIENDLY & RELIABLE ORDERING SERVICE FOR
 GAMES, EDUCATIONAL & BUSINESS SOFTWARE ON

Amiga-ST-IBM PC-C64
Amstrad - SEGA
PC Engine - MSX
SEGA Megadrive ...

HUGE DISCOUNTS UP TO 25%
 PHONE NOW FOR FREE CATALOGUE

MAIL ORDERS TO:
 1A AUSTRAL WAY
 ALTHORNE
 ESSEX. CM3 6DN



WANTED FOR CASH
 IBM COMPATIBLE COMPUTERS & EQUIPMENT
 JOB LOT BUYER OF HARDWARE & SOFTWARE

SPECIAL OFFER
PRINTERS FROM £60 + VAT

FOR YOUR BEST POSSIBLE DEAL CALL

EXPRESS COMPUTERS
(0604) 35519 OR FAX 35540
 DAVID OR CHRIS
 (DEPT NCE)

PRINTERS
Compare Our Prices

STAR		PANASONIC	
LC10	£127.00	KXP 1180	£143.00
LC10 Colour	£168.00	*KXP 1124	£234.00
LC15	£264.00	*KXP 1540	£424.00
LC24 10	£195.00	*KXP 4450 Laser	£1310.00
LC24 15	£329.00		

* Includes Free 12 month on-site maintenance.
 All UK versions. Please phone for FREE advice.

31 Holly Drive,
Waterlooville,
Portsmouth. PO7 8HN

Just add VAT at 15% and £6
 for delivery which is by 24
 hour Courier. Payment by
 PO, Cheque, Access or Visa.

NOVATECH **(0705) 255779**

ALL COMPUTER HARDWARE AND
SOFTWARE WANTED FOR CASH
OR EXCHANGE
NOTHING REFUSED!!
01 727 0424

COMPUTER VIDEO & LASER SOFTWARE

	3.5" DSDD	135TPI	DISKS
	10	50	100
GOLDMASTER BRANDED.....	£9.50	£45	£85
BULK.....	£7.50	£37	£69
100 CAPACITY (3.5") DISK BOX (1 LOCKABLE).....			£1.95
	3.5" LABELS £1.50 / 100 £11 / 1000		

ALL PRICES FULLY INCLUSIVE. CHEQUE / P.O. TO:
 C.V.L.S. 92 FIRTREE ESTATE, THURGOLAND, SHEFFIELD, S30 7BG. 0742-884183
 OPEN TILL 11PM

YOU SAW THIS SPACE!
So Do 24,637 other prospective
buyers every week!

To find out how this space could work for you,
CALL HELEN KIRKHOPE OR SIMON MOSS
on (0225) 446034

RJ COMPUTERS

AMIGA 500 BATMAN PACK £369 (FREE S/W and Holiday offer) ATARI 520STFM POWER PACK £359 EXPLORER PACK £269	PRINTERS STAR LC10 £165 (Including Cable) LC10 Colour £235 (inc. Cable)	DISK DRIVES AMIGA External £72.50 ATARI ST External £79.99 ALL HIGH QUALITY DRIVES
---	--	--

AMIGA RAM EXPANSIONFROM £85.00 ST MEMORY UPGRADESFROM £85.00

WIDE RANGE OF PRODUCTS AVAILABLE AT COMPETITIVE PRICES, SOME OF WHICH ARE LISTED ON THIS AD.
30 WESTBOURNE RD, DOWNEND, BRISTOL. TEL: (0272) 566369

YOUR ONE STOP SHOP

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

Software

SUPERSTORE

A590 20 mb HARD DISK

with space for 2mb extra RAM to turn your AMIGA into a 3 Meg machine. Essential for advanced graphics etc.

ONLY £399.99

*OR £15 MONTHLY

A590
Complete with 2mb extra
Ram fitted

ONLY £645.99 *OR £27 MONTHLY

A590 EXTRA RAM
£69.99 per 1/2mb

AMIGA 1mb UPGRADE

ONLY £79.99

WITH CLOCK £89.99



AMIGA 3.5" 2nd DRIVE ONLY

- DISABLE SWITCH
- THROUGH PORT
- SLIM SIZE
- LOW POWER CONSUMPTION
- HIGHLY RELIABLE
- EXCELLENT R/W PERFORMANCE

£79.99

WE STOCK MOST
DATEL
PRODUCTS

ST 2nd DRIVES
ALSO AVAILABLE
PLEASE ASK FOR DETAILS

AMIGA A500 BATMAN PACK ALMOST HALF PRICE

	R.R.P.
A500.....	£399.99
TV MODULATOR.....	24.99
BATMAN (THE MOVIE).....	24.99
NEWZEALAND STORY.....	24.99
DELUXE PAINT II.....	49.99
INTERCEPTOR.....	29.99
TEN STAR PACK.....	229.50
TOTAL R.R.P.	£784.44
LESS DISCOUNT.....	£384.45

OUR PRICE.....£399.99

*OR £15 MONTHLY

1 MEG AMIGA :-

as above plus half meg upgrade,
mouse, mat, mouse holder, dust
cover and 10 disks

OUR PRICE

ONLY £499.99

*OR £19 MONTHLY

WE STOCK
SEGA,
ATARI, C16,
MSX, BBC/
ELECTRON,
etc.

CALLERS ONLY

JUST A FEW ITEMS FROM OUR FABULOUS SELECTION :-

TITLE	C64	SPEC	AM
RUNNING MAN	3.99	3.99	3.99
R-TYPE	3.99*	3.99	3.99
DOMINATOR	3.99	3.99	3.99*
BARBARIAN II	----	3.99	----
HISTORY IN THE MAKING	9.99	9.99	----
TRIVIAL PURSUIT			
NEW BEGGING	4.99	4.99	4.99
AFTERBURNER	3.99	----	----
S.D.I.	3.99*	3.99	3.99*
TIME SCANNER	3.99	3.99	3.99*
PINK PANTHER	----	2.99	----

*DISK VERSIONS AVAILABLE C64 + £1 AM + £2



1 YEAR ON-SITE
MAINTENANCE
ONLY £10 EXTRA
ON ANY PRINTER

PRINTERS

STAR LC10

Acclaimed "Best Buy" budget printer.
Now massively under-priced at just

£169.99 *OR £8 MONTHLY

STAR LC10 Colour

The perfect printer for every Amiga.
Colour output from all the better art
packages - or just slot in a black ribbon
for word processing. Cheap to run
too. Very affordable

£229.99 *OR £9 MONTHLY

STAR LC24 - 10

24 Pin quality at a price you can afford.
8 Fonts, 3 print variations, paper park-
ing, 170 CPS draft, 57 CPS LQ

£259.99 *OR £10 MONTHLY

FREE Cable with every Printer

STOKE-ON-TRENT

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

SHEFFIELD

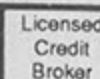
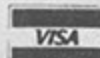
6 Waingate, Sheffield
Manager: Tony
Tel: 0742 721906
Open 6 days

ST HELENS

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

STOCKPORT

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



*(subject to
status) Written
details on re-
quest.

MAIL
ORDER:-
Carriage
at Cost

ORDER HOTLINE
(MON to FRI)

(0782) 202269

ADVICE HOTLINE (0782) 268620
for FAST & FRIENDLY SERVICE

DIAMOND COMPUTER SYSTEMS LTD.



LONDON - 01-597-8851
SOUTHAMPTON - 0703 232777
MIDLANDS - 0926 312155
BRISTOL - 0272 693545
PHONE FOR DETAILS OF
OUR BRISTOL SHOWROOM

ALL PRICES EXCLUDE VAT, VISA & ACCESS & AMERICAN EXPRESS WELCOME

DIAMOND P.C. CONFIGURED SYSTEMS

PACK 1:
DTP PACK =
PHILLIPS 9115 MM, TIMEWORKS D.T.P.,
CANON MKIII, GENIUS MOUSE, GENIUS
SCANNER.

PHONE (PRICES TOO LOW TO PRINT)

PACK 2:
ACCOUNTS PACK =
PHILLIPS 9115 CD, ACCOUNTANT+
S/W, STAR LC10 PRINTER

PHONE (PRICES TOO LOW TO PRINT)

PACK 3:
WORD PROCESSING PACK =
PHILLIPS 9100 DD MD, STAR LC24-10,
WORDSTAR PROFESSIONAL V5-00, BOX OF
1000 SHEETS CONTINUOUS PAPER ONLY
£839.00

PACK 4:
DATABASE PACK =
PHILLIPS 9125 EDC, SAGE RETRIEVE V4,
STAR LC10.
PHONE

PHILLIPS PCS

XT SERIES
9100 MM DD
9100 CD DD
9100 ECD DD

9115 20MB HD MD
9115 20MB HD CD
9115 20MB HD ECD

AT SERIES
9125 20MB SD MD
9125 20MB SD CD
9125 20MB SD ECD

9126 20MB DD (5 $\frac{1}{4}$ + 3 $\frac{1}{2}$)
ALSO AVAILABLE IN EGA & VGA OPTIONS

**PHONE TODAY.
PRICES TOO LOW TO PRINT**

ONLY DIAMOND AS AN AUTHORISED PHILLIPS
DEALER CAN OFFER THEIR CUSTOMERS 1
YEARS ON SITE MAINTENANCE

PHILLIPS WORD PROCESSORS

PACK 1 = VIDEOWRITER WITH DAISYWHEEL
PRINTER = ONLY

NEW! £339.00
PACK 2 = PHILLIPS 9100 MM DD (HIGH RES
MONITOR) LC24-10 PRINTER AND WORDSTAR
PROFESSIONAL V5.0
ONLY £839.00

AMSTRAD PCS

1512 SD MM	£379.00
1512 DD MM	£459.00
1512 SD CM	£459.00
1512 DD CM	£529.00
1640 SD MD	£475.00
1640 DD MD	£539.00
1640 SD CD	£585.00
1640 DD CD	£629.00
1640 SD ECD	£649.00
1640 DD ECD	£719.00
1640 HD MD	£719.00
1640 HD CD	£809.00
1640 HD ECD	£899.00

2000 SERIES

XT SERIES

2086 SD 12MD	£559.00
2086 DD 12MD	£625.00
2086 HD 12MD	£799.00
2086 SD 14CD	£649.00
2086 DD 14CD	£715.00
2086 SD 12 HRCD	£739.00
2086 DD 12 HRCD	£799.00
2086 HD 12 HRCD	£979.00
2086 SD 14 HRCD	£829.00
2086 DD 14 HRCD	£895.00
2086 HD 14 HRCD	£1075.00

AT SERIES

2286 DD 12MD	£845.00
2286 HD 12MD	£1075.00
2286 DD 14CD	£985.00
2286 HD 14CD	£1165.00
2286 DD 12HRCD	£1075.00
2286 HD 12HRCD	£1255.00
2286 DD 14HRCD	£1165.00
2286 HDHRCD	£1345.00

2386 SERIES

2386 HD 12MD	£1789.00
2386 HD 14CD	£1879.00
2386 HD 12HRCD	£1969.00
2386 HD 14HRCD	£1999.00

**32 MEGABYTE
PC HARD CARD
ONLY £199.00 + VAT
WITH XTREE SOFTWARE**

40 MB
TAPE STREAMER
ONLY
£249
FOR AMSTRAD
2086

GENIUS
HAND HELD SCANNER
NOW ONLY
£179
INC VAT

**GENIUS
DYNAMOUSE**
350-1050 DPI DYNAMIC RESOLUTION, DR HALO
III S/WARE, MOUSE PAD - £39.95 inc VAT

MR DIAMONDS NEW AT P.C.

12 MHZ, 80287 PROCESSOR, 1
MBYTE OF RAM, EXPANDABLE TO 4
MBYTES, 6 EXPANSION SLOTS, 1 x
1.2MB FLOPPY, 2 PARALLEL
PORTS, 2 SERIAL PORTS, 1 GAME
PORT, 101 KEY-KEYBOARD.

ONLY **£695.00**

PHONE FOR MDA, CGA, EGA & VGA PRICES

NEW

PHILLIPS 9115
PC FAX SYSTEM
PHONE NOW
OR COME IN
FOR A FREE DEMO

**COURIER DELIVERY
£5.00**

PRINTERS

LC10, STAR	£129
LC10 COLOUR, STAR	£169
EPSON LX400	£145
PANASONIC KXP1124	£249
STAR LC24-10	£199
HP LASERJET	£1459
OKIMATE 20	£159
PHILLIPS LASER	£1299
NEW CANON LASER MK III	£1495

SPECIAL

MR DIAMONDS
PC JOYSTICK
AND CONTROLLER
CARD ONLY

£24.95 INC VAT



AMIGA

B2000.....£599.00
 AMIGA 500.....£286.00

DISK DRIVES

INTERNAL B2000.....£69
 EXTERNAL 500/B2000.....£59
 49MB AUTOBOOT FF HD.....£495
 A590 20MB HD WITH 2MB RAM...£325

PERIPHERALS & ADD ONS

8MB RAMBOARD.....£295
 A501 RAM EXPANSION.....£109
 XT BRIDGEBOARD.....£199
 AT BRIDGEBOARD.....£599
 FLICKER FIXER.....£259

**68020
 CO-PROCESSOR
 ONLY
 £295.00**

MONITORS

CBM 1084.....£199.00
 PHILLIPS 8833.....£179.00
 NEC MULTISYNCH II.....£399.00
 MR DIAMOND MULTISTAR.....£395.00



ATARI ST^{FM} BUSINESS PACK

ATARI 1040STFM, SM124 MONO MONITOR,
 MICROSOFT WRITE, V.I.P. PROFESSIONAL SUPERBASE
 PERSONAL, STAR LC10 PRINTER
ONLY = £629

ATARI

ATARI 1040 STFM.....£379.00
 SM124.....£99.00
 520 STFM EXPLORER.....£239.00
 520 STFM POWERPACK.....£319.00
 MEGA 1.....£489.00
 MEGA 2 WITH SM124.....£840.00
 MEGA 4 WITH SM124.....£1104.00

ACORN A3000

A3000.....£599.00
 1MB UPGRADE.....£199.00
 SERIAL INT. UPGRADE.....£19.00



COMMODORE AMIGA BUSINESS PACK

A500, STAR LC10 PRINTER, PHILLIPS MONITOR,
 THE WORKS INTERGRATED S/W PACKAGE.
ONLY = £689

DIAMOND CONFIGURED AUDIO VISUAL PACK

AMIGA B2000
 RENDALE 8802 GENLOCK
 8 Mb RAMBOARD (2Mb POPULATED)
 49 Mb AUTOBOOT HARD DISK
 DPAINT III
 TV SHOW

**ONLY
 £1754.⁰⁰**

CHRISTMAS OFFERS

ATARI ST
 CHRIMBO PACK
 520STFM + 3
 TOP SELLING GAMES
 & 2 JOYSTICKS

+ TEN BLANK
 DISKS ONLY
£259.00

MR DIAMONDS
 AMIGA CHRISTMAS HAMPER
 3 1/2 DISK CLEANER, 80 CPGY
 DISK BOX, 5 GAMES
 JOYSTICK
£59 + VAT

AMIGA 500
 CHRIMBO PACK
ONLY £325
 A500, QUICKSHOT II,
 TEN BLANK DISKS,
 AMIGA T-SHIRT
 8 GAMES

DELUXE PAINT
 THREE
 ONLY
£69.95

AMIGA A500
 FROM £259

OKIMATE
 20 COLOUR
 PRINTER
£159



HOW TO ORDER

PHONE THROUGH WITH A CREDIT CARD
 OR SEND A CHEQUE/P.O. TO
 DIAMOND COMPUTERS, 114 LODGE ROAD, SOUTHAMPTON
 HANTS SO1 2QS.

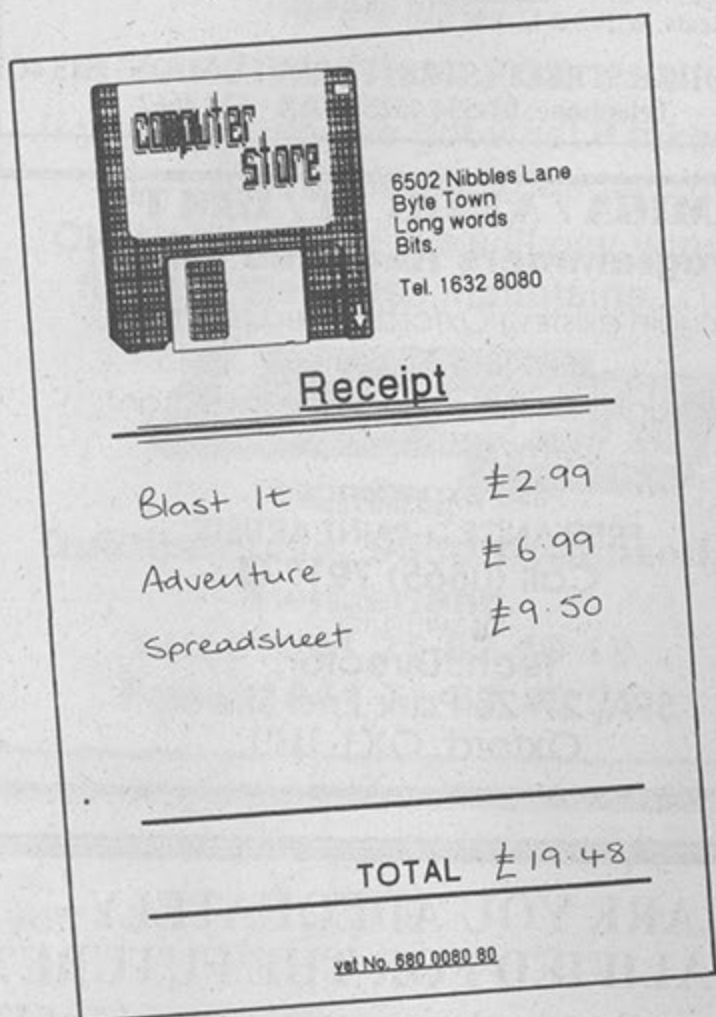
LAN COMPUTERS, 1045-1047 HIGH ROAD,
 CHADWELL HEATH, ROMFORD, ESSEX
 LHC MICROSALES, 121 REGENT STREET, LEAMINGTON SPA,
 WARWICKSHIRE
 BRISTOL, 227 FILTON AVENUE, BRISTOL, AVON

BULK 3 1/2 DISKS

(PROMOTION OPEN TO SHOWROOM CUSTOMERS ONLY)

1-50 DISKS 65p each inc VAT
 50-100 DISKS 60p each inc VAT
 100-250 DISKS 55p each inc VAT
 250-500+ 52p each inc VAT
 500+ 50p each inc VAT

WARNING



**THIS SORT OF
BILL IF YOU
PAY FOR THEM**

**THIS SORT OF
BILL IF
YOU DON'T**

A pirated game could result
in a visit from you
know who.

THIS CAMPAIGN IS ORGANISED BY

ELSPA
EUROPEAN LEISURE SOFTWARE
PUBLISHERS ASSOCIATION

*Any information on piracy
should be passed to
The Federation Against Software Theft.
Telephone 01-240 6756*





SYSTEMS ENGINEERING CONSULTANTS

Systems Engineering Consultants are currently searching for the best in Amiga, ST and PC Programmers, Artists, Musicians and Designers to work in-house or freelance on top projects.

S.E.C. WILL NOT provide you with a Porsche 911 cabriolet, portable cell phone, Psion Organiser or even free parking (well possibly if you reach the office by 6.30 AM). We may, however, consider providing you with your very own pencil, eraser and sharpener.

What we can promise you is something far more important:

AS MUCH MONEY AS YOU ARE PREPARED TO MAKE!

Remember: Free tea and coffee, a comfy chair and a 386 PDS system are no substitute for hard cash. We are always on the lookout for finished/half completed projects and good game designs.

For further information send a demo disk or phone for a friendly chat!!

Write to: S.E.C., Suite 2, 86a Market Street, Stalybridge, Cheshire, SK15 2AB.
Or Telephone: 061 338 5006.

NB: Please write your name and address on all demo disks
(and also specify the format, IE: Amiga, PC or ST...)

OPTIMUS

We Are Looking for talented
Programmers/Artists/Musicians to join
our team in the North-East of England.
Successful applicants will be working
on exciting NEW projects for major
Software Publishers.

If you are interested, please send your
C.V. and any Demos you have produced
To: OPTIMUS SOFTWARE LIMITED
70 Brunswick Street, Stockton-On-Tees,
Cleveland TS18 1DW.
Or call Jason or Darren Falcus on (0642) 618233



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)



DMA Design, producers of high quality software
including *MENACE* and *BLOOD MONEY*
are currently seeking dedicated programmers, to join our
growing development team on a freelance basis,
preferably based in Scotland. 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.
We look forward to hearing from you.

CAPITAL COMPUTER

PC SUPPORT TECHNICIAN £14.5K - £18K+ B.B.s

Excellent opportunity for a
Junior Support Technician to
move into the exciting world of
international banking. Working
as part of a professional in-house
support team, the successful
applicant will have the chance to
get involved in many aspects of
support including networking
trouble-shooting and user
training. You should have good
knowledge of databases,
spreadsheets, W.P.S & L.A.N.S.

ANALYST PROGRAMMER £15K - £19.5K

Our client a large insurance
organisation requires an
experienced P.C. Programmer
with a substantial financial
background. Technical ability
will include 2 years D-Base 111
+/Clipper development and
ideally a good knowledge of
assembler and 'C'. Excellent
career prospects are offered for
an enthusiast and self-motivated
individual.

399-401 HIGH STREET · STRATFORD · LONDON · E15 4OZ
Telephone: 01-534 4525 · FAX · 534 4662

AMIGA / ATARI ST / IBM PC Programmers Required Now!!!

To join existing Oxford based team for
exciting 3D project.

C programming experience important,
terms by negotiation.

Also experienced
FREELANCE D-PAINT ARTISTS
Call (0865) 791774

or write to:

Tech. Director,
SPA, 27-28 Park End Street,
Oxford, OX1 1HU

ARE YOU ADEQUATELY QUALIFIED FOR THE FUTURE? Move across to the rewarding world of IT.

Central London College offer
full and part time courses leading to
internationally recognised qualifications:-

- * C & G 424/425 Certificate in applications programming.
- * C & G 418 Computer programming & Information processing.
- * Evening courses in DBASE, WP, Spreadsheet analysis.
- * Evening courses in Pascal, BASIC & COBOL.

Contact Central London College on 01 580 4596

COMPUTACCOUNT (UK) Ltd ARE EXPANDING!

We require telesales people for
software, hardware and consumables.

Salary negotiable - on experience.

Please contact Amit Jubanputra
on 021 428 1111

or send C.V. to:

Computaccount (UK) Ltd
11 High Street, Harbourne,
Birmingham B17 9NT

PROGRAMMERS

We are looking for talented people to join our successful team in **SWITZERLAND!**

A good knowledge of machine code in either Z80, 6502, 8086, or 68000 is required.

WE ARE WAITING FOR YOU!

If you think you've got what it takes then contact Mark Grimmer.

Oh! Not to forget, we will pay your flight to the Swiss mountains....



LINEL,
Guetlistrasse, 9050 Appenzell,
Switzerland.

Tel: 01041 71 87 49 19

Fax: 01041 71 87 49 21

PROGRAMMERS

CDS Software Ltd, one of the country's leading Leisure Software Publishers is looking for PCW Programmers. Work would be on a contractual basis and would involve the conversion of existing programs to PCW format and programming to specification of new projects.

Applicants must be able to program in Assembler Language, have an intimate knowledge of the PCW family of machines and be able to work to strict deadlines.

In the first instance please write to:-

Chris Allen · Software Manager
CDS Software Ltd · Nimrod House
Beckett Road · Doncaster DN2 4AD

MANCHESTER IN-HOUSE FULL-TIME GAMES PROGRAMMERS and GAMES ARTISTS REQUIRED NOW

We are in our tenth successful year producing great games for the worlds leading publishers.

To discuss joining us:
RING: 061 728 2282
ASK FOR JIM OR VAL



PALACE SOFTWARE

EXPERIENCED 16 BIT GAMES PROGRAMMER

Palace Software, a division of the Palace film and video organisation, is searching for an exceptional 16 Bit programmer to join our in-house programming team.

You will be working from our central London offices on exciting and innovative projects with some of the best games designers, artists and musicians in the business.

You must have a good knowledge of 68000 assembly language and C as well as a proven track record of published work.

We are looking for a highly motivated and committed individual with a disciplined approach to work.

If you have the right experience and feel you could work well in a team environment call

Patricia Mitchell on
01 278 5037

or **Simon Birrell on**
01 278 0751

or drop us a line at
Palace Software, The Old Forge,
7 Caledonian Road, London, N1.

Chess Computer Appointments Ltd

Search, Selection and Advertising Consultants
Princes House, 36-40 Jermyn Street, London SW1Y 6DN
Telephone: 01-439 6141
Fax: 01-287 6701

ANALYST PROGRAMMERS UP TO £25K ATTENTION!!

All analyst programmers with specific experience on 'C' under DOS or Unix, or experience in OS/2 or communications.

Two major, VERY exciting projects are pipelined and requirements exist for:
EXPERIENCED AND GRADUATE LEVEL CANDIDATES

CALL NOW!
01 439 6141

FREELANCE PROGRAMMERS

Specialising in the spectrum or Atari ST wanted to join our rapidly expanding software development team, so if you're skilled in Z80 or 68,000 then why not send us your C.V. and/or demo for our new same-day evaluation.

Garner Designs
57 Lovers Walk
Dunstable, Bedfordshire. LU5 4BG.
or Phone (0582) 472067 NOW!

C-64 on flashing high score table type Suedenhead to access the second load, then type in dissappointed on the flashing high score table (Robocop)

WILL help any Amiga owners - even new ones, on the CLI or Shell. Ring 0709 862075 after 6pm (Or weekends) and ask for Tim.

DO you have an Amstrad? Do you have problems? I can help, drop me a line. 464 or 6128. Mike Lyons, 21 Ashmore Street, Tyldesley M29 8WW.

AMIGA beginners! Scared of viruses? coun-founded by CLI? Database, spreadsheet, wordpro problems? Write to Tom, 5 Marld Crescent, Bolton BL1 5TH. Some game cheats available.

HELP! Stuck on Deja Vu 2 and Personal Nightmare? Any tips welcome (100% reply) Neil Mansell, 53 St Marks Road, Canvey Island, Essex SS8 9NJ.

JUST crashed your radio-controlled car into a brick wall? If so, call Simon on (0530) 412415. I've all sorts of spares at really low prices.

PCW8256 help including M/code, CP/M, Mallard and Locoscript. TIP - Find PIP difficult to use??? Use Locoscript instead!! Write to Nick Cheesman, 24 Cargate Avenue, Aldershot, Hants GU11 3EW.

AMIGOS! Do not buy a sound sampler! Send me a tape (with the sound effects) + SAE instead, and I will do it for you FREE! Anders Bjerin, 39 Sydney Road, Richmond, Surrey TW9 1UB. **AMIGA** users! Stuck with

CLI? Peeved with Workbench? Don't panic!! Send SAE with problem to: Gordon Reenan, 61 Glenfinnian Road, Glasgow G20 8J6 (no callers please) 57 users helped already.

•PEN PALS

WANTED fellow QL users to exchange info/software. My interests high level programming and game playing. Write C Sully, Mardon Hall, Steatham Drive, Exeter EX4 4QW.

WANTED Spectrum (48K) contacts. Write C Sully, Mardon Hall, Steatham Drive, Exeter EX4 4QW.

AMIGA contacts wanted. DOC Midnight of Faze II needs contacts. Write to Craig 39 Stanhope Road, Salford, Manchester M6 7HY.

PC Engine contacts to swap games, I have 15 games. Also Megadrive contacts as well phone Bill 0527 65025.

ST contacts wanted 100% reply guaranteed. If interested contact Daniel, at 1 The Cottages, Pyford Rough, Woking, Surrey GU22 8TZ. Write soon!!

AMIGA contacts wanted who are really interested in Art, Music, Animation or any other stuff, involving programming. Reply guaranteed 100% write to Zulf, 100 Walnut Street, Blackburn, Lancs BBS 6NU.

DESPERATELY Wanted: contact with the International Enterprise User group (address and phone number) R L Thomas, 31 Bibury Road, White City, Gloucester GL4 9TT.

AMIGA contacts wanted to swap demos, utilities and some games. I have a good range of utilities and other software. More details contact Frankie, BFD, (0274) 637987, 64 Wood Lane, Swainhouse, Bradford.

AMIGA contacts wanted/send lists to Darrie Tighe, 5 Herchiston Place, Edinburgh EH10 4NP.

ST contacts wanted for a mad computer fan, I'm into PD demos, STOS, games and CD's. Write to Rob, 7 Powis Grove, Kenilworth, Warks CV8 2NN.

ST user wants ST contacts to swap games, 100% replies. Write to: Chi-Ho Lam, 16 Courthouse Gardens, West Finchley, London N3 1PX.

MSX 11yr old user would like to hear from others interested in MSX as a pen pal. Write to Darren Jackson, Redwood, Ghyll Road, Crowborough, East Sussex TN6 1SU.

BIRMINGHAM Amiga Contacts wanted. Other Areas also welcome. Must be reliable. Write to AXX, 38 Westacre Gardens, Yardley, Birmingham B33 8RE.

AMIGA contacts wanted 100% reply. Andy, 11 Bilbrook Road, Bilbrook, nr. Wolverhampton WV8 1EU. Tel 09074 3622.

AMSTRAD CPC 464 tape owner wants to join PD Club, Fanzine or user group. Also wants games magazines etc. Contact Mark Watson on (0924) 451793 after 6pm please.

ST contacts with LSC and Medway menus to swap and wanted Platoon to buy or swap contact Bryan, 8 East Drive, Garston, Watford, Herts WD2 68H. PS love the mag.

AMIGA contacts wanted 100% reply (same-day). Send discs and lists to: Mawny, 62 Gainsborough Avenue, Burnely, Lancs, BB11 2PD. Also coders wanted to join our crew. Hi to, all in Pendle UK.

AMIGA contacts wanted to swap demos, demos, hints etc. Promise fast reply. Please contact Colin Mac, 9 Playhouse Court, Bath Road, Cheltenham Glos, GL53 7HJ.

AMIGA coders wanted. Apprentice coder wants to contact other similar users to swap source tips and info. Ring 0752 262959 between 7pm and 9pm ask for Mike.

WANTED Amiga contacts North East area preferred. Phone 091 5373260 or write to 10 Kings Meadow, Headow, Headworth Est, Jarrow, Tyne and Wear NE32 4NU.

AMIGA contacts wanted no lamers or beginners latest PD software only Send lists, disks to: Car, 31 Foster Street, Bratton Sulturn, Cleveland TS12 2TR any female Amiga owners out there?

ARENA TECHNOLOGIES LIMITED

AMDRIVE - Amiga 500 Hard Disk

20Mb - >> **£245** * 30Mb - >> **£285** * 50Mb - >> **£349**

* XT Bridgeboard for Amiga 2000 ONLY >> **£75** *

20 Mb RLL Hard Disk with PC Controller >> **£100**

* Amiga External 3.5" Floppy Drive - >> **£65** *

A2000 + A1084 + XT BB + 20 Mb HD >> **£1200**

* Amiga 500 >> **£299** *

Arena Accounts - THE Amiga Accounting System >> **£146.95**

All prices exclude VAT and >> £7.50 P&P. Please make all cheques payable to Arena Technologies Ltd. Please phone for Access and Visa payments and for a full price list. We will be happy to quote you for any Amiga or PC hardware and software.

Queensway Business Centre, Brigg Road, Scunthorpe, South Humberside, DN16 3RT.

TEL: 0724 853481/281317

Laserink

35% AUTUMN OFFER

LASERINK ARE NOW OFFERING A MINIMUM OF 35% DISCOUNT ON ALL THE FOLLOWING PRINTER RANGES:

	RRP	LASERINK SELLING PRICE
STAR.....eg LC10	£199	£125
CITIZEN.....eg 180E	£179	£116
OLIVETTI.....eg DM106S colour	£249	£160
EPSON.....eg LQ1050	£849	£545
HEWLETT.....eg Deskjet		
PACKARD..... Plus	£795	£515

ALSO AVAILABLE AT SIMILAR DISCOUNTS
BROTHER, RICOH, CANON, AND MANY MORE

LASER PRINTERS AVAILABLE EX-STOCK INCLUDE:

	RRP	LASERINK SELLING PRICE
HP LASERJET II.....	£1999	£1239
HP LASERJET IID.....	£2999	£1929
OLIVETTI PG208.....	£1950	£1250
STAR LASER PRINTER "8".....	£1989	£1198
BROTHER HL8E LASER.....	£1995	£1350

CALL NOW AND SAVE ££££'s ON
MOST PRINTERS AND CONSUMABLES

LASERINK THE FAST AND FRIENDLY COMPUTER
AND PRINTER PEOPLE
FREE PRALLEL CABLE - FREE DELIVERY

0708 730259

180a RUSH GREEN ROAD
ROMFORD, ESSEX RM7 0JU

ALL PRICES QUOTED EXCLUDE VAT AND DELIVERY



- **PRO ARTISAN**
- ALL 1Mb ARCHIES • £99.95
- CLARES MICRO SUPPLIES
- (0606) 48511

Even with the recent release of Acorn's 'cheap' Archimedes, the A3000, the machine has still failed to achieve the kind of mass market success of its nearest rivals, the ST and Amiga. However, one area that the Archimedes is starting to make its name known is that of the computer graphics industry.

The combination of state of the art graphics hardware, blisteringly fast processor and a fine selection of software has made the Archimedes a strong contender against the other big graphics machine, the Commodore Amiga. Each machine has one package that can be credited for launching the machine to success. For the Amiga, that package



• Rembrandt would have loved the Archimedes! Just think, no paint on your shirt, just nice clean pixels!



• Pro Artisan gives you the rare pleasure of defacing national treasures without being thrown in jail!

ART FOR ARC'S SAKE

was Electronic Arts' Deluxe Paint and with the Archimedes, many see Clares' Pro Artisan system in the same light.

While there are other Archimedes paint systems available (Minerva's Atelier springs to mind), Pro Artisan is without doubt the king of them all. The program runs in the Archimedes mode 15, which gives access to 256 colours on screen at one time. While this may not seem too great an achievement to those of us used to the Amiga's HAM (Hold And Modify) mode, the marvellous thing about Archie mode 15 is that every pixel is intirely independent of those around it, which is definitely not the case with Amiga HAM.

USER INTERFACE

After booting up the program from the system disk using the usual <Shift> + <Break> technique, the first thing that greets you is a blank screen containing a single small window. This window is the system's main menu which is used to gain access to all the various functions and tools available. The operation of Pro Artisan is completely mouse driven, therefore gaining a basic understanding of the Pro Artisan user interface is all important.

Pro Artisan uses a hierarchical menu system with each type of operation grouped together in sub menus. For example, you find all object drawing tools grouped together in one menu, sprite manipulation tools in another and disk operations in another. After getting used to the laborious task of moving down through the menu tree to access your required tool, you find your way around quickly.

DRAWING TOOLS

Most of the everyday tools you'd expect to find within a paint package live together in the draw menu that can be directly accessed from the main menu. As well as the usual freehand draw, flood, dithered fill, zoom and airbrush etc, the draw menu also includes an intriguing 'magic brush' option. Magic Brush is a best described as a combi



Just look at all those colours. The Pro Artisan palette gives you access to the Archie's full 4096 colours.

Jason Holborn looks at the new uncrowned king of Archie art packages, Clares' Pro Artisan...

HIGHLIGHTS

- 256 colours on screen!!
- Full onscreen help
- Powerful object drawing
- Extensive fill options
- Very fast operation

DRAWBACKS

- Awkward user interface
- Lacks fine control over basic operations
- Rather pricey

nation of Deluxe Paint's 'Stencil' and 'Tint' options, which allows any objects drawn in one range of colours to be changed to another without effecting nearby pixels of a different colour.

Fans of the dithered fill will be pleased with Pro Artisan. Any plain of a continous colour can be dither filled using a large selection of preset colour ranges. Pro Artisan supports horizontal, vertical and circular dithered fills as well as supporting limited pattern fills.

Accompanying the Draw menu is the Banding menu that contains tools for producing both filled and outlined shapes such as rectangles, circles etc. Surprisingly, Bezier curves are also supported, which can be a great asset when producing complex curved objects. Although the program includes extensive dithered and patterned fill options, filled shapes may only be drawn in a single colour, therefore making you skip back to the draw menu to manual dither fill the object yourself.

SPRITE MANIPULATION

Using the functions available within Pro Artisan's Sprite menu, any area of the screen may be grabbed, temporarily



The brush menu allows you to alter the fill type, colour range and how the fill is to behave.

stored and then used as a brush. Areas may be grabbed either as a simple rectangle, or by drawing a parameter around the area to be grabbed by plotting points with the mouse. Once a sprite has been grabbed, it is automatically stored in a sprite buffer. Any sprite within the buffer may be quickly retrieved again and again until you finally decide to free up some memory by deleting it.

Once you've selected the sprite to be used, the mouse pointer changes to the shape of the selected sprite. From here, the sprite can be simply pasted down, used as a brush, scaled to a required size or used to produce a single colour mask.

DOCUMENTATION

The Pro Artisan manual is a rather nice 114 page affair that even includes an index. It takes you though the basics of the Pro Artisan user interface, provides a detailed explanation of all the painting tools available and even includes 23 separate tutorials (or exercises as the manual prefers to call them). To help you get to grips with the system, Pro Artisan includes a wealth of example art to tinker with.

CONCLUSION

Pro Artisan is indeed a powerful paint system that more than lives up to expectations. Unfortunately, the system isn't as immediately usable as a program such as Deluxe Paint 3 on the Amiga, due mainly to the system's rather quirky user interface.

One of the most annoying aspects of this user interface is that the onscreen menus have been designed to disappear every time the mouse pointer moves off of them - it would have been nice to have had the option to lock certain menus so that they could only be closed by clicking on a window close gadget. As it is, the only way of getting the menu back is to double click the centre mouse button. If this occurred only occasionally, this wouldn't be too much of a problem, but the menus have an annoying tendency to disappear quite frequently. Thankfully, rumour has it that Pro Artisan 2 (when it arrives) will fix this with the implementation of 'sticky' windows.

While many of the operations are undoubtedly powerful, you cannot stop feeling that you don't have total control over them, which does tend to limit their usefulness somewhat. However, if you're prepared to put in the time (and you'll need plenty of it) learning the intricacies, you'll soon get used to its quirky ways and start producing some tremendous results ■

TECH TIPS



Personal computer problems? Express's 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

HELP! Video

Now a question, if I may. Is it possible to take the composite video output from the Scart, feed it to the computer and with a suitable software patch load teletext data? I could then print or save any data, and would always have the correct time and date. Is anyone working on suitable hardware and software to do this? It ought to be cheaper than a dedicated teletext tuner.

Reverend Brian Elliot, Whitfield, Dover.

Thanks for the tips, Rev. I see no reason why you can't download the raw teletext binary data, but as it's encoded you might not be able to do very much with it. Try, then let us know the outcome. I'm afraid I don't know of anyone who is working to achieve and market the same effect, other than, perhaps, the suppliers of certified teletext adaptors. Frankly, it has the air of illegality about it: don't you think?

HELP! Sound Board

Taking into account the vast lack of sound quality on the PC and the recent reviews of two sound boards designed for use with that machine, I

am slightly confused. What does twelve channel sound mean? Is it good? Which of the two sound adaptor boards (*Express 47 and 51*) would you recommend? Do you know of any games that are to be released that will utilise either of these (apart from *Budokan* and *Populous*)?

Robert Szasz, New Southgate, London

Twelve channel sound means - as its description implies - that the board provides fabby sound over six channels in stereo. You can take it as read that that is good quality sound.

Having listened to the Game Blaster board in full voice at the PC show, I think DLL, the company responsible for the product, would get its name on my cheque. Call DLL on 0983 864674.

I'm afraid, however, that like so many other useful and quality peripherals marketed for computers with shortcomings, these sound adaptor boards will probably be under-supported and will eventually fall by the wayside. There are no games other than the two you mention, which support the Game Blaster. If you're working at a software house and reading this, and you plan to incorporate support in your games, call me and I'll pass on the good news...

Bug of the Week

Tetris - the titillating wall building game - works fine on the PCW, but the programming leaves a bit to be desired! Problems start if you accidentally hit the [EXIT] key while entering your name in the high score table.

[EXIT]X, or [EXIT]Y and some random figures for example, tear the screen up into bits when you try to play the next game.

I suppose this might be a good way of stopping someone playing *Tetris* and persuading them to do



bugs in - ones published win free software worth anything up to £50, and probably other goodies too. What are you waiting for?

Codus escaptus: Lives in high score tables and feeds on escape codes

As sender of this week's prize bug Emma Cooper gets a few games freebies for her PCW. Come on folks, keep sending those bugs in - ones published win free software worth anything up to £50, and probably other good-

something less antisocial, so maybe it does have a use after all! Emma Cooper, Harrow, Middlesex
As sender of this week's prize bug Emma Cooper gets games freebies for her PCW. Rally up folks: keep sending those

HELP! BuSted blues

My Atari ST has broken down and I need to get it fixed. The problem is I don't know where I can or how much it will cost. When I turn the machine on, it just stays dead. I have changed the plug and also the fuse on the transformer board inside, but to no avail.

Monty, London.

From your letter, I think we can safely assume that the ST is well and truly broken. Obviously the next step is to get it along to a repair specialist. In your case this isn't going to be very difficult. Indeed, London is stuffed to the very gills with repair specialists clamouring for your cash.

One of the best repair specialists is Cavendish Distributors LTD based in Tottenham Court Road. Contact the company directly (01 323 1399) for a quote.

HELP! Racal

I have been given a Racal-Milgo ALD (Asynchronous Line Adaptor for the uninitiated - Uncle Techtip) but I do not have any documentation for it. Could you please publish my address and telephone number so that somebody can sell me an operations manual or a photocopy of it? I would also like to have some help to find the appropriate pin specifications for the Racal-Milgo RS232 port, so that I can connect it to a PC compatible.

Jerome Rimmel, Guernsey.

Address duly published.

If the Racal-Milgo has a standard RS232 port (and I'm by no means sure that it does) the following will be the pin-outs: 1 protective ground, 2 transmit data, 3 receive data, 4 request to send, 5 clear to send, 6 data set ready, 7 signal ground, 8 carrier detect, 9 - 11 not used, 12 - 25 forget them, they're unimportant for normal serial signal transfer with the exception of 20 data terminal ready and 21 signal detect.

Basically, you're interested in pins 2, 3 and 7. Pins 2 and 3 should be cross connected to pins 2 and 3 of any computer you attach the device to and pin 7 should be connected to pin 7 of the computer.

Sit back and be patient. The Tectipers are a kindly lot, and sooner or later someone will come up with the desired handbook.

HELP! Hard Luck

I have been offered a 60Mb hard drive for an IBM PC at £30 to £50. Not bad, eh? However, I own an Atari STFM. Can I link this to the drive? I probably would have to buy an interface, but which one? And how much?

Who from? This is an opportunity of a life time and so I wish to take advantage of it.

Carl Seed, Stubbington, Hants.

Actually Carl, the drive is entirely useless but I'm willing to offer £5 just to take it off your hands (and if you believe that, then you ought to be reading a certain other weekly computer publication with the word 'Popular' in its title).

Yes, you can connect the drive, so do buy it preferably at the former rather than the latter price. And yes, you do need an interface. Third Coast Technology sells one of the best, with varying prices depending upon the configuration.

Call Third Coast on 0257 424442, the people there will be very happy to help.

HELP! Disk Delusion

I have just upgraded my Atari ST's old internal half megabyte drive with a second hand Cumana one megabyte device. My problem is that certain disks will not load at all, mainly commercial software, and some only work after about five attempts.

I have formatted a disk, double sided and that worked fine, giving me 726016 bytes (is this normal?). Please help me.

Jason Pritchard, Belper, Derbyshire

I don't think there's anything wrong with your drive. The problem appears to be with the software itself. In order to provide copy protection, many of the software houses rely on undocumented features of the floppy drive, such as its ability to format two tracks more than the documented 80.

The extra tracks are used to hold protection information and are accessed when a game is booted. The problems begin when you use a drive which cannot access the extra two tracks (which is perfectly reasonable), and thus the protection code cannot be checked and the game fails to load.

Fortunately, this scurrilous manufacturer's practice has just about ceased, but you may not be able to use some of the older games. Enjoy the drive and swap the games that won't work, for better software that will.

HELP! Fed Twice

I am currently doing a part-time A level course for which I have to print out a large project. I own an Epson FX1000 printer that I have connected to a Sinclair Spectrum +3 computer, but there is a very strange problem which is annoying me!

Whenever I try to Lprint or Llist there appears a line of characters

between each line which makes the printout look untidy (as if the printer was doing two line feeds).

The printer works fine in self test mode and when copy is used the self test mode is excellent.

I thought this might be control codes sent from the +3 but each time I Llist or Lprint the same program the lines are in a different place. Surely if it were due to control codes in the program the lines would be consistent?

It is a difficult problem to explain, and maybe the sample listings of a small BASIC program will help you to understand what I mean. The printer seems to be of excellent quality and I would like to use it for letters, CVs etc.

Derek Progett, Trent Vale, Stoke-on-Trent.

After having examined the sample printout you enclosed with the letter I can relieve your mind by telling you that the simple flicking of a 'hard' line feed dip-switch in the FX1000 will cure all ills.

All that's happening is that the computer is producing a line feed and the printer is adding one too. The location of the dipswitches will be in the printer's manual and you may need a screwdriver or pen in order to access and change them.

TIP It's Magic!

I saw a recent edition of *Express Mail* in which there was a recommendation of the Pye TV monitor sold by Evesham Micros. I have one of these very good monitors and use it with my Atari ST. It really is quite as good as a dedicated monitor.

May I make two suggestions? Put 200 Ohms resistors in each of the red, green and blue lines to get a better colour balance, and connect the Atari ST monitor output pin 8 (12V pull-up) to pin 8 on the Scart plug via a 100 ohm resistor. This is the status input designed so that a video recorder can control the TV.

Now for the magic. Fed up with the telly? Switch on the Atari ST, the telly becomes a monitor, and the program display shows an (E). Switching is now completely automatic!

HELP! Commodore BBC

I own an Amiga 500 and have been told that it is possible to run BBC Micro educational programs on it via an emulator. Does this simply mean that after loading the emulator material into the A500, one then loads the BBC programs (on 3.5 inch disk of course) and all will be well?

J. Windsor, Newport, Gwent.

If only life (and computing) were that simple.

BBC software isn't available in 3.5 inch format. The BBC micro makes use of 5.25 inch drives for storage and all software is shipped on 5.25 inch disks.

In order to use the BBCs software you have to port it to (i.e. move it to) your Amiga using a serial transfer cable and suitable file transfer software. This may sound incredibly difficult, but in fact, even if it is a little messy, it can be achieved quite easily and here's how to do it:

You need two 25-way D-type serial connectors, a length of 5-way cable and

a soldering iron. The connectors can be purchased from any electronics supplier or you can buy mail-order from Maplin (a renowned electronics supplier with branches around the country). Call Maplin on 01 748 0926. The connectors should cost about 75p each. Maplin will also be able to supply you with the necessary cable.

Using the cable and a soldering iron, attach the connectors in the following manner: pin 2 to pin 3, pin 3 to pin 2 and pins 7 of each cable together. You now have a serial lead.

File transfer software is best obtained from the public domain collections (a collection of software which can be exchanged free) held by PD libraries. For the Amiga call George Thompson Services on 0770 82234, GT holds numerous PD programs, and for two or three pounds will be able to satisfy your needs.

Acorn should be able help with BBC PD or you might try looking through one of the BBC specific magazines for a PD supplier. Call Acorn on 0223 245200.

Fire up the transfer software on each machine and move the programs you wish to use from the BBC to the Amiga, saving them to Amiga disks as you go. You now have the Beeb software in Amiga format and can run it using the BBC emulator.

TIP Take Hart

Will Robert Hart of Roehampton please stand up? I had a letter from you last week Robert, you were having problems with your Amstrad CPC. I can happily report that I have here on my desk, the necessary spare keys and manual but what I don't have is your address! If you'd like to write to me again, I'll pop the bits into the post and you'll be up and running once again. Thanks to Amstrad customer services.

HELP! Unknown Printer

I have a Gakken GPR2000 daisy wheel printer (oh no, I just know what's coming - Unc), which after much good service has given up the ghost by chewing up and spitting out one of the Nylon gear wheels that drive the platen.

My local friendly neighbourhood

HELP! Upgrade

I operate a Commodore 64C with a 1541 single disk drive, a Star LC10C printer and a Ferguson TX television with RGB. I use these for home word processing and strategy wargaming. I am considering an upgrade to an Amiga and would appreciate your advice in regards the following:

1. Should I purchase the 1 megabyte version of the Amiga or upgrade later? Is there any difference in the two?
2. Will I require an expensive conversion for my LC10 to run on an Amiga, as I believe the connections are different on the Commodore 64?
3. I would like to be able to dump my wargame screen maps to hard copy through my printer which will save me hours of work. Can this be done, and if so, which program do you recommend?

C. W. Harrison, Ripon, Yorks.

1. If you can afford it, go for the larger memory



Amiga. This will allow you to process much larger word processing documents and to store much more strategy war game data. Everything is that little bit quicker if you can store more data in memory rather than having to make disk accesses for it. Apart from the memory, of course, there is no difference between the two.

2. Have a look in *Techtips Express* 55. In that column, a funky techtipper by the name of J. Vickers offered to help anyone with the process of converting a LC10C '64' printers for use with computers equipped with a parallel port.

3. If you're about to wake up the savings pig with a large hammer in order to

buy the Amiga, funds are probably going to be a little thin. Consequently, the best course of action to obtain a screen dump utility is to button-hole one of the many public domain libraries.

It appears that screen dump utilities are amongst the first bits of code that new programmers produce and the PD scene's cup runneth over with them.

One of the better libraries is that run by George Thompson of Scotland. For a couple of quid, Geo. will be happy to supply you with a disk containing the utility (and probably many more besides). For more information: G. Thompson on 0770 82234.

repair shop has never heard of the make and cannot find a source of spares anywhere. Must I now reluctantly throw it away for the sake of a few 'pennorth of nylon gear wheel or can you advise me where to find same?

Richard Baynes, Peterborough, Cambs.

Ah, yes, the world-famous Gakken series. An astounding machine, moder-

ately popular in the very earliest part of the decade (particularly the GK2200-series), it and all its brothers fell into a gignonormous pit of obscurity a few years ago, and have not been heard from since.

Quite honestly, your only hope is to cross fingers and wait for some kind Techtipper who owns one of these machines and who will let you have it for a small sum for spares.

HELP! Clicking disk

I have recently bought an Amiga 500 and have found that unless a floppy disk is inserted in the drive, the machine makes a clicking sound every 2 1/2 seconds or so, from the vicinity of the drive. I tried another Amiga computer at the dealer where I bought the one I own, and it behaved in the same way, so I assumed it was some quirk of the model and there was nothing wrong (since it appears to be OK apart from this).

But I have seen machines which don't click and now I think the disk drive may have been damaged during shipment,

since, in particular, there was no protecting card inserted in the drive, as the manual said there should be.

Do you know what the problem is? Can I correct it myself or should I take it back to the dealers (even though I get the impression that the whole stock will be the same)? What do you suggest, Uncle TechTip, sir, for I am desparate?

The grass is always greener on the other side of the fence, right?

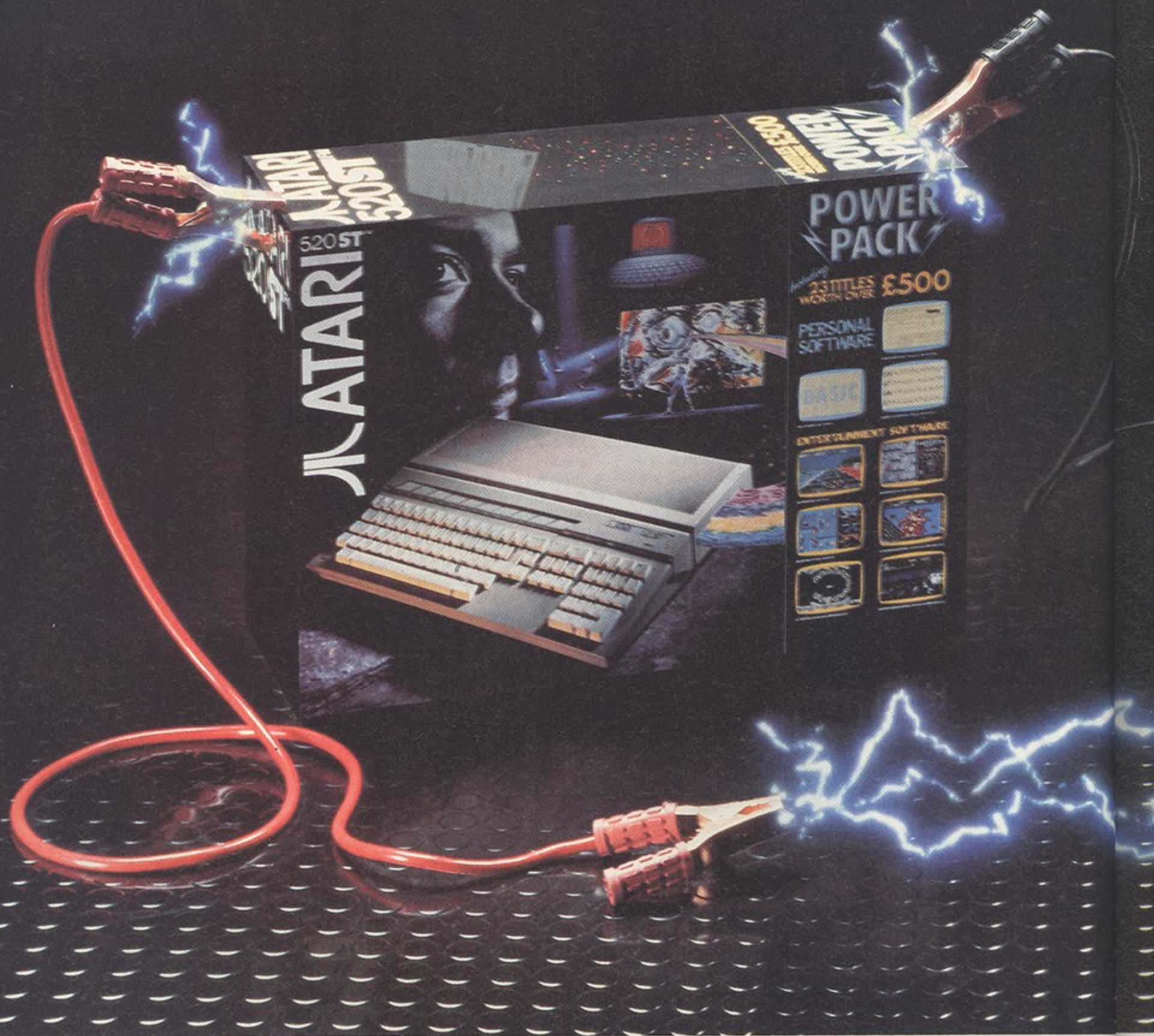
Because the machine was shipped without the protective card in the drive slot, doesn't mean that the device

is now damaged. If it works perfectly, don't worry about the clicking.

Many computers send intermittent pulses to their drives which make the busy light flash for no reason or the mechanism click.


Sit back, enjoy your computer safe in the knowledge that it will provide years of sterling service (well a month or two anyway, considering it's an Amiga) and stop looking at what happens with other computers.





There's no catch. We're giving you the Atari 520 STFM and £500 worth of great software titles for just £399.99.

The twenty-three superb titles include some of the greatest games and three excellent programs which introduce you to the BASIC programming language, computer-created music and the more



**The Atari Power Pack.
With £500 worth of software for starters.**

popular computer applications such as word processing and spreadsheets.

So take advantage of this great offer now. And be a bright spark.

For further information, just fill in the coupon.

Please send me details of this and other Atari products.

Name: _____

Address: _____

Phone No: _____

 **ATARI POWER PACK**



• There were plenty of machines reflecting the trend towards portables. Sharp's was different - it had a colour screen



• Canon's navigator: fax, PC, printer, modem and phone all in one package. It even has a touch-screen



• Another colour LCD portable impressed the crowds. This one courtesy of Mitsubishi

Tiny PCs, vibrant colour LCD displays, super-fast 486 workstations, MCA vs EISA - everyone was talking about these things twelve months ago but this year it was all reality at Comdex Fall, Las Vegas, in the Nevada Desert.

Comdex is a huge trade show, the largest in the States, with 1,740 companies exhibiting and around 117,000 visitors over its five days. Las Vegas I met felt a touch miffed that, as ordinary members of the public, they weren't encouraged to visit the show. Las Vegas is a small city of just over 500,000 - Comdex trade-only visitors swell this by almost a quarter.

Why hold the year's most important computer show in a small, glittering if rather vulgar casino infested town hundreds of miles away from anywhere of importance? Quite simply, Las Vegas has some of the best convention and exhibition facilities near (an hour's flight) to the all-important Silicon Valley in neighbouring California.

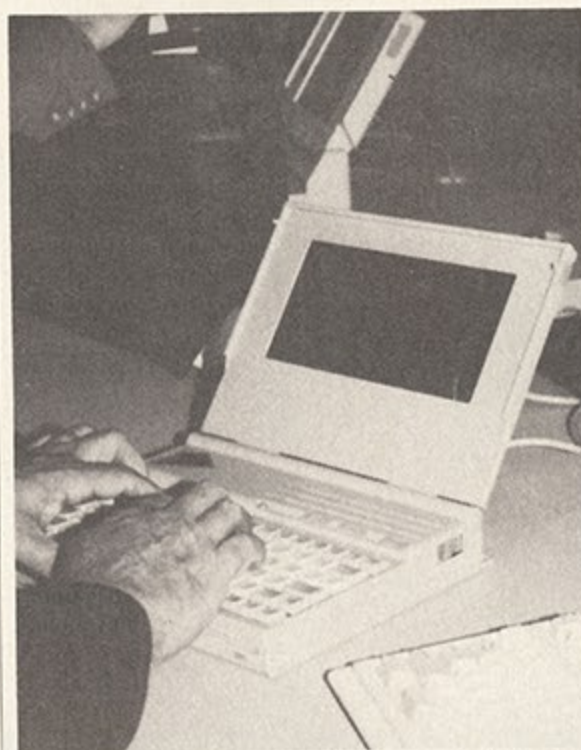
The scale of Comdex is vast - the show guide alone is two inches thick. The whole affair is scattered over around a dozen venues and occupies several nearby hotels, including the famous Caesar's palace. Given the size of everything, it was odd to see familiar companies with relatively minute stands dwarfed by it all. Commodore was a prime example. At shows like PCS in September here in the UK, Commodore and rivals Atari vie to have the largest and most extravagant stands. At Comdex, Commodore was reduced to occupying one half of an exit lobby from the main Hilton Hotel exhibition site. Atari's larger stand was but a shadow of the PCS effort and situated somewhere in the somewhat remote West Hall.

Surprisingly for those of us on this side of the water, neither Commodore or Atari are genuinely big in the US, though there are signs that both are pushing hard to reclaim their massive successes of the early eighties. Commodore has announced a spectacular multi-million dollar Christmas Amiga advertising campaign in the US and Atari is expecting great things of the new much-hyped and much-criticised STE, which replaces the existing 520 and 1040 STs in the New Year.

A surprise debutant was a 520STE after most had expected the 1040 to replace the existing 520STFM as the entry-level STE. Commodore unveiled its 68030 Amiga 2000 coprocessor board, clocked at 25MHz - which should

SHOWING OFF

Ian Burley looks back at all the highlights from the biggest computer show this year: Comdex in Las Vegas



• Compaq jumped the Pocket PC bandwagon with its tiny but high-power Notebook PC

give fans of Atari's 16MHz TT 68030 workstation something to think about, though for a really special and brand-new Amiga chipset based 68030 Unix workstation you'll have to wait until well into next year, according to Commodore's Systems Marketing Manager Paul Calkin.

For now Commodore has stuck the 68030 card into a beefed up 2000 and called it a 2500/30. A new SCSI hard disk controller card for the 2000 - used in the 2500/30 - was announced along with a seven way multiple serial port card. Welcome Amiga 2000 price cuts were also unveiled.

Commodore showed that it has a thinking ahead cap with announcement of the creation of a multimedia technology department so that you'll eventually be able to connect CD-ROMs, videos, and all sorts of computerised electronic goodies to your Amiga. Multimedia is expected to be a multi-million dollar market within five years.

Little pocket and so-called notebook PCs were everywhere, Poqet and Atari with its Portfolio PC had a straight fight with their incredible calculator sized pocket PCs, the former showing potential, and a considerable need for further development, while the Portfolio is already a hot retailer at a fifth of the proposed Poqet PC price.

Even the bigger portables were dropping jaws with stunning new flat panel colour LCD displays. It's not difficult to see that the era of the cathode ray tube (CRT) display is rapidly fading away. Hitachi is already offering its superb thin film technology (TFT) active matrix colour LCD screen to independent developers and Toshiba showed a prototype stand alone colour LCD monitor. Meanwhile, Toshiba ventured to suggest that portables are destined to inherit the domain currently claimed by today's desktop computers.

If there's one thing you can credit the Yanks with, it's their sense of humour (sorry, humor). Comdex saw the advent of floppy disk condoms, a joke accessory to protect your disks from computer viruses. How about Computer Critters - cuddly toy parts; arms, legs and a head which you stick to your computers monitor. Hey, that's cute...

Finally, Panasonic just had to have a one-armed bandit on its stand. Get a product demo on the stand and you earn a token which you can then spend on the machine to try your luck for a glittering array of prizes. This was, after all, Las Vegas...■



• Poqet's PC - a rival to Atari's Portfolio? Five times more powerful - and five times the price



• The speed freaks had plenty to get excited about. Compaq's 486 EISA PCs were stunningly fast

QUANTA

The Independent QL User Group

The Definitive Guide to SuperBASIC by Jan Jones

This highly sought after book has been reprinted by QUANTA Copies are now available for £8 plus £2 p&p from:

QUANTA
15 Grosvenor Crescent
Grimsby
South Humberside
DN32 0QJ

Tel: 0472 349850 (answerphone)
Subscription to our group is still £14 UK,
and £17 for overseas members.
Now in our SIXTH successful year.

PD & SHAREWARE who do you get yours from?



- There are many PD libraries around but do they offer you....
- ★ Huge collection, thousands of programs on over 3000 disks
 - ★ Same day service - 1st Class post - GUARANTEED
 - ★ Knowledgeable staff on hand (no 'phone after six and ask for fred!)
 - ★ Three years experience collecting and distributing PD & Shareware to satisfied customers all over the world.
 - ★ FREE 30 page catalogue, S.A.E (28p stamp) and state MAKE of computer CLEARLY and we'll rush one to you by return.

AMIGA

Currently over 800 disks in our catalogue, including Fred Fish, APDC, AMICUS, Panorama etc. Our own SOF collection is so good other libraries stock them now and of course we are exclusive distributors of the fabulous UGA disks. All are auto-boot, menu driven and so very easy to use, probably the best collection available! We also run an Amiga Club, ask for details.

ATARI ST

We currently stock over 800 disks full of PD/Shareware for these machines, containing every imaginable type of program! Choose from ALL the Public Domain, not just "a selection". If you are new to ST'ing why not join "Clubville", our popular user group. £6.50 gets you newshoets, offers, special prices on goods, 5% Off blanks/PD etc.

IBM PC

(and compatibles)
Thousands of the most popular Public domain and Shareware programs in our current catalogue, all available on either 3.5" or 5.25" format, if ordering (opposite) state which. Whatever type of program you may require, we've probably got it.

MEGA PACK - £19.50 (£14.50)

5 PD disks + 5 blank disks
plus a Library case

(Selection of current popular titles),
INTRO DISK - £1.50

(Atari or Amiga only)
VIRUS KILLER DISK - £1.50

(state machine clearly)
(prices in brackets for 5.25" disks, state preferred)

24 Hour orderline on

0705-266509

SOFTVILLE

Unit 5, Stratfield Park
Electra Avenue, Waterlooville,
Hants. PO7 7XN.



THOMSON MONITORS



Top quality 14" RGB Monitors. Ideal for ATARI ST & AMIGA, but can be used with any micro that supports RGB. Built-in Mono sound. Front Panel Controls. SCART Input. 0.38 Dot. Medium resolution.

OUR PRICE £179.95
Plus £7.05 Postage

STAR PRINTERS

STAR NL10

120 cps. 30 cps in NLQ. Friction & Tractor Feed. Bi-directional. 10" Carriage. Epson Compatible. Choice of either Serial or Commodore 64/128 interface.



OUR PRICE £149.95
Plus £6.05 Postage

STAR SR10

200 cps. 40 cps in NLQ. Friction & Tractor Feed. Bi-directional. 10" Carriage. Epson & IBM Compatible. Centronics interface.

OUR PRICE £169.95
Plus £6.05 Postage

SEIKOSHA GP100A

50 cps. Tractor Feed. Up to A4 size paper. Centronics interface. Ideal for listings, letters etc. Perfect first-time printer.



OUR PRICE £89.95
Plus £5.05 Postage

UK HOME COMPUTERS

COMMODORE C64's

Commodore C64 Computer complete with power supply, manual, leads & data cassette recorder.

OUR PRICE £109.95
Plus £4.05 Postage



COMMODORE 5 OCTAVE MUSIC SYSTEM

This package, for the Commodore 64 or 128 consists of a full-size keyboard, sound interface and software. This is really tremendous value at only £59.95 plus £3.05 Postage.

MICROSOFT WINDOWS

Version 2.00. 5.25" disks plus comprehensive manual. Probably the most useful single package for the IBM PC & Compatibles. PLUS FREE, Microsoft's PAGEVIEW. A WINDOWS utility. Normal price for the 2 packages is around £98.00

OUR PRICE £29.95
Post FREE

Q.L. MODEM

Made by TANDATA and originally sold at over £200.00. The package consists of 3 modules including an AUTO-DIAL feature. Send NOW for the full technical specifications before this bargain is sold out.

OUR PRICE £39.95
Plus £4.05 Postage

JUKI 2200 DAISYWHEEL

This offer is unique. The JUKI 2200 is a portable (Mains) Daisywheel typewriter & a 10 cps letter quality centronics printer. It has bi-directional print and the wheels are interchangeable. Ideal for use by all the family.



OUR PRICE £109.95
Plus £5.05 Postage

CITIZEN LSP 100 PRINTER

The latest offering from Citizen. 174 cps, 40 cps in NLQ. Friction & Tractor feed. Epson Compatible. Centronics Interface. Front Panel Controls.



Normal Price £249.95
OUR PRICE £149.95
Plus £5.05 Postage

SINCLAIR Q.L.

Fast 68008 CPU. 128k RAM. Twin Fast-Access microdrives. Complete with all cables, PSU, manual & software. (Wordprocessor, Database, Spreadsheet & Graphics)



OUR PRICE £99.95 (JS ROM £119.95)
Plus £4.05 Postage

AMSTRAD CPC 464 With Colour Monitor£199.95 plus £7.05

VISA/ACCESS orders welcome. Prices subject to change without notice. All transactions are subject to our standard conditions of sale, available upon request. Personal callers welcome by appointment. All prices include VAT. Cheques/Postal orders with order.



UK HOME COMPUTERS
82 Churchward Avenue, Swindon,
Wilts. SN2 1NH Telephone: (0793) 695034



520ST-FM SUPER PACK



**1Mb DISK DRIVE
£450 OF SOFTWARE**

ARCADE GAMES

Arkanoïd 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
Quadralien	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	£19.95

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

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

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)	£499.95
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 ST's do not come with modulator built-in and must therefore be used with a monitor. With every MEGA ST purchased, we will add the 'Professional Pack' software (worth £384.83) detailed above, plus the Silica ST Starter Kit (worth over £200) both Free Of Charge. Return the coupon for further details.

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 (+VAT=£171.35) and, because it works with an Atari 1040ST and a Seiko-sha SP-180A 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



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

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 £8 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 Atari 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 ST's 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, STWLD 1289, 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: STWLD 1289

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

Everyone's falling over themselves at the moment to bring out truly portable computers. One solution to the problems posed by wanting to compute on the move has been adopted by Atari and Poqet, who are marketing pocket PCs. But the laptop format – the size of an A4 page such as the one you are reading – is seen by many as the best compromise between portability on the one hand and normal size keyboard and screen on the other.

Psion has been known up till now for its Organisers – the size of a large calculator or one-piece telephone, and the electronic equivalent of a Filofax. But two and a half years ago the company looked carefully at trends in computing and found through extensive market research that the computer people wanted to use in the 1990s was to be lightweight, genuinely portable, work for ages on batteries and yet not compromise on screen and keyboard size.

It's come up with the MC range. While 'laptop' is the most convenient label to give them, Psion insists the machines are much more than that, and genuinely address the problems of 'mobile computing'. This week the MC400 – a machine bristling with new technology – will be avail-



• The Psion MC400 is a genuine laptop – the size of this page – but the full size keyboard makes it a delight to use



• Unlike most portable computers, it really is light enough to carry around with you

PSIONS OF THE TIMES

able in the shops, with the smaller-screen MC200 out in the New Year and the PC compatible MC600 out in March-April 1990. ♦

New Computer Express had a thorough hands-on test of the MC400. We ask: is this the machine that will set new computing trends in 1990s?

DIFFERENT KETTLE OF FISH

The Psion MC laptop was conceived as a different machine to the Organiser, and not an evolutionary form of it. This is a shame, as otherwise it would invite comparisons with mammals evolving from fish, and birds from lizards. It really is a very different animal to its hand-held predecessor.

It looks like today's standard laptops – the now familiar clamshell design. It's the size of a very thick magazine and opens out to reveal a large screen occupying one half and a full size keyboard occupying the other. Switch the machine on and you see a window on screen containing various icons representing the different built-in programs the MC runs – diary software, text processor, alarm, database applications and so on.

Run one of the applications and a new window opens up on screen in front of whatever's there; your database showing details of your customers, perhaps, or the text processor to take a few notes in. When you open the Psion

After the runaway success of its Organiser, Psion is hoping to take another sector of the mobile computing market with its revolutionary MC400, which goes on sale this week. How does it look against the rest in the current laptop boom? Neil Booth takes a look...

everything is there, instantly open, as you left it, and when you close it, the unit automatically switches off. It also switches off after a bit if you leave it open to conserve battery power.

You can have up to 24 windows open on screen at once, and the one for the application you're currently using is brought to the front when you work on it. All the windows are multi-tasking, which means that if you set one to do a time-consuming operation – a complex recalculation in the spreadsheet, for example, that might take a minute or two – then you can bring the text processor window to the front and write a letter while the spreadsheet quietly works away in the background.

The windows can be resized or shaped to any dimensions you like and moved around at will. All this will be familiar to anyone who's used a windows system – but the means of doing it may not.

HARD CHEESE

The MC400 doesn't have a mouse. Psion believed that a mouse was impractical for the table tops of 125s and knees, and have put the first startling innovation in: a touch pad. You put your finger on a small rectangular panel, and the cursor appears on screen. Move your finger around the panel, say from the bottom left of the panel to the centre, and the cursor moves from the bottom left to the centre of the screen in parallel. Press, and it's as if you'd clicked the mouse button. Most operations in fact require a further keypress – to open an application, for example, you click on it with the touch pad and then press ENTER.

The touch pad is a nice idea but it only just works. The cursor is flickery and precise movement is difficult. You have to perfect an odd technique of rolling your finger to fine-tune the position of the cursor – to align it over a confirmation box, perhaps. It's all rather like that fiddly digital choreography involved in unsticking sellotape from your fingers when you've nothing to stick it onto. You come away wishing Psion had gone with a trackerball; but, at least, it works, and is no doubt better once you get used to it.

The supplied software is pretty much as you'd expect. The diary function lets you metaphorically pencil in appointments on any day in the future and will not let you insert things if you're booked to do something else in that time. You can specify times or just general things to remember for the day (i.e. specify a slot for two hours from 11am when you're seeing someone, or just put a heading to the day reminding you that it's your partner's birthday). It can display three months at a time with a desk-diary type layout showing the day's or week's appointments.

The database is essentially a card index name-address-and-phone-number storage system but can be stretched to use for invoices, memos, price lists and so on. Each record can hold up to the equivalent of two A4 sheets of info. It seems fast enough on small lists though how it would hold up to very large databases is another matter.

You can set up to eight alarms and set a bewildering

OUT SOON: THE RUN-DOWN FOR THE NEXT MCs...

MC200 • As for MC400 except:
Price £545 (+VAT=£626.75)
Screen 640x200 supertwist LCD blue/white
Internal memory 128K RAM
Battery life Claimed 75 hours

MC600
Price £1495 (+VAT=£1719.25)
Size 49x314x227mm (1.9x12.4x8.9") – the size of this page
Weight 1.9kg (3.4lb)
Processor 16 bit CMOS Static Intel 80C86
Operating System MS-DOS 3.2



• The MC200 is basically an MC400 with a half-size screen

Clock speed 7.68 or 4.77MHz
Keyboard Full size QWERTY, no function keys, keypad integrated into QWERTY keys; no touch pad

Sound Speaker only
Memory 256K flash EPROM
 768K RAM
 1Mb internal RAM disk
Drives 4 solid state
Screen 640x200 CGA Retardation Film LCD monochrome
Built-in software Laplink external disk drive; external monitor; 12V power
Sockets 8 AA giving a claimed 30 hours continuous use
Batteries As for MC200 and MC400 except voice processor not available, and Comms
Disks and expansions

variety of options such as repeating the alarm at the same time every day or each week or each month at the same time, skipping weekends, and no doubt compensating for jet-lag as well. Once it goes off, the alarm must be recognised before you can use the machine.

TEXTING TIME

The text processor is really a bare-bones affair. You have a handful of styles to set your text in, can set the margins, do find and replace and block moves, but that's about it. You can't mark out an individual word in bold or change layouts in a document, and any editing change to a paragraph means you have to reformat it manually. It's clearly intended not as a word processor – i.e. not a means of preparing documents – but as a text processor – i.e. a tool to prepare simple text which you then pipe across to your micro at home or in the office to polish up and eventually print out. This loses all the formatting and style changes, so perhaps it's quite enough for practical purposes. You can always put the style or layout changes in as codes – <ital> for italics for example – to suit the word processor on your micro. Psion is talking about a proper word processing program on ROM but it wouldn't be available till well into 1990 and depends on demand. A shame, really, as the laptop format is ideal for word processing on the move.

The calculator is standard and the terminal emulator does no more and no less than terminal emulators should, viz. allow communication with micros and mainframes to allow you to transfer your files to and fro.

The machine has been designed to minimise the sort of built-in obsolescence that computers have suffered from over the past decade. The built-in software comes on Flash EPROM, meaning that new versions of the operating 'system' can be blown onto the existing EPROM for an upgrade charge. Your machine is, in theory, never out of date.

Data storage is done via solid state disks. These are bookmatch-size modules that slot into a space either side of the MC400. The machine takes up to four at a time and they're available in sizes up to 512K (Psion is hoping to bring out 1Mb ones next year, 2Mb ones in 1991, and eventually 8Mb ones, giving you up to 32Mb storage space!). They're not cheap, but score heavily over conventional RAM packs (such as those used in the Cambridge Z88) as they are backed up by a watch battery, and so retain data when they're removed. EPROM disks are also available for rather less, but with these you can't erase individual files, only the whole disk at a time.

Add-on software will come in the form of EPROMs, and Psion is aiming to have a spreadsheet/accounts package, and a word processor, out in 1990.

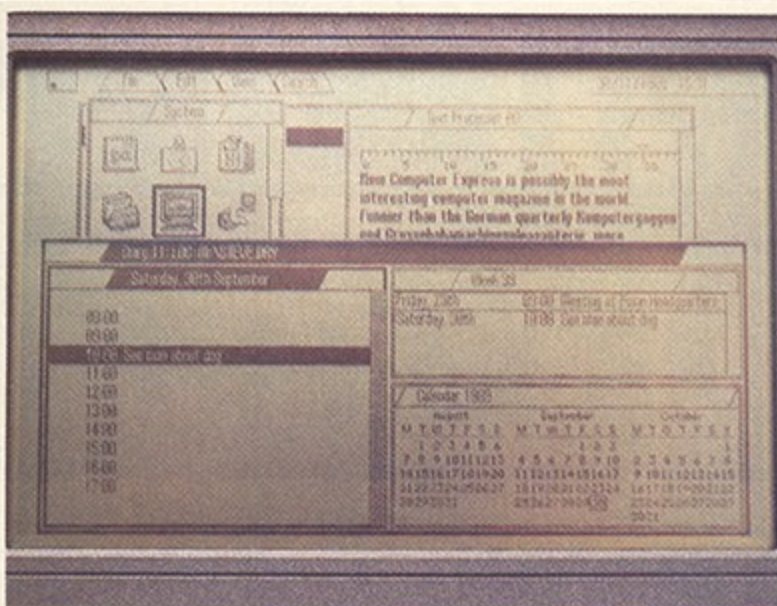
TRANSFER MARKET

Data transfer to a PC (or other micro) is done in two ways. Either you connect the two machines serially and port across the data – obviously limited to simple ASCII data and text files – or you buy the solid state disk drive for your PC and use the solid state cards in that directly. For the MC600 PC compatible, out next year, there will be a Laplink available that lets you access the Psion from the PC as if it were an external disk drive, and vice versa, thus enabling you to load up a spreadsheet from the laptop on the PC, edit it, and save it back to the laptop, for example.

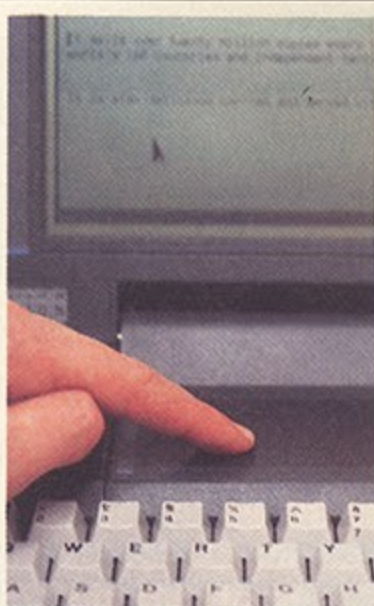
Expandability is another major feature of the machine. The two slots at the back house a serial/parallel interface and an empty space, into which can be plugged a variety of optional gizmos. A Quad modem should be available soon, enabling you to download that text you've prepared to your company's mailbox, or access a bulletin board.

Perhaps the most intriguing and innovative aspect of the MC400 is the optional voice processor. This module plugs into the expansion slot at the back and lets you record and play back sound directly on the Psion. It's all stored on disk and compressed – 8 minutes of speech take up just 64K.

The uses for this are almost limitless and it spells an interesting first step along the road to speech compatibility on micros. For example, you can record a meeting or interview, and then on the train home, play it back and type the transcript or comments into the text processor at the same time (or have someone do it for you). You can link it up with the alarm so that instead of just getting a beep at 3.15, you



• The screen on the MC400 is excellent quality, readable from a wide range of angles. The windows system is similar to those used on Macs or PCs.



• The touch pad replaces the mouse – and takes some getting used to

get your own voice telling you to go to the bank before it closes. You can also control the pitch or speed independently, making the speech play back at normal rate but basso profundo or soprano – or, to suit the speed of your secretary perhaps, make it play at normal pitch but faster than Patrick Moore on crack, or slower than, er, someone who speaks very slowly.

The quality of the recording is not brilliant. It's a little metallic and mechanical sounding, and sounds rather like the speaker has emphysema, sponge teeth and lives in a wind tunnel; however, it's perfectly intelligible and is quite adequate for note taking and interviewing. An external microphone or speakers can be attached.

In the mid to long term, Psion hopes to move into areas like bar code reading, paging and fax, and the MC series will be well equipped to tackle these.

THE VERDICT

The machine itself is a delight to use and an impressive piece of kit. The innovations must be a taste of what computing is going to be like in the 1990s. The screen is excellent and offers high definition with very good legibility from a wide range of viewing angles. The keyboard is very good

too – bouncy and springy and positive. Even for long spells of typing it's still pleasant on the fingers, and it's a shame the text processor is so spartan and doesn't take advantage of the word processing potential.

The add-ons and innovative features are generally good. The voice processor adds an interesting and potentially very useful extra dimension to the machine – it'll be interesting to see how this takes off. The touch pad is a nice idea that just about works – but only just. It's a little frustrating and rather hit-and-miss until you get used to it. The built-in software is fine and the multitasking windows are clear and intuitive to use, though screen update can be just that bit slow.

Overall it's a very good machine and as a top-end organiser it's a winner. The only unanswered questions are in the area of more serious software. Beyond organising your days, writing brief notes and using it as a hi-tech computerised dictation machine-cum-note taker, there isn't yet the power software around to make it a genuine mobile computer. If and when it comes out – and that spreadsheet and word processing software can't come out too soon – it'll have an excellent machine, with a super screen and keyboard, to take advantage of ■



• There are two slots at the back, one on either side, to plug in peripherals



• The battery pack takes 8 standard batteries. A NiCad pack is also available



• The 'disk' drive takes solid state disks – battery backed to conserve data

TECH-SPEC: MC 400

All prices exclude VAT		Memory	256K flash EPROM	Batteries	8 AA giving a claimed 60 hours continuous use
Price	£845 (+VAT=£971.75)		256K RAM	Expansion	Two ports; serial/parallel interface; optional Quad modem; optional RS232/BCR/MCR (£89); optional voice processor (£99).
Size	49x314x227mm (1.9x12.4x8.9") the size of this page	Drives	4 solid state	Peripherals	External 3.5" 1.44Mb disk drive (£195); Fast serial PC link (£79); External solid state drive (holds 4) for PC (£159)
Weight	1.9kg (3.4lb)	Screen	640x400 Retardation Film LCD monochrome	Accessories	Mains adapter (£15); NiCad battery Cartridge (£25)
Processor	16 bit CMOS Static Intel 80C86	Built-in software	Text processor, Personal Database, Diary, Calculator, Alarms, Terminal emulator	Cables	IBM AT, XT, Apple Mac (£12.50)
Clock speed	7.68 MHz	Sockets	Fast serial link; external mic/speaker; 12V power		
Keyboard	Full size QWERTY, no function keys, keypad integrated into QWERTY keys	Disks	Flash EPROM 128K (£69.99) 256K (£115) 512K (£195) RAM 64K (£59) 128K (£99) ROM 2Mb		
Interface	Touch pad 'mouse'				
Sound	Microphone and speaker				
Graphic/windows	Operating System multitasking				



We Accept EXPRESS VOUCHERS



TREBLE



COMPUTING



We Accept EXPRESS VOUCHERS



★ 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, BOMBUZAL.

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

**ALL FOR ONLY
£369.99**

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
11 GAMES
80 CAPACITY DISK BOX
20 x 3 1/2" DISKS
MOUSE MAT
DUST COVER

**ALL FOR ONLY
£389.99**

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
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

GAMES SOFTWARE

ST SOFTWARE		AMIGA SOFTWARE	
Altered Beast.....	£13.99	Amiga Turbo.....	£13.99
Batman The Movie.....	£13.99	Batman The Movie.....	£17.99
Battlechess.....	£17.99	Continental Circus.....	£17.99
Continental Circus.....	£17.99	Dogs Of War.....	£13.99
Dogs Of War.....	£13.99	Falcon.....	£24.99
F16 Combat Pilot.....	£17.99	Falcon Mission Disks.....	£13.99
Falcon.....	£17.99	Fallen Angels.....	£13.99
Falcon Mission Disk.....	£13.99	Fast Lane.....	£13.99
Fast Lane.....	£13.99	Hills Far.....	£17.99
Ferrari Formula One.....	£17.99	Keef The Thief.....	£17.99
Fiendish Freddie.....	£17.99	Lancaster.....	£13.99
Grid Iron.....	£17.99	Never Mind.....	£13.99
Hills Far.....	£17.99	Pictionary.....	£17.99
Indiana Jones - The Adventure.....	£17.99	Populous.....	£17.99
Kick Off.....	£13.99	Power Drift.....	£17.99
Lancaster.....	£13.99	Pro Tennis.....	£17.99
Laser Squad.....	£13.99	Quartz.....	£17.99
New Zealand Story.....	£13.99	RVF Honda.....	£17.99
Passing Shot.....	£13.99	Shadow Of The Beast.....	£26.99
Power Drift.....	£17.99	Shufflepuck Cafe.....	£13.99
Pro Tennis Tour.....	£17.99	Slayer.....	£13.99
Quest For The Time Bird.....	£17.99	Sporting Triangle.....	£19.99
Red Storm Rising.....	£17.99	Star Command.....	£24.99
Robocop.....	£13.99	Stella Crusade.....	£26.99
RVF Honda.....	£17.99	Strider.....	£17.99
Shufflepuck Cafe.....	£13.99	Stunt Car Racer.....	£17.99
Stunt Car Racer.....	£17.99	Super League Soccer.....	£17.99
Super Wonder Boy.....	£13.99	Swords Of Twilight.....	£17.99
The Games Summer Edition.....	£17.99	The Games Summer Edition.....	£17.99
TV Sports Football.....	£17.99	TV Sports Football.....	£24.99

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.....	£89.99
CUMANA 1 MEG 3.5" for Amiga.....	£89.99
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 inc Cable +2 ribbons.....	£175.00
STAR LC10 colour inc Cable.....	£215.00
CITIZEN 120/D inc Cable.....	£139.99
EPSON LX800.....	£189.99
STAR LC 24/10 inc Cable.....	£269.99

HARD DRIVES

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

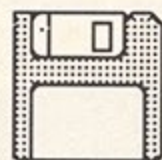
*** BEST PRICES ***

MUSIC AND SOUND

ST	
Steinberg Pro-24.....	£249.95
C-Lab Creator.....	£239.99
C-Lab Notator.....	£359.99
EZ Track Plus.....	£49.95
Edit Track.....	£199.99
Super Conductor.....	£39.99
Pro Sound Designer.....	£49.99
ST Replay 4.....	£64.99

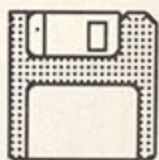
AMIGA	
Aegis Sonix V.2.....	£49.95
Aegis AudioMaster II.....	£59.95
Ar.ias.....	£77.99
Future Sound.....	£79.95
Pro Sound Designer Gold.....	£74.99
Eidersoft Midi Interface.....	£24.95
Datel Midi Interface.....	£34.95
Music X Out Now!.....	£189.99
Dr T's KCS.....	£159.99
Dr T's Midi Recording Studio.....	£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).....	£99.99
Moviesetter.....	£56.99
Deluxe Paint III.....	£59.95
Photon Paint II.....	£69.99

ATARI PORTFOLIO POCKET PC



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 40*8 and 80*25 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 361738**

Callers welcome Monday - Friday 10.00am - 6.00pm.

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

THE FUTURE IS FEMALE

Computing has always been called a male preserve. But the world of women's achievement has made room for computers, and it shouldn't be surprising that many of the top positions in the industry, on all sides – from technical to marketing and management – are held by females.

For some women success in working with computers and in computing-related industry has been as natural as writing or following the desire to become a programmer. Indeed, from a woman's perspective, computing has become very much a thing of the 1980s and beyond.

COMPUTERS AND TECHNOLOGY

After taking a degree in Maths and after four years working at Zilog, a company devoted to the development and manufacture of silicon chips, Dr Pamela Gray had gained enough knowledge of computer technology and the computer industry to strike out on her own.

Indeed, from her observations in the late seventies Dr Gray had identified a tendency in the industry for manufacturers and developers to pursue market-orientated interests rather than applying technology to solve real world problems. She established Sphinx Ltd, a software house, to supply software and training to people who needed it.

"I'm not really into computing in one sense, because I'm more interested in solving problems than in the technology," she said. Among other projects, she has delivered to farmers the means to update and improve agricultural production in underdeveloped countries.

Dr Gray, a one time nominee for the Veuve Clicquot Businesswoman of the Year Award, sold Sphinx Ltd. in April of this year. She is, however, about to launch Marosi, an information and consultancy service, that will focus on how can people in all kinds of different situations can use micro-computer technology to solve their problems.

She believes that women often find software sales rewarding, as delivering the right program to where it is needed requires an able-mindedness. "Women are better than men at listening to what the problem is and finding solutions, while still maintaining growth potential," she said.

DOCUMENTATION

As a Senior Technical Writer at Locomotive Software in Dorking, Jean Gilmour documents the company's vast range of products. "Initially I was the only technical writer here. Now, though, I'm Senior Writer and do tend to have my oar in just about everything, if I no longer do the writing single-handedly," she said.

Jean does admit to being something of a perfectionist when it comes to writing and laying out pages, but she doesn't apologize for this proclivity. "You need to be fussy. It's a pain in the neck, it requires a certain amount of effort, but there's no getting away from the fact that the results are better if you are a perfectionist."

Indeed, Jean does not consider herself to be in any way unusual. "If you're a scientific person – and female – well, a number of us go into writing. I don't see myself as rare in that sense."

In fact, Jean has never had any difficulty finding a job in computing-related industry. "And once into a job, I've experienced no obvious difficulty in progressing. You must bear in mind, however, that everything I've done has involved working quite closely with a small group of people, so there's a slightly different perspective there to progressing my way up a large company ladder."

PROGRAMMING MANAGEMENT

Chris Adams, Project Manager at Pergamon Press in Oxford, manages programming tasks that are necessary to keep the wide range of computer systems on target at this totally automated (and massive) publisher.

In order to assign programming tasks to the various senior and system's programmers, Chris must prioritize, and therefore understand each of the work requests that comes in from users located in Marketing, Sales and Editorial. But she began her career as a programmer.

"I paid for my own course, and then got a job on completion, eventually leaving that post to have a family," she said. Re-integration posed no problem for her. "Upon returning to work, I took a non-programming position at Pergamon, and then after a year a post as a Trainee Programmer opened up."

"I don't know if things have changed," my great grandfather said to me some years back. "But in all my nearly fifty years working for Lloyd's Bank, we never had computers working there, let alone women." Is it still true? Ben Feinbaum talked to women working in the computer world...



Indeed Chris said she enjoys, perhaps most of all, the problem-solving aspect of working with computers and with programming tasks in particular. "I guess you've got to have a bit of a bug for it."

SYSTEMS ANALYSIS

Fiona Faulkner works as a Systems Analyst at MOD Enleigh in Bath. "I certainly didn't wake up one morning when I was ten years old with a burning desire to be a systems analyst," she said.

As a representative of the Royal Navy Supply and Transport Service, that in turn supplies the Navy with absolutely anything it might require, however, Fiona travels to a site to work out exactly what computer system is necessary to make the task to be performed easier, and preferably more cost effective as well.

Fiona had been working in the MOD for nine years, mostly in an administrative capacity, when she was asked to take part in a study concerning the future of computer-based supply systems; thus she became involved in a work area she had not previously considered. Then in 1984 she turned her attention to becoming a programmer – mostly in Cobol and Quickbuild.

But Fiona enjoys the personal contact that her present job brings, although there is a downside as well: project-users continually changing the groundrules mid-assignment are her main bugbear. "Chasing moving targets can be very frustrating. But, on the other hand, it's

really rewarding when you know that you are working towards a positive goal – especially when the people you are helping are enthusiastic about the coming changes."

AUTOMATION SERVICES

Armed with secretarial training and a background in sales and marketing, Angie Thomas first encountered computers at the workplace indirectly, as a tele-sales operator nine years ago when she worked for Hy-Tech Microsystems. She moved rapidly on to another position at Oxford Regional Health Authority, where she developed training skills.

"I came to Pergamon Press as a WP Trainer," she said. Now she is in charge of ten support workers (all of whom are women). Indeed, as Assistant General Manager of office automation and word processing services, she believes that clerical support work is often under-rated.

"Many people think that word processing is glorified typing," she said. "But, quite honestly, to run this office well you need skilled staff – all of whom must be highly trained in desk top publishing and lay-out."

In fact, as her department is called upon to produce presentable material from an astounding variety of copy, coordinating, organizing and budgeting time and resources takes considerable flair. "I do feel that it's a lot of responsibility," she said. "And I enjoy it – some of the time."

It doesn't seem to worry her that the office is comprised entirely of women. "I have only ever had two applications from men – neither of which were suitable," she said. One wanted too much money, and the other was just not up to the standard.

THE LAST WORD

My great-grandfather was a somewhat philosophical man, but he also liked to play his ukulele. One cold, clear, crisp Autumn evening he decided to reminisce by playing a few songs from his hey-day – the 1930's.

I do not remember much of what he performed, but one chorus from one tune has stayed with me:

"Some people say that men are leading the women today.
But I say women are smarter in every way.

That's right – the women are smarter
That's right – the women are smarter
That's right – the women are smarter
The women are smarter

That's right: That's right." ■

Run rabbit run

Remember when Roger Rabbit came out on the Amiga? Great game - but it takes about six minutes to load, and when a game finishes you have to power off and re-load again.

Well - I claim to be the first person in Britain to own Roger Rabbit version 2. It loads in a maximum of just over 3 minutes (a minimum of about 90 seconds if you press the Space Bar to cut out all the introductory screen!) Also when you've finished a game you can restart straight away.

How did I get hold of this? I posted my warranty card to the USA which came with the original version. A few months later a letter came telling me about this new version and here's the punchline - it cost me the equivalent of £5 including postage and I didn't even have to send any disks back! That's customer service.

This must surely stand out as a benefit to everyone who buys original software and gets sick of pirates who save pounds. With a pirate copy you would get no warranty card!

Craig Thornton, Lincoln

As backup and support is always cited by the manufacturers as one good reason (OK, two) for buying a genuine copy and registering, it's nice to see a company that actually provides some even on a game.

Access denied

I am writing this letter to you for several reasons. I have to use a wheelchair, and cannot go out very much. So the computer, which in my case is an Amiga, has become a lifeline to the outside world.

I want to try desk-top publishing, so I went to the Computer Shop in the shopping precinct at Great Yarmouth to ask them for help in purchasing the computer and a printer. They were able to help to the extent of delivering the equipment personally, and setting it up



for me at no extra charge. Consequently I experienced some difficulty with the computer that meant it needed a service. Because I cannot carry anything, they collected the equipment, solved the problem, and then brought it back for me. The manager of the shop did this in his own time, and took every care to make sure that the problem was solved. I needed help more than once, and each time I have been treated with the greatest kindness.

So that I can say thank you to Mr Kevin Whitbread who runs the shop, and who has been responsible for the kindness shown me.

The computer is a wonderful machine. I cannot go out but it has allowed me to fly. I have piloted a submarine. I had a go at ending the cold war through Balance of Power. I can play golf. There was once a time when I played the flute. Now I cannot, but I have Deluxe Music Construction Kit. I have a keyboard which is nearly paid for through a club-book. When I can afford to I

EXPRESS MAIL

Britain's liveliest computing forum - packed with comment, controversy and conflict. Write and tell us what you think! Reach us at:

Express Mail, 4 Queen St, Bath BA1 1EJ

Sorry, no personal replies, even with an SAE. We're too busy writing Express!

hope to buy a midi interface. Then I will be able to listen to music via the keyboard. This will be some compensation for not being able to play an instrument.

I have an American pen friend. Writing to him was becoming impossible using a pen. It is lovely to be able to use the computer. At the moment I only have the text editor to use, but I am saving up for Publishers Choice. My social worker has told me that the social services would like me to do some work for them when I get the software, so they will be my first customer. I will not charge anything for this as I only want to do it as a hobby, but at the same time I want to help others.

If you become disabled, you have to accept help from others, without being able to do much in return. I hope that I can use the computer as a way of saying thank you to a lot of kind people. If there are any disabled people who are thinking about getting a computer, and they read this, I would like to

say, go ahead. It is the ideal hobby.

I love simulations and have seen your review of Sim City. I would like to design a place where disabled people are allowed to be a part of the community, and not be denied a normal life because there is no transport and no access and no proper ramps or crossing points. Does Sim City allow you to plan anything like this?

Thank you for producing such a good read. It is one that I look forward to every week. It helps me to feel as though I am part of the community when I read the letter page. Also, thanks for the Tech Tip Uncle. I read this just for the remarks Uncle Tech Tip makes. If he is going, I for one will miss his sense of humour.

Paul Frosdick, Bradwell, Norfolk

He's still doing Tech Tips for the moment so you can continue to enjoy his, er, sense of humour.

Thanks for your perspectives, Paul. While I guess things are improving, it must be sickening to face difficulties of access to do things most of us take for granted: going out for a meal with friends, nipping down the pub, or popping into the library. Not much micros can do about that, but if they can help out with a few of the things you mentioned, then it's nice to know that they can be less trivial things than some people would have you believe.

Suspicious letter

As head of Atari UK, it has come to my attention that the Atari repairs division has been overwhelmed by the returns of ST machines, the faults of which, could in the majority of cases have been easily avoided.

So in the light of this I would like to appeal to your ST readership to follow some worthwhile tips, to aid the long life of their machines. My thanks to our chief maintenance engineer Neville Oddball for supplying this information.

1. Would ST users please refrain from using their machines as electric toasters since many returns have been caused by English muffins becoming jammed in disc eject mechanisms. If in any doubt would users please refer to the man-

Inside story

Hi guys, after reading about all this 5 years imprisonment for Hackers, all I can say is "Cor blimey!". Five years is way, way to steep, I'm in the old blue brick doing two and a half years for almost killing a guy and I'm told that I may get five years if I indulge in a bit of hacking!

Get a grip Emma Nicholson, what you need to think of is the people who commit this petty crime who are not big guys with tattoos and scars like me. These hackers might have families depending on them, they are the ones (the family) who will suffer when Joe Bloggs is doing a five stretch, believe me, I know all about it!

People who drink and

drive get 'points' on there licences and banned from driving. Why not confiscate equipment for, say 6, 12, 18 months and a ban on using computers with modems and access to networks?

Five years will damage a person's life, ruin a career and hurt families. This is much too severe. That stupid cow shouting her mouth off, it's like a Monty Python sketch! She wants to spend a while in one of these places. Your average bespectacled, spotty hacker wouldn't last five minutes and if he did he'd come out knowing how to rob cars, burgle houses etc.

The maximum in my eyes would be 18 months, and only then for starting full global warfare. Have

you any idea of the mental pressure you can be under from being isolated from the outside world?

I'm missing my Amiga so much I might crack up any day now and I've only done 14 months! Ha Ha. Anyway, my point is: five years is too steep, these places are no joke.

PS We have a course here run by Cambridge, maybe you'd like to find out what we get up to with our BBC Masters and Archimedes 310s? The psychology of the inmate, ha ha.

By the way, I'm 21 and I repent!
Carl Holland, No. 681, HM Prison, Rugby, Warwicks

It certainly seems stupid that in a time when our jails are already overcrowded that

some people want to put more people inside. Putting a hacker inside, as you say, is probably going to turn the hacker into a criminal - or a nervous wreck. Maybe it's just that some people want revenge?

It's going to be difficult to stop people using a modem as you don't need a licence or anything as you do to drive a car. I think the most practical way of deterring and punishing hacking is huge fines; if someone has the computer expertise to hack, they can put it to use in a job to pay off their fine.

Anyway, as the writer of this week's prize letter, we're sending you a piece of software for the Archie. It's Breakout. (Only joking - it's something else!)

ual supplied as regards the maximum size of bread applicable.

2. The Atari ST is not for use as a draught excluder and Atari UK will not be held responsible for loss, damage or fatality arising from such use.

3. (i) Atari UK would like to make it quite clear that the Atari VCS games system is not compatible with any ST even though the visual and audio capabilities of the two machines appear to be the same.

(ii) The ST cannot be used as a memory expansion for the aforementioned console.

(iii) Due to the technical inferiority of the machine, Atari have no plans to release VCS cartridges for the ST

My profound apologies to ST users who were expecting their own copies of *Battlezone* and *Smurfs*.

Robert Gleadow, Atari UK Ltd

Well, this is only a letter from someone pretending to be Bob Gleadow, Head of Atari UK, of course. For a start, it was typewritten, and I'm sure Atari wouldn't get involved with outdated and low-performance technology. Good heavens no. No sirree. Perish the thought.

Dragon on and on

I would urge all those who still have Dragons stuffed into cupboards etc. to get them out again. Your STs and Amigas are not the only ones with wimps and mice, you forget that the Dragon is also capable of running C, Pascal, Forth, OS9, Flex as well as Microsoft BASIC. (I have seen a Dragon with 128K running a hard disk system). It also has some software compatibility with COCO machines, even the BBC. Don't forget that some of the programmers on Atari and Commodore machines cut their teeth on Dragons and are probably still using them as second machines. So don't knock us down. Apart from the financial investment my C64 does what I require without any fuss or bother and I have as yet to run out of memory, changing to another machine is only a 'status' and the 'in thing'. The Dragon still lives on and on.

Frank Fisher, Gillingham, Kent

As computer users we all like to look at and read about the hi-spec micros like the Archimedes, STs, Amigas etc, but the realities of life - which involve mortgages and new shoes for the kids and gas bills - mean most of us are happy to keep using machines we have without feeling the need to upgrade just to follow trends. And if it does the job, why not? I still have an old Ricoh laptop I bought four years ago which is in use every day. It's just the right depth to prop up the dodgy leg on our bed.

Pedant's point

(strictly not a point but a two-dimensional area)

Your Shopping Express Guide to 50 Top PCs now admits that the Amstrad PC1640 is an EGA machine, but still complains of a 'poor quality monitor'. This is simply untrue. This computer is supplied with one of three different monitors. The EGA colour monitor (ECD) is excellent and has been rated as such in many reviews. The

Bog standard

I thought this sums up what most of these "my computer is better than your computer" lot think about other computers.

I read the letter from Vincent Marsters (*Express* 37, July 22) about how bad it is to wait to get his issue. I only got that issue on October 30; I suppose there are some drawbacks to living in the best part of the world.

James Stonell, Logancity, Australia

Thanks for sending it, James. I just hope it takes so long for things to reach you that you haven't got the cricket scores from this summer's test series in England yet.

monochrome or CGA colour monitors are probably poor choices because they do not make full use of the machine's built in graphics hardware, but there is nothing wrong with the quality. I still think your reviewer has the PC1640 confused with the PC1512.

Why continue the complaint about the Amstrad having 'only' three expansion slots? You list two IBM models that have only three slots without whingeing on about it, commenting instead, 'the best always costs a little more'. In fact IBM's PS/2 Model 30 offers the same spec as the PC1640 at double the price. Commodore's PC10 has only 3 slots, and also a CGA display and 8088 CPU, but you give it a higher desirability rating than the Amstrad even though it has a lower power rating and costs more. Besides these, you list five other computers having only 3 slots without any complaint. Why pick on Amstrad?

Iolo Davidson, Tetbury, Gloucestershire

We asked you last time if you wanted to do the PC Buyer's Guide but we never heard back from you.

Why pick on Amstrad? Simple. When it comes to being pleasant, helpful and considerate in The Industry, Amstrad is roughly on a par with the Third Reich. Anyway, it's fun.

Disk using

I sent my Dungeon Master disk to Mirrorsoft to be upgraded. They cashed my cheque for £3 on September 7th! Over two months later I still have not received a new disk.

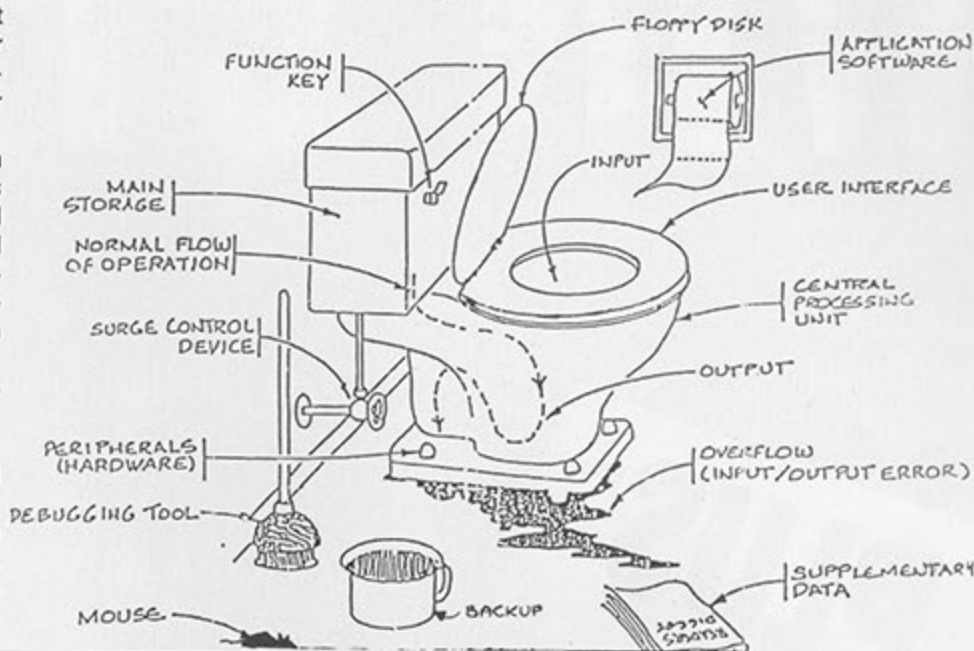
Richard Jennings, Edmonton, London

Right, Mirrorsoft, I'm going to count to ten, and if you haven't returned his disk by the end, we're doing a feature on Nasty Companies Whose Games You Shouldn't Buy. One, two, three, four...

Type casting

Congratulations! Yours is the first computer mag I can remember stressing that keyboard literacy is as important as computer literacy.

Understanding the Technology



What is the point of using fast, modern technology if one's keyboard skills are still in the horse-and-buggy stage? I have always marvelled at the numbers of people using computers who find no difficulty mastering complex programming languages, advanced software etc., but who cannot be bothered learning how to train the same fingers to hit the same keys.

Why - laziness? A sneaking feeling that keyboard skills are best left to females? Even computer journalists can still be seen pecking away like short-sighted hens instead of being in full-fingered flight.

I feel really smug about this as it was 1955 when I first leaned to touch-type. Gloat! Gloat!

Neil Foster, Merseyside

1955? My goodness, you learn quickly. It's only ten past eight now.

Now that our kids are apparently to learn typing skills at primary school, perhaps we might see a shift away from the stereotype of the female as secretary. I hope so.

Thanking you

I'd just like to say thanks to everyone who sent me articles on Fractals and the Mandelbrot set. Sorry I couldn't reply to everyone.

J Melia, Telford, Shropshire

Well done to all involved.

Bouquet shop

Usually when I write to you it's to moan about something, so just for a change I'd like to report on some good service I received.

Electronic Arts' Interceptor has long been a favorite of mine, but I recently lost the cardboard "computer" used to decipher on-screen protection codes (the only protection, incidentally, on this otherwise backup-able game. So how come EA aren't bankrupt yet...?).

I rang Electronic Arts to see if I could get a replacement. All I had to do was provide proof of purchase and they sent me a free duplicate the next day, so I'm airborne again

for the price of a stamp. It may well be quite a routine service in the software industry for all I know, but I was pleased anyway.

Stephen Mercer, Shaftesbury, Dorset

Well done EA. Take this tennis racket for your services.

Public inquiry

Why haven't you got a PD section in your mag? How come you never print any of the letters I've sent you?

Looking at issue 53, I think the idea of the Codemasters placing games on CD, then linking up your CD to your computer with the appropriate leads, is a wonderful idea. The leads can be sold separately, at say £10 each, and the CD will not be so highly priced. I only hope the Amiga will be able to have this great chance, as nearly everyone has some sort of CD, whether it's on their personal stereos or their hi-fis!

Neil Mansell, Essex

We're considering a PD section so if enough people write in (hint, hint) who knows what might happen? I haven't got a CD. But then I haven't got a CPC either.

Offer you can refuse

I am sick of hearing from crackers telling me that what they do is OK. The facts are a game is released and next day I can get hold of a pirate copy = We lose sales.

They can go on and on about the price of software and games being rubbish till they are blue in the face, but they are just common thieves.

How about this for a suggestion. If all you crackers out there promise not to distribute a game until four weeks after its release, I will shut up and go away. We will make more money so we can write better games and bring down the price, you can still provide your "service", and everybody will be happy.

How about it guys?

A Programmer

But four weeks is twenty-eight days. Can they count that far?

WIN £12,000!

PLUS

Ten stylish mice from Naksha for your PC, ST and Amiga. the new upgraded versions cost £40 each. That's £400 worth of kit.

Naksha MOUSE
UPGRADE VERSION



FOR USE WITH
AMSTRAD PC
ATARI ST
COMMODORE AMIGA

Last week was the first part of our Express Christmas competition – in which you can win prizes to the value of £12,000!

To enter the competition you must have the official entry form that came with last week's Express. Then we gave you questions 1-10; this week there are questions 11-20. The final ten questions will be next week.

ALL THIS MUST BE WON!

These are just some of the goodies in our great Christmas Competition. In our first week we offered you the chance to win the best software and hardware we've ever seen – worth £12,000 worth in all!

All you have to do is answer questions between now and the end of the year. The prizes are listed on the cover of this issue of Express. The winners will be in next week's Express and 21 days after that.

QUESTIONS

1. The Philips...
2. The...
3. The...
4. The...
5. The...
6. The...
7. The...
8. The...
9. The...
10. The...

QUESTIONS

- | | | | |
|--|--|--|--|
| <p>11. Microdeal is giving away Quartet, its amazing music package for the ST. Which US musician produced the first LP with synthesizers, <i>Switched on Bach</i>, in 1968?</p> <p>A Michael Jackson
B Elvis Presley
C Walter (now Wendy) Carlos</p> <p>12. Evesham Micros is providing an Olivetti PC1. What famous historical event happened at Evesham?</p> <p>A The Battle of Hastings
B The Fire of London
C Nothing very famous actually</p> <p>13. Star's printer, the LC-10, is up for grabs. Which of the following is not a type of star but a BBC TV comedy series?</p> | <p>A White dwarf
B Red giant
C Red dwarf</p> <p>14. Microillusions' Music X and Photon Paint can be yours. Which of the following areas of land 'seen', named and put on the maps by 20th century explorers in fact turned out to be a mirage?</p> <p>A Milton Keynes
B Stevenage
C Crocker Land, in the Arctic</p> <p>15. Asterix is on offer from French outfit Coktel Vision. Which French team wrote the original comic strip series?</p> <p>A Soufflé and Éclair
B Croissant and Escargot
C Goscinny and Uderzo</p> | <p>16. There are fifty Powerplay joysticks to be won too. Which of the following programs would NOT use a joystick?</p> <p>A A flight simulator
B A shoot-'em-up
C A spreadsheet</p> <p>17. Twenty copies of the Activision games Dynamite Dux and Altered Beast are up for grabs too. Alfred Nobel, inventor of dynamite, is famous for what other thing?</p> <p>A The class system
B The silent telephone
C The prizes awarded for contributions to Peace, Literature etc.</p> <p>18. CRL is giving 30 virus killers. Which of the following is NOT spread by a virus?</p> | <p>A The common cold
B Hepatitis
C A hangover</p> <p>19. There are also four Faery Tale games. Where would you expect to find a fairy at Christmas time?</p> <p>A At the bottom of the garden
B Under your pillow
C On top of the Christmas tree</p> <p>20. You can win ten copies of Autoroute – the route planning package from Next Base. If you drive right to the end of the A9 in Scotland, where would you be?</p> <p>A A long way from a toilet
B Lost
C John O'Groats</p> |
|--|--|--|--|

FREE! TENSTAR PACK WORTH OVER £229!



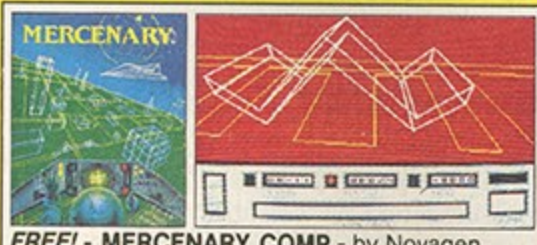
FREE! - AMEGAS - by Players



FREE! - INSANITY FIGHT - by Microdeal



FREE! - ART OF CHESS - by SPA



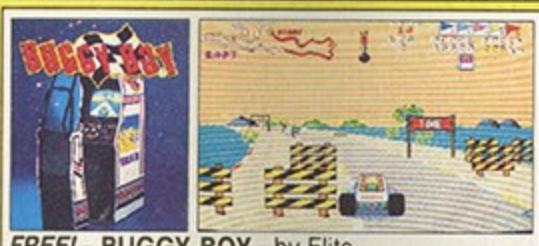
FREE! - MERCENARY COMP - by Novagen



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



ONLY £3.34 PER WEEK
RETURN COUPON FOR DETAILS

£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 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.

FREE TENSTAR PACK

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	£229.50

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 1289 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 1289

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

EXPRESS LISTINGS

Robert J Baker supplies a few of his all-time favourite listings. Don't try typing them in though...

TEN NAME CHANGES

- 10 *Sinclair Software to IJK Software*
...to avoid confusion
- 20 *Spectrum Games to Ocean*
...presumably ditto
- 30 *Quest to Fantasy*
...there was already another software house of that name
- 40 *Crystal to Design Design Design etc*
(ditto)
- 50 *K-Tel Software to First Star*
...the early re-releases irrevocably tarnished the K-Tel name
- 60 *Softek to The Edge*
...don't know why
- 70 *The Valley to The Swamp*
...Kayde's version of Argus Specialist Publications' program, *The Valley*, took derivativism a bit too far: it was also called *The Valley*. The name was changed pending litigation.
- 80 *Vixen to She Fox*
...for the West German market. The Bureausoftwarecensorshipcommittee objected to the name because 'Vixen' sounds like a naughty German word for copulation. Martech obligingly changed it to 'She Fox' which, as quickly becomes obvious, sounds like something equally naughty in English
- 90 *Science of Cambridge to Sinclair Research*
...though they had given the game away releasing three 'Sinclair' branded computers - the MK14, ZX80 and ZX81. Indeed, the distinctive style of the adverts gave the game away from the start
- 100 *VIC40 to CBM64*
...See 'Vixen' above. Some shops got a little confused and called it the 'VIC64'.

TEN PEOPLE

...who sound like computer terms

- 10 Ray Tracing
20 Ben Schmark
30 Elsie Dee
40 Emma Sachs
50 Joy Stick
60 Gaye Mowver
70 Phil Patten
80 Dot Matrix
90 Daisy Wheel
100 Sam Cooper

TEN PROGRAMS

...which never saw the light of day

- 10 *Eye of the Moon (Beyond)*
...though this may yet appear from Maelstrom
- 20 *Jumbly II (dkTronics)*
- 30 *QL Spectrum Emulator (Joe the Lion)*
- 40 *Mire Mare (Ultimate Play the Game)*
- 50 *Miner Willy meets the Taxman (Software Rejects)*
- 60 *Mutant Zombie Flesh-Eating Chickens from Mars (ditto)*
- 70 *Hareraiser Final (Haresoft)*
- 80 *Bandersnatch (Imagine '82)*
...although after briefly being promised for the QL, this

eventually turned up on the ST as *Brataccas*

90 *The Great Giana Sisters (Rainbow Arts)*
...Nintendo claimed it was a ripoff of *Super Mario Brothers*

100 *Katakis (ditto)*
...Actigenic, or Mediavision, or whatever it was called then, claimed it was too similar to its own *R-Type*. It was revamped as *Denaris*, prompting one reviewer to begin the review by stating that 'Shoot-'em-ups are ten a penny', one of the most contrived puns ever

TEN PROGRAMS

...which deserved a lot more than they got

- 10 *Rockford*
...probably the first coin-op to be a budget title from the outset. Slagged off by some for 'jerky' scrolling, which goes to show that if you look for anything, you can find it
- 20 *Heathrow ATC*
...probably didn't catch on because most people rushed in to play without reading the inlay card
- 30 *Kat Trap*
...The fruit of the 'Genesis' compo in *Crash*, the then leading Specmag, this flopped badly.
- 40 *Helter Skelter*
...brilliant game which got glowing reviews - and then softly vanished away never to be heard of again. Sold in total about 500. Possibly another argument against the 'pirate copies between friends are just harmless fun' idea.
- 50 *Sinclair QL*
...bugged by delays, this should have been the ST of its day - but wasn't finally killed off by Amstrad.
- 60 *MSX*
...killed partly by overpricing, partly by amazingly bigoted reviews in the computer press. Commentators harped on endlessly about the so-called 'ancient' and 'underpowered' Z80 chip - ridiculous, considering that most popular machines of the day used the even older and less powerful 6502
- 70 *Currah uSpeech*
...a good idea, especially as Currah (like Kempston before them) hassled software houses to accept its device as standard. Unfortunately it wasn't flexible enough to give really good results, so Currah ended up going bust. They were bought by dk'Tronics, whose director reportedly got sick of the business and pulled out; dk'Tronics was bought up by RAM Electronics which hit financial trouble; RAM was bought out by Datel, whose directors had better be careful not to break any mirrors
- 80 *Your Spectrum*
...by far the best mag of its type until it was inexplicably replaced
- 90 *SPEX*
...the column in this mag which should be at least 10 pages, due to the fact that there are no longer any decent Spec mags; they've all been converted into comics
- 100 *RamPrint Interface*
...actually this one deserved a lot worse than it got, but I couldn't think of ten underestimated products however positively I thought!
- *Robert wins a totally arbitrary £25 for his lists. Think you could do better? Then what are you waiting for! Send your listings to:*
Listings, New Computer Express, 4 Queen St, Bath BA1 1EJ.
We pay hard cash for the ones published, so get writing...

NEXT WEEK

CHRISTMAS IS COMING

What to buy the computer user with everything... or nothing? Let Express take the hassle out of your Christmas lists

1992 IS COMING

PC business programs that are invaluable in anyone's language

MICROSOFT WORKS IS COMING

The latest all-in-one PC solution reviewed

PLUS

- Latest hardware and software reviews
- Express Buyer's Guide to Monitors, Scanners, Joysticks and Mice
- A column for your machine

WITH

- Tech tips: sound advice
- Computing's best soapbox - the letters pages
- Six pages of the latest news

AND

Part three of our stunning Christmas competition

Out next Thursday

AT MICRONET WE'RE REALLY TALKING!

FREE MODEM
with annual subscription

With Micronet you can turn your computer into a communications terminal that will download free software, access up-to-the minute computing information, play exciting multi-user games, talk to other people (and computers) and a lot more.

And if you pay for a year's subscription in advance we'll even give you a modem free when you join.



FREE SOFTWARE

On Micronet you can browse through an extensive software library of free programs, select one and then download it.

We now have software for all popular machines, from the Spectrum to PC compatibles, including the Atari ST and the Amiga.



INFORMATION

Micronet is also a computer magazine. Our computer news area is updated every day, so there's no better way to stay up-to-date, and our software reviews and features for all popular micros mean Micronet members are

always better informed.

Add to this Prestel's massive database and you'll have all the facts at your fingertips.



ENTERTAINMENT

But Micronet is not just informative, it's also a lot of fun! As a member you'll have access to a range of games, including the UK's most popular multi-user game, Shades, where the action is live and so are your opponents!



COMMUNICATIONS

And with Micronet you can use your computer to communicate with thousands of other users. From electronic mail, telex and fax to chatlines and teleconferencing, Micronet lets you do the talking.

LOW COST

A Micronet subscription, which includes Prestel, costs just £23 a quarter, and using Micronet starts at only 55p an hour including telephone charges! Wherever you are,

Micronet is just a local phone call away.

Just phone our Sales Desk free on 0800 200 700 or clip the coupon today for a free brochure and details of how you can get a free modem.

Join Micronet, and get talking!

FREE DEMONSTRATION

If you have access to a modem (1200/75 baud) and viewdata communications software you can see a free demonstration of Micronet. Just Dial 0272 250000 and use the ID 4444444444 and password 4444.
You can look up a local telephone number once on-line.

Return to: Micronet, Units 8/10,
Oxgate Centre, Oxgate Lane, London NW2 7JA

Name: _____

Address: _____

Tel. No.: _____ Age: _____

Machine Type: _____



NCE 15
MICRONET

THE UNTOUCHABLES™

THE ULTIMATE

six exciting action sequences put you in control of Elliot Ness's elite squad of mafia-busters.

ALLEYWAY SHOOTOUTS

THE BORDER RAID

The Railway Station confrontation and Warehouse bust culminating in the thrilling denouement of a

ROOFTOP DUEL

as you re-live the knife edge existence of Ness in his struggle against the retribution of Capone!

THE UNTOUCHABLES
LIVE AN AMERICAN LEGEND



"a fine example of how to do the job properly... a cracking conversion... easily one of the most successful licences to date"
Sinclair User



"an absolute corker of a game... as smooth and polished as you can get, animation is top notch... a brilliant film conversion"
Your Sinclair



TM & Copyright © 1987
by Paramount Pictures
Corporation.
All Rights Reserved.

SPECTRUM
COMMODORE
AMSTRAD

£9.99

ATARI ST
PC & COMPATIBLES

£19.99

AMIGA

£24.99



"Apart from the sheer thought apparent in the game design, there are the superb graphics"
Games Machine

"the film was great... the game is even better. Great atmosphere... the music is brilliant... a spectacular combat game, an unbelievable package... and utterly superb game."
Zzap