

Only
48p!

QL: The high flyer that never took off - page 27

NEW COMPUTER EXPRESS

First news, first reviews - every week

COLOSSUS
OF ROADS

Autoroute's
intelligent
road map

page 31

AFFORDABLE ARCHIE



page 15

ART ATTACK

Which package for your micro? Express reveals the best value for money

Columns for YOUR machine

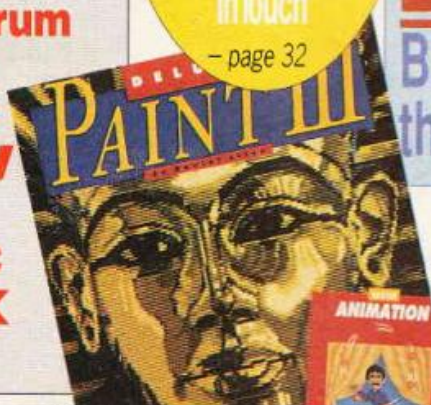
PC
Amiga
Atari ST
Spectrum
C64
CPC
PCW
QL
BBC
MSX

- pages 37-44

DISK TUTORIALS

Learn dBase, WordStar and Lotus the easy way with InTouch

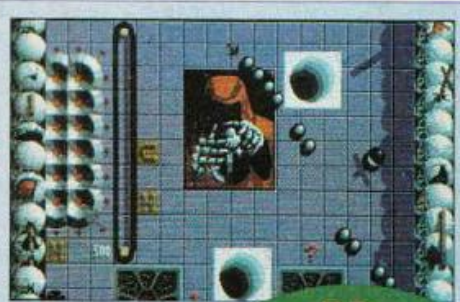
- page 32



New model could be £500 - page 2

BALLISTIX

Blasts through the crossfire - page 55



State of the Art?

DeluxePaint III - page 35

PD

How to get the best software free - page 21



• Confounding its Archie-enemies: Affordable Archimedes to appear this summer

STRIPPED DOWN ARCHIE TO BURST THROUGH

A stripped down low cost Archimedes will be launched by Acorn in the summer, *Express* can reveal.

It is thought likely that the nameless machine will be priced in the £500 to £600 bracket. Some are suggesting that it could weigh in at £499. Acorn will unveil the low cost Archimedes at the BBC Acorn Show in July.

According to one insider, the new machine will include an internal disk drive and will be similar in appearance to the BBC Master 128. There is a possibility that it will offer 2 Mb of RAM. Like the more luxurious Archimedes, it will run under the impressive and super fast RISC environment and will incorporate 32-bit technology.

Acorn is hoping to keep prices down by selling the machine as a complete micro rather than offering the keyboard and disk drive in separate boxes.

The machine will be aimed squarely at those BBC owners who want to upgrade but have found the Archimedes 305 too expensive (basic model £699 without monitor). The 310 model starts at £835.

Many Beeb users are reluctant to transfer their loyalties to the ST, Amiga or even PC. Neither Commodore nor Atari will be pleased to hear of this new development, both of which have been making efforts to squeeze into

the educational marketplace which Acorn dominates.

The most important customers will be primary schools looking for better graphics and more memory than the trusty old Beeb. Educational specialists believe that kids especially will find the Archimedes' graphics and icon driven environment stimulating.

Acorn itself is introducing the new machine as a way of filling in the gap between the BBC Master and Archimedes without cutting prices of its flagship machine. However, the firm is refusing point blank to comment on the matter.

"People are at liberty to speculate and we are at liberty not to respond," said communications director Michael Page. This line was repeated three times when he was pressed. Page would not confirm nor deny the existence of any new machine.

Acorn is said to be "hopping mad" that this news has leaked out. Major software developers have been warned to keep tight-lipped about the machine.

Although the new micro is not being pitched as a games machine it is said to be considerably better than both the ST and Amiga in terms of graphics and speed. One observer told *Express* that if Acorn does manage to get the machine out at the right price it will be "an absolutely enormous success".

Braille micro brings PC computing to the blind

The first fully PC-compatible micro designed for the visually handicapped has been launched.

The machine differs from standard computers for the blind in that it incorporates a braille read-out rather than speech synthesis. *Libra* (RW), the firm behind the £6,500 computer, says it will mean blind people can work alongside the sighted without problems.

The *Libra* has, in place of a monitor, a tactile braille display which allows the user to read text. The keyboard also features the six braille keys and a further two for the cursor position and upper case.

Libra's boss Reg White told *Express*: "This can replace speech facilities, which are stressful to the visually handicapped. They don't like having the machine chatting at them all the time."

"Now employers will be able to incorporate the *Libra* into their networks because the machine can easily be



• Restoring the balance: *Libra*'s breakthrough for the blind

linked up and is fully compatible with PC software such as Lotus 1-2-3 and WordStar."



• Rays of sunshine: *Render Bender*'s optical precision

Graphic descriptions

The Archimedes, graphically impressive by itself, has gained a 3D ray tracing animation package courtesy of *Clares Micro Supplies*.

Render Bender enables users to construct animated scenes on their machines and even add music. Ray tracing allows artists to create scenes in which each individual pixel takes into account all relevant reflections and light sources.

Clares says this makes for an absolutely correct animation according to the laws of physics and optics. It costs £79.95. More on 0606 48511.

Nintendo crackles and pops

Such is the extraordinary popularity of the Nintendo games console in the US that a new breakfast cereal is to be launched onto a nation of unsuspecting kids called delectably The Nintendo Breakfast System.

The fruit flavoured wheat puffs are shaped like characters from Nintendo

games including the Super Mario Brothers. Nintendo is launching the cereal along with brekkie giant Ralston Purina next April. "I think its really aimed at the kids, but knowing adults they'll be tucking in as well," quipped a Nintendo US spokeswoman.

Networking it out

Networking your PC can be a hazardous business, even with simple low cost solutions from the likes of Amstrad. With this in mind a new book has been published called *Communications and Networks* by Phil Croucher. It's published by Sigma, claims to explain the problem to beginners, and costs £11.95.

BEEB PLANS "RELEVANT" MICRO TV SHOW

It's been pointed out many times that TV shows dealing with computers are pretty dreadful affairs - but that could be changing.

The BBC is screening a two and a half hour show in early April showing how computers can help ordinary people. *The Software Show* will cover low cost software as well as familiar micros such as the Amiga, PC, ST, PCW and BBC.

The first *Software Show* will feature:

- A comparison of DTP packages such as *Timeworks* and *Pagemaker* on four different machines.
- A consumers test of word-processing options.
- Former Mastermind and famous cab driver Fred Housego testing *AutoRoute* on a PC portable.
- One-time newsreader and Genealogist Gordon Honeycombe showing how computers could have helped him trace his extraordinary family tree.
- The ST running a variety of music packages
- Schoolchildren logging their bird-watching discoveries onto computers.

If the show proves to be a success then a follow-up will be made. The

production team hopes to touch on subjects such as adventure games and comms in future editions.

"We'll just have to see how people respond to it," said production team member John Allen. He

agreed that computer shows in the past have been less than entertaining or relevant. "We want to cover machines that aren't really expensive and that are relevant to



• Kids involved in real-life tests on The Software Show

the reader," he said.

The Software Show will be screened on Sunday April 2nd between 10.00 am and 12.05 with a further half hour on from 11.00 pm.



• The White House: Will George Bush's data disks go into the public domain?

White House guards its computer secrets

An important court case kicked off last week which will establish how much right the public has to see US Governmental secrets held on computers.

The National Security Archive wants future historians to be able to peek into the thinking of Governments by having access to computer data banks. In the past they have been able to access government deliberations by seeing documentation kept on paper.

The White House, though, wants to be able to keep its computer records to itself. The case was sparked off by the Irangate row in which secret liaisons held on computer banks were tracked down, thereby establishing that guns were indeed being sent to Iran.

"The case is about bringing the historian into the computer age," said historical historian and publisher Andre Deutsch. "In the future, more and more data will be stored and researched through computers. It will make the historians job so much easier because the computer will be able to scan every document for the key word under enquiry."

CONTENTS

FEATURES

- GRAPHICS** 15
Your complete guide to Art on the Micro: what to look for, what to buy, where to go
- HISTORY OF THE QL** 27
The launch stunned everyone. So what's gone wrong?
- AUTOROUTE** 31
The intelligent road map reviewed
- DISK TUTORIALS** 32
Could this be the answer to your PC training problems?
- DELUXE PAINT III** 35
Startling new paint package for the Amiga

REGULARS

- EXPRESS COMMENT** 4
- CHARTS** 5
- LETTERS** 10
- JOBS** 42
- TECH TIPS** 47
- GAMES** 55-58
Ballistix, Realm of the Trolls, Eliminator, Incredible Shrinking Sphere, The Deep, Jug, Human Killing Machine, Backgammon, Pacland
- GAME PREVIEWS** 50
Weird Dreams, Vigilante, Risk, Mars Cops, Infinity, Overload
- VOUCHERS** 59
- BACK PAGE** 62

YOUR MACHINE

- ST** 37
- PC** 38
- Amiga** 39
- Spectrum** 40
- Commodore 64** 41
- PCW, QL** 42
- BBC, MSX** 43
- CPC** 44

WHAT IN THE WORLD...

How many dentists are there in Bolivia? What's the GNP of Bulgaria? And what's the literacy rate in Bangladesh?

All these puzzlers can be answered on your PC with a new package from the US called *PC Globe*. Costing £70, the program contains maps and salient information concerning 177 countries around the world.

As well as population, age structures and so on, *PC Globe* contains details of political groups and leaders as well as international alliances such as NATO. It also has an automatic currency converter and point to point distances. More on 0983 864674.

NEW COMPUTER EXPRESS

COMMENT

Eureka?

The verdict on the Archimedes when it came out was unanimous: nice machine, shame about the price. With the entry level model twice the price of an ST or an Amiga, the home market was not going to go for it.

The high price was due to two reasons. First, the enormous cost of Acorn's research and development (many say that Olivetti was twisting its arm). Second, Acorn had cold feet about going into the mass market - possibly the effect of having had its fingers burnt with the BBC. It was content to go for the specialist and academic computer buyer - areas like desktop publishing, research and education - where the market is rather easier to control and easier to predict.

And, by all accounts, it's hardly failed. Large amounts of university research grants are going towards Archies and the machine is adored in high-powered academic and research circles for its speed and awesome power.

But from the home user's point of view this is all such a waste. Many programmers are itching to write home leisure and serious software for the Archie and use all that lovely 32-bit RISC power. Home users too will like it; as well as the sexy graphics, music, games and business stuff that they would be able to buy, they could write themselves fast arcade games in BASIC, complete with hosts of home-grown animated colour sprites; such is the power of the processor that the excellent Archimedes 32-bit BASIC is faster than 8-bit machine code.

Now, at last, it may happen. A basic entry-level machine at £500 is still just a mite pricey for most of us, but if it takes off - and that means taking large slices of the Amiga and ST market - then the software houses will start producing stuff for it, and we'll see home leisure and serious software once more moving up a stage. And Acorn will grab back a large section of the lucrative home market from Commodore and Atari.

The main question is: will Acorn price it right for the home user? Until the machine is unveiled in the summer - possibly even this time next year - we shan't know. But five hundred would be the absolute maximum; anything over and there'll be yet more mutterings that they've blown it again.

EDITOR.....Rob Ainsley
CONTRIBUTING EDITOR.....Peter Worlock
NEWS EDITOR.....Colin Campbell
REVIEWS EDITOR.....Andy Storer
TECHNICAL EDITOR.....Jerry Glenwright
STAFF WRITER.....Rik Haynes
ART EDITOR.....Julia O'Shea
ART ASSISTANT.....Harriet Athy
PRODUCTION EDITOR.....Rod Lawton
ADVERTISEMENT MANAGER.....Mark Salmon
AD EXECUTIVES:.....Jennie Evans,
.....Andy Smith, Sarah King
AD TYPESETTING.....Terry Turner
PUBLISHER.....Greg Ingham

© Future Publishing Ltd 4 QUEEN ST, BATH, BA1 1EJ
TEL: 0225 446034 • FAX: 0225 446019
Printed by Redwood Web Offset, Trowbridge, Wilt

AMIGA EDGES AHEAD IN 16-BIT WAR

More games software is being bought for the Amiga than the ST, according to market research firm Gallup.

This is the first time Commodore's machine has edged ahead in the furious 16-bit battle. During the week ending February 25th Amiga games software made up 4.8 per cent of all games bought - a mere 0.1 per cent ahead of the ST. Three months ago the ST held 7.7 per cent of the market with the Amiga trailing at 2.9 per cent.

Although the lead is minimal, it is nonetheless surprising. The ST has always been stronger in the games



• Taking the ST out of first: Is the Amiga taking over?

market and is believed to have a wider user base. However, Amiga software releases have been increasing of late.

Gallup, though, is convinced that the leap is nothing more than a blip.

Inspect your budget

For those PC owners amongst you hoping to see exactly how much Nigel Lawson's recent budget has affected your income, Digita has launched an updated version of its Personal Tax Planner.

The £39.95 program incorporates all the little changes the chancellor has bestowed upon us. Existing users of the program can get an update by sending a disk and £12.95 to Digita.

Personal Tax Planner is also available on the PCW at £24.95 with the upgrade also costing £12.50. Also from Digita comes Cashbook Controller (£49.95), Final Accounts (£29.95) and an integrated accounts program called Combo Pack (£69.95).

A spokesman told Express: "I really don't know why it's gone ahead. It's showed strong over the past few weeks but I really don't think it will stay there."

Brit chip hope sold to Franco/Italians

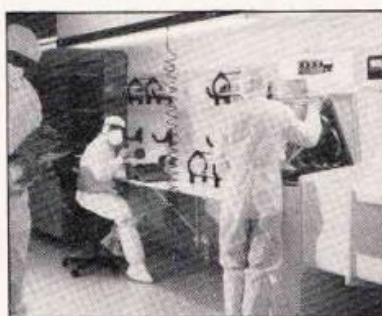
As widely expected, Britain's one and only hope in chip technology has been sold off to the French/Italian combine SGS Thomson.

Inmos, the firm which developed the first "microcomputer on a chip" Transputer, was sold off by the British-backed corporation Thorn EMI. That firm in return receives a ten per cent stake in the European company.

Ironically, Inmos was set up by the British Government to gain a foothold in the crucial chip market. SGS Thomson is backed by the two European Governments which say they recognise the need to be involved in high tech

computing developments. The Government sold Inmos to Thorn EMI after a few years, despite remarkable breakthroughs. Thorn EMI has long admitted that chips are not on its menu.

Whilst many have mourned Britain's loss, Inmos itself says the sale will do much to speed up future technologies. "It's going to have an effect on the Transputer because the Europeans want to put money into new developments," said Inmos's Francesca Pick. "They see



• Inmos scientists developed the "miracle" Transputer

the need for investment. It's obvious that we need to keep up with the Motorolas and Intels of this world. We're looking at new designs for the next five or ten years."

She added: "I think Thorn EMI had had enough of pumping

money into Inmos. We didn't really fit in." As many as 162 companies had been approached with a view to a sale - many of them British. However, the huge investments needed in such hi-tech work are astronomical.

Many have pointed out, though, that Britain will need more than ever to turn to other nations for leading edge chip supplies. When supplies are short, British companies will not be seen as priority customers by Japanese, American or even European manufacturers.

"Killer" computer shock

A computer has been ordered to stand trial in the Soviet Union - for murder.

According to much-loved tabloid *The Sport*, the computer is accused of deliberately killing chess champion Nikolai Gudkov. If found

guilty, the M2-11 super computer will be de-programmed and dismantled.

Apparently, the machine became "angry" after being beaten by Gudkov three times on the trot. The Russians are alleged to be "con-

vinced" that the computer deliberately electrocuted Gudkov when he touched the metal board.

Gudkov is reported to have died in front of a 500-strong audience during a six day chess marathon.

We'll cross that Bridge..

Business computing giant Epson, a firm which has cultivated something of a highbrow image, is to sponsor the Worldwide Bridge Contest.

The competition attracted 80,000 players last year and takes place simultaneously in cities all over the world. Sporty Epson also sponsors the golf Grand Prix, the Formula 1 Lotus team and co-sponsors the African Safari Rally.

Gremlin sore after Newsfield "outrage"

A bitter row has broken out between software house Gremlin and magazine publisher Newsfield concerning big name game Federation of Free Traders.

Gremlin is furious at the "ridiculous" FOFT has come under in an advertisement for Newsfield's The Games Machine. The ad - which appeared in TGM's sister paper Zzap - featured the FOFT logo with 'NO' stamped on it. Underneath appear the words 'Why is Gremlin's space "epic" FOFT a load of old rubbish'.

Gremlin says that the fact that The Games Machine has given the game an uncomplimentary review is irrelevant. However, it takes offence at the FOFT logo being used in an advertisement.

As a result Gremlin has called in its lawyers to look at the situation and has launched an astonishing attack on the magazines' publisher.

"I cannot think of one example where a publisher has sought to discredit a product in this manner before," said Gremlin's Richard Barclay. "Just criticism by way of a reviewer's personal opinion is acceptable, but for a publisher to announce a corporate view in this way is quite outrageous."

Barclay went on to accuse Newsfield of "blatant sensationalism" in order to pump up "an alarming deterioration in (magazine) sales".

Newsfield though was unrepentant. "It's nothing to do with sensationalism," said the firm's Roger Kean. "The game is rubbish. We played it in detail and felt that it was overpriced and tedious."



• FOFT in the head: Gremlin fury at advert for Games Machine

CLEAN UP YOUR ACT

Networkers warned to cut porn

British users of the worldwide computer network FidoNet have been warned to stop releasing smut and pornographic material.

Users of the net in the UK have recently logged onto the network and found material described as "strictly adult-orientated". But the British co-ordinator of the popular network Nick Middleton has warned users that anyone found dabbling in salacious material will be banned.

Already one influential London based "host" has been blackballed for allegedly releasing "smut" into the network. Such is the extent of the computerised and graphic

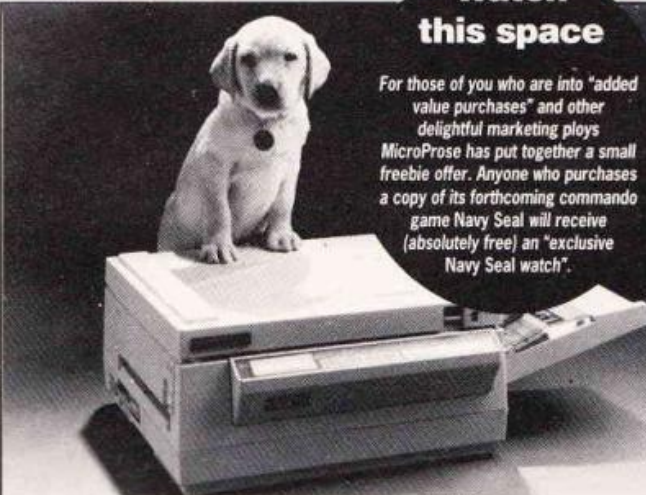
pornography that the national press has highlighted the problem.

Middleton told Express: "Basically, if I discover any of this on the network the culprits will immediately be removed. We are well aware of the bad publicity that this sort of thing can generate."

He added: "Anyone caught doing this will be banned for life. It is completely unacceptable and won't be tolerated." FidoNet is open to hundreds of users in the UK alone and has members in Australia, Europe and North America.

Watch this space

For those of you who are into "added value purchases" and other delightful marketing ploys MicroProse has put together a small freebie offer. Anyone who purchases a copy of its forthcoming commando game Navy Seal will receive (absolutely free) an "exclusive Navy Seal watch".

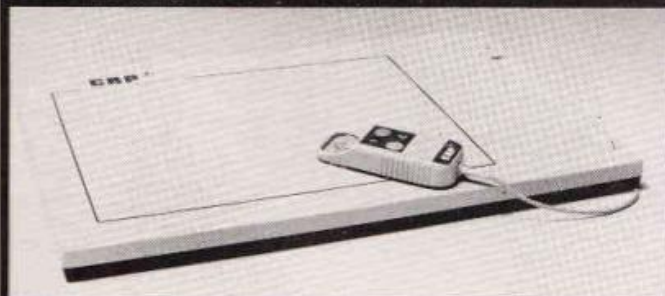


For everyone of these MT905 laser printers bought the manufacturer Mannesman Tally will give away £5 to training up a cute puppy into a fully fledged guide dog for the blind.

A fiver may not sound a great deal (especially when you consider that the printer costs £1,395) but if Mannesman sells as many printers as it hopes that means £50,000 to the Guide dogs for the Blind Association.

Draw your own conclusions

A graphics tablet for the Amiga has been launched by Burocare Graphics. Developed in Germany, the CRP Tablet comes in two sizes - A3 and A4. It's compatible with all Amigas and with leading CAD and paint packages. The A4 model costs £395 whilst the A3 costs £595. More on 01 907 0027.



• Taking the tablets: CRP tablet to come out on Amiga

Hacker denied PC access

A hacker who was caught breaking into University files has been denied access to his PC.

Bow Street magistrates court have banned unemployed Nicholas Whitely from using his computer. He is accused of causing criminal damage to files stored at the Queen Mary College in London. The hapless hacker is also charged with dishonestly obtaining a licence to transmit computer messages.

It is thought likely that more charges will be brought against him. He was granted bail until April 24th. Meanwhile, though, the courts though have slapped a strict ban on any hacking activities.

TOP 20 Full Price GAMES

- 1 Robocop DEBRY
Spectrum, C64, CPC
- 2 Dragon Ninja OCEAN
Spectrum, C64, CPC
- 3 WEC Le Mans AMIGAE
Spectrum, C64, CPC, ST, Amiga
- 4 Emlyn Hughes NECROMANCER
Spectrum, C64
- 5 In Crowd DEBRY
Spec, C64, CPC
- 6 Operation Wolf OCEAN
Spectrum, C64, CPC, ST, Amiga
- 7 Fun School 2 SHIRAZE/AMIGAE
Spectrum, C64, CPC, BBC
- 8 Falcon WARRIORCRAFT
ST, Amiga, PC
- 9 Pacland BRANDBLAZE
Spectrum, C64, CPC, ST, Amiga
- 10 Batman OCEAN
Spectrum, C64, CPC, ST, Amiga
- 11 Afterburner ACTIVISION
Spectrum, C64, CPC, ST, Amiga
- 12 Denaris US GOLD
C64, Amiga
- 13 Thunder Blade US GOLD
Spectrum, C64, CPC, ST, Amiga
- 14 Double Dragon MELBOURNE HOUSE
Spectrum, C64, ST, Amiga, PC
- 15 Giants US GOLD
Spec, C64, CPC
- 16 Middle Earth MELBOURNE HOUSE
Spec, C64, CPC
- 17 Barbarian 2 PHILIPPE
Spectrum, C64, ST
- 18 Last Ninja 2 SYSTEM 3
Spectrum, C64, CPC
- 19 Ballistix HYPERCLIPSE
ST, Amiga, PC
- 20 TV Sports Football MAYNORSPORT
Amiga

TOP TEN Budget GAMES

- 1 SAS Combat CODE MASTERS
Spectrum, CPC
- 2 Treasure Island CODE MASTERS
Spec, CPC
- 3 World Games KOD
Spectrum, C64, CPC, MSX
- 4 Bomb Jack ENCORE
Spectrum, C64, CPC, ST, C16
- 5 Joe Blade 2 PLAYERS
Spectrum, C64, CPC, BBC, C16, Electron
- 6 Gauntlet KOD
Spectrum, C64, CPC, Atari 8-bit, MSX
- 7 Pinball Simulator CODE MASTERS
Spectrum, CPC
- 8 Werewolf MASTERTRONIC
Spectrum, C64, CPC
- 9 Ghostbusters MASTERTRONIC
Spectrum, C64, CPC, Atari 8-bit
- 10 ACE 2 CASCADE
Spectrum, C64, CPC

RE re-entry • NE new entry • Last week's positions Δ
Compiled by Gallup
The charts shown are based on the Open Market, that is retailers who stock a broad range of products. All charts shown are copyright of Gallup.

WHICH COMPUTER FOR THE SCHOOLKIDS?

According to the *Times Educational Supplement* "real world" computers such as the Amstrad PC, Atari ST and Mac are gaining ground in Britain's schools.

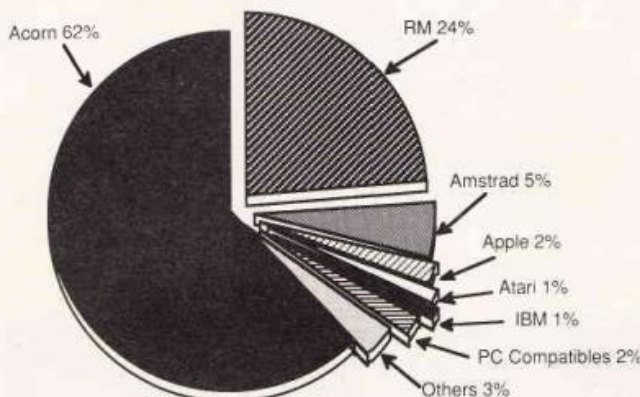
In a survey published in last week's *TES*, Acorn and Research Machines showed a total of 71 per cent of the market - last year it was 74 per cent. Much of the loss appears to have been taken by Acorn, with RM's Nimbus gaining slightly.

However, Acorn still commands an impressive lead in UK schools, holding a total of 62 per cent of the market. Much of this is still taken up by the BBC B, with the Master 128 increasing in popularity. The Master Compact, though, has not done so well.

Acorn's Archimedes is beginning to make its mark although many schools feel its price is too high. Its presence in primary schools is minimal.

Teachers are keen to buy the Amstrad PC for its price and word

Manufacturer's Sales to Schools 1988



• "Real world" computers are gaining - but Acorn is still dominant

processing capabilities, although their local authorities are not so excited about the range.

Atari's share is minimal, despite the fact that there are seven times more STs in schools this year as

last year. The Amiga doesn't register, which must be disappointing for Commodore, since the company has pushed the Amiga hard, stressing its graphics capabilities.

Apple wins first round in crucial copycat case

Apple has won the first round of what is being labelled as the most crucial court case in the history of the computer industry.

The case is against Hewlett-Packard and Microsoft. Apple claims that some of these firm's PC programs give IBM compatibles an Apple Mac "look and feel".

Last Friday Microsoft was forced to retreat after its first line of legal defence was broken down. The firm claimed that a 1985 licensing agreement with Apple gave it the right to use Windows. However, a judge ruled that agreement only applied to the first version of Windows and not to current versions.

If Apple goes on to win the whole case it will have far-reaching implications for the rest of the industry, since a legal precedent will be set for the "look and feel" and plagiarism of software.

Virgin scoops Shinobi

As predicted in *Express* (Issue 10) red hot coin-op *Shinobi* has been scooped up by Virgin/Mastertronic.

The Sega beat-'em-up should be available later this year on all major formats. Its future had been in some doubt after the demise of French publisher FIL which originally held the licence. Virgin/Mastertronic itself is concentrating more and more on arcade licences following its Christmas success with *Double Dragon*.

Megadrive hits town

Sega's 16-bit console the Megadrive has already arrived in the UK - months before the official launch.

Tottenham Court Road store Shekhana is showing the remarkable machine off. However, it will cost £250 for anyone hoping to jump the gun. Even Shekhana admits "that's a bit expensive".



• First of the many: Sega's megadrive already in London

The Megadrive was reviewed exclusively in *Express* (Issue 4) and is well worth a look.

Speccie and CPC going great guns

Amstrad is currently developing a light gun for the Spectrum and CPC machines which could cost as little as £30.

Called Magnum, the gun will be available within the next two months and will be bundled with six games utilising the gadget including *Ground Zero*, *Robot Attack* and *Rookie*. The deal to make the gun has been struck between Amstrad and Virgin/Mastertronic, which will be selling the Magnum.

It is understood that a similar machine could be made for the C64 by Commodore.



• Complete Trash: Newell's new adventure

New MUG is Trash

A new multi user game is being touted around bulletin board circles and it could be accessible within the next few months.

The game - called *Trash* - is apparently something of a departure from standard "Dungeons and Dragons" fare. It is set in a futuristic scenario and attempts to incorporate humour.

The text only adventure was written by Neil Newell, who also wrote Micronet's successful adventure, *Shades*. The company behind *Trash*, Third Millennium, is talking to a number of bulletin boards with a view to a publishing deal.

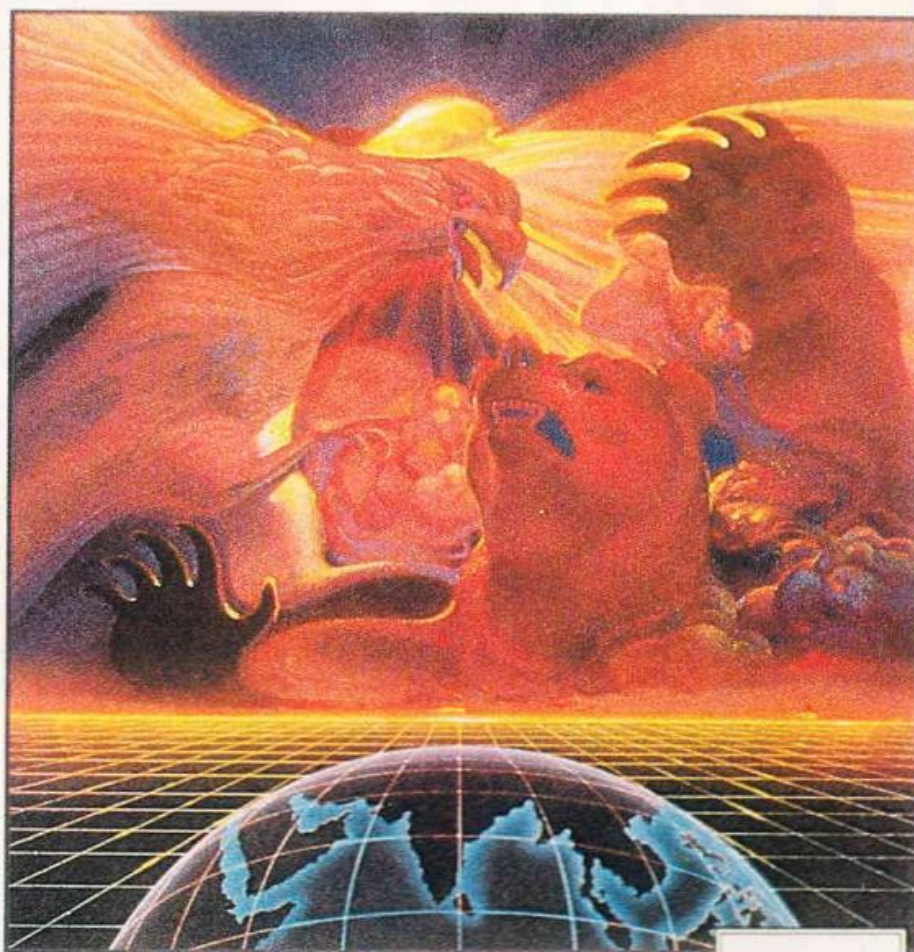
ABOUT TIME!
WAIT TILL YOU EXPERIENCE...

BALANCE OF POWER

THE 1990 EDITION

BALANCE OF POWER

THE 1990 EDITION



Enhanced successor to the
award-winning Balance of Power.
Features new multipolar level.
by Chris Crawford



★ The ultimate simulation of global leadership in a nuclear age.

★ Assume the role of either the President of the USA or the General Secretary of the USSR.

★ An unparalleled real world simulation. Simulates real world political interaction among 80 countries (formerly 62).

★ All up-to-date information. The real world as it is in 1989.

★ 4 levels of play include the new Multipolar level. Challenging for beginners and experts alike.

★ "Crisis Advisory Group" feature and much much more!

Available for Amiga · Atari ST · PC · Apple IIGS · and Macintosh.



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

**Only
GFA-BASIC 3.0
makes it
possible.**

£ 64.95

MichTron
Box 68
St. Austell
Cornwall PL25 4YB
England

Available in the U.K. from:

Telephone: 07 26 680 20



BULK DISKS FROM ONLY 19p each

5 1/4" BULK DISKS, ENVELOPES AND LABELS

	50	250	500	1000
SSDD 48tpi	.26	.23	.20	.19
DSDD 48tpi	.27	.25	.24	.22
DSDD 96tpi	.32	.29	.28	.26
DSHD 1.6Mb	.52	.49	.48	.46

3 1/2" BULK DISKS, ENVELOPES AND LABELS

	.69	.65	.63	.59
SSDD	.69	.65	.63	.59
DSDD	.79	.75	.73	.69
DSHD	1.69	1.65	1.58	1.49

BRANDED DISKS FROM £4.90 per box

CHOOSE FROM ANY OF THE FOLLOWING BRANDS

JVC Verbatim. SONY. 3M

BOXES OF 10	1-2	3-9	10+
5 1/4" SSDD 48tpi	5.80	5.40	4.90
5 1/4" DSDD 48tpi	6.20	5.80	5.40
5 1/4" DSDD 96tpi	9.50	9.20	8.80
5 1/4" DSHD 96tpi	9.90	9.60	9.00
3 1/2" SSDD	10.90	10.20	9.90
3 1/2" DSDD	12.50	11.80	10.90
3 1/2" DSHD	27.50	26.95	26.00

STORAGE BOX WITH DISKS

25 x 5 1/4" DS-DD 96 Tpi with 50 capacity LOCKABLE STORAGE BOX	12.95
50 x 5 1/4" DS-DD 96 Tpi with 100 capacity LOCKABLE STORAGE BOX	19.95
20 x 3 1/2" DS-DD 135 Tpi with 40 capacity LOCKABLE STORAGE BOX	21.95
40 x 3 1/2" DS-DD 135 Tpi with 80 capacity LOCKABLE STORAGE BOX	38.95

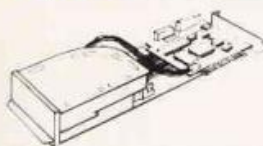
LOCKABLE STORAGE BOXES



UNBEATABLE
PRICES

3 1/2" 40 Disk Lockable Box	3.99
3 1/2" 80 Disk Lockable Box	4.99
5 1/4" 50 Disk Lockable Box	3.99
5 1/4" 100 Disk Lockable Box	4.99

HARD CARDS



WESTN DIGITAL 20MB 65MS	195.00
WESTN DIGITAL 32MB 65MS	210.00
(Including XTREE Software)	
SEAGATE 20MB 40MS	199.00
SEAGATE 32MB 40MS	220.00
38% FASTER THAN THE AVERAGE 65MS CARD	

PRINTERS

Panasonic

KX-P1180 9 PIN 192cps DOT MATRIX	NEW! 199.00	KX-P1592 9 PIN 132 COL DOT MATRIX 180cps	259.00
KX-P1124 24 PIN 132 COL DOT MATRIX	NEW! 279.00	KX-P1595 9 PIN 132 COL DOT MATRIX 240cps	365.00

HOW TO ORDER

By Telephone: 0270 666616/
0270 664236
By Post: Address Below
By Fax: 0270 665556
Personal Callers Welcome

HOW TO PAY

By Visa or Access Card
By Cheque with Bankers Card
By 30 Day Account -
for Official Orders Only
By Cash

FAX-A-DISK

0270 665556



FREE DELIVERY
To U.K. Mainland

ALL PRICES
EXCLUDE VAT
OFFICIAL TENDERS &
QUOTATIONS WELCOME



DIAL-A-DISK

0270 666616

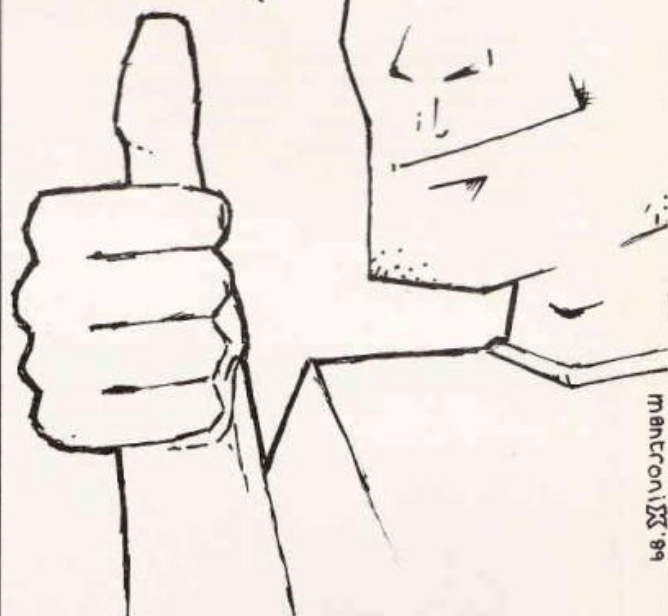
MEDIAWARE LIMITED

Unit 9 Huntsbank Industrial Estate,
Crewe Road, Wistaston, Crewe, Cheshire CW2 6QT
Telephone: 0270 666616/664236

WICKED

P.D.

WOTCHA MATE!
TONY'S ME NAME,
COMPUTING'S ME
GAME!



mantronix '89

SO THERE I WAS, PLAYING SOME
NAFF OL' GAME ON ME COMMIE 64,
WHEN THE BLOKE NEXT DOOR CAME
ROUND TO TELL ME ABOUT SOME
MEGA DEMOS HE'D GOT ON HIS AMIGA.
"DEMOS, WOT'S 'AT?", I SAID. SO HE
SHOWED ME AN' ME EYE'S POPPED OUTTA
ME SKULL. "YOU CAN GET 'EM ON YOUR
COMPUTER AN' ALL. YEAR'S MEMBERSHIP
INCLUDES CATALOGUES AN' A DISK FER £3.
MORE AMIGA DISKS FER £3, C64 FOR £2"
SO HE GAVE ME THIS ADDRESS:
WICKED P.D.

33 NOBLE SQ. BASILDON, ESSEX,
SS13 1LT. TEL: 0268 59057/
GIVE 'EM A BUZZ FER MORE INFO!
OH YEAH! THEY SAID TO MAKE
YER CHEQUES OR POSTAL ORDERS
PAYABLE TO 'REPTILIA DESIGN'.

MEDIAWARE

EXPRESS MAIL

Dear Reader

More pages packed with another selection from our postbag and Rob Ainsley's replies. Have you got something to say? Make your voice heard in computing's liveliest letters page!

Send your contributions to:

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

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

TWO'S COMPANY, TREE'S A FAMILY

I recall reading in a past edition of your great tome that when looking for a computer to purchase it is a wise move to check the availability of software for any particular needs.

The Amiga looks a good machine, but I need to know (before ruining a perfectly good savings account), if there is a Genealogy program for this machine.

My present machine is a 48k Speccy, but I find it rather limiting when printing out family trees. They tend to look like family bushes instead due to the lack of 80 columns!

As you can see I am using an old

fans of Genealogy and an Amiga owning one in Utah has no doubt written one and put it in the PD. Try **George Thompson Associates on 077 082 234**.

SUNNY SPELL

The article "The Mega PCW" in (Express 17) could mislead PCW8256 owners into believing that they can't use LocoScript 2. It's not true - they can! The 256K memory of the PCW8256 is adequate for LocoScript 2, LocoMail or LocoFile; we just don't recommend it for use with LocoSpell.

Howard Fisher, Locomotive Software, Dorking, Surrey



• The PCW: More than enough memory

fashioned typewriter, so a word processor is also on my shopping list, but there are plenty of those about.

Thank you for a fine magazine. It is so refreshing to see a computer magazine that can survive by means other than resorting to endless program listings or games reviews 'ad nauseam'. Keep up the good work!

T J Breeze, Port Talbot, West Glamorgan

● We don't know of any commercial programs, though there may well be some programs in the public domain. Mormons are great

why not save up and buy the Amiga which was obviously a better computer (his words!). If you follow that to its ultimate conclusion we should all save our money and buy a Cray supercomputer!

Being slightly biased I would like to add my views to this argument and suggest they consider the Archimedes. It is more expensive but has a much faster 32 bit processor (It can calculate the 65,000 pixels of a Mandelbrot set in 28 seconds. The Atari takes 4 minutes.). The picture resolution on a standard monitor is 256 colours from a palette of 4096 displayed at 640 x 256 pixels. With the right monitor it's possible to display up to 1152 x 896 pixels. The sound is also up to a very high standard rivaling the Amiga and, with the addition of EMR's sound packages, is making an inroad into MIDI. There is already a very easy to use 24 track digital recorder and a professional scorewriter and many more packages to come. Add to this a large range of good business software, a lot of educational software and the ability to emulate a PC very well, therefore having available a vast range of software including Public Domain and you have yourself a very good computer. I hope this will spur the Powers That Be at least to borrow an Archimedes and have a go. Especially as in the Tech Tips column the writer professed to never having used an Archimedes!

Alan Hight, Nottingham, Notts

● It's certainly a nice machine, but I can't help feeling it's still too expensive. Now, if only the rumours

of an Archie price cut were to come to anything, we might be talking...

BACK ISSUES TO THE FUTURE

I have bought New Computer Express from its first issue, initially because it had a section dealing with MSX computers. (I have a Toshiba MSX10). Unfortunately issue no. 14 was accidentally thrown away with old newspapers and no. 15 got lost in the distribution system on its way to me. Can you help please to obtain copies of issues 14 and 15 for me?

Peter B Ayling, Telford, Shropshire

● Back copies are available from Express Back Issues, The Old Barn, Somerton, Somerset, TA11 7PY, for 75p each (that includes post and packing). But please, everyone, don't blame us if we haven't got the issue you want - they tend to sell out rather fast.

HUSH EVERYONE

With regard to your article (Express 13) labelled "Toshiba carries out portable printer plan", should this article have been labelled "Too much, too late"?

The reason the Hush 80 printer, which is made in Ireland and sold all over Europe. I am a Toshiba 3200 user and waited for a long time for a printer from Toshiba. When Ferrotec released the Hush at only IR£135 (retails in UK at about £120), I rapidly made tracks to my local dealer.

GAME POINTS

Around Christmas time you ran an article of great interest, "Games that changed your life". I was hoping it would start some debating about what makes a good game, but this never happened. In an attempt to rectify this, here are a few thoughts.

To provide the sort of lasting appeal that makes a game 'life changing' a consistent attempt, reality and variety would be the two main criteria.

I have often wondered why people rave about Elite. The game might have impressive graphics and the 'Alternate Universe' bit is there but it lacks variety. In short the game is boring.

Far better is Sundog. Obviously the game would win no prizes for graphics but there is more than enough variety to give it lasting appeal. The only criticism is that the game ends when the contract is fulfilled. But it's still good enough that I start from scratch time and again.

As for RPGs: Bard's Tale has got it right. I would also include Roadwar Europa in my list. The beauty of this game is that you can keep going after the mission is complete - why not try to make all of Europe join your empire.

Probably my two favourite games ever (on any computer) are The Sentinel (not much variety - but mentally stimulating and Loads a Atmosphere) and the Armageddon Man. If ever there was an unsung classic then this is it. Its arrival on the ST was unannounced and as far as I know, never reviewed in any mag. Yet

here is a game that offers a totally original scenario. Again plenty of atmosphere and is concerned with preventing war to boot! Shame about the sexist title!

And there's the acid test. Both of these games were my favourites on the Spectrum and they're still tops on the ST. Maybe that's the real judge of a game: if you changed your micro, which games would you really miss playing on the new one?

Gary Brainfott, Nottingham, Notts

● As games get more and more sophisticated it becomes increasingly difficult to be objective about them. Just like a lot of rock music, a boring and clumsy idea can be produced so well and use so much dazzling technology that it ends up being superficially impressive.

The criterion you suggest - that a Good Game is one you'd buy again when you change machines, or would get your old machine out of the cupboard to play - is a very good one, being hardware-independent, and surely applies to all sorts of games, not just adventures. By this token, Tetris is the only game I've played across machines (PCW/ PC/ ST/ Amiga/ Mac) so that must say something!

Anyway, we're sending you a jolly good game for your ST that you'll miss when you upgrade as this week's Mystery Prize.



EDUCATING ARCHIE

While I enjoy reading the magazine I find that there is a very strong bias towards the Atari ST and the Amiga. I realise that these are two very popular computers but there are others out there including the Archimedes which is getting a bigger following all the time.

I followed, with interest, the continuing debate over which is better, Atari or Amiga, and enjoyed the comment one reader made, saying that each computer had its good points and in the same breath said that instead of buying an Atari

PRESTIDIGITISATION

In response to your plea (Express 17) I'm writing to tell you about a video digitiser available for the Archimedes from Watford Electronics (0923 37774).

An image can be grabbed in 'realtime' even while another program is running, such as an art package. The image may be scaled, rotated or flipped and I've seen a demo, included with the package, showing a 'realtime' image being manipulated in a similar fashion to television effects. The picture can be displayed to a resolution of 512 x 512 pixels on a standard monitor and up to 64 shades of grey on a monochrome monitor. Finally, the grabbed images may be displayed at a rate of 25 frames per second for a quarter screen image and 12.5 frames per second for a full size screen. It is also possible to add a colour converter from Lingenity giving you the ability to capture full colour images and,

with pixel dithering, display the picture using an effective palette of 256,000 colours.

The digitiser costs £249 + VAT and the colour converter costs £169.95 + VAT. Alan Hight, Nottingham, Notts

I can suggest a reasonably priced digitiser for the BBC, B+, and Master series computers. It is available from Watford Electronics, Jessa House, 250 Lower High Street, Watford WD1 2AN. It costs £131.10, inc. VAT and carriage. With the digitiser unit is software on ROM and a manual. Modes 0, 1 or 2 are available for use with this digitiser. It prints in eight levels of grey in mode 2. It can scan a picture in 1.6 seconds and connects up to the user port. Control of the digitiser is accessed by entering simple '*' commands. Ross J Taylor, Clwyd, North Wales

The Hush is very light and portable and prints at 80 CPS, can fit in a briefcase, has a battery life of approximately 90 minutes, and recharges when run from a wall socket.

All in all I'll take my Hush over the Expresswriter that costs over £200 more.

John Keogh, Dublin, Ireland

● **The Hush, like the Toshiba, is a thermal printer that uses no ribbons or cartridges but needs special paper to work on. Portable thermals like this have been around for something like five years now and don't give nearly as good quality as dot matrix printers, but then there aren't really any portable dot matrix or daisywheel printers. The price difference you mention may well be down to the difference in quality between the Hush and the Toshiba, though not having seen outputs from either it's impossible to say.**

THE COMMON CODE

I always cringe when I read or hear arguments about the virtues of one computer against another. Pointless, because when the money's been spent we are all left, usually on our own, with our technological marvels and a keyboard interface. What a person is able to do with the computer is more relevant.

To program in a low-level language like machine code is a labour of love and, depending on the architecture of a given computer's operating system, will pose many problems for even the professional programmer to overcome. He or she will succeed to a more or less proficient degree; after all we spend a lot of our hard-earned for their skill. However to make say, a ZX81 do something special graphically takes a lot more than, for instance, calling a ROM routine on an Atari (or other sophisticated machine, I'm not biased).

Does anyone remember the high-resolution games which started to appear towards the end of most peoples' interest in the little machine? There were quite a number which popped up merely as a dump of hexadecimal code in magazines, with a few brief instructions. Surely the technical excellence of programming this type of facility on a machine which doesn't have a ROM full of

useful routines to help, is healthy proof of a skill learned, nurtured and exploited gainfully. OK, so the machine's capacity is limited but the point was made. It's how you implement what's there that counts, not merely a list of the specifications.

I am no machine code programmer but use good old built-in BASIC as, I suspect, do the majority of users (except when running commercial software of course). I still enjoy tapping away on an old Oric Atmos and finding new answers to problems. And I don't complain about a limited software base because we should enjoy and appreciate the power of even the more humble machines we have.

Well that's enough preaching, but let's not lose sight of what a technical achievement every computer is. For those who want to buy a computer just as a status symbol, fine, but isn't that doing yourself an injustice instead of the machine?

I will now go hang my head in shame for my views, but let's use our machines instead of trying to better one another. N K Alefounder, Lincoln, Lincs

● **Quite. Photography enthusiasts never bicker about whether their Canon is better than their mate's Nikon, though of course they are interested in comparing technical details. But they're much more concerned with the results their cameras produce, i.e. the photos themselves. Maybe photography enthusiasts can teach us computer owners a thing or two. But, looking at their appallingly sexist magazines in which you can't take a photo of a combine harvester without a semi-naked woman leaning over it, maybe not.**

MAIL CHAUVANIST

With reference to your Tech Tip written by Greg Hewitt-Long (Express 12).

Would your readers please note that he no longer resides at this address. This letter is a warning to your readers who have struck up a rapport with Greg, and who bombard my home with mail for him (he is only a student temporarily residing at the given address), that any mail received after 17th March 1989 shall be promptly put back into the post marked 'Return to Sender'.

I shall not be held responsible for any

disks that are consequently lost as a result of this course of action.

YOU HAVE BEEN WARNED
M Boerenbeker, Stafford, Staffs

● **You see what she said, all you Amiga owners. Don't trifle with anyone who uses underlined capitals and quotes Elvis Presley songs.**

MANUAL WORK

This is just a quick note to let you know how much I enjoyed 'Manual Labour' (PSst! Express 16).

As an enforced user guide writer (i.e. student on a BTEC OND in Computer Studies), I was naturally interested in your six samples. If I had to make tea in a teapot, I would choose example 1 (by Ichiro Ushikuso) because it actually follows the job from beginning to end. Failing that, I'd choose example 5 (by Darren Crapp [16]) since it eventually settles down and tells you how to make tea.

Neither of these examples skate completely around the issue (like Eric Fudge's version or Norm Szczanski's version), nor do they involve purchasing lots of unwanted software and extra manuals (as does Dennis Hacker's version).

I've missed out Frank Stodger's example. This is because, once he has revised it to include step 16. (Put money in slot) and step 3. (Take filled cup out of machine); this is the user guide which I would spend my money on.

PS I also enjoyed the rest of the magazine.

Kathleen McHale, Normanton, West Yorkshire



● The clearest example of how best to make tea, says Kathleen McHale

● **Thank you. And if anyone is wondering what Ushikuso means in Japanese - well, if you dry it out, you can use it as fuel.**

SOUND VIEWS

I like the way the 'Express' is shaping up and thank you for answering my enquiry about GFA Basic 3.0. Most magazines have remained strangely silent about this new Amiga version.

I wonder how many Amiga owners really know how good the sound chip is? I didn't until today when I fixed up a simple twin phono plug lead from the back of the

A500 to my hi-fi system and loaded up the stunning Killer demo with its video quality animation sequences and digital sound. The quality through a pair of Wharfedale speakers was the best I have ever heard from a micro.

The Amstrad CPC can also be connected, in stereo, with just a small co-ax phono plug from the left hand end and into the amp with two phono's. Not a bad sound either, but the Amiga is just quite outstanding. Silent Service came through in mono but Interceptor, with the volume turned up, almost literally, took off!

It is so easy to connect these two popular computers to a hi-fi, and it can be thoroughly recommended for a pleasant surprise.

John Gray, Eastbourne, Sussex

● **Hmm. I tried it with a PCW and I can assure you that the beep sounds much worse even through KEF speakers.**

THERE'S NO 'F' IN PRIZE

I am fed up! No, I am downright angry! I happened to be one of those lucky fudged to win a prize in your Christmas Competition. I won prize no 12, War In Middle Earth (although you missed out 'I' in my first name). But still, six weeks later, I have not received anything. Please sort this out, Express!

I hope US Gold's price cuts for 16-bit games also include PC software. Many people forget that the average PC is a 16-bit machine and even the more expensive ones (386s) are even more powerful with 32-bit processing power. But still when advertisers talk of 16-bit software, they usually mean software for the ST and Amiga, it would also be great to see other software houses follow Gold's example.

Lastly, you said, back in issue 6, that Orion's Belt was an 'Express exclusive', right? Ace readers go back to issue 15 and guess what you see on page 8...

Kashif Quraishi, Hayes, Middlesex

● **You haven't received your version of 'War in Middle Earth' because it won't be out on the PC for a week or two yet. Don't worry, you'll be sent a copy as soon as it's available!**

As for the Orion's Belt, Ocean assured us that we were seeing the game exclusively. We weren't to know that ACE also had seen it and our exclusive was only to that particular version (the sprite at the top right of the page was definitely an exclusive).

PCWS GOING BEEP

In Express issue 18, Neill Hodgkinson of Reading stated in his letter that he had seen PCW9512s priced at just over £300.

I should be grateful if you could tell me

who supplies PCWs at this price.
A J Gill, Pudsey, West Yorkshire

● Well, the cheapest new PCW9512s I've seen are for £439 from RSC (0923 243301) and Morgan's on Tottenham Court Road occasionally have ex-demo computers which sell for maybe 60%-80% of their normal new price. I assume though that Neill was referring to a second-hand one (£300 sounds about right for a year-old model). Used PCWs are notoriously difficult to get hold of though you can pick them up in the classified ads of the mag 8000 Plus.

EIRE WAVES

I recently purchased my first computer, a Commodore 128 (The 16-bit boom hasn't caught on here yet). I have since tried to get to grips with some BASIC programming but am finding it quite difficult. Could you please tell me if there are any good books or software packages for the 64/128 to help a beginner learn BASIC. Secondly, how does the C128 compare with other micros in programming terms?
Damian Byrne, Wicklow, Ireland

● There are plenty of BASIC guides around, but ones specific to the C64 or C128 will probably be out of print by now. Try Computer Manuals on 021 706 6000.

BASIC on the 128 is better than that on the 64, but doesn't compare with the high-level BASICs found on your STs and Amigas. The machine itself is very powerful, but only machine code programmers can really get the best out of it.

PLEASE EXPLAIN THE TLA

Super mag - really is! Just one comment: to date I know little or nothing about computers, so your beginners articles are a real boon, but please print (say) a back page dictionary of your 1,001 abbreviations and acronyms. The few you give are really not enough to encourage sales to beginners but I'll keep trying to grasp their meaning.
W Huskisson, Rochford, Essex

● As everyone knows, the most important combination to remember is TLA. The TLA is the most vital part of any machine's specification and is the first thing you should check when buying. It stands for Three Letter Abbreviation.

Anyway, as for the dictionary idea, it's in hand: watch this space.

FAMILY FAVOURITES

My family consists of five people. I am a professional but non computer user. My wife is a school governor, currently without employment but with a wide range of home-based interests. My elder son now aged 18 is away at Art college during term time and had a Sinclair Spectrum during his early teen years. My second son aged 15 is mainly sports minded and studying for GCSE and my daughter nearly 10 has enjoyed playing computer games on her friends' machines and at school.

With that background and the current popularity of home PCs with printers I decided to invest in a magazine which I hoped would guide me through the maze

SNIPPETS

FORTY LOVE

Congratulations, Express! Give that man £40 a week more. I've wanted to know what Hypertext is for some time, and Peter Worlock's explanation is the first I've seen that is fit for human, as opposed to computer expert's, consumption...

John Smart, Hitchin, Herts

● What, and put him up to £60 a week?

LET'S SEE YOU DO A STRIP

I think that you should start a regular cartoon strip. Why not ask that 'Sarkar' person who does the strips in AA and ST/Amiga Format to decorate, say, the back page?

David Carter, Woking, Surrey

● We're working on it, though a funny strip about computers every week is a tall order for a cartoonist.

BOUQUET SHOP

I would like to commend Epson (UK) Ltd for the excellent Customer Support they provide. These days it is very unusual to find a company that offers a

good customer support and I will not hesitate to recommend Epson to anyone...

K Sheldon, Birmingham, West Midlands

● Nice to see a company being congratulated for a change!

HAVE YOU EVER HAD DEJA VU BEFORE?

Is there any prize for recognising that your review of Federation of Free Traders appeared in another monthly mag, almost word for word, five months earlier?...

Gary Brainfott, Nottingham, Notts

● Well, just proves our reviewer was right the first time, doesn't it?

F O F T

Never, or almost never, in seven years as a computer enthusiast, have I seen such an over-hyped piece of rubbish as Federation of Free Traders on the Atari ST...

P Kowabnik, Manchester, Midlands

● Ah, yes you have, five months ago...

The salesmen will tell you to buy an ST, you'd probably prefer a PCW for your own purposes, but the CPC might be the best compromise.

BUGS BUNNY

I am now writing to let you know of more bugs in Federation of Free Traders.

1. During the game itself the computer will give you a first mission which you cannot complete in one jump, ie. your minimum jump to start is 78 but your mission will require a jump of 90. This does not help beginners get into the game.

2. The screen shots on the box show and front and rear display with said working displayed; there is no mention of this in the manual and try as I might could not get this display.

3. The radar in the centre of the display will not show a 3D image of the ship approaching you.

4. On the damage control it will not allow you to select missile to repair.

5. The docking computer would not work.

6. When attempting to fuel, the display will only occasionally allow you to do this after pressing buttons 1 and 3 numerous times.

7. All this as well as no save facility makes me wonder if the game was actually tested by anyone before it went on sale at £29.95 a game. I should hope Gremlin Graphics gets its act together.
C S, Surrey

● Gremlin's technical department told us:

1. This is an intentional part of the game and is covered in the manual; 2. There is no such feature in the game. The box shot is inconsistent with the game and the manual, having been taken several months before, but the manual and game are consistent with each other. 3. Again, no bug here - the display isn't meant to show a 3D picture, only distance and height (as in Elite) 4. OK, this is bug, but has been fixed in the latest version 5. The computer only works near a space station, so maybe you're not close enough; they've had no complaints about this 6. Again, they've had no complaints, and think you maybe aren't doing it quite right 7. The save facility was lacking on early versions but has been put on latest versions. As usual, you can return your game to the manufacturers for the upgrade.

of alternative equipment. Your magazine seemed to provide the more sophisticated user/buyer with many choices of equipment.

Much of the terminology I regret to say left me stranded with considerable doubt as to my proposed investment for my family's present and future needs.

My requirements would be summarised as follows:-
Personal computer, Word Processor, Printer and Monitor.

Such a grouping of equipment would need to encapsulate the following activities:-

- 1 Game playing to suit 9-16 year olds.
- 2 Programming for design and educational purposes.
- 3 Business (family) correspondence e.g. like a well presented letter of this type!
- 4 Report compilation and typing skill tuition.
- 5 Possible short story writing.
- 6 Domestic budgeting/finance
- 7 Spread sheet production.
- 8 Averaging eg cricket club batting and bowling averages.

I should be most grateful for any suitable recommendations you are able to make together with the name of a reputable local supplier.

My budget is about £600 max. I do have a colour TV set which could be pressed into action as a monitor if that would significantly improve the range of hardware my budget permits.

M J L Miller, Seaford, East Sussex

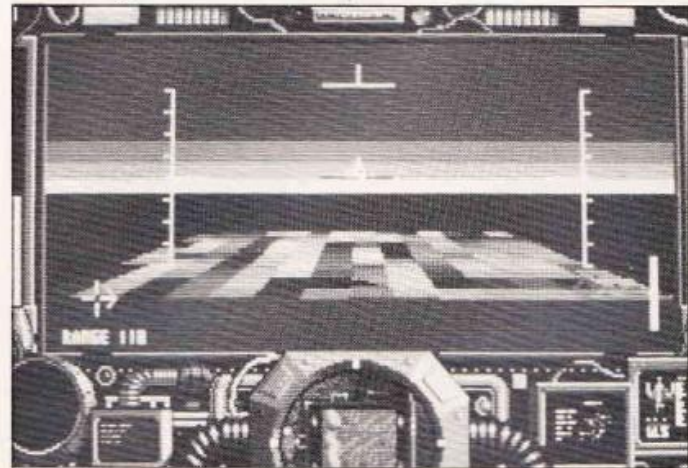
● Well, briefly, some options in your local Comet/ Currys/ Dixons etc. are:

a) Atari ST 520FM (£299) plus cheap printer (say Citizen 120D, £130, or Star LC-10, £195). This is a nice modern sophisticated computer, great for all the points you want, loads of software available of increasingly sophisticated quality,

but games tend to be expensive (£20 or so). Problem: you have to use your TV as a monitor which doesn't really give you enough definition for word processing. Magazine for further info: ST/Amiga Format.

b) Amstrad CPC6128 (£299 with mono monitor, £399 with colour monitor) plus cheap printer. Great for all the points you want, plenty of software available, games cheap (£3-£10 say). Older than the ST and less sophisticated but a nice machine still. Magazine: Amstrad Action.

c) Amstrad PCW (£399, £50 more with daisywheel printer). Includes monitor, word processing software, and printer. Few if any games for 9-15 year olds and limited graphics, but by far the best machine for word processing and writing, and plenty of 'serious' games and software available for the other points you mention. Magazine: 8000 Plus.



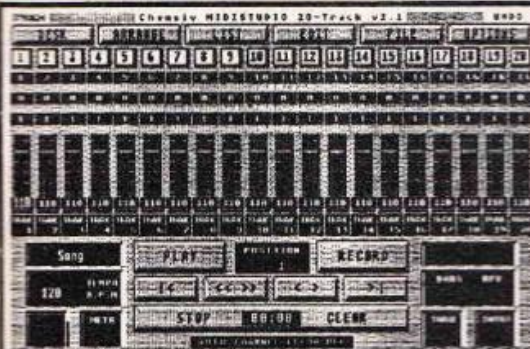
• Federation Of Free Traders. Bad, or just misunderstood?



LADBROKE COMPUTING INTERNATIONAL



This company has given years of full support to Atari users from their retail 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 customers receive total satisfaction, 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** (next day delivery +£3), are correct at time of going to press and are subject to change without prior notice.



Midistudio £99.99

Midistudio is a 20 track Midi Music Studio. This Midi software package is a realistically priced introduction to Midi music processing and includes the following features. 20 tracks each assignable one of 16 midi channels, each track can be transposed up or down 2 octaves, the main screen features full tape deck controls with individual volume sliders for each track, note editing facilities including editing of pitch, octave, duration and velocity, plus full midi controller editing (pitch bend, mod wheel, etc.). Full control over phrases is offered through Quantizing, transposing, and phrase arrangement software pages. The arrangement facilities allow moving and copying phrases on any of the 20 tracks. The package is easy to use and is a strong competitor with Pro 24.

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



SCAN AT UP TO 1000 DPI FOR ONLY £89.99

The Image Scanner is a peripheral for the ST which can provide high quality graphics digitising for a tenth of the cost of other digitisers. This simple unit plugs into the cartridge port of the ST and accepts scanned information via optical cables which fix easily to the head of any printer. Scanned images can be saved in raw data, Degas and Neochrome formats. 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 images scanned with this product. The cost of this disk is £3.99, £2.00 of which is redeemable on purchase of a scanner.

IMAGE SCANNER ONLY £89.99

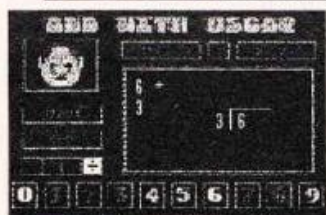


Add With Oscar £12.99

Add with Oscar is a fully mouse controlled educational game with full colour screens and sound for teaching addition, subtraction, multiplication and division to children. This program has selectable difficulty levels and a Hi-Score table.

EDUCATIONAL SOFTWARE

Spell With Oscar £12.99



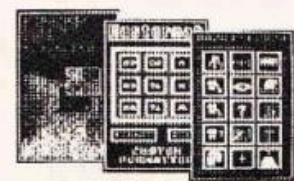
Spell with Oscar is a game which teaches spelling, keyboard skills and motor coordination. Pictures of objects move smoothly across the screen and the pupil should spell the name of the object while Oscar checks for mistakes. Spell also incorporates selectable difficulty levels and a Hi-score table. **Extra data disks £5.99**

Quick List Plus is a utility that compiles a directory of your disks. Sort on disk or name, reads any drive, including hard drive. Printer output for hard copy of databases.

Mastermat is a formatter that reformats disk space, allows non standard sector and track formats/ fast read format.

Picstrip is a utility that captures all or part of a picture file for use in Basic programs, supports GFA, FAST, HISOFT and ST Basics and is Degas, Neochrome and AB Animator compatible.

TRILOGY £12.99



AB Animator £14.95

AB Animator is a utility for creating and animating sprites. It supports GFA, HISOFT and FAST basics and is compatible with degas and neochrome picture files. Use the full icon control to animate up to 20 big frames of 56 pixels wide by 33 pixels high.



ALL HARDWARE AVAILABLE EX-STOCK. PHONE FOR OUR NEW LOW PRICES

For example:

MEGAFILE 30 30 MB HARD DRIVE	£475	1 MB CUMANA SECOND DRIVE	£89.99
520 STFM SUPER PACK	£369.99	STAR LC10 PRINTER	£199.99
520 STFM EXPLORER PACK	£279.99	STAR LC10 COLOUR PRINTER	£249.99
1040 STFM + CHOICE OF SOFTWARE PACKS	£449	STAR LC 24/10 PRINTER	£339.99

PHONE FOR OUR LOW PRICES ON THE FOLLOWING ITEMS ALL EX STOCK.

Upgrades (2 and 2.5 Megabyte memory expansion boards, 1Megabyte memory expansion), Printers, Hard drives, 1Mb second drives, Monitors, TV's, ST packages, Atari Pc's. Phone for information on our incredible software club which offers up to 60% discounts and a free monthly disk magazine for only £15.

Ladbroke Computing International,
33 Ormskirk Road, Preston, Lancs.,
PR1 2QP. Open Monday-Saturday
10 am to 5.30 pm. Dealer enquiries welcome.



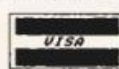
ORDER BY PHONE

Call us on numbers below and pay with your credit card.
(0772) 203166 OR 21474



ORDER BY POST

Make cheques PO's payable to Ladbroke Computing International. Send SAE for full catalogue.





HOMESoft (UK)

Software and Hardware



ALMOST PROBABLY THE CHEAPEST MAIL ORDER/RETAILER IN EUROPE

AMIGA 500 PACK 1 WITH MODULATOR AND ART PACKAGE ONLY £358.00	AMIGA 500 PACK 2 WITH MODULATOR AND ART PACKAGE + WORKBENCH v 1.3 ONLY £368.00	AMIGA 500 PACK 3 WITH MODULATOR AND ART PACKAGE + FIVE GAMES ONLY £377.00	AMIGA 500 PACK 4 WITH MODULATOR AND ART PACKAGE + TEN GAMES ONLY £388.00
AMIGA 500 PACK 5 WITH MODULATOR AND ART PACKAGE PLUS PERIPHERAL PACK ONLY £399.00	AMIGA 500 PACK 6 PHILIPS CM8833 MED RES MONITOR GAMES STARTER PK. WITH MODULATOR ONLY £585.00	AMIGA 500 PACK 7 COMMODORE 1084S MED RES MONITOR GAMES STARTER PK. WITH MODULATOR ONLY £615.00	AMIGA 500 PACK 8 WITH MODULATOR AND ART PACKAGE PLUS MPS-1230 PRINTER ONLY £499.00

PERIPHERALS

Competition Pro Extra	Joystick	£11.50
Competition Pro 5000	Joystick	£11.35
Cheetah Mach 1+	Joystick	£9.50
Cheetah 125+	Joystick	£6.80
Cheetah Starfighter	Joystick	£11.50
Konix Speedking	Joystick	£9.70
Quickshot 2+	Joystick	£6.99
Quickshot 2 Turbo	Joystick	£10.55
Magnum	Joystick	£9.30
Konix Navigator	Joystick	£12.50
Konix Speedking	+ Autofire Joystick	£10.20
Suncom Economy	Joystick	£4.99
3.5" DS/DD Disks Per 10		£9.50
3.5" DS/DD Disks Per 50		£47.00
3.5" DS/DD Disks Per 10 in case		£10.50
100 Capacity 3.5" Storage Box		£6.95

100 Capacity 5.25" Storage Box (While Stocks Last) £4.50

200 Cap. 3.5" Posmo Storage Box	£14.99
3.5" Head Cleaning Disk	£2.50
Twin Joystick Extension Lead	£4.50
Quality Mouse Mats	£4.50

OPEN
Mon - Fri 9AM - 6PM
Sat 9AM - 4PM
CALLERS WELCOME

ACCESS/VISA
CARD
HOTLINE
0772 - 452414

ALL GOODS DESPATCHED
WITHIN 12 HOURS
SUBJECT TO AVAILABILITY



SERVICE

* AMIGA 500 COMPUTERS ARE SUPPLIED WITH MOUSE, WORKBENCH DISKS, TUTORIALS

16 BIT SOFTWARE	AMIGA	ATARI	16 BIT SOFTWARE	AMIGA	ATARI	16 BIT SOFTWARE	AMIGA	ATARI
1943 Battle of Midway	13.90	13.90	Land of Legends	17.70	17.70	Who Framed R. Rabbit	14.50	---
3D Pool	11.70	11.70	Last Duel	10.99	10.99	Zany Golf	16.80	16.80
4th & Inches	13.90	13.90	Lancelot	11.70	11.70	Zoom	11.70	---
4 x 4 Off Road Racing	13.90	13.90	Munsters	11.70	11.70	Zak McKracken	16.80	16.80
Amiga Gold Hits	16.80	---	Nebulas	13.90	13.90	LED Storm	13.90	13.90
Arcade Force Four	---	16.80	Netherworld	13.90	13.90	Lombard RAC Rally	14.70	14.70
Action Service	11.70	11.70	Nineteen Part One	11.70	11.70	Advanced Ski Simulator	11.70	11.70
Action ST	---	13.90	Orbiter	14.70	14.70	Advanced Rugby Sim.	11.70	11.70
Ballistic	11.70	11.70	Outrun Europa	10.99	10.99	Black Tiger	16.80	13.90
Balance of Power 1990	14.70	14.70	Overlander	14.70	11.70	Cosmic Pirate	11.70	11.70
Battlechess	16.80	---	Pacmania	11.50	11.50	Crack II (Dugger)	11.70	11.70
Barbarian II	11.70	11.70	Pioneer Plague	14.70	---	Dragonage	11.70	11.70
Batman	14.70	11.70	Pools of Radiance	15.90	15.90	Hybris	17.70	17.70
Battlehawks 1942	14.70	14.70	President is Missing	14.70	14.70	I Ludicrous	14.70	11.70
Blastroids	14.70	11.70	Prison	11.70	11.70	Inc. Shrinking Sphere	14.70	11.70
Bombazal	14.70	14.70	Project D. Backup Tool	29.50	---	Populous (Ea)	16.80	16.80
Butcher Hill	13.90	13.90	Purple Saturn Day	14.70	14.70	Scorpion	14.70	14.70
Chaos Strikes Back	---	9.70	Rambo III	14.70	11.70	Trained Assassin	14.70	14.70
Captain Blood	14.70	14.70	Return of the Jedi	11.70	11.70	WEC Le Mans	14.70	11.70
Captain Flitz	9.70	9.70	Renegade III	14.70	11.70	Manhattan Dealers	14.70	14.70
Crazy Cam II	14.70	14.70	Roadblasters	16.80	16.80	Menace (Dragonica)	11.70	11.70
Cuadron	13.90	13.90	Robocop	14.70	11.70	Mini Golf	13.90	13.90
Cyberoid	13.90	13.90	R-Type	11.70	11.70	Microprose Soccer	14.70	14.70
Dark Fusion	13.90	13.90	Scenery Disk no: 7	12.70	12.70	Millennium 2.2	11.70	11.70
Double Dragon	11.70	11.70	Scenery Disk no: 11	12.70	12.70			
Dream Zone	14.70	14.70	SDI (Activision)	11.70	11.70			
Dragon Ninja	14.70	12.70	Silkworm	11.70	11.70			
E. Weaver Basketball	13.90	---	Skrull	14.70	14.70			
Elite	14.70	14.70	Shoot-em up Con. Kit	14.70	14.70			
Empire Strikes Back	11.70	11.70	Star Wars	11.70	11.70			
Espionage	11.70	11.70	Storm Trooper	11.70	11.70			
Five Star Compilation	---	14.70	Starblaster II	14.70	14.70			
Fantavision	29.00	---	Sword of Sodan	17.70	---			
Flight Simulator II	23.90	23.90	STOS	---	19.90			
Flying Shark	14.70	14.70	STAC	---	29.90			
Fright Night	11.70	11.70	Sundog - Frozen Legacy	---	8.90			
Gaidragon's Domain	11.70	11.70	Three Stooges	17.70	17.70			
Galactic Conqueror	14.70	14.70	Triad	17.70	17.70			
Games - Summer Edition	13.90	13.90	Tiger Road	13.90	13.90			
Ghosts 'n' Goblins	13.90	13.90	Techoo Cop	13.90	13.90			
Hecher Skeker	9.70	9.70	TV Sports Football	17.50	---			
H.K.M.	10.99	10.99	Thunderblade	14.90	12.90			
Hostages	14.70	14.70	Turbo Cup	11.70	11.70			
International Karate +	14.70	11.70	Ultimate Golf	13.90	13.90			
Iron Lord	16.80	16.80	U.M.S.	14.70	14.70			
Japan Scenery Disk	12.70	12.70	Virus	11.70	11.70			
Jet	23.90	23.90	Vindicators	11.70	11.70			
Joan of Arc	12.70	12.70	Victory Road	14.70	11.70			
Kennedy Approach	14.70	14.70	Weird Dreams	14.70	14.70			
Kenny Dalglish Soccer	11.70	11.70	Western Europe Scenery	12.70	12.70			
Kristal	17.70	17.70	WorldClass Leaderboard	13.90	13.90			

SOFTWARE BARGAINS
THE FOLLOWING
SOFTWARE AT:
£4.99 EACH

BETTER DEAD THAN ALIEN
BACKLASH
HELLBENT
ATAX
FINAL ASSAULT
SPITTING IMAGE
WIZARD WARZ
LEADERBOARD BIRDIE
WINTER OLYMPIAD
INTERNATIONAL SOCCER
QUADRALIEN
STAR GOOSE
OUTRUN
SIDE ARMS

AMIGA A500 ONLY

PERIPHERAL PACK INCLUDES:

CHEETAH 125+ STICK
HEAD CLEANING DISK
4 PLAYER ADAPTER
DELUXE MOUSE MAT
MOUSE BRACKET
10 DS/DD BLANK DISKS
CLEAR LIBRARY CASE
SPEEDBALL GAME

COMMODORE MPS-1230
PARALLEL CENTRONICS
DOT MATRIX PRINTER
INCLUDING LEAD
ONLY £130.00

COMMODORE A501
500K EXPANSION UNIT
WITH BUILT IN CLOCK
+ DRAGON'S LAIR
ONLY £150.00

SPECIAL OFFERS

	AMIGA	ST
FALCON	£17.50	£14.50
SUPER HANG ON	£14.70	£11.70
DUNGEON MASTER	£14.70	£14.70
GAUNTLET II	£15.90	£12.90
TV SPORTS FOOTBALL	£17.50	---
DENARIS	£13.20	---
SPEEDBALL	£14.50	£14.50
CALIFORNIA GAMES	£12.50	---
DRAGON'S LAIR	£29.50	---
F16 COMBAT PILOT	£14.50	£14.50
ROCKET RANGER	£17.50	---
BAAL	£11.60	£11.60
AFTERBURNER	£14.70	£11.70
F.O.F.T.	£17.70	£17.50
GAMES WINTER ED.	£13.90	£13.20
INTERCEPTOR (EA)	£16.60	---
HEROES OF THE LANCE	£15.90	£15.90



All Prices include VAT and Postage. Hardware included. Europe Add £2.00 per item. Express Next Day Courier Service available.

UNIT 13
CENTURION WAY INDUSTRIAL ESTATE
LEYLAND
PRESTON
LANCASHIRE
PR5 2GU
TELEPHONE 0772 - 452414 - SALES
455685 - ADVERTISING

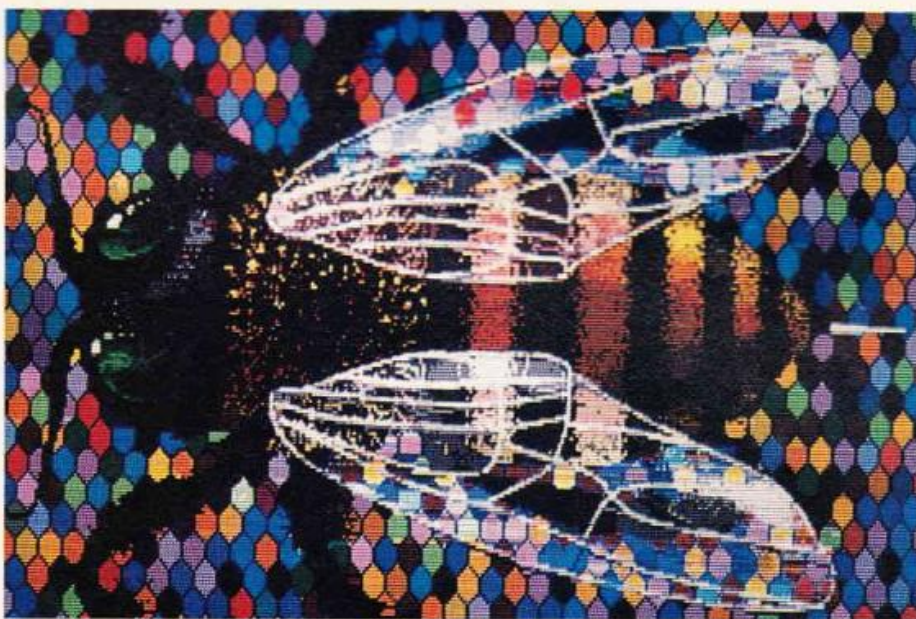
FOR NEW RELEASES AND ITEMS NOT LISTED PLEASE PHONE US TODAY.
NEW TITLES WILL BE DESPATCHED ON CONFIRMED DATE OF RELEASE

GOODS SUBJECT TO AVAILABILITY AND CHANGE WITHOUT PRIOR NOTICE
OFFER ENDS 31st JULY 1989. HOMESoft (UK) CARES FOR ITS CUSTOMERS



There are literally hundreds of Art applications available for home micros, ranging from simple doodlers to complex suites offering solid 3D animation; the choice is bewildering. So what features should you look out for when buying one for your machine? Andy Storer paints a picture of the perfect pixel package...

Art for Art's sake



- Top left: King Tut gets another airing – the original pic was picked up as brush, rotated in 3D, pasted down 4 times, swapped to tint mode and overlaid with two circles. Simple eh? On Deluxe Paint III maybe...
- Above: A 512 colour extravaganza on the ST's Spectrum 512. But shouldn't you only be able to see 16 colours at once?

HOW MANY COLOURS IN THE SPECTRUM?

Whether you're paying £3 or £300, most art programs provide a system of pull-down menus and icons for moving between the screen painting area and palette and painting tool control. This is absolutely essential, since you'll want to be able to move quickly through the range of colours on hand and the painting 'surface' before you.

A good program will allow you to flick back to a full screen painting area after changing tools, operations or colours from an overlaid control panel. The more advanced packages will offer you the choice to scroll through a much larger area of work than can be displayed on screen at any one time or, alternatively, have a number of screens in memory that you can flick between.

Although you can buy packages for mono systems, most on offer are designed for colour. Obvious really. Painting's all about colour isn't it?

Well, up to a point. The point being that you don't need thousands of colours to produce effective artwork. The number of colours available to you will initially depend on the the resolution your machine's able to support and the degree to which the software allows mixing of the standard colours and combining them to form composite hues and shades.

But more sophisticated software can actually address the hardware to change the screen-scanning to display a new palette of colours on every line. Thus, for instance, *Quantum Paint* on the ST can offer 4,096 on-screen colours despite the ST offering only a choice of 16 from a palette of 512.

For general purposes, however, 256 colours is the most you'll ever need – beyond that it becomes difficult to distinguish them. The best packages will offer you a full screen palette which displays all available colours, rather than a simple palette bordering it, thus allowing you to select the one you wish to use simply by clicking on it.

PIXEL PICASSOS

The beauty of electronic painting is the ability to continually modify your work without having to start all over again. Whilst a package will offer you the obvious option of a variable-sized eraser, alterations are often likely to involve finer tuning than rubbing out whole areas.

So, for instance, once you've chosen a colour and done some drawing you will be able to change it simply by selecting a shade from the palette you wish to replace it with. Ideally, you should be able to click on any individual pixel of colour you've painted and be given its exact RGB code so that subtle alterations can be made.

In addition, it's useful to have a 'cycle draw' option where you may select a range of adjacent



• Another shot from Spectrum 512 on the ST, showing off smooth toned gradation across a range of colour

colours to be painted in sequence as a brush line is drawn. In this way you can subtly blend colour to produce graded hues. In this respect it's also useful if you can individually alter the hue and luminance of any particular pixel or area by simply clicking on a relevant icon.

The 'front end' control panel will allow you to choose between the range of painting tools on hand. A good package should offer you not only different pens, brushes, sprays and fills but a range of shapes, transformations, preset effects and texts. For freehand drawing, mouse control is infinitely preferable to the joystick or keyboard, assuming you don't have a graphics tablet, and the range of pens and brushes should allow you a

Graphically superior

Rik Haynes checks out the best buys in graphics software for your machine...

Amiga

With its huge potential as a graphics workstation, and thanks to its superlative custom-designed graphics chips, the Amiga has perhaps the largest and most impressive selection of excellent graphics software and hardware. This includes a wide variety of paint and animation software, video digitisers, genlocks, etc. But this power unfortunately comes at a price - namely extra RAM and disk drives are not only recommended but absolutely essential in some cases.

DeluxePaint III • Paint and Animation Software • £79.99 • Published by Electronic Arts



DeluxePaint III (reviewed on page 35) is the latest version of the most popular Amiga paint package around. Requiring 1Mb of RAM, *DeluxePaint III* includes an impressive paint-animation capability, extra-halfbrite 64-colour and overscan mode support, new wrap and tint brushes, font handling enhancements and substantial speed increases in all modes of operation. Electronic Arts is offering an

upgrade service for owners of *DeluxePaint* (£50 + £5 carriage) and *DeluxePaint II* (£30 + £5 carriage). Further details from EA on 0753 46465.

Photon Paint 2.0 • Paint Software • £85.99 • Published by Microillusions, USA • Distributed in UK by Activision



Photon Paint 2.0 is a 4,096 colour HAM-compatible paint package with sophisticated brush operations, surface and contour mapping, shadowing with adjustable size and offset, and luminance with definable source location and intensity. Although Activision has yet to

confirm plans to run an upgrade offer for owners of *Photon Paint 1.0* in the UK, there is a service available in the US. Further details from Activision on 0734 310003.

Sculpt 3-D • Animation Software • £85 inc VAT • Published by Byte by Byte, USA • Distributed in UK by

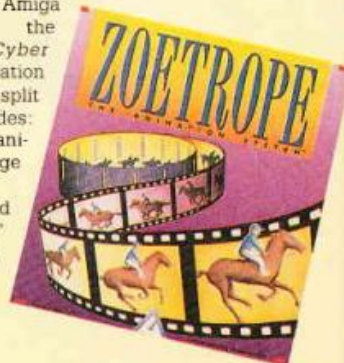
Amiga Centre Scotland on 031 5574242 *Sculpt 3-D* allows you to design and animate 3-dimensional scenes and incorporates an interactive object editor and power tools for constructing arbitrary solid shapes with symmetry, reflection, surfaces of revolution, extrusion, and cross section reconstruction. *Sculpt 3-D* also includes anti-aliasing, variable object colours and texture, unlimited (number, colour and placement) of light sources, arbitrary observer (placement, angle and direction) of view, phong shading, flat polygonal shading, full ray traced imaging with shadows and highlights, supports all the Amiga's graphics modes including overscan and 4,096 colour HAM, and is IFF-compatible.

Sculpt 4-D • Animation Software • £320 ex VAT • Published by Byte by Byte, USA • Distributed in UK by Amiga Centre Scotland on 031 5574242

Sculpt 4-D is a state-of-the-art professional animation program which requires 1Mb of RAM and two disk drives. It includes substantial enhancements and additions to *Sculpt 3-D*, though at this price, *Sculpt 4-D* is strictly for Amiga-owning animation enthusiasts with loads of cash.

Zoetrope • Paint and Animation Software • £99.95 inc VAT • Published by Antic, USA • Distributed in UK by ISM on 0983 864674

Zoetrope is the Amiga version of the popular ST *Cyber* paint and animation series, and is split into five modes: painting, cel animation, image processing, video titling and "flip book" pencil testing. *Zoetrope* requires 1Mb of RAM.



Atari ST

Despite being overshadowed by the Amiga in the visual department, the ST has still managed to attract a wide variety of good quality graphics software which can produce some very impressive results.



Flare Paint • Paint Software • £34.99 • Published by AMS/Logitech • Distributed in UK by Database Software on 0625 878888

Flare Paint is the current flavour-of-the-month paint package for ST artists, allowing you to draw images in low-res and high-res - but not medium-res - screen resolution modes.

Degas Elite • Paint Software • £24.99 • Published by Electronic Arts

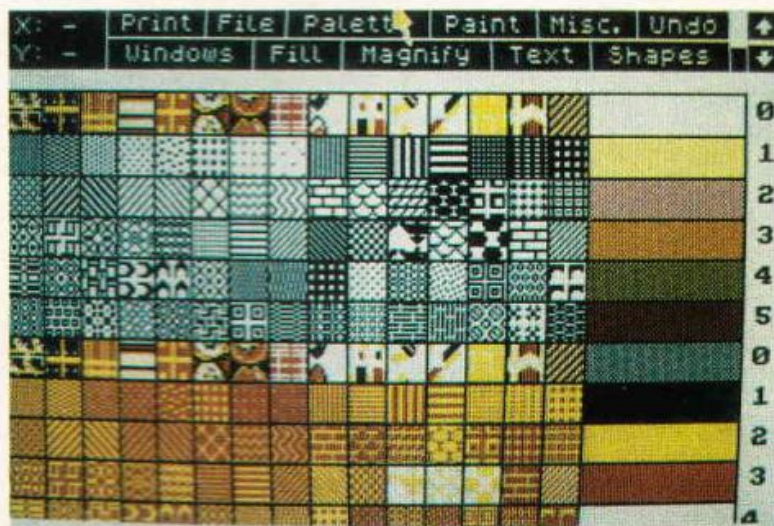
Degas Elite was one of the first paint packages released for the ST, and it still remains one of the easiest and most versatile paint programs around for that machine, allowing you to draw images in

choice of line thickness, tip size and style.

Ideally, rather than preset sizes and shapes, you should be able to step up or down through a range. Likewise, sprays should also offer variable density and offer a choice of pattern, flow and nozzle type. The option to fill enclosed areas of artwork with a range of preset patterns is also essential, as is the ability to design your own fills.

Such design may require a fair degree of detail, so a facility allowing a graded zoom magnification of any area is also essential.

Ideally you should be able to grab any part of a screen and use it as fill for another and also merge, or 'dither', two adjacent fills so that a perfect gradation is apparent.



Even on the Amstrad CPC, a machine supporting only 4 colours, the range of fills is impressive - here it's Advanced Art Studio from Rainbird.

GETTING INTO SHAPE

Another feature worth looking out for in art packages is the ease with which it is possible to call up perfect circles and ellipses of varying size and thickness for exact positioning in the work area. Advanced packages will also allow you to smooth the curvature of a circle or ellipse to remove its jagged edges.

Of course, you'll want to be able to construct other shapes, not all of them regular, and in this case you should look for a package that allows you to form multi-sided polygons. Creating the exact shape you desire is likely to be a process of hit and miss, so it also essential to have an 'Undo' function.



low-res, medium-res and hi-res screen resolution modes.



Spectrum 512 • Paint Software • £59.95 • Published by Antic, USA • Distributed in UK by Electric Distribution on 0480 496666.

Using scan-line palette changing software techniques, *Spectrum 512* allows you to draw images on a low-res screen with 512 on-screen colours.

Advanced Art Studio • Paint Software • £22.95 • Published by Rainbird • Distributed in UK by EEC on 0753 888866.

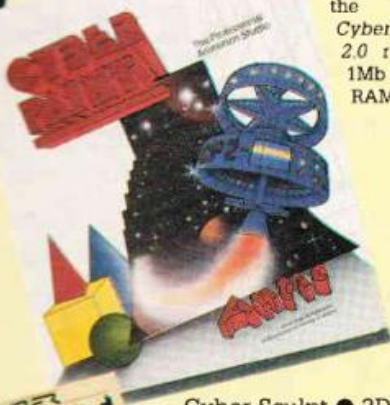
Cyber Studio • CAD-3D 2.0 and Cybermate Software • £79.95 • Published by Antic, USA • Distributed in UK by Electric Distribution on 0480 496666.

Cyber Studio requires 1Mb of RAM and combines a 3-D design program *Stereo CAD-3D 2.0* and powerful animation control language *Cybermate*. *CAD-3D* allows you to create 3D objects and includes camera view with variable zoom and perspective control, three independent user-positioned light sources plus ambient lighting (all with variable intensity) and wireframe, hidden line, solid, or solid outline modes. *Cybermate* uses Bomb-type commands to create animation sequences, incorporates delta compression techniques, special effects and lap dissolves and allows you to splice in animations from multiple sources.

Cyber Paint 2.0 • 2D Paint and Animation Software • £69.95 • Published by Antic, USA • Distributed in UK by Electric Distribution on 0480 496666.

Cyber Paint 2.0 allows to paint and animate 2D images and can be used to add the final touches to a *Cyber Studio* 3-D animated sequence. It includes automatic image registration to create cel animation arrangements, real-time zoom mode, multiple static or animated overlaid images and special animation effects with automatic intermediate view generation

(tweening) on any area of the screen. *Cyber Paint 2.0* requires 1Mb of RAM.



Cyber Sculpt • 3D Sculpting Software • £79.95 • Published by Antic, USA • Distributed in UK by Electric Distribution on 0480 496666.

Cyber Sculpt is a professional 3D off-station solid-modeler used to port 3D object files to high-end rendering systems - and includes variable magnification, spline path extrude and spin, face bevelling, and cross-sectional model creation. *Cyber Sculpt* requires 1Mb of RAM and *Cyber Studio* (CAD-3D 2.0).

PC

DeluxePaint II • Paint Software • £99.99 • Published by Electronic Arts
DeluxePaint II is the PC version of the popular

Amiga paint program, and allows you to draw images in CGA, EGA, VGA, MCGA, Hercules and Tandy graphics modes.

Spectrum

Art Studio • Paint Software • £12.95 (Spectrum 48K compatible) • Published by Rainbird • Distributed in UK by EEC on 0753 888866.

Advanced Art Studio • Paint Software • £22.95 (Spectrum 128K Only) • Published by Rainbird • Distributed in UK by EEC on 0753 888866.

C64

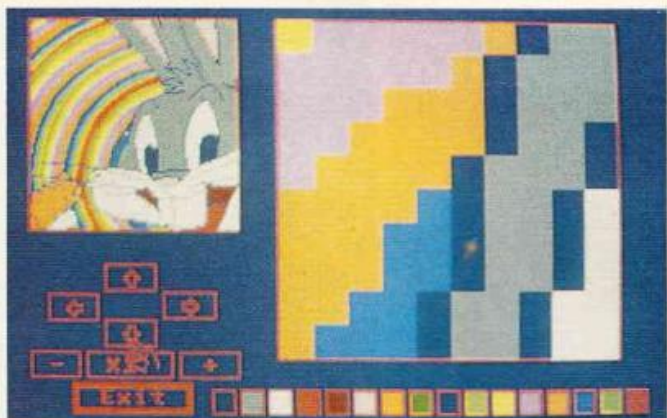
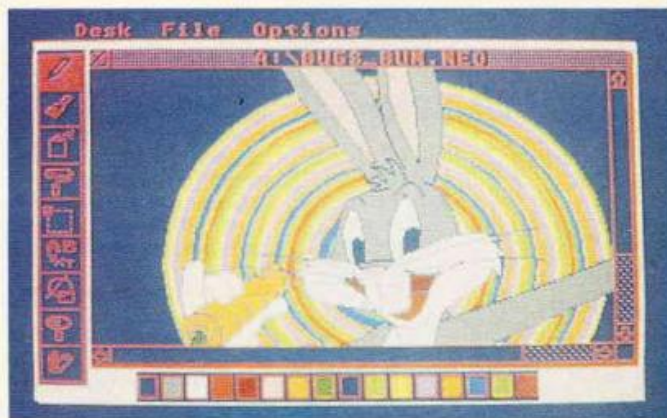
Art Studio • Paint Software • £12.95cs, £15.95dk • Published by Rainbird • Distributed in UK by EEC on 0753 888866.

Advanced Art Studio • Paint Software • £22.95 (Disk Only) • Published by Rainbird • Distributed in UK by EEC on 0753 888866.

CPC

Art Studio • Paint Software • £17.95dk • Published by Rainbird • Distributed in UK by EEC on 0753 888866.

Advanced Art Studio • Paint Software • £22.95dk • Published by Rainbird • Distributed in UK by EEC on 0753 888866.



What can I get out of it though?

Unless you wish to incorporate your artwork into a program or game, then you'll be wanting to produce hard copies of your masterpieces. The simplest way of achieving this is by photographing the screen. For this you'll need a 35mm camera with a variable shutter speed which will allow you to shoot slow enough to avoid screen refresh lines in mid-scan. It's best to shoot in a darkened room with the aperture wide open at a speed of 1/8 or 1/4sec.

Colour printers aren't much cop unless you're prepared to fork out the readies, so the only other recommended way of displaying your work is by transferring it to videotape. A composite video lead between your micro and the video's input should do the trick quite easily.

The most sophisticated features available to the pixel painter are block manipulations. Standard

• Any art package worth its salt should allow you to zoom into an area of the screen for detailed work. Even an average package will offer a zoom of 16x magnification

There's always more...

This overview has concentrated on the options offered by paint packages and takes no account of related features, often incorporated, such as sprite construction, animation and 3D modelling. Express will be covering these areas in the near future.

packages offer the facility to define sub-screen areas and move or copy them to other parts of the display. Middle range products will allow you stretch, skew, rotate and distort such defined blocks, whilst the more advanced will not only provide the tools to mirror, flip and invert the image-block but also make it opaque or transparent. It should also be possible to smear a specified area so that it appears to have been

dragged. In addition, a more comprehensive package will allow you to outline and frame specified areas with a range of borders and define shadow depth and direction effects.

WRITE THEN, LET'S GO

The inclusion of a text facility is also essential so that you may annotate diagrams or drawings. Here, you should look out for those programs which offer a range of text and font sizes and also include options to vary density and add outline, underlining and skew.

Finally, you should be able to save whole or part-screen files in a compressed form to save on disk space, and also be able to save and load palette and paint tool selections as new default values. ●



EEC LTD
£2.00 OFF ALL **EXPRESS** OCP
ART STUDIO



"without doubt the best" PCW
"in short, excellent" Computer Trade Weekly
"an exceptional product" Your Computer
"a notch above most design packages" Personal Computer World
voted "Best Buy" for Amstrad /Atari/ Spectrum/Commodore
COMPREHENSIVE, USER FRIENDLY ART AND DESIGN SOFTWARE

SPECTRUM

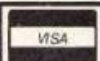
STD. 48K	£12.95	<input type="checkbox"/>
128 Plus 2	£22.95	<input type="checkbox"/>

COMMODORE

CBM 64	Tape	£12.95	<input type="checkbox"/>
	Disk	£15.95	<input type="checkbox"/>
Advanced 64/125K version	Cass	£19.95	<input type="checkbox"/>
	Disk	£22.95	<input type="checkbox"/>

ATARI

Advanced version £22.95 ☐
Dedicated Commodore printer bargain for Art Studio Seikosha GP 500 VC
£129.00. 80 Col Dot Matix, 50 C.P.S Tractor feed, 8 character sets
DEDICATED CBM CABLE FREE !!!
Terms C.W.O Access or Visa, Prices inc. VAT. Please add P&P of £1.00. Software
£6.00, for Printer UK - £15.00 Overseas. Offers subject to availability - Orders to:-



EEC LTD
18-21 Misbourne House,
Chiltern Hill, Chalfont St Peter,
Bucks SL9 9UE Tel: 0753 888866



MAIN MEDIA

FREEPOST, ANDOVER, HANTS.SP10 4BR
Tel: 0264 333830 (24 hrs)

BRANDED DISKS - PRICE PER BOX OF 10

	5 1/4" DS/DD 48	5 1/4" DS/QD 96	5 1/4" DS/HD 1.6	3 1/2" DS/DD 135	3 1/2" DS/HD 2.0
3M	£9.75	£16.75	£18.75	£16.75	£45.75
VERBATIM	£9.75	£16.75	£18.75	£16.75	£45.75
SONY	£12.75	£18.75	£20.75	£18.75	£45.75
DYSAN	£12.75	£18.75	£20.75	£18.75	£45.75

UNBRANDED LIFETIME GUARANTEE

	QUANTITY	10	20	30	40	50	100
3 1/2" SS/DD	135TPI	£7.95	£15.50	£22.75	£29.50	£35.75	£69.95
3 1/2" DS/DD	135TPI	£8.50	£16.50	£23.95	£31.25	£37.95	£74.95
	QUANTITY	25	50	100	250	500	
5 1/4" DS/DD	48TPI	£7.25	£13.95	£26.95	£64.95	£124.95	
5 1/4" DS/QD	96TPI	£7.95	£15.50	£29.95	£77.50	£139.95	

All 3 1/2" Disks come complete with labels. All 5 1/4" Disks supplied with Write Protect Tabs, labels and envelopes and come with our No Quibble Money Back or Replacement Guarantee.

Main Media, 1 Weatherby Gardens, Charlton, Hants.

DISKETTE STORAGE BOXES

	Price Each
50 x 5 1/4"	£5.50
100 x 5 1/4"	£7.50
140 x 5 1/4"	£9.50
50 x 3 1/2"	£5.50
100 x 3 1/2"	£7.50

DISK BOXES WITH DISKS

50 x 5 1/4"	Hinged Lid Lockable with 25 DS/DD 48TPI	£11.95
50 x 5 1/4"	Hinged Lid Lockable with 25 DS/QD 96TPI	£12.75
100 x 5 1/4"	Hinged Lid Lockable with 50 DS/DD 48TPI	£20.95
100 x 5 1/4"	Hinged Lid Lockable with 50 DS/QD 96TPI	£22.50
140 x 5 1/4"	Hinged Lid Lockable with 100 DS/DD 48TPI	£35.95
140 x 5 1/4"	Hinged Lid Lockable with 100 DS/QD 96TPI	£38.95
50 x 3 1/2"	Hinged Lid Lockable with 20 DS/DD 135TPI	£21.50
100 x 3 1/2"	Hinged Lid Lockable with 50 DS/DD 135TPI	£44.95

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

Cheques/P.O.'s to: MAIN MEDIA

FREEPOST

ANDOVER, HANTS.

SP10 4BR Tel: 0264 333830 (24 hrs)



AMIGA PC
MSX SPECTRUM
ATARI SEGA



SILICON

CONSULTANCY SALES INSTALLATION

Dreams

AMSTRAD
BBC CBM 64
APPLE



01 543 3420

NEW WORKBENCH 1.3 AVAILABLE NOW £14.00

OVER 30% OFF ALL SOFTWARE
PHONE US NOW
FOR BEST PRICES
AND FRIENDLY ADVICE
ON ALL COMPUTERS

AMIGA A500 WITH MODULATOR ONLY £359.00
WORKBENCH 1.3 WITH AMIGA ADD £10.00

DRAGON'S LAIR£29.99
DRAGON'S LAIR + 1/2 MEG EXP£159.99
A501 1/2 MEG RAM EXPANSION + CLOCK .£135.99
SUPRA 20 MEG HARD DISC£569.00
COMMODORE 1084 STEREO£260.00

ATARI 520STFM SUPER PACK INC:

£450 WORTH OF SOFTWARE
1 MEG DRIVE
ORGANISER
JOYSTICK

£345.00

(Inc VAT)

AMIGA AIR MILES PACK

includes

Amiga A500 + Modulator
Spritz Paint Disc Wallet
Who Framed Roger Rabbit
Starray & Nebulus
and 500 Air Miles

IKARI WARRIORS
BARBARIAN
THUNDERCATS
AMIGAS + WIZBALL
ART OF CHESS
BUGGY BOY
TERRORPODS

MERCENARY
INSANITY FLIGHT

£449.00

(Inc VAT)



AMIGA

**AMIGA A500
+ DRAGON'S LAIR
+ 1/2 MEG EXP
+ TV MODULATOR+**

IKARI WARRIORS
BARBARIAN
THUNDERCATS
AMIGAS + WIZBALL
ART OF CHESS
BUGGY BOY
TERRORPODS

£495.00

(Inc VAT)

PHILIPS 8833 STEREO MONITOR£229.00

AMIGA PRINTER LEAD£9.00

ATARI PRINTER LEAD£9.00

ON PHILIPS MONITORS ADD £9.00 FOR LEAD

PHONE FOR PRICES ON ALL HARDWARE AND PERIPHERALS

FREE DELIVERY ON ALL ORDERS

CHEQUES AND POSTAL ORDERS MADE PAYABLE TO "SILICON DREAMS"
SILICON HOUSE, 73 SOUTHPARK ROAD, WIMBLEDON, LONDON SW19 8RT

SHAREWARE ADVANTAGE

TRIED & TESTED SOFTWARE - JUST £3 A DISC

"We Specialize In
Quality PD SOFTWARE!"

WORD PROCESSING.

- PC-Write Quicksoft's Multi-function Word Processor.
- PC-Type+ Powerful WP, Fast Spelling Checker, Undo, On-line Help, 3 Discs. Documentation on Disc 4.
- Sail Text editor with windowed multi-file mode.
- Galaxy New version of this popular easy to use WP with pull-down menus and spelling checker, 2 Discs.
- Mindreader Brown Bags unique learning WP which can speed up your typing and reduce errors.
- PC-Outline Popular brain storming, idea processor.
- Spelling Checker with updateable dictionary.
- PC Stylist Analyse your writing for style and readability.
- Typewriter Emulator For those quick messages, addresses etc.

SPREADSHEETS & DATABASES

- PC-CALC+ Multi-feature spreadsheet 52 col, 618 row, 3 Discs.
- As-Easy-As Spreadsheet which is 123 compatible.
- Qubecalac A novel 3-dimensional spreadsheet.
- PC-File+ V2 Popular Database with mailmerge, 3 Discs.
- PC-File-dB dBase power at shareware prices, HD 3 Discs.
- 3X5 Card Index simulates the manual system (limited sort).
- Dream Multi-feature relational database system for custom-design applications, 3 Discs.
- Wampum Powerful implementation of dBase III language, HD 2 Discs.

HOME AND BUSINESS FINANCE

- Freeway Cashbook UK home accounts & budget, 2 Discs.
- Fast Bucks Comprehensive home accounts & budget, 2 Discs.
- Home Inventory/Home Insurance with report generator.
- Home Loan Calculate interest, repayments reports.
- Freeway Accounts Plus Popular UK Package complete with Purchase, Sales & Nominal Ledgers, 3 Discs.
- Freeway Payroll Latest up-to-date version, 3 Discs.
- Mr Bill Customer billing and tracking, 2 Discs.
- Time & Money Financial tracking with cash projection.

BUSINESS APPLICATIONS

- Business Graphics Line, Bar Graphs, Pie Charts, 2 Discs.
- 100 Standard Business Letters to use and adapt.
- EZ Forms standard forms to edit and use.
- Stock Control System Powerful aid to any business.
- Automated Planning Useful suite of planning aids.
- Project Management Critical Path Analysis, Gantt Charts.
- The Front Office Sales Tracking system, 2 Discs.
- Esie Expert System Shell Artificial Intelligence.
- PC-Mail Mailing list system and label printer, 2 Discs.
- Pro-Comm Menu-driven communications, 2 Discs.
- PC-Dial Buttonware communications program.
- STD Codes in Numerical order with corresponding exchanges.
- Desk Commando User definable menu, DOS shell, Text Editor, Scientific Calculator, Calendar, Appointments Diary.
- PC-Deskteam Handy calculator, notepad, diary, DOS access.
- Homebase Shareware Sidekick, Calculator, WP, Database, Calendar, Notepad, Communications, DOS access, 3 Discs.

PROGRAMMING

- Basic Interpreter Write and run standard GWBASIC/BASIC.
- Pascal Compiler A good introduction to Pascal.
- Mystic Pascal compiler and editor.
- Modula-2 Compiler fully operational compiler, editor, linker and on-disc manual, 2 Discs.
- Prolog The language for Artificial Intelligence.
- JEM Version of LOGO - ideal for teaching programming.
- XLISP New version of the Artificial Intelligence Language.
- Laxon Perry Forth Assembler, editor and debugger, 2 Discs.
- Chasm Machine code assembler for the 8086 with Primer.
- A86/D86 Powerful 8086 Assembler with debugger, 2 Discs.
- Basic Tutor Introductory tutorial on BASIC.
- Window Boss Produce windows with Turbo C etc.
- Pseudosam 286 Cross Assembler (others available).
- C Tools Useful collection of C source code, 2 Discs.
- Turbo Pascal Tools Collection of source code, 4 Discs.
- Tutorials each a 2-Disc set: C TUTOR * TURBO C TUTOR * PASCAL TUTOR * TURBO PASCAL TUTOR * MODULA-2 TUTOR

WHY ARE THE PRICES SO LOW?

ADVANTAGE only offer shareware which is fully operational and has been tested on PC compatibles including all Amstrad PC's and portables. Advantage supply comprehensive pre-sales advice and information on the programs.

Prices are low because you pay just for the administration and distribution costs, plus pre-sales support from Advantage. No payment for the software is included. You can use the programs freely but if you find them useful you are requested to make a payment direct to the author. In return you can expect printed manual and post-sales support. If you are unsure about the programs that you require or would like more information about our computer and training services, give us a call and we will be glad to help you.

ADVANTAGE - by post - (NCE) 56 BATH ROAD
CHELTENHAM, GL53 7HJ

- by telephone - 0242 224340 or
0242 224848

Prices include VAT and First Class postage in EC countries. Non-EC please add £3 per order.
We accept sterling cheques, Eurocheques.
Postal Orders. Access or Visa

EDUCATIONAL

- PC-Tutor Well-presented course on computers & DOS.
- Helpdos All you need to know about DOS.
- Fasttype Popular multi-option PC typing course.
- Amanda's Letters Lotto (Age 2-4) Teaches keyboard and letter recognition and co-ordination.
- ABC Funkeys (Age 2-5) Colourful way to learn letters.
- Amy's First Primer (Age 3-6) Six games teaching basic letter and arithmetic skills.
- Children's Games (Age 5-8) Five educational games: Alphabet, Animals, Clockgame, Hangman and Mosaic.
- Educational Selection (Age 6-10) Hangman (word guessing), Funnels and Buckets, (arithmetic), Polyglot (word matching) and Children's Word Processor.
- Word Games Opposites, Word Find, Jobs, Synonyms, Odd Word Out, Categories, Comparisons, Plurals, Verbs (Age 6-Adult)
- Phrase Craze Learn word and phrase skills (Age 7-12).
- Wiz Quiz (Age 6-12) Quiz-based maths tutorial.
- Maths Tutor (6-Adult) Covers basic to advanced maths.
- Statistics Over 20 stat analysis functions, 3 Discs.
- GCSE Physics Revision Novel way to learn Physics.
- GCSE Computer Science Revision Novel way to learn.
- Calculus Tutorial Teach yourself Calculus.
- Nightsky The latest version of the computer planetarium.
- Test & Train Build your own training program.
- Foreign languages each on a single disc: * FRENCH TUTOR * GERMAN TUTOR * ITALIAN TUTOR * SPANISH TUTOR.

D.I.Y. COMPUTING

- Power Menu Brown Bag's easy to use hard disc menu system.
- Auto Menu Design your own menu for your hard disc.
- DBS KAT Catalogging system for hard disc.
- LQ A selection of many different printer fonts to enhance your WP text. Memory resident.
- Fontastic Introduction to DTP with font editor, 2 Discs.
- Essential Utilities Over 40 of the best available.
- Text Processing Utilities Printer Control, Spooler, Print Sidelways Tally Word Counter, Filters, Fogfinder, Lister.
- Baker's Dozen Thirteen useful programs from Buttonware.
- Disk Commando Norton utilities at Shareware prices.
- Ultra Utilities "Disc Doctor" with unerase & sector editor.
- Master Key Powerful sector and file editor for hard disc.
- Packdisc Eliminates file fragmentation, economise & speed up your hard disk system.
- Archive System Save up to half your backup discs.
- Hypershell Menu, text presentation and management system.
- Signsmith Create your own posters and letter head.

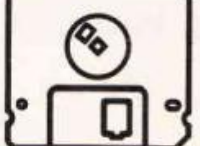
SPECIAL INTEREST

- Family History One of the best shareware genealogy programs with documentation and examples, 2 Discs.
- Family Ties Easy to use Menu-driven Genealogy program.
- Astrol-95 Plot astrological charts and horoscopes.
- VCR Database for cataloguing videos, LP's etc.
- Recipe System Database offers many useful recipes.
- PC Sport League table generator.
- Jog Log Monitor and track your performance.
- World Extensive gazetteer of places in the World.
- Crossword Creator all you need to create your own puzzles.
- Crossword Solver and anagram generator with dictionary.
- Gifts Ideas Generator Ideal at Birthdays and Anniversaries.
- Composer Create, play & save tunes using on-screen staff.
- Pianoman Turn your PC keyboard into a musical one.
- Bible Quiz Quiz game based on the Holy Bible.
- The Entire King James Bible - 11 Disc Set!

GRAPHICS

- PC Key Draw The latest version of this amazing shareware Desk Top Publisher and scale drawing system, 3 Discs.
- PC Key-Draw Picture & Font Library and Utilities.
- Firepaint Painting program runs on MSDOS not GEM.
- Flo-Draw text and graphics editor, 2 Discs.
- Dancad Advanced 3D frame drawing and animation, 2 Discs.
- Image-3D creates amazing 3 dimensional drawings on CGA/EGA.
- EGA Pinups A selection of saucy hi-resolution pictures.

ADVANTAGE



● COMPUTERS
● SOFTWARE
● TRAINING
● SUPPORT
Come and visit
our showrooms

PROGRAMS FOR PLEASURE

- Star Trek II The next generation - up to date new version.
- Star Trek The original classic game.
- Pinball Wizard A choice of five different pintables.
- Pinball Fanatic Five more different pintables.
- PC Jokes Practical jokes for the unsuspecting PC user.
- Get Lucky Adult Trivial Quiz and strip poker games.
- Adult Humour Large collection of rather rude jokes.
- Wheel Of Misfortune Based on the TV word-guessing game.
- Opus-1 Extensive general knowledge quiz.
- Trivia Quiz Many questions, 5 categories, 2 Discs.
- Trek Trivia Fascinating quiz based on the famous TV series.
- Music Trivia Quiz based on musical questions.
- Game Of Life Fascinating presentation of Conway's game.
- War Game of strategy. Takes hours rather than days.
- Empire & Prince Life-cycle survival strategy games.
- Simulations each on a single disc: American Football * Baseball * Basketball * Rocket Launcher/Lander * Railroad.

BOARD & CARD GAMES

- Scrabble Good implementation of the board game.
- Sleuth Exciting murder mystery solving game.
- Word Domination The classic game of risk and strategy.
- Chess & Checkers Good quality full screen graphic versions.
- Chinese Checkers Unusual 6-sided version of draughts.
- Mahjong and Solitaire (Patience) (need CGA).
- Poker, Canasta and Heart 3 classic card games.
- Gin Rummy & Ultima-2 Two card game simulations.
- Blackjack & Pontoon - Pontoon is memory resident.
- Two Bridges Two versions of the card game.
- Quimbee (Yahtzee) and Five, Two dices-based games.

ADVENTURE GAMES

- Golden Wombat Of Destiny Intriguing and unusual adventure.
- Hack (Amulet Of Yendor) Extensive role-playing adventure.
- Dungeons & Dragons Fantasy role-playing adventure.
- Colossal Cave Adventure The one that started it.
- Cave Quest Sent to Earth to seek fame and fortune.
- Supernova Complex game set in deep space.
- Intercept & Mutant Invasion Two Sci-fi adventures.
- Dark Continent & Nebula Two games by same author.
- Adventureware Five separate adventures on different themes.
- New York Adventure & Braminar You set the gameplay.
- Buttonware Adventures Two educational games.
- Jacaranda Jim Offbeat and amusing UK adventure.
- Adult Adventure The text and graphics are rather graphic.

GAMES COMPENDIUMS

Each disc contains a selection of quality machine code games featuring graphics and sound. Keyboard and joystick play.

- Classic Games - Space Invaders, Pacman, Pacgirl, Rilib, Breakout, Donkey Kong Q-Bert, Jumping Joe.
- Fun & Games - Pango, Baby, Elevator, Centipede, Pyramid, Dragons, Pac, Lazy Monday.
- Come In Peace - Striker, Paratrooper, Round 42, Sopwith, Landmine.
- Space Warriors - Quantoids, Rescue Flightmare, Kamakaze, Space Wars.
- Keep Them Amused - Burger Blaster, Grime, Racer, Ninja, Caverns and Galaxy.
- Face The Action Batalla, Tank, Moonbase, Blort II, Gemini.
- Block & Tackle Nemon, Qix, Konix, Blockade, Daleks, Berzerk.
- Lost Vegas - One Arm Bandit, Roulette, Backgammon, Wheel Of Fortune, and Biorhythms.
- Skill & Strategy - Sail (Yachting - not 1512) Teed Off (Golf) Stock Exchange, Big Rig (trucking simulation).
- Wit Your Pits Brainstorm, Battleships, Word Puzzle, Rogue.
- Mazing Games - Polymaze, Amaze, 3-Demon, Castle, Chase.
- PC Challenge - Chess, Othello, Entrap, PC Golf, Air Traffic.
- Junior Challenge - 3D Tic Tac To, Dotto, Willy The Worm, Labbits & Voldrons, Draughts.
- Mono Games A selection of 18 games for non-CGA PC, 2 Discs.
- The EGA Collection Mahjong, Risk, Breakout, Wheel Of Fortune specially for EGA computers, 2 Discs.
- Spy Catcher, Master Spy, Raiders, Hostages, Brimstone, Mad Scientist

Join the Advantage Independent Computer User Group and buy your shareware discs for just £2 each (31/2" £3 each)

Annual Membership is £15 (EC Countries)
£18 (Non-EC)

5 1/4" Discs Only £3 Each
3 1/2" Discs Only £4 Each

Public and be Domained!

How would you like get yourself some of the best utilities, programming languages, applications and games for your machine, all for free? And even make copies and give them to your friends without incurring the wrath of the law? Jerry Glenwright opens the door on the word of PD...

What is this software? Why is it free and where can you get hold of it? What we're talking about here is public domain software. The author of the program has placed the copyright in the 'public domain' and said in essence, that anyone who wants a copy can have one. The recipients can also make copies of the program themselves, and distribute it freely - although there is usually a condition stating that the program must be distributed in its original form, including all associated text files. This is to stop other programmers from making slight amendments to the program, and calling it theirs.

Public domain software started - not surprisingly - in the USA (why are the Americans so much more enthusiastic than ourselves?) during the mid '70's, when the first microcomputers were becoming widespread. The consolidating factor in the emergence of public domain software, was the availability of an operating system which became a standard across many of the 8-bit micros using the 280 processor. That operating system was CP/M, and for the first time, programs could be transferred and used between machines from different manufacturers.

The original CP/M public domain library was started by a group of computing enthusiasts living in New York at the end of the 1970s. They

decided that it would be a good idea to swap and share the programs they had written with others, and from there the idea escalated. Programs were gathered from many other user-groups, until eventually the swelling collection was made available as a library. For the price of a disk and a nominal fee for copying, computer buffs had access to a large selection of very useful software. The programs themselves tended towards utilities rather than commercial applications, reflecting the 'techie' nature of the authors. The collection stopped at 92 disks, when the group responsible for the library disbanded.

Fortunately, the concept of public domain software had become widely accepted - all programs written within American universities are automatically deemed to be public domain, and some of the best known utilities (especially comms, such as Kermit) have surfaced in this way. With the popularity of the new 16-bit IBM PC and its compatibles - and consequently PC/MS-DOS, the future of public domain was guaranteed.

Nowadays you can buy public domain software for almost any machine - both 8 and 16 bit. And because authors have no commercial considerations to make, a very diverse range of



• Would you like to see the menu sir? Shareware utilities are, strictly, free, but a small registration fee will secure you printed documentation or extra features

software awaits you. Not only are all the popular applications available - word-processors, spreadsheets, databases, and comms - but some very unusual programs indeed! How about the entire New Testament of the Bible on disk? Cookery, electronics, gardening, languages (Human and computer), horoscopes, bio-rhythms, (pause for breath), mathematics, statistics... the list goes on...

A program shared...

Once established, public domain programs were distributed in great quantities throughout the United States. Software for all possible uses in all available formats. After a time, authors started to receive spontaneous donations for their work from satisfied users of the programs. This prompted several programmers to include their names and addresses in the title pages of the programs, asking users to send a small donation if they enjoyed the program, or found it useful. Thus, the concept of 'shareware' was born. Shareware differs from public domain software in that the author of the program retains the copyright. Programs can still be copied and distributed freely, but if the recipient of the program finds that they like it and will use it frequently, then they are required to make a donation to the programmer. This donation is usually \$5 to \$15 for utilities, and anything up to \$50 or more for a full-blown office type package, such as a spreadsheet, word-processor or database.

There are several methods to encourage payment. Often the software will be a 'cut-down' version, and the user will receive the full-blown or

Programs like this could be yours

IBM PC

Utilities: Selected utilities (Settec disk: M2005). Lots of useful utilities gathered together on one disk. Includes: Directory printer, file finder a ramdisk and lots more.

Games: Invaders, Dig-Dug, Hopper, Pacman and many others. Available from any PD library.

Office management: Powerful word processing (Settec disk: M3012+). Macros, split-screen, windows etc.

Amiga

Utilities: VirusX. The best virus exterminator around on Fish disk 137.

Games: Amoeboids. Excellent interpretation of the old space invaders shoot-'em-up. Fish disk 120.

Graphics: mCAD. Drafting package that is structured, and allows easy movement of shapes. Fish disk 59

ST

Utilities: Diskmech. An excellent disk and memory editor allowing the technically minded to completely ruin all their disks. Available from most good libraries.

Comms: Uniterm. The BEST comms package around for the ST, bar none. Has passed through several versions, so make sure you get the latest one. Supplied with very good docs. on disk. Available as above.

Languages: Take your pick: Pascal, C, Fort, Prolog, Logo and many more. Again, available from any good library.

Where to go, Who to try, What to do

OK. You're convinced that PD is the thing for you (or more likely you spent so much on that new machine that the only software you can afford is PD). Either way, you're wondering where you can get your hands on the goodies for your machine, right? Wonder no more. Just examine our list, and pick a supplier for your machine.

ST

With the mountain of incredible programs imported from Germany and all the good home-written stuff, the ST is well supported in the PD field. Try **ST UK, 1 Bartholomew Road, Bishops Stortford, Hertfordshire CM23 3TP; Star UK, 50 Bridge Street, Aberdeen, Scotland. Tel: 0224 593024.**

Amiga

A growing army of suppliers cover the Amiga. Try **George Thompson Associates, Dippen, Brodick, Arran, Scotland KA27 8RN. Tel: 077082 234; Amiga**

PD Unlimited, 55 Highfield Avenue, Waterlooville, Hampshire PO7 7PY. Tel: 0705 266509

IBM PC

There is more public domain and shareware available for this machine any of the others put together. Anything and everything covering all tastes. Try **Public Domain Software Library, Winscombe House, Beacon Road, Crowborough, Sussex TN6 1UL. Tel: 08926 63298.** One of the first PD libraries and one of the best.

For shareware try **Setec Computer Products LTD, Northumberland House, Staines Business Centre, Gresham Road, Staines, Middlesex TW18 2AP.** The company stocks a large quantity of cheap (£2/disk) shareware.

8-bit

For the 8-bit machines, the best places to look are the user groups.

Commodore 64: Wicked PD, Tel: 0268 590571. To

make use of the PD library, you are required to join a club. Membership charges are £3 per annum and for that you will receive a quarterly catalogue and newsletter and access to the C64 PD library. Disks are a very reasonable £2 each.

Atari 800 series: Page 6 is the best Atari 8-bit library in the universe! These guys know and love the little micro and support it to the full. You can contact them at: **PO Box 54, Stafford ST16 1DR. Tel: 0785 213928.** A large selection of ST stuff too.

CPC/PCW: You may have problems with PD software running on your particular machine, especially ones that use graphics. Try: **CP/M User Group: 72 Mill Rd, Hawley, Dartford, Kent, DA2 7RZ; PD Software, Winscombe House, Beacon Road, Crowborough, West Sussex TN6 1UL (08926 63298); PD-SIG, 90 Braybourne Close, Uxbridge, Middlesex UB8 1UJ; WACCI 01 890 1090; Advantage, 56 Bath Rd, Cheltenham, GL53 7HJ (0242 224340/224848)**

latest copy only after making his/her contribution. Sometimes, there will be only rudimentary documentation provided with a program (usually in the form of a read.me file on the disk), and conscientious users paying the required fee, will receive a printed manual. Occasionally, there will be an 'add-on' module, such as a spell-checker for word-processors, or 'phone-book for a comms package to encourage prompt payment.

Several programs, such as the well-known ARC.EXE require a mandatory contribution only if the program will be used within a commercial environment - such as an office, otherwise it's up to the conscience of the individual. ARC.EXE contains the warning: "If you fail to abide by the terms of the license, then your conscience will haunt you for the rest of your life..."

Would you credit it

In the United States, this approach seems to work well. The shareware method of distributing programs is ideal for authors working on a shoestring, who can't afford exorbitant prices for advertising etc., and users forward their contributions diligently. Unfortunately, here in the UK, things are not quite as rosy. How many times have you exchanged your little gold coins for dollars and mailed them to an obscure address in deepest California? Unfortunately, many American shareware authors will not mail updates, documentation etc., outside the United States and so even the most conscientious software user may be tempted not to bother. If you decide that your life will become unbearable with a strained conscience, then there are

alternatives to sending hard cash through the post. How about an International Money Order? These are available from branches of Barclay's Bank and will be accepted by most outlets in the States. If you don't want to do business with Barclay's (Big Brother) bank then you could use your credit cards. A simple exchange of numbers and details can effect the transaction.

OK. You live in the UK. You don't like money orders and you ain't got any credit cards. What's available for you? The answer is simple: practically everything! There are plenty of libraries here in the UK, who regularly import all the latest public domain and shareware from the states, and who will be quite happy to exchange it for your blue-and-folding.

This is the modem world

If you have a modem then it's even easier. Dial up one of your local bulletin boards - or, if money is to you but a mere trifle, take out a subscription to Telecom Gold, Microlink, or one of the many commercial services - and an enormous quantity of software awaits you.

In the United States, the bulletin board network is a generation ahead of the UK equivalent, due mainly to the liberated attitude of Ma Bell. In-state telephone calls are entirely free, gratis and for nothing (visas available from the US Embassy in London), and almost every household contains a telephone. The open policies of the 'phone company encourage the use of modems which are cheap and plentiful, owing to limited restrictions in the validation of hardware. Consequently, everybody's doing it!

To sell a legally-validated modem in the UK requires the manufacturer to jump through technological hoops, in order to receive the coveted Telecom 'green triangle'.

Modem manufacturers spend a lot of money, time and effort in developing and having their products validated. These guys are in business to make money and the resources invested in R&D is reflected in the price of even the most basic modem.

Thankfully, it's not all doom and gloom. Bulletin boards are appearing all over the country, and there will almost certainly be

one within a local charge-band rate near you. This means that armed with your micro and modem, you can download a lot of good public domain and shareware software, just for the price of the telephone call. Don't be fooled into thinking that your getting it for free though. This can prove to be the most expensive method of obtaining the software. You've all read the 'phone bill horror stories in the press lately, about users new to comms running up enormous sums with their modem!

So what's left? Well, as mentioned earlier, you can make use of the growing base of public domain libraries springing up around the country.

Leafing through any of the computer magazines will produce a healthy list of dealers. Occasionally, you will be required to join a club, but usually, you simply send a pound or two for the latest catalogue (which sometimes includes a sample disk of goodies), and then make your selections. Prices vary across the many machines and formats, but you can expect to pay in the region of £2 to £2.50 for PC utilities, games and serious software on 5 1/4" disk, with the 3 1/2" format costing a little more. Obviously, shareware prices are dictated by the author of the software, but expect a bargain compared with the prices of equivalent commercial offerings. In many instances the shareware will be infinitely better!

Big Fish in a Big Pond

For Atari ST and Amiga there is an abundance of very good software available. In America the Amiga is the more prominent machine of the two and a large proportion of the stuff in the public domain emanates from there. The most famous of the collections has to be the 'Fish disks'. This is a collection of games, utilities, demos etc., gathered together by Fred Fish of California, USA. All the best demos are contained within this collection, such as the famous 'juggling balls', displayed in a thousand computer shop windows. The Fish disks are available from a number of suppliers here.

In Europe, the Atari is (probably) the more widespread of the two, and a lot of the accessible public domain software is generated here in the UK and Germany, the latter producing some excellent programs. There are no recognised collections of ST PD as there is with the Amiga, but there are a LOT of disks out there, covering every possible aspect of computing. Of course everyone who bought the ST, received five disks of PD software with the machine and these included an excellent CP/M emulator (from Germany), games, sound and graphics demos, etc.

Whatever machine you're using and whatever your interests, there will be something out there in PD land for you. ●

ARKER (DIR) 1:13p Sep 16, 1988			
ARKER (DIR)	BASIC2 (DIR)	BAT (DIR)	
BURPH (DIR)	DARKDEMO (DIR)	DAYPLAN (DIR)	
EASY (DIR)	GEMAPPS (DIR)	GEMBOOT (DIR)	
GEMDESK (DIR)	GEMSYS (DIR)	GRABIT (DIR)	
IMAGES (DIR)	MS-DOS (DIR)	OUTLINE (DIR)	
PCPLUS (DIR)	SCRAPINT (DIR)	SPACEMAX (DIR)	
SPRINT (DIR)	UTILTYS (DIR)	WORDSTAR (DIR)	
AUTOGEXEC.BAT 151	COMMAND.COM 23612	CONFIG.SYS 62	

• PC-Boss: A friendly front end for your PC for just a few pounds

PUBLIC DOMAIN NEWS ISSUE 2

Librarians Note for March: This month we advertise for the first time in the U.K. a selection of PD disks from the "Sacramento Amiga Computer Club". Obtained during our "Intensive PDForay" at the recent New York AmiExpo. What makes SACC disks different from the others? Not only are they perfect for Amiga Users new to PD - disks autoboot and nearly all programs run at the click of an icon - but they are beautifully presented with original icons and music. Many programs are new to the U.K. and helpful documentation is included. If you have not yet tried PD for the Amiga or would like something a little different, this library is for you. We classify its library as one of the best we've seen. Although there are at present twenty eight disks in the collection we only have space here for the highlights of the latest releases. V1.6 our "Double PD Library Pack" scheduled for release in approximately 3 weeks will include details of the complete library. This costs £4.99 and includes a FREE update service and £5.00 Voucher that may be used against the purchase of 10 or more disks at £3.00 each. For every 10 purchased one may be chosen free of charge. Enjoy.

S.A.C.C #13

GAMES

- * Clue: Who killed Mr Body? Was it Miss Scarlet in the Ballroom with the candle stick?
- * Puzzle: Small W/B number puzzle

UTILITIES

- * UNITS: Convert units the EASY way. These include Length, Speed, Temperature and many more. Recommended
- * SLIDESHOW

- * Excellent "SSAC-o-lantern" cover with digitized music.
- * ESSENCE: From an original art work by Soyka.
- * ALF: Digitised from August 15th TV Guide.
- * TIREDFT: NIKE advertisement

FUN

- * NUPOINTERS: Allows you to change your pointer. Seven are provided for you on this disk.
- * HOLIDAY: Trick or Treat? Clever W/B Screen Hack.
- * TELECOM
- * ACCESS: Super Terminal Program

S.A.C.C.#15

FUN

- * WELCOME: Very original cartoon style screen hack
- * CAROLBELL: A Little Christmas Music.
- * JAZZ: Eye-dazzler!

UTILITIES

- * DIRMASTER: Get your disks organized with this catalog program
- * DB-WIZ: A simple (but nice!), data organizer for addresses. This one prints mailing labels.
- * HP-10C: Hewlett-Packard calculator comes at the Amiga!
- * PALETTE: Edit palettes of IFF pictures without loading DPaint.
- * CLHELP: Handy help for the Beginner in CLI.
- * SLIDESHOW
- * SACC Cover plus two slides.
- * GEMS
- * AMOEBA: This game looks very familiar, it is GORF or Space Invaders?
- * TTT: Play Tic Tac Toe on four level board.

S.A.C.C #16

FUN

- * CLEANUP: Just the thing for a cluttered desktop!
- * MOVIES: Remember Norma Jean?
- * WAVE: Simulates 12 hours of computing!

GAMES

- * REVERSI: An old favourite..

MUSIC

- * MANIAC SMUS: Created with Sonix
- * INTRO: SMUS song Zarathustra

TELECOM

- * MICROHOST: A small mini-BBs. You'll never have to miss another modem call!

TOPDRAWER

- * TURBO: Excellent, FAST copy program.
- * CHANGEFONT: Use to change fonts before printing control.
- * CONTROL: Puts you in control of your printer.

S.A.C.C #17

UTILITIES

- * DU-VI: Nice 'invoke CLI commands at the touch of a mouse button' program.
- * CDC: Quick Disk Copy for 2 drives.
- * YOUR MONEY: Excellent home banking program

GAMES

- * TABLING II: Stack your numbers for high score.
- * WHEEL OF FORTUNE: spin, buy a vowel or solve puzzle!
- * WATERFUN: must see! No description could do justice.

MUSIC

- * A sonix tune which uses Sonix Player.
- * FUN
- * MURKHO: Digitized sound are heard every time a disk is inserted or removed.

S.A.C.C # 18

UTILITIES

- * BROWSER: A bridge between Worbench and CLI.
- * VIEWPOINT: Examine your disks and memory for the Virus.
- * MRUN: Provides an alternative to using Workbench

GAMES

- * DHAMBURGER: Hold the ketchup and shoot the invading hamburgers!
- * JIGSAW: Scramble & colour IFF files.

HOMEHELP

- * GROCERY: Handy utility for shoppers

PICS

- * Selection of Sci-Fi pictures and a superb intro screen.

S.A.C.C # 19

(The TV Show Edition)

CBM

- * DFC: Formats and copies, supports 4 drives!!!
- * PYRO: Screen saver with fireworks.
- * NAG: Reminds you of upcoming events.

PBS

- * WEATHERMAN: Forecast it yourself.
- * COMPU-CALC: Calculator, supports HEX, OCTAL, DEC, BIN, FOX
- * HEARTS: The classic card game
- * POINTERS: 27 New Mouse Pointers!

MTV

- * Two amazing SONIX Music Files.

S.A.C.C # 20

UTILITIES

- * ARCHA: Now you can DE-ARC files with ease.
- * FORMULA: Plots functions.
- * SCALC: Spreadsheet.
- * FLAMEKEY: Locks your Amiga

GAME

- * Luscher: Luscher colour test-personality.

GRAPHIC

- * MASTER WEAVE: Create woven designs

S.A.C.C # 21

UTILITIES

- * JOURNAL: Keep track of important accounts.
- * PUBCAT: Disk catalogue
- * HELP: Handy reference window for ASCII, Basic, Ed and more..

GAMES

- * GALLACTICWORM: Grow segments as you eat strawberries, but don't get tied in a knot!

ART

- * KIDCOLOUR: Teaches colours and shapes as children draw.
- * CHAOS: Generates graphic orbits. If you like what you see, this program lets you save IFF.

S.A.C.C # 22

UTILITIES

- * MACKIE: New screen blanking utility lets you know it's working!
- * QLENS: Quicker lens, magnifies windows.
- * VID-LIB: catalogue your videotapes.

GAMES

- * SLIPPERS: Remember the sequence in this challenging game.
- * TILES: Remove matching tiles (Shangai style).

GRAPHIC

- * MULTIVIEW: View and Save to MANY different picture file formats.
- * LOGO: A masterpiece.
- * CLI USERS: check out the C directory of SlideShow Construction Set and Icons.

S.A.C.C # 23

UTILITIES

- * CARDFILE: Compiles BASIC for simple filing needs.
- * HERMIT: Grab screens and save in IFF format.
- * ULTIMAST: The ultimate disk utility!

- * MORSE: Convert text to morse code.

GAMES

- * BLUEMOON: Addictive solitaire card game.
- * TRIX: Cover the screen in the QIX-like game.
- * WORDSEARCH: Generate wordsearch puzzles. Move this to another to use the print options.

GRAPHICS

- * HAMKALEIDOSCOPE: Soothing treat for the eyes.
- * XWINDOWS: Exploding windows. Check this out!
- * TOING: More Amiga Balls.
- * POINTERS: Animated pointers!

S.A.C.C # 24

UTILITIES

- * ELCC 3.3: Electronic Card Cabinet for simple filing needs.
- * ICONLAB: Marvellous utility for creating icons.
- * LISTMASTER V5: Nice tool for making lists.
- * HED: Good text editor. Replace ED.

GAMES

- * EGYPT: Egyptian Run.
- * BILLIARDS: Very good billiards game with sound.
- * BUBBLES: Screen Hack

ART

- * DOC-DEMO: Super sound & graphics.

S.A.C.C # 25

UTILITIES

- * CLERK: Excellent PD Accounting program!
- * MAKENIFTY: Create text files with colour. Full screen editor.

GAMES

- * DAD: Want a challenge? The solution is on the disk. Somewhere!
- * BACKGAMMON: Match skills with the computer.
- * MUSIC
- * 4 SONIX TUNES: Runaway, Stand by Me, Your Wildest Dreams & The Wild Horseman.

S.A.C.C. # 26

UTILITIES

- * CR: Text reader with many nice new features.
- * AMIGADEX: Personal Rolodex file. Easy to use!

GAMES

- * COBRA: Colourful picture slide puzzle.
- * SORRY! From the board game by Parker Brothers.

CAROLS

- * 22 SONIX CAROLS: All time favourites including verses.

EDUCATION

- * CAPITALS: Created with the Director. Test your knowledge!

S.A.C.C # 27

UTILITIES

- * VIRUSX: Version 3.10. Looks for 9 different strains.
- * AMIGANTT: Project task organizer.

GAMES

- * TETRIS: Position the falling blocks.
- * CAT & MOUSE: Use the joystick to avoid cats.

GRAPHICS

- * ZOEPLAY: Use this to view SACC.iff animations in 3D.
- * ULTRAPaint: Very nice drawing package.

S.A.C.C # 28

UTILITIES

- * DISKSTIK: Catalogue on a label!
- * POPDIR: Directories appear like magic.
- * OXSOUND 1.01: IFF sound editor.

GAMES

- * KING: A new way to play Solitaire.
- * RUSHOUR: Race around the maze and gobble dots.
- * DIPLOMACY: A mixture of strategy and adventure.

GRAPHICS

- * SCENERY: Fast fractal generator.

WARNING! THIS LIBRARY IS FOR AMIGA USERS WHO ENJOY USING THEIR COMPUTER AND HAVE A SENSE OF HUMOUR.

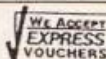
The above disks are available from George Thompson Services, Dippen, Brodick, Arran, Scotland KA27 8RN. Tel: (077082) 234. They cost £3.00 each or £19.99 for a pack of any eight including VAT & P&P.

There are no membership charges and orders are despatched the same day they are received.

We accept Express Vouchers.



TITLE	S.S.P	OUR PRICE	TITLE	S.S.P	OUR PRICE	TITLE	S.S.P	OUR PRICE
Advanced Rugby Sim	19.99	13.50	Night Hunter	24.99	17.50	NEW RELEASES		
Afterburner	24.99	16.50	NightRider	19.99	17.50	Barbarian II	19.99	13.50
Airball	24.99	16.50	Nigel Mansell's G.P.	24.99	17.50	Batman	19.99	13.50
Airball Con. Set	24.99	16.50	Obitulator	24.99	16.50	Bat II	19.99	13.50
Alien Syndrome	19.99	13.50	Out Run	19.99	16.00	Billiards	19.99	13.50
Alpine Games	9.99	7.50	OverLander	19.99	13.50	Billiards (French Version)	19.99	13.50
Altair	19.99	13.50	Offshore Warrior	24.99	16.50	Custodian	19.99	13.50
Arcade Force Four	24.99	19.50	Ogre	24.99	16.50	Fusion	24.99	19.50
Arctic Fox	24.99	17.50	Operation Wolf	24.99	16.50	Incredible Shrinking Sphere	19.99	13.50
Arkanoid	19.99	13.50	Pluto's	19.99	13.50	King's Quest 4	29.99	19.50
Armageddon Man	19.99	14.50	Pool of Radiance	24.99	16.50	Borrodino	29.99	19.50
Barbarian	24.99	16.50	Pothole Pete	9.99	7.50	Flying Shark	19.99	13.50
Barbarian	19.99	10.50	PowerDrome	24.99	17.50	Kenny Daiglish	19.99	13.50
Bards Tale I	24.99	17.50	PacMania	19.99	13.50	LED Storm	19.99	13.50
Better Dead Than Alien	19.99	13.50	Pandora	19.99	13.50	Mad Flunky	14.99	10.50
Beyond The Ice Palace	19.99	13.50	Pawn	19.99	13.50	Maniac	19.99	13.50
Bionic Commando	19.99	16.00	Peter Beardsley	19.99	13.50	Raffles	19.99	13.50
BMX Simulator	14.99	10.50	Phoenix	19.99	13.50	Roy of the Rovers	19.99	13.50
Bubble Bobble	19.99	13.50	Pink Panther	19.99	13.50	ST Ballstix	19.99	13.50
Buggy Boy	19.99	13.50	Platoon	19.99	13.50	The Deep	19.99	16.00
Bomb Jack	19.99	13.50	Predator	19.99	13.50	Wizard's Crown	24.99	17.50
Captain Blood	24.99	16.50	Power Struggle	14.99	10.50	Zak McKracken	24.99	16.50
Captain Fizz	19.99	13.50	Purple Saturn Day	24.99	16.50	"SPECIAL OFFERS" While stocks last !!		
Casino Roulette	19.99	13.50	Perfect Match	24.99	16.50	Annals of Rome	24.99	12.50
ChestMaster 2000	24.99	17.50	President is Missing	24.99	16.50	Borrowed Time	29.99	12.50
Corruption	24.99	16.50	Quadralen	24.99	16.50	Crazy Cars II	24.99	12.50
Carrier Command	24.99	16.50	Question II	24.99	19.50	Golden Path	24.99	12.50
Champion Wrestling	19.99	16.00	Question of Sport	24.99	16.50	Hacker	29.99	12.50
Champion Water Ski	19.99	16.00	Return To Genesis	19.99	13.50	Hacker II	29.99	12.50
Chess	24.99	16.50	Rampage	14.99	10.50	Hollywood Hijinx	29.99	12.50
Crash Garrett	19.99	13.50	Rolling Thunder	19.99	16.00	Hits Disc	24.99	12.50
Dark Castle	24.99	16.50	RoadWar 2000	24.99	19.50	I Karate	24.99	12.50
Defender of the Crown	29.99	19.50	RoadRunner	24.99	7.50	Manhattan Dealer	24.99	12.50
Double Dragon	19.99	13.50	Revenge II	19.99	13.50	Metro Cross	19.99	12.50
Dugger	19.99	13.50	Rockford	19.99	13.50	Mind Fighter	24.99	12.50
Dungeon Master	24.99	16.50	Rambo III	24.99	16.50	Mind Shadow	29.99	12.50
Deflector	19.99	16.00	Ranarama	19.99	16.00	Moon Mist	29.99	12.50
Daley Thompson	19.99	13.50	RoadWars	24.99	16.50	Off Shore Warrior	24.99	12.50
Deja Vu	29.99	19.50	RoadWar Europa	24.99	19.50	Shanghai	29.99	12.50
Diablo	14.99	10.50	Shackled	19.99	13.50	Spell Breaker	29.99	12.50
Dizzy Wizard	19.99	13.50	Side Arms	19.99	16.00	Time Time	24.99	12.50
Elf	19.99	13.50	Sapiers	19.99	13.50	Trinity	29.99	12.50
Empire	24.99	17.50	Sky Fox	14.99	12.50	Wish Bringer	29.99	12.50
ECO	19.99	13.50	Sky Fighter	14.99	10.50	Ultima II	24.99	12.50
Eddie Edwards Ski	19.99	13.50	Space Quest I	19.99	13.50	Zork I	29.99	12.50
Elite	24.99	16.50	Star Trek	19.99	13.50	Zork II	29.99	12.50
Empire Strikes Back	19.99	13.50	Scenery Disk No 7	19.99	13.50	Zork III	29.99	12.50
Epyx	29.99	19.50	Scenery Disk No 11	19.99	13.50	UTILITIES		
Espionage	19.99	13.50	Scenery Disk Europe	19.99	13.50	Adventure Art Studio	69.99	50.50
Extensor	9.99	7.50	Scenery Disk Japan	19.99	13.50	Animator	79.99	50.50
Fahrenheit 451	24.99	16.50	Shadowgate	24.99	16.50	Architectural Design Disk	29.99	21.50
Falcon	24.99	16.50	ShutDown	9.99	7.50	Art Director	49.99	32.50
Fire & Forget	24.99	16.50	Side Winder	9.99	7.50	Back Pack	49.99	32.50
Firezone	24.99	16.50	Silent Service	24.99	16.50	CAD 3D V 2.0 - Cybermate	89.99	62.50
Five Star Compendium	24.99	16.50	Space Harrier	19.99	13.50	CAD 3D Fonts & Primitives	29.99	21.50
Flight Sim. II	39.99	26.50	Space Quest II	19.99	13.50	CAD 3D Architectural Design	29.99	21.50
Flintstones	19.99	13.50	Spitfire 40	24.99	16.50	Craft	89.99	72.50
Football Manager 2	19.99	13.50	StarWars	19.99	13.50	Cyber Control	59.99	45.50
F.O.F.T.	29.99	19.50	StarGlider II	24.99	16.50	Cyber Paint	69.99	45.50
Formula One	19.99	13.50	Stellar Crusade	32.99	26.50	Cyber Sculpt	59.99	45.50
Fernandez Must Die	24.99	16.50	Str Crazy	19.99	13.50	Cyber Studio	79.99	62.50
Fright Night	19.99	13.50	ST Olympiad	9.99	7.50	Cyber Texture	79.99	62.50
Galdregon's Domain	19.99	16.50	STOS	29.99	19.50	Data Management Pro	69.99	50.50
Gambler	14.99	10.50	Street Fighter	19.99	16.00	Degas Elite	24.99	17.50
Games Winter Edition	19.99	13.50	Street Gang	14.99	10.50	DEV PAC Ver 2.0	59.99	45.50
Garrison	24.99	16.50	Strip Poker	19.99	13.50	Digit Home Accounts	24.99	17.50
Gunship	14.99	10.50	Strip Poker II	14.99	10.50	Digit Mail Shot Plus	49.99	32.50
Get Dexter	19.99	13.50	Summer Olympiad	19.99	13.50	Disc Library	49.99	32.50
Gauntlet II	24.99	19.50	Super Hang On	19.99	13.50	Easy Draw I	59.99	45.50
Gary Lineker Super Skills	19.99	13.50	Super Sprint	14.99	10.50	Easy Draw II Supercharged Ver	99.99	72.50
Gold Runner II	19.99	13.50	Space Ace	19.99	13.50	Easy Draw II General Library	29.99	21.50
Garfield	19.99	13.50	Soccer Supremo	14.99	10.50	Easy Draw II Technical Library	29.99	21.50
Hardball	24.99	16.50	Staff	19.99	13.50	Fast Assembler	19.99	16.50
Hollywood Poker	14.99	10.50	Star Fleet	24.99	17.50	Film Director	59.99	45.50
Hellfire Attack	24.99	17.50	Sinbad & Throne of Falcons	24.99	16.50	Fleet Street Publisher	115.00	95.50
Helter Skelter	14.99	10.50	SpeedBall	24.99	16.50	F.T.L. Modulator II	69.99	50.50
Heroes of the Lance	24.99	19.50	Superman	24.99	16.50	Future Design Disc	24.99	17.50
Hollywood Poker Plus	14.99	10.50	ST Karate	19.99	13.50	G.F.A. Artist	49.99	32.50
Hostages	24.99	16.50	Skrull	24.99	16.50	G.F.A. Compiler	49.99	32.50
Hot Shot	19.99	13.50	Tanglewood	19.99	13.50	G.F.A. Basic Interpreter V.3	49.99	32.50
Impact	14.99	10.50	Telnet	19.99	13.50	G.F.A. Draft	99.99	72.50
Impossible Mission	19.99	16.00	Three Stooges	24.99	16.50	G.F.A. Draft Plus	139.99	115.00
Insanity Fight	24.99	16.50	Trust	9.99	7.50	G.F.A. Sheet	49.99	32.50
Int'l Soccer	24.99	16.50	Tracker	24.99	16.50	G.F.A. Vector	34.99	26.50
IK+	24.99	16.50	Turbo Cup	19.99	13.50	G.I.S.T.	59.99	45.50
I Ball	9.99	7.50	Typhoon	19.99	13.50	Graphic Sheet	24.99	17.50
Jet	39.99	26.50	Thundercats	19.99	13.50	G.S.G.C. Compiler	24.99	17.50
Jewels of Darkness	19.99	13.50	Time & Magic	19.99	13.50	H-Soft Basic	79.99	60.50
Joan of Arc	19.99	13.50	Trivial Pursuit (New Beginning)	19.99	13.50	K. Data	49.99	32.50
Joe Blade II	19.99	13.50	Trivial Pursuit	19.99	13.50	K. Graph II	49.99	32.50
Juggler	24.99	16.50	Terramex	19.99	13.50	K. Minstrat	29.99	21.50
Karate Kid 2	24.99	16.50	Terrorpods	24.99	16.50	K. Roger	49.99	32.50
Kennedy Approach	24.99	16.50	Transputer	24.99	16.50	K. Word II	59.99	45.50
King's Quest Triple Pack	24.99	16.50	ThunderBlade	24.99	19.50	K. Sega	49.99	32.50
Knight Orc	19.99	13.50	Techno Cop	24.99	19.50	K. Occam	59.99	45.50
Knightmare	19.99	13.50	Times of Lore	24.99	16.50	Lattice C V.3	89.99	72.50
Las Vegas	9.99	7.50	Ultima II	24.99	16.50	Lisp	89.99	69.50
Leather Goddess	29.99	19.50	Ultima IV	24.99	16.50	Macro Assembler	149.99	115.00
Leatherneck	19.99	13.50	Uninvited	24.99	16.50	Modula II Developer	99.99	72.50
Leisure Suit Larry	19.99	13.50	U.M.S.	24.99	16.50	Modula II Standard	24.99	21.50
Leisure Suit Larry II (Duel sided Disc to be used)	24.99	16.50	U.M.S. Disc I	12.99	8.50	Music Studio	24.99	21.50
Living Daylights	19.99	13.50	U.M.S. Disc II	12.99	8.50	M.C.C. Pascal	89.99	69.50
Lombard RAC Rally	24.99	16.50	Victory Road	24.99	16.50	Paintworks	34.99	26.50
Lords of Conquest	24.99	17.50	Virus	19.99	13.50	Pascal	89.99	62.50
Lurking Horror	29.99	19.50	Vampire Empire	19.99	13.50	Power Basics	39.99	26.50
Legend of the Sword	24.99	16.50	Vegas Gambler	24.99	16.50	Publishing Partner	159.99	115.00
Mach III	19.99	13.50	War Games Con Set	24.99	16.50	Sage Accountant	171.99	150.50
Manhunter	29.99	19.50	Warlocks Quest	19.99	13.50	Sage Accountant Plus	228.85	175.50
Mickey Mouse	19.99	13.50	Where Time Stood Still	19.99	13.50	Sage Bookkeeper	113.99	85.50
Mini Golf	19.99	13.50	Whirligig	19.99	13.50	Saved	29.99	21.50
Mission Genocide	19.99	13.50	Winter Olympiad	19.99	13.50	ST Data Manager	79.99	60.50
Misan 16	24.99	17.50	Wizards Crown	24.99	16.50	ST Eurotek	149.99	110.50
Mega Pack	24.99	16.50	Wizards Warz	19.99	13.50	ST Swift Calc	79.99	60.50
Maria's Xmas Box	14.99	10.50	Wizball	19.99	13.50	ST Word Writer	79.99	60.50
Moebius	24.99	16.50	Wanted	19.99	13.50	ST Replay	79.99	60.50
Moonmist	29.99	19.50	Xenon	19.99	13.50	Super Conductor	49.99	32.50
Marble Madness	19.99	14.50	Xenon	19.99	13.50	Superbase Personal	99.99	72.50
Mind Forever Voyaging	29.99	19.50	Xenon	19.99	13.50	Timeworks DTP	99.99	72.50
Maniac's Diary	24.99	16.50	Xenon	19.99	13.50	Timeworks Partner	49.99	32.50
Munsters	24.99	17.50	Xenon	19.99	13.50	Trimbase	89.99	70.50
NetherWorld	19.99	16.00	Xenon	19.99	13.50	Turbo Jet	29.99	21.50
			Xenon	19.99	13.50	Turbo ST	39.99	26.50
			Xenon	19.99	13.50	Twist	29.99	21.50
			Xenon	19.99	13.50	V.I.P. Professional	149.99	110.50
			Xenon	19.99	13.50	Verics	29.99	21.50
			Xenon	19.99	13.50	Verics Plus	49.99	32.50
			Xenon	19.99	13.50	Word Perfect	228.85	175.50
			Xenon	19.99	13.50	Word Up	59.99	45.50
			Xenon	19.99	13.50	3D Developer Disc	29.99	21.50
			Xenon	19.99	13.50	3D Plotter & Printer Drivers	24.99	17.50



Unit 1, Willowsea Farm, Spout Lane North, Stanwell Moor, Staines, Middx. TW19 6BW
Telephone: (0753)682988

SOFTWARE LIST

TITLE	S.S.P.	OUR PRICE
20,000 Leagues Under the Sea	19.99	13.50
4 x 4 Off Road Racing	24.99	19.50
Action Service	19.99	13.50
Advanced Ski Simulator	19.99	13.50
Adventure Con. Set	29.99	20.50
Alien Syndrome	24.99	16.50
Alternate Reality	19.99	13.50
Annals of Rome	24.99	16.50
Archon Collection	24.99	17.50
Arikaned II	24.99	16.50
Armageddon Man	19.99	14.50
Arms Moves	24.99	16.50
Around The World In 80 Days	19.99	13.50
Arco Fox	24.99	17.50
Atari	14.99	10.25
Autoduel	24.99	16.50
Baal	19.99	13.50
Balance of Power	29.99	19.50
Barbarian	24.99	16.50
Bards Tale I	24.99	17.50
Bards Tale II	24.99	17.50
Basket Ball	24.99	19.50
Batman	24.99	16.50
Battle Chess	24.99	17.50
Bermuda Project	24.99	16.50
Beyond Dead Than Alien	19.99	13.50
Beyond The Ice Palace	24.99	16.50
Billiards (French Style)	19.99	13.50
Bomb Jack	24.99	16.50
Bombzai!	24.99	16.50
Bubble Ghost	19.99	13.50
California Games	19.99	16.00
Capone	29.99	19.50
Captain Blood	24.99	16.50
Captain Fuzz & The Blaster-Trons	19.99	13.50
Carnier Command	24.99	16.50
Chessmaster 2000	24.99	19.50
ChessQuest	29.99	19.50
Chick Egg	19.99	13.50
Circus Games	24.99	16.50
Computer Hits It (Featuring Jg Blade, Golden Path Black Shadow, Tetris).....	19.99	13.50
Corruption	24.99	16.50
Cosmic Bouncer	19.99	13.50
Crash Garnet	24.99	16.50
Cybermud	19.99	13.50
Daley Thompson	24.99	16.50
Deflector	19.99	13.50
Deja Vu	29.99	16.50
Desmod	24.99	16.50
Devilish Dragon	19.99	13.50
Dragon's Lair	44.95	35.00
Driller	24.99	16.50
Dungeon Master (1 Meg only)	24.99	16.50
Erl Weaver Baseball	24.99	17.50
EDO	24.99	16.50
Eliminator	19.99	13.50
Elite	24.99	16.50
Emmanuel	19.99	13.50
Emerald Mines	19.99	13.50
Empire	24.99	17.50
Empire Strikes Back	19.99	13.50
Ensignment	19.99	13.50
Esperance	19.99	13.50
Evangelion	19.99	13.50
Fairy Tale Adventure	49.99	26.50
Falcon F-16	29.99	19.50
Fernandez Must Die	24.99	16.50
Ferris Forum One (1.2 kiostart only)	24.99	17.50
Fist Assault	19.99	16.00
Frezone	24.99	16.50
Fish	24.99	16.50
Flight Sim. II	39.99	26.50
Football Director II	19.99	13.50
Football Manager II	19.99	13.50
Fortand Inches	24.99	17.50
Gale Force	24.99	16.50
Galactic Conqueror	24.99	16.50
Gallegorn's Domain	19.99	13.50
Gallymade	9.99	7.00
Ganfield	24.99	16.50
Gambit II	24.99	19.50
Gemysberg	Phone for availability	
Gigahed	14.99	10.25
Grown	14.99	10.25
Halibent	19.99	14.50
Helixkaster	14.99	10.25
Hoves of the Lance (1.2 kiostart only)	24.99	19.50
Highway Hawks	19.99	13.50
Holidays	24.99	16.50
Holyday	24.99	16.50
Ki	24.99	16.50
Kali Warriors	24.99	16.50
Impossible Mission II	19.99	16.00
Incredible Shrinking Sphere	24.99	16.50
Ingrid's Back	19.99	13.50
International Soccer	19.99	13.50
Interceptor	24.99	17.50
Jag	39.99	26.50
Jaws of Arc	24.99	16.50
Joe Blade II (Inc. Joe Blade I)	19.99	13.50
Landscape	Phone for availability	
Legend Approach	24.99	16.50
King of Chicago	29.99	19.50
Lancelot	19.99	13.50
Lasthenack	19.99	13.50
Legend of the Sword	24.99	16.50
Lecture Suit Larry	24.99	16.50
Major Motion	19.99	13.50
Magic Madness	19.99	14.50
Meat 'n'	24.99	17.50
Mega Pak Incl. Worlds Out, Mousepat, Suicide Warrior, Fluros, Winter Oymptad,		
Melchior	24.99	16.50
Mercator	19.99	13.50
Minut-Mouse	19.99	13.50
Mir. Soil	19.99	13.50
Mutellis Manor	Phone for availability	
Nether Massacre	19.99	13.50
Nifty	19.99	13.50

TITLE

NetherWorld	13.95	13.50
Nightmare Grand Prix	24.95	17.50
No Excess	19.95	13.50
No Vibration	14.95	13.50
Off Shore Warrior	24.95	16.50
Operation Wolf	24.95	16.50
Out Run	19.95	14.50
Pac Mania	19.95	13.50
Pandora	19.95	13.50
Phantom Fighter	19.95	13.50
Pioneer Plague	24.95	16.50
Platoon	24.95	16.50
Ports of Call	39.95	25.50
Powerplay	19.95	13.50
President is Missing	24.95	16.50
Purple Saturn Day	24.95	16.50
Quadrajet	24.95	16.50
Quixote	14.95	10.25
Question II	24.95	19.50
R.A.C. Lombard Rally	24.95	16.50
Reach for the Stars	24.95	17.50
Red October	24.95	16.50
Return of the Jedi	19.95	13.50
Return to Atlantis	24.95	17.50
Return to Genesis	19.95	13.50
Revenge II	19.95	7.00
Robbery	19.95	13.50
Rock Challenge	24.95	16.50
Rocket Ranger	39.95	19.50
Roger Rabbit	24.95	16.50
Rolling Thunder	24.95	16.50
Romantic Encounters	24.95	19.50
in the Dome	24.95	16.50
S.D.I.	29.95	19.50
Sargon III	19.95	13.50
Scary Wagon Space Klers from Mars	24.95	19.50
Scenery Disc 7	19.95	13.50
Scenery Disc 11	19.95	13.50
Scenery Disc Europe	19.95	13.50
Scenery Disc Japan	19.95	13.50
Sentinel	19.95	13.50
ShadowGate	24.95	16.50
Shogun	19.95	13.50
ShockWinder	9.95	7.00
Skyblade	19.95	13.50
SkyFox II	24.95	17.50
Sorcery Plot	19.95	13.50
Space Ball	24.95	19.50
Space Quest II	24.95	16.50
Space Racer	19.95	13.50
SpeedBall	24.95	16.50
Spectronic	19.95	13.50
Star Glider 2	24.95	16.50
Star Wars	19.95	13.50
StarTwist I	24.95	17.50
Street Gang	14.95	10.25
Street Fighter	24.95	19.50
Strip Poker II	14.95	10.25
Strip Poker Data Disc I	9.95	7.00
Strike Force Harrier	24.95	16.50
Summer Olympiad	19.95	13.50
Super Hang On	24.95	16.50
Super Star Featuring Grid Star, Trail Blazing, Karting Grand Prix, VR 35, Las Vegas, Flight Path 737	24.95	16.50
Superman	24.95	19.50
Sword of Sodan	29.95	19.50
TechnoCop	19.95	16.00
Teenage Queen	19.95	13.50
Temptress	24.95	16.50
Tenri Drive	24.95	17.50
Tetraquest	19.95	13.50
Thriller	24.95	16.50
Three Stooges	29.95	19.50
Thunder Blade	24.95	19.50
Time & Magic	19.95	13.50
Time Bandits	19.95	13.50
Track Suit Manager	19.95	13.50
Tracker	24.95	16.50
Track	29.95	19.50
Track Pursuit (New Beginning)	19.95	13.50
Turbo Cup	19.95	13.50
Turbo Trix	19.95	13.50
T.V. Sports Football	29.95	19.50
U.M.S.	24.95	16.50
Ultima III	24.95	16.50
Ultima IV	24.95	16.50
Uninvited	29.95	19.50
Vectroball	24.95	16.50
Victory Road	19.95	13.50
Virus	19.95	13.50
Warrior	19.95	13.50
Warlocks Quest	19.95	13.50
Way of the Little Dragon	14.95	10.25
Wings	19.95	13.50
Wizard	19.95	13.50
Wizard	24.95	16.50
World Tour Golf	24.95	17.50
Zany Golf	24.95	17.50
Zero Gravity	19.95	13.50
Zynapse	19.95	13.50

New Releases Now In Stock

Balistic	19.95	13.50
Question of Sport	24.95	16.50
Cyrodan	19.95	13.50
Goldrunner II	19.95	13.50
Micky Mouse	19.95	14.00
Sword of Sodan	29.95	19.50
Purple Saturn Day	24.95	16.50
Highway Hawks	19.95	13.50
Space Ball	24.95	19.50
Advanced Ski Simulator	19.95	13.50
Dragons Lair	44.95	35.00
K.I.	24.95	16.50
Billards (French Style)	19.95	13.50
Excelsior	19.95	13.50
Captain Fizz	19.95	13.50
Scary Mutants	24.95	16.50
Deflector	19.95	13.50
Victory Road	19.95	13.50
Galadriel's Domain	19.95	13.50

Dugger	19.99	13.50
Roger Rabbit	24.99	16.50
Molot Massacre	19.99	13.50

SPECIAL OFFERS

Allen Strike	24.99	10.00
Black Jack Academy	24.99	10.00
Black Shadow	24.99	10.00
Borrowed Time	24.99	12.00
Chubby Gristle	19.99	11.50
Craps Academy	24.99	10.00
Cougan's Run	14.99	7.50
Diablo	19.99	10.00
Division I	19.99	11.50
Ebonstar	24.99	13.50
Elf	14.99	8.50
Eye	14.95	8.50
Final Trip	19.99	5.00
Frostbyte	14.95	8.50
Galactic Invasion	24.99	11.50
Gravity Fight	19.99	10.00
Indion	19.99	11.50
Jump Jet	14.95	7.50
King's Quest Pack (incl. KQ 4 III)	24.99	16.50
Leviathan	19.99	11.50
Mach 3	19.99	10.00
MindFighter	24.99	12.50
MiniShadow	24.99	12.00
Moebius	24.99	10.00
Ogre	24.99	10.00
Protector	9.99	5.50
RoadWars	19.99	10.00
Rockey	9.99	5.50
Sacrophaser	14.99	8.50
Slaygon	19.99	15.50
Space Port	9.99	5.50
Space Station	9.99	5.50
Strange New World	19.99	7.50
Street Poker	9.99	6.00
Street Fighter	24.99	14.50
Street Gang	14.99	9.50
Tetris	19.99	11.50
Tracers	24.99	12.50
Troopers Empire	19.99	11.50
Wall	14.99	7.50
Warzone	9.99	5.50

Please note that Special Offers are available in very limited quantities. Please phone to check availability before ordering these items.

Business Software

AC Basic	195.99	132.50
A.M.A.S.	99.99	79.50
Adrium	39.99	32.50
Aditional Images	103.50	81.50
Aquilion 1.3	249.99	150.00
Art Parts 1	9.99	7.50
Art Parts 2	9.99	7.50
Ashas Fonts	59.99	45.50
Audio Master II	69.99	50.50
Award Maker +	39.99	29.50
Aztec C Professional	129.99	111.50
Aztec C Developer	179.99	150.50
BBC Emulator	49.99	39.50
B.S.S.P.C. Coms Pack	119.99	96.50
Bulcher II	25.99	21.50
Busby	79.99	60.50
Calligrapher	89.99	72.50
C.L.I. Mate	39.99	29.50
Comic Setter	49.99	39.50
Data Retrieve	57.99	47.50
Deluxe Music Con. Set	69.99	50.50
Deluxe Paint II	69.99	50.50
Deluxe Photolab	69.99	50.50
Deluxe Print	24.99	18.50
Deluxe Print II	49.99	39.50
Deluxe Productions	139.99	122.50
Deluxe Video	69.99	50.50
Des Cartes	29.99	21.50
DevPak Assembler Version 2	59.99	45.50
DigitalC	39.99	29.50
DigiPaint	39.99	29.50
Digiview Gold	149.99	125.00
Digidroid	59.99	50.50
Digiview Stand	Phone for availability	
Director	59.99	45.50
Director Toolkit	29.99	21.50
DOS 2 DOS	39.99	29.50
Dug 2000	224.75	185.00
Excellence	229.99	182.50
Express Paint	69.99	50.50
Fact II	29.99	21.50
Fantavision	39.99	29.50
Forms in Flight 2	69.99	50.50
Galileo 2	59.99	45.50
Godspell 2	29.99	21.50
Gomfi 3.0	29.99	21.50
Gomfi Button	59.99	45.50
Graobit	29.99	21.50
Highston Color	49.99	34.50
Hot and Cool Jazz	8.99	7.00
I.F.F. Library	69.99	60.50
Impact	73.99	44.50
Instant Music	29.99	21.50
Interchange	49.99	39.50
Interscan	59.99	42.50
K Spread 2	79.99	60.50
K Saka Assembler	49.99	32.50
Kare Fonts	59.99	45.50
Kind Words 2	49.99	35.50
Lattice C Version 5.0	249.00	195.00
Leaves from	59.99	45.50
M.C.C. Pascal Version 2	89.99	69.50
Macro Assembler	89.99	50.50
Maxiplan A500	99.99	79.50
Maxiplan Plus	149.99	109.50
Microbase	16.99	13.50
Microtote Filer	79.99	60.50
Microtote	19.99	13.50
Module II	139.99	109.50
Modeller 3D	69.99	50.50
Music Studio	34.99	24.50
Newsposter Fonts	29.99	21.50
On Line	110.46	107.00

Organize II	69.99	50.50
Protein Paint Expansion	19.99	5.50
Protein Paint (Special Offer)	69.99	39.50
Piximate	49.99	39.50
Power Windows 2.5	69.99	50.50
Print	59.99	45.50
Pro Board	139.99	109.50
Pro Net	139.99	109.50
Pro Midi Plus	39.99	29.50
Pro Sound Designer (Software only)	39.99	29.50
Pro Sound Designer (S/W & H/W)	79.99	59.50
Pro Video CGI	159.99	134.50
Pro Video CGI Fonts	69.99	50.50
Pro Video Plus	249.99	185.00
Pro Video Plus Fonts	99.99	72.50
Professional Draw	139.99	122.00
Professional Page	249.99	185.00
Publishers Choice	99.99	72.50
Publisher Plus	99.99	79.50
Rock and Roll	7.99	7.50
Ruby View Term	99.99	79.50
Script 3D	85.00	69.50
Script 3D Animate	129.99	111.50
Script 4D	429.99	355.00
Seasons and Holidays	9.99	7.50
Shell	49.99	34.50
Simu Library	79.99	60.50
Sonix	57.99	39.50
Studio Font	29.99	21.50
Superbase	89.99	72.50
Superbase Professional	249.99	185.00
Terrain (for Turbo Silver)	19.99	16.50
TV Show	69.99	50.50
TV Text	69.99	50.50
Tool Kit	39.99	29.50
Turbo Silver	139.99	115.00
Video Titer	110.00	85.50
Virus V.I.P.	39.99	29.99
Win3dscape 3D	117.143.75	117.143.75
Wordperfect 4.1	228.99	185.00
XCard	460.00	325.00
XCopy	29.99	21.50

Educational Software

Con. Sound Tractor (Age 4+)	31.95	24.50
Matchit! (Age 2+)	31.95	24.50
Mathamation (Age 13+)	69.99	50.50
Mathamagician (Age 6+)	39.99	29.50
Robot Readers (Children's Stories) (Each)	24.99	18.50

Hardware List

A500 Amiga (inc Bull in Disk Drive and 1.3 Kickstart, Mouse, Power Supply, Workbench "The Varys First" and Modulator)	399.00	360.00
A500 Amiga		
1084 S Colour Monitor	649.99	622.00
1084 S Colour Monitor	299.99	260.00
A500 Amiga, 1084 S Colour Monitor		
and 2nd Disk Drive	749.99	665.00
1084-S Colour Monitor and Philips TV Tuner	399.99	360.00
Philips TV Tuner	99.99	95.50
Cumana CAX 354 Standard Disk Drive	99.99	99.99
Cumana CAX 354 with Power Supply	150.00	135.00
Genlock 8802	299.00	270.00
Triangle Broadcast Quality Genlock	915.00	850.00
A501 1/2 Meg RAM Upgrade for A500	175.00	150.00
B2000 Amiga	1269.00	999.00
B2000 Amiga and 1084 S Colour Monitor	1494.00	1299.00
A2058 (8Mb RAM Board Populated with 2Mb)	746.35	695.00
A2088 XT Bridge Board	607.20	573.00
A500/A2092 20Mb MSDD Hard Disk	402.50	395.00
A500/A2092 20Mb Amiga DOS Hard Disk	460.00	445.00
A2010 Internal 3 1/2 Disk Drive	196.65	172.00
Cumana CSA100S External 5 1/4 Disk Drive	120.00	115.00
Star LC10 Black and White Printer	297.85	255.00
NPS 1230 Black and White Printer	249.99	235.00
Star LC10	343.85	315.00
Star LC2410	458.85	425.00
Star NB15	668.85	660.00
Star NB2410	759.85	735.00
Star NB15	1056.85	985.00
Star Laser 8	2267.00	2195.00
14" Cotron Hi Res Colour Monitor	747.50	695.00
20" Cotron Hi Res Colour Monitor	2070.00	1875.00
Cherry Pad A3 Digitising Tablet	632.50	595.00
Video Driver Card (Must be sold with Cotron)	396.75	360.00

PERIPHERALS

Disk Box (Holds 50 Disks)	22.50	10.50
Disk Box (Holds 100 Disks)	32.99	13.50
Cik Mouse Mat		5.00
Pro5000 Joystick	23.99	14.50
RAM Delta Joystick	15.99	9.50
Speed King Joystick	19.99	12.50
Citizen 1200 Printer Ribbon	9.99	3.50
10 Blank Disks with Box	27.75	13.50
100 Blank Disks	Special Price	£100.00
Actionware Light Gun	49.99	35.00
Four Player Adaptor		
(For Int. Soccer, Leatherneck etc.)	5.50	4.50
Mouse Bracket	9.99	5.00
Replacement Commodore Mouse	35.00	24.50

QUANTA

QL Users and Tinkerers Association Independent QL/Thor Users Group

Worldwide Membership is by subscription only,
and offers the following benefits:

Monthly Newsletter - up to 40 pages
Massive Software Library - mostly FREE!
FREE Helpline, Workshops,
Bulletin Board, Regional Sub-Groups
- one near you?

Advice on Software & Hardware problems
Discounts from most major suppliers
Subscription just £14 for UK Members
Overseas subscription £17

Barclaycard : Visa : Access : Mastercard

* * Now in our SIXTH successful year * *

Further details from the Hon. Secretary

PHIL BORMAN
15 GROSVENOR CRESCENT
GRIMSBY
SOUTH HUMBERSIDE
DN32 0QJ

TEL: (0472) 49850
Prestel MBX 219994776



Q.L. PACKAGE

SINCLAIR Q.L.

This superb computer at a realistic price. Fast 68008 COU combined with 128Kb RAM makes this a very special bargain. Amongst its many features are Multi-Tasking, Twin Fast-Access Microdrives, Twin Serial ports, Twin user ports, T.V. & Monitor outputs all as standard.

Originally made to sell at £399. The package comes complete with four business programmes, i.e. Wordprocessor, Database, Spreadsheet, and a business graphics package. 2.3 version Software

**OUR PRICE (JM ROM) £99.95
(JS ROM) £119.95**

Plus Postage & Packing £4.05

SEIKOSHA GP100 A PRINTER

• Centronics Interface • 50 CPS
• Tractor Feed • Q.L. Compatible

ONLY £89.95 + £5.05 Postage

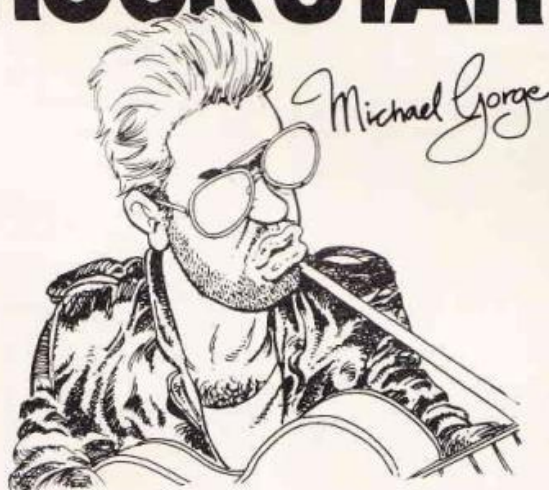
Buy Q.L. and Printer together and get a
free interface valued at £20.00

UK HOME COMPUTERS

82 Churchward Avenue,
Swindon, Wilts. SN2 1NH
0793 695034



ROCK STAR



Could you manage this
Rock Star ?



CodeMasters Software Company Ltd., PO Box 6, LEAMINGTON SPA, CV33 0SH

TF SERVICES

QUICK QL REPAIRS

VAST stock of components &
working circuit boards to ensure
quick and reliable repair (usually
same day)
QLs tested with Thorn EMI test rig
and ROM software
(MDV hardware extra if required)

£25 (6m gntee)

COMPUTER CLEANER

Much improved maine filters, 40-50
db cut & 3-spoke filters, 390 joule
cut
(3 & 4 way)
Certified X/Y 240ec capacitors.

2-way (5a adaptor)£14
3-way (5a adaptor)£18
4-way (13a trailing socket)£24

ASTRACOM MODEM

Intelligent buffered modem with text status
messages. Hayes protocol, parallel printer
port can be used as 6K serial to parallel
printer buffer, 240vac or 9-12vdc, Autodial/
answer and many programmable registers
incl printer logging of RX and/or TX data.
BT approved. Can be used with any computer.

V21/23 (300/300 and 75/1200)£175
V21/22/23 (adds 1200/1200 + tone ding)£257
V22 upgrade to existing model£98

QL SPARES

Faulty QL boards (excl plug in ICs).....	£9
Power Supply with external heat sink.....	£20
Keyboard membrane.....	£6
68008 cpu.....	£8
JM rom set.....	£12
8302 ULA.....	£10
8049.....	£7.50
Circuit dings.....	£2
1377 PAL.....	£3
JS rom set.....	£25
8301 ULA.....	£13
MDV ULA.....	£12

OTHER COMPONENTS (SOCKETS ETC).....PLEASE PHONE

Qualsoft Terminal

Viewdata/VT52/ASCII QL TERMINAL EMULATOR
Een deluxe communicatieprogramma van Kwalsoft

Multitasking program for electronic mail, PRESTEL
etc. Phone directories for ALL (yes ALL) modems for
the QL, autodial (where poss) and logon. **two-way**
FILE TRANSFER to ATARI ST, IBM PC, Psion
Organiser (via comms link), XMODEM, real time
clock/timer, buffered logs to file/printer transmit
files, editable command line. Swedish/Norwegian
options. EOL translates, editor etc.

SOLVES ALL PACKAGED MODEM SOFTWARE PROBLEMS.

Unbuffered modems usable with Miracle Modaptor

Software (3.5" or mdv) & manual£30

FILE TRANSFER

Programs to transfer text AND programs error free
(XMODEM) between computers.

Available for IBM PC and compatibles, ATARI ST and
Sinclair QL. Connects to Psion
organiser via Psion comms link

Qualsoft program (per m/c).....£7.50
Serial lead (same 2 computers).....£10
Complete package for 2 computers£25

All prices include VAT and postage in the UK

Callers welcome (by appointment only please)



12 Bouverie Place, London W2 1RB (tel: 01-724-9053)
Fax 01-706-2379 Telex: 265451 (ref: 72:MAG90645) Prestel: 017249053



QLoser?

The high flyer that never took off: John Torofex tells the Sinclair QL story...

The QL was launched in January 1984 and received a rapturous welcome from journalists and customers alike. For £399 you got what was advertised as a machine with 32-bit architecture, 128K RAM, two built-in Microdrives, networking, colour display using monitor or TV etc. Bundled with the hardware was an integrated business software package comprising a word processor (Quill), spreadsheet (Abacus), database (Archive) and graphics (Easel), all on Microdrive cartridges. Impressed by expensive advertising in all the colour supplements and a very favourable "review" in a computer weekly, hordes of punters sent off their cheques or phoned in their credit card numbers, and waited for the machine that was going to give them a "quantum leap" in processing power.

What had not been revealed to the journalists attending the launch was that the machine they saw running some very impressive demonstrations was nowhere near ready for production. Rather late in the design cycle, the original operating system commissioned from a Cambridge software house was scrapped (although it met the specification, it could probably be described as "user hostile"), and an operating system developed by Tony Tesby, one of the machine's designers, was adopted instead.

As originally conceived, the machine was not intended to have a built-in BASIC - it was just going to be supplied with the business packages (produced by Psion, which subsequently developed the very successful Organiser). Rather late in the day, the decision was made to supply a BASIC interpreter in ROM, and an excellent dialect of BASIC called SuperBASIC was commissioned from Jan Jones (one of those rare individuals, a lady programmer).

With all these last-minute changes, it is hardly surprising that it was about two months before

the first customers received their machines. Since Sinclair had announced a deadline by which the first machines would be delivered, and it knew that most of these machines had been ordered by journalists and software houses, it ensured that it met the deadline by delivering systems in the London area by hand, using one of the Sinclair limousines.

Two ROMs don't make it right

In stark contrast to the glowing reviews I had read, I found the system quite unusable - the word processor was incredibly slow and kept crashing, and the SuperBASIC interpreter, whilst acceptably fast, seemed full of bugs. Moreover, the machine appeared to have acquired a strange lump protruding from the cartridge port: the infamous "dongle". BASIC was too big to fit into the ROMs (in fact they were using EPROMs - getting ROMs manufactured would have taken too long), so the additional code was put into an EPROM cartridge.

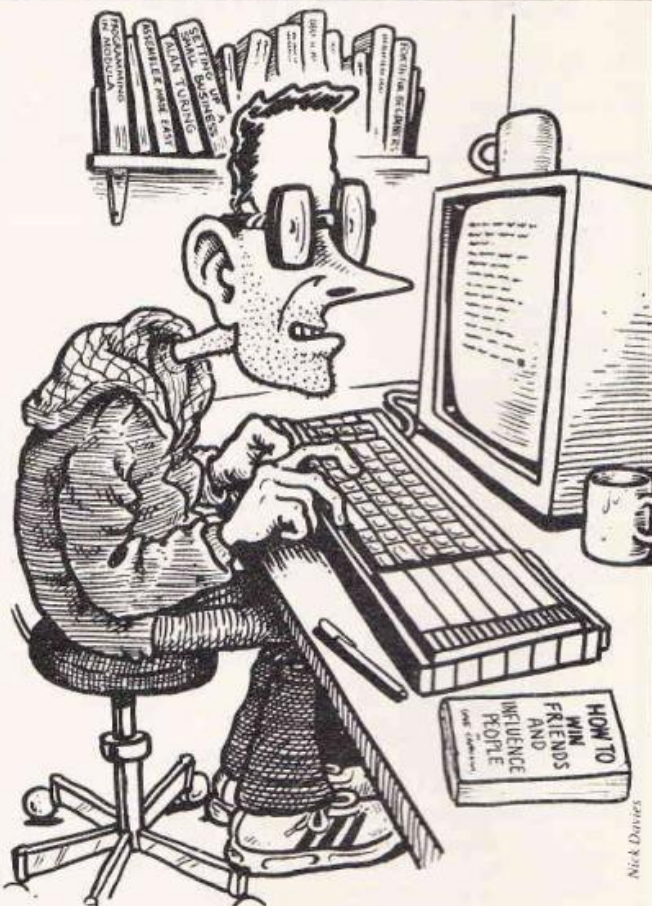
QL users were urged to join an organisation called QLUB (QL Users Bureau) organised by Sinclair itself. In return for a subscription, members received a somewhat irregular newsletter, special offers on hardware and software, and a hot line for telephone assistance. An independent user group was also formed, called IOLUG, subsequently renamed Quanta (few members, especially foreigners, could pronounce IOLUG). The editor of Quanta, the group's newsletter, had severe problems with the first issues, as no-one had a machine to write about. Most of the newsletter therefore consisted of letters from disgruntled customers complaining about Sinclair Research.

The multi-tasking operating system, QDOS, is contained in ROM, together with an excellent BASIC interpreter - SuperBASIC. The command language is SuperBASIC, and QDOS is about the only extensible operating system available. Commands may be added to or replaced relatively easily.

The QL has two 100K Microdrives for mass storage, using little tape cartridges which are less reliable than disks but an improvement on cassette storage. They are quite fast, and allow random access, like disk.

An unusual feature is the built-in networking, allowing up to 128 machines to be connected together. The machine has lots of sockets at the back: network in and out, RGB and UHF connectors, two serial ports, two joystick ports and a ROM cartridge connector. At the left of the machine is a 64-way expansion connector, carrying most of the 68008 bus signals, for memory expansion (up to 512K), disk controller etc. Additional Microdrives can be plugged into a socket on the right of the machine.

It is a nice-looking machine, very compact and quite portable.



Nick Davies

Within about six months, Sinclair started to get its act together. A new version of the firmware (AH) was produced, and dongle-less machines were shipped. The earlier machines were recalled and upgraded. By now, the machines were quite usable, and software started to become available - starting with an editor/assembler package from MetaComCo, which was widely used. Other languages followed, such as C, Pascal and LISP. A few hardware add-ons started to appear, such as a 256K memory expansion and a disk interface. Strathclyde University took delivery of a large number of machines, intending eventually to give a QL to every student.

Unfortunately, by now the QL had acquired a rather poor reputation, from which it has never really recovered. The Atari ST and Commodore Amiga were perceived as much better machines - for use in the home, at any rate - and the QL remained largely in the hands of enthusiasts.

After about two years, the price of the QL was dropped to £199, and Sinclair Research attempted what amounted to a relaunch. The TV commercials were especially memorable - the avuncular Sir Clive in running kit (he does take part in the occasional marathon) was depicted taking a running jump at a long line of assorted competitors' machines (PCs and the like). However, Sinclair was about to embark on a fiasco that would make the QL debacle look like a marketing triumph - the C5 electric car. The relaunch was not particularly successful, and about three years ago Sir Clive sold Sinclair Research to Alan Sugar. Amstrad has shown no interest whatsoever in the QL, and although attempts have been made to get QL-compatible systems such as the CST Thor into production, it is now very doubtful that such attempts are viable.

Somewhere in excess of 100,000 QLs were sold, and many of these are still in use, so it can't really be described as a flop. If it had been released six months later with a built-in disk drive, I feel that it would have been extremely successful - it still has many unique features (such as multi-tasking) that are lacking in other, more popular, systems. ●

The QL spec

The CPU used in the QL is the Motorola MC68008. This is an 8-bit bus version of the MC68000 used in the Atari ST and the Commodore Amiga, and bears the same relationship to the full 16-bit MC68000 as the Intel 8088 (used in the original IBM PC) does to the 8086 (as used in most of the Amstrad range of PCs). An Intel 8059 single-chip processor relieves the main CPU of some of the more mundane tasks such as scanning the keyboard, RS232 interfacing and sound generation.

The standard machine has 128K of RAM, 32K of which is devoted to the bit-mapped colour display. The operating system takes up some more RAM, leaving about 90K for the user.

The colour display has two modes, one giving 640x256 pixels in four colours, another 256x256 pixels, intended for TV use via the built-in modulator.

DATAWORLD

13 Trinity Street, Gainsborough, DN21 2AL. Tel: Gainsborough (0427) 810151



CALLERS WELCOME AT OUR SHOP



ST	AMIGA	ST	AMIGA	ST	AMIGA			
Afterburner.....	16.99	16.99	Outrun.....	13.99	13.99	TV Sports Football.....	—	19.99
Wec Le Mans.....	13.99	16.99	Captain Blood.....	16.99	16.99	Spitting Image.....	13.99	13.99
Elite.....	16.99	16.99	Platoon.....	13.99	16.99	Garfield.....	13.99	16.99
Crazy Cars II.....	13.99	16.99	Off-Shore Warrior.....	13.99	16.99	Hits Disc Vol 1.....	16.99	16.99
Starglider II.....	16.99	16.99	Rocket Ranger.....	—	19.99	Sargon 3.....	16.99	16.99
Operation Wolf.....	13.99	16.99	Joe Blade II.....	13.99	13.99	Federation of Free Traders.....	19.99	—
Robocop.....	13.99	16.99	Alien Legion.....	16.99	16.99	Triad.....	19.99	19.99
Speed Ball.....	16.99	16.99	Football Director II.....	13.99	13.99	Hot Balls.....	16.99	16.99

Please Telephone for titles not listed. Many Business/Utility titles held in stock.

QUICKSHOT II TURBO £8.50

COMPETITION PRO EXTRA £12.99

IBM

Many games/business/utility titles held in stock.
Telephone for prices

AMIGA SPECIALS

**AMIGA 500 WITH MODULATOR
£359.99**

3.5" DISKS
Lifetime Guarantee
3M Unbranded DS/QD
10 Disks with Plastic Case
£12.50

DISK BOXES
3.5" x 80
Lockable
£6.50

**MOUSE MATS
£2.50**

**PRINTER STANDS
80cm £9.99**

**AMIGA
512K RAM Extension
£99.99**



Order by Phone (0427) 810151 Goods normally despatched within 24 Hours.

All prices include VAT and FREE Delivery in UK. Overseas orders Please add £2.00 Per item.

* Customers paying by Cheque, goods will be despatched when cheque is cleared.



*** CALLERS WELCOME AT OUR SHOP ***

SECTOR SOFTWARE

Established 1985

0772 454328

Commodore Amiga A500 Computer with Modulator, Mouse, Workbench,
BASIC disk, Extras disk and 10 FREE games
£389.00

Workbench 1.3 Upgrade for Amiga owners	£15.00
Brother M1109 Printer	£155.00
Star LC10 Colour Printer	£275.00
Star LC10 Mono Printer	£240.00
Star LC2410 Printer (24 pin quality dot matrix)	£374.00

Bulk 3.5" Disks at the LOW PRICE of £1.00 each
Philips CM8833 Stereo Monitor £260.00
Amiga Write Cartridge £15.00

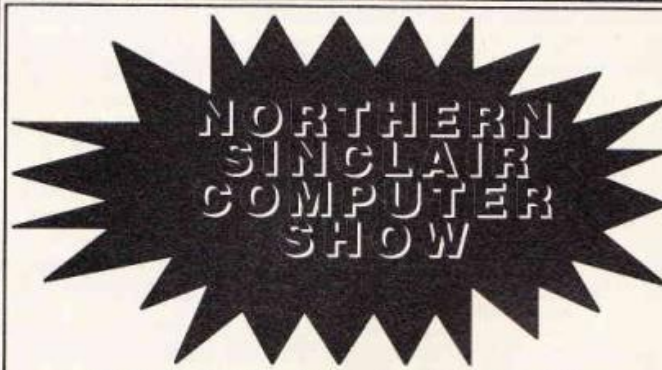
Sector Software are suppliers of Quality software for the Sinclair QL and currently have 14 titles in our range. Phone or write for our full catalogue of QL items.

We also stock the Z88 Computer and all its accessories. Send us your name and address and we will send you details of new products for the Z88 when they are released. We are currently writing software for the Z88 and we are looking for Z88 programs. If you have written one then please send it for evaluation.

SECTOR SOFTWARE

39 WRAY CRESCENT
ULNES WALTON
LEYLAND
LANCASHIRE
PR5 3NA

TEL: 0772 454328 FAX: 0772 454680



SATURDAY, APRIL 8th
at

Stokes Hall, Church Road, Leyland, Lancashire
10.00am until 6.00pm

Over 35 stands specially for the home computer user.

**HARDWARE ♦ SOFTWARE ♦ PERIPHERALS
PRINTERS ♦ DISKS & DISK DRIVES ♦ GAMES**
Plus

The first public showing in the North of
**CAMBRIDGE COMPUTERS'
Z88 PORTABLE COMPUTER**

Also on show:
Cambridge Computers' new Satellite TV system

Meals and refreshments available all day.
Bar open throughout the exhibition.

ADMISSION £1.50 (Payable on the door)

For further information contact the organiser,
**DAVID BATTY on Leyland (0772) 454328
FAX: 0772 454680**

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. £30E

WHY SILICA SHOP?

Before you decide when to buy your new Commodore Amiga computer, we suggest you consider very carefully WHERE you buy it. There are many companies who can offer you a computer, a few peripherals and the top ten selling titles. There are FEWER companies who can offer a wide range of products for your computer as well as expert advice and help when you need it. There is ONLY ONE company who can provide the largest range of Amiga related products in the UK, a full-time Amiga specialist technical helpline and in-depth after sales support, including free newsletters and brochures delivered to your door for as long as you require after you purchase your computer. That one company is Silica Shop. We have been established in the home computer field for ten years and can now claim to meet our customers' requirements with an accuracy and understanding which is second to none. Here are just some of the things we can offer you.

THE FULL STOCK RANGE: The largest range of Amiga related peripherals, accessories, books and software in the UK.

AFTER SALES SUPPORT: The staff at Silica Shop are dedicated to help you to get the best from your Amiga.

FREE NEWSLETTERS: Mailed direct to your home as soon as we print them, featuring offers and latest releases.

FREE OVERNIGHT DELIVERY: On all hardware orders shipped to Silica Shop customers within the UK mainland.

PRICE MATCH PROMISE: We will normally match our competitors' offers on a 'same product same price' basis.

FREE TECHNICAL HELPLINE: Full time team of Amiga technical experts to help you with your technical queries.

But don't just take our word for it. Complete and return the coupon below for our latest Amiga literature and begin to experience the Silica Shop specialist Amiga service.

PHOTON PAINT PACK

A500 Computer	£399.99
TV Modulator	£24.99
Photon Paint	£69.95
TenStar Pack	£229.50
TOTAL RRP:	£724.43
LESS DISCOUNT:	£325.43
PACK PRICE INC VAT:	£399

1084S MONITOR PACK

A500 Computer	£399.99
1084S Colour Monitor	£299.99
Photon Paint	£69.95
TenStar Pack	£229.50
TOTAL RRP:	£999.43
LESS DISCOUNT:	£350.43
PACK PRICE INC VAT:	£649

FREE FROM SILICA

When you buy the Amiga 500 from Silica Shop, you will not only get a high power, value for money computer, we will also give you some spectacular free gifts. First of all, we are now including a TV modulator with every A500 stand alone keyboard, so you can plug your Amiga straight into your TV at home (the modulator is not included with the A500-A1084S pack as it is not required for use with monitors). Secondly, we have added a free copy of Photon Paint, an advanced graphics package with an RRP of £69.95. Last (and by no means least!), so that you can be up and running straight away, we are giving away the sensational TENSTAR GAMES PACK with every A500 purchased at Silica Shop. This pack features ten top Amiga titles which have a combined RRP of nearly £230! Return the coupon for details.

FREE TENSTAR PACK

When you buy your Amiga 500 from Silica Shop, we want to make sure you get the best deal possible. That is why we are giving away the TENSTAR GAMES PACK worth nearly £230, absolutely FREE with every A500 purchased from us. The TenStar Games Pack includes ten titles for the A500, each individually packaged in its own casing with instructions.

Amegas	£14.95
Art Of Chess	£24.95
Barbarian, Ult Warrior	£19.95
Buggy Boy	£24.95
Ikari Warriors	£24.95
Insanity Fight	£24.95
Mercenary Comp	£19.95
Terrorpods	£24.95
Thundercats	£24.95
Wizball	£24.95
TOTAL RRP:	£229.50 INC VAT

DO YOU OWN AN AMIGA?

If you already own an Amiga computer and would like to be registered on our mailing list as an Amiga user, let us know. We will be pleased to send you copies of our price lists and newsletters FREE OF CHARGE as they become available. Complete the coupon and return it to our Sidcup branch and begin experiencing a specialist Amiga service that is second to none.

SILICA SHOP:

SIDCUP (& Mail Order) 01-309 1111
1-4 The Mews, Hatherley Road, Sidcup, Kent, DA14 4DX
OPEN: MON-SAT 9am - 5.30pm LATE NIGHT: FRIDAY 9am - 7pm

LONDON 01-580 4000
52 Tottenham Court Road, London, W1P 0BA
OPEN: MON-SAT 9.30am - 6.00pm LATE NIGHT: NONE

LONDON 01-629 1234 ext 3914
Sellingdges (1st floor), Oxford Street, W1A 1AB
OPEN: MON-SAT 9am - 6.00pm LATE NIGHT: THURSDAY 9am - 8pm

To: Silica Shop Ltd, Dep NCE, 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: _____

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

Athene Consultants (Media Centre)

16 Stoke Road, Gosport, Hants. PO12 1JB

Tel: 0705 511439 (Office Hours)

0705 511648 (24 Hours)

Fax: 0705 511646

* Same Day Despatch* Stock items

* CREDIT CARDS WELCOME*

* Access & Visa*



THE LOWEST PRICES IN THE UK GUARANTEED. CALL FOR QUANTITY DISCOUNTS

3.5" DS/DD 135TPI

High Quality Bulk

High Clip (KAO/Maxell)
Lifetime Warranty,
recommended for Amigas

97p

Also Standard Bulk at

86p

5.25" DS/DD 48tpi

High Quality Bulk

High Clip
Lifetime Warranty
For IBM PC 360k

37p

Minimum Qty 25
Order in Units of 25

5.25" DS/QD 96tpi

High Quality Bulk

High Clip
Lifetime Warranty

45p

Minimum Qty 25
Order in Units of 25

5.25" HD AT 96tpi

High Quality Bulk

High Clip
Lifetime Warranty
For IBM AT 1.2 Mb

£1.13 inclusive

Minimum Qty 25
Order in Units of 25

DISKS

Prices per Pack of 10

DYSAN

5.25" AT Only £15.00
5.25" DS/QD 96tpi £11.50
5.25" DS/DD 48tpi £9.10
3.5" DS/DD 135tpi £16.50
3.5" DS/HD £47.50

Branded Disks
at
Low Prices

3M

5.25" AT Only £19.00
5.25" DS/QD 96tpi £16.50
5.25" DS/DD 48tpi £8.00
3.5" DS/DD 135tpi £18.50
3.5" DS/HD £45.50

DISKS

SONY

3.5" DS/HD £45.00
3.5" DS/DD £15.00

SPECIAL OFFER * * * *

5.25" DS/HD Branded Verbatim only £16.00 while stocks last
3.5" DS/DD Branded Verbatim only £13.00 while stocks last
Amiga 500 Systems from £379



STAR COMPUTER PRINTERS

Registered Dealer, Official UK versions only

LC10	£199.00 (inclusive)
LC10 Colour	£259.00 (inclusive)
LC 24/10	£310.00 (inclusive)
NB 24/10	£425.00 (inclusive)
Star NX15	£320.00 (inclusive)
Star NB 24/15	£510.00 (inclusive)
Star LP8 Laser Only	£1600.00 (inclusive)
Panasonic Laser	£1840.00 (inclusive)
Citizen 120D (Commodore)	£139.00 (inclusive)

Price includes delivery & VAT



AMIGA HARDWARE

AMIGA A500	£389.00 (inclusive) + FREE Software
AMIGA A500 1MEG	£528.00 (inclusive) + FREE Dragon's Lair
1084 S Stereo Monitor	£279.00 (inclusive)

A2000 MACHINES, PLEASE CALL FOR PRICING

*APD Unlimited! Now part of Athene PD. Full Range of Amiga PD from £2.50 a disk
Special Offer: Starter Collection of 4 PD Demo disks. Latest releases £6.50
inclusive. Ever growing library, please send S.A.E. for Catalogue

We also Supply Verbatim, Fuji, Xidex, Maxell, Nashua
The Full STAR Printer Range at Low Prices

Disk Storage Systems

DATA CARTRIDGES - RIBBONS - PAPER - TONER CARTRIDGES - CABLES

3.5"

10	3.5" Disk Box	£1.30
40	3.5" Disk Box	£6.00*
100	3.5" Disk Box	£10.00*
28	3" Disk Box	£6.00*

5.25"

10	5.25" Disk Box	£1.30
50	5.25" Disk Box	£7.00*
100	5.25" Disk Box	£9.00*
140	5.25" Disk Box	£11.00*

* Lockable

Full Range of Printer Ribbons for EPSON, STAR, AMSTRAD etc.

PC HARDWARE
AMSTRAD
EFI
SAMSUNG
OPUS

PLEASE CALL FOR THE BEST
QUOTES

SCHNEIDER EURO PC
Complete Mono System Now
Available
£389.00
+ VAT

All Orders £1 Delivery Charge
All Prices include VAT
Courier Next Day Delivery £5.75

The long and winding road...

Based on Ordnance Survey's digital map data, *Autoroute* is probably indispensable if you burn more than 10,000 miles of rubber a year. Andy Storer climbs in the driver's seat and puts it through its paces

Autoroute ● ST £149.50 ● Next Base (0784 460077) ● Also out on PC ● An expanded version - *Autoroute Plus* - is also available for the PC

Autoroute is a complete electronic map which you can use to plan a journey between any two points in Britain and get a print out of the shortest, quickest and most economic possible routes. Supplied on three disks, the program is simplicity itself to use, running under GEM's pull-down menus.

From the Options menu you may select the type of vehicle and conditions which most closely

approximates to your own - 2CV, normal, rush hour, GTI and HGV - and the kind of route information you'd like. You may then declare your likes and dislikes for motorways, A roads, B roads and how often you like changing between them, by means of moving sliding scale pointers. You're also able to edit your own preferred driving speeds for each road type before entering the projected journey you're planning. You can specify your start and destination points and then up to four places you'd like to visit with optional stop-over times, or places you'd like to avoid like the plague on the way. The last item of data required is your planned start time or required arrival time.

To set the program searching, you simply pull down the Actions window and click on Calculate from the menu. At this point a few disk swaps are needed if you're running on a 520, but in any case there's a short wait whilst the program sorts through the vast network of pathways that make up the U.K.'s road system. The Route Text option displays a list of directions which you can also print, whilst Route Map will display a scaled, scrollable on-screen map with the route marked on it.

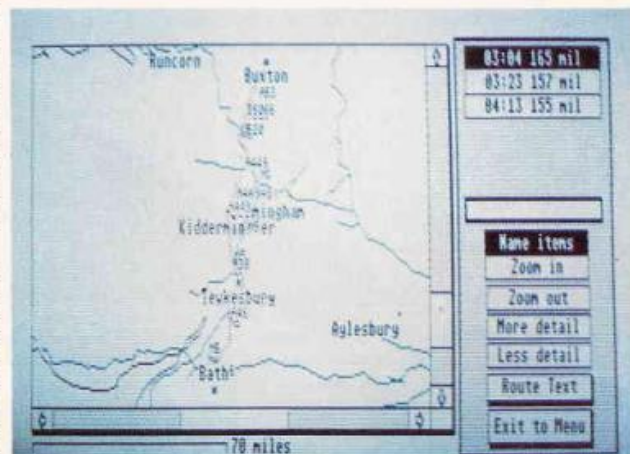
So how good is *Autoroute*? There's no doubt it's tremendous fun playing around with all the



• After inputting your average driving speed and road preferences, the Journey Details screen is the final stage before the program selects your choice of routes

Bath to Buxton, Derbys via Tewkesbury				
Time	Road	For	Dir	Towards
17:30 DEPART Bath	A4	1 mile	N	Newbury (Cold Ashton)
17:33 Turn left onto	A45	8 miles	N	(Rust)
17:40 At M4 J18 turn left onto	M4	18 miles	W	Tewkesbury
17:57 At M4 J20 turn off onto	M5	18 miles	NE	Tewkesbury
18:29 At M5 J9 turn off onto	A438	2 miles	W	Tewkesbury
18:31 ARRIVE Tewkesbury				
18:31 DEPART Tewkesbury	A438	2 miles	E	Winchcombe
18:33 At M5 J9 turn left onto	M5	44 miles	N	(M50 M5 J8)
19:12 At M5 turn off onto	M6	23 miles	W	Sturford
19:35 At M6 J14 turn off onto	A34	5 miles	NE	Stone
19:57 Turn off onto	A520	18 miles	NE	Stone
20:18 At Leek turn right onto	A53	13 miles	E	Buxton
20:34 ARRIVE Buxton, Derbys				

• The quickest route is quickly calculated, displayed on-screen and available for printing. When the ST laptop comes out, co-drivers will never be the same again



• Alternatively, a map of the route is available, which may be scrolled and zoomed according to detail required, and may also be printed out.

Turbo boost

Besides being already available for the PC there's a new version planned coming in at £299 - VAT. *Autoroute Plus* features 67,000 miles of road network, 33,000 place names and all 8,700 postcodes. You may also add your details to the map - ideal if you wish to enter all your office branches or warehouses say. In addition, you will now be able to choose the best route between two to 25 places in the UK. It's also designed to work with existing software including spreadsheets, databases and DTP packages. But you'll need a hard disk. There are also plans afoot to release gazetteer add-ons - English National Heritage Sites, Good Pubs, National Trust areas and Hotel chains are some of the guides being talked about.



• The impressive-looking *Autoroute Plus* will offer the user add-on guides and the ability to expand on map information

All Wight now

The current release of *Autoroute* is Version 1.3. As we noted in *Express* 18, there's a bug in earlier versions relating to ferry crossings to the Isle of Wight - you get the result of 323 miles. This has now been corrected. Existing owners can upgrade by simply returning their registration cards.

possibilities. Like how long would it take to get to work if you had a 184 mph Aston Martin? But for the most part, and at this price, it'll be everyday calculations that justify its purchase. Cross-country routes that don't rely on Motorway travel come up with some incredible combinations that defy belief and yet are true. An *Autoroute*-supplied journey from Bath to Gatwick Airport in February transformed the usual M4/M25 monotony into a faster, shorter, cheaper route with infinitely better scenery.

If you can afford it, and cover enough miles in a year, *Autoroute* will eventually pay for itself. Let's just hope Next Base bring out a *Good Pub Guide* to go with it.

★★★★★

The process of learning your way through a computer program is never easy, however 'user-friendly' it is supposed to be. Manuals are all too often incomprehensible and specialist training can cost more per hour than the software itself. But now Intouch reckons it's got a cheap and effective solution. Jerry Glenwright investigates...

If you think educational software is all about castles and little figures popping up on screen attempting to teach four-year olds basic mathematics, then think again. Computer education has just entered the second generation.

Intouch Tutorials, under the wing of the Infotek group, has just released a program to teach you or your employees all the popular office packages - WordStar 4, Ventura, Lotus 1-2-3 etc. - as well as an introduction to PC/MS-DOS.

But just what makes these teaching programs so special? The idea behind each program is that you use the actual package that you're attempting to learn. WordStar says, in conjunction with the tutorial program. A series of windows pop-up on to the screen telling you to do this and that with the program you're running, instructing you in a chatty and congenial way what to do with the monster before you. By working your way hands-on through the tutorials, the theory goes, you learn how to use the program itself.

This approach of concurrent windowing is known (not surprisingly) as "On-screen Learning". A simple idea, but one which in practice proves to be very successful. Intouch decided that the writing of teaching programs should be carried out by 'communicators' and teachers, rather than the 'techies' responsible for writing the program itself. A candidate program for an Intouch tutorial is studied assiduously before anything is actually written. Once the writer has completely assimilated all aspects of the application then the tutorial is written - being checked at every stage.

Intouch promises to give you a working understanding of the package of your choice within one hour, and complete understanding after just eight forty-five minute lessons. Does this claim stack up?

The shibboleth

WordStar, which has been almost the industry standard word processor, is notoriously difficult even for experienced computer users to learn. It works by a collection of arcane and fiendishly unmemorable keystrokes - CONTROL then K then S to save a block of text, for example, or CONTROL A and CONTROL F to move to the previous word and next word respectively... For the novice it can be a nightmare; it seemed an ideal test for Intouch's tutorial.

After loading the tutorial, but not WordStar yet, a large coloured introductory window appears on-screen, with a smaller window below it inviting you to press any key. This is the style of the tutorial throughout. Once past the opening screen, you are presented with a menu of

Learning your

Let's get started with...

WordStar Rel.4
in just 45 minutes.

Let's get started with...

dBase III+
in just 45 minutes.

available lessons. These range from word processing basics, menus and on-screen formatting to tabs, word searches and spelling checkers. Suppose you select lesson one - Word Processing Basics.

After some guff about WordStar being the computer workhorse of a generation, you are taken into what Intouch describes (apparently with quite a straight face) as the "exciting world of word processors"; still, it's all part of the friendly approach of the narrative.

The lesson begins with an overview of what you can expect to see on the screen, and what you will be expected to press. So just what do you see on-screen? Well, overlaying whatever package you are running, there will be several coloured boxes. A large blue box - the 'Teaching box', which contains the new commands and concepts necessary to your understanding of the application. A smaller red box - the 'Do-it' box, containing instructions on how to proceed with the tutorial, and also any commands that you need to issue to the application, and a light blue box - the 'comment box', containing a joke or general piece of information about the application. Of course, if you are using a mono

screen, then you will see three dreary grey boxes! The PageDown key is used to proceed through the lesson, although occasionally - after issuing a command to the application for instance - it will proceed automatically. This works well, but sometimes the next lot of boxes are a little slow appearing on the screen, and there is a temptation to press a key to hurry the process along.

The ALT magic's still there

Filters are provided to catch any rogue key presses that you may inadvertently make. There is also the ability to switch off the tutorial using a combination of the ALT and DEL keys. This allows you to run some other application or DOS function, returning to the tutorial whenever you wish. It will start at the exact place that you left off. By pressing the ALT key twice, you can bring on to the screen a range of very helpful options covering anything that may have happened whilst using your lesson.

After being asked whether you will be running WordStar from hard disk or floppy, you are told to load the program by typing WS in the correct directory. Once WordStar has been invoked, and the opening menu is on screen, the first of the lesson boxes appears. You get a cheery 'Good!' and a pointer to the words 'Opening Menu' on the initial WordStar screen.

PageDown takes you to the next box with a brief explanation of WordStar's seven menu system, and then it's into editing, with a pointer to the 'D' command to open a document file.

WordStar prompts for a document name, the tutorial anticipates this and takes you into a thorough explanation of file naming conventions. Once you've given the file name you wish to use, WordStar informs you that it can't find a document of that name (if you've used a new file name), again the tutorial anticipates this, and tells you to instruct WordStar to create a new document. It is here that problems can arise.

Whilst using the lesson a second time, if you give the file name JG1.DOC (as per instructions from the tutorial), even though this file had been created the first time the tutorial had been run, it results in WordStar going straight into its edit menu. However, the tutorial assumes WordStar will tell you that it can't find the document you're trying to open, and would you like to create a new one? Horrors! The lesson and application are now out of step.

OK, this results from a non-

It takes all sorts

There is a large range of tutorial packages in the series to cover all the major commercial applications. Among the programs covered are:

- PC/MS-DOS
- Lotus 1-2-3
- dBase III
- Turbo Pascal
- Ventura Publisher
- WordStar 3 and 4
- Multimate and Multimate Advantage II
- WordPerfect

All disk-based tutorials priced £49 + VAT except Ventura Publisher, priced £99 + VAT

With audio tapes, the tutorials are a little more expensive. Prices start at £59 + VAT for the PC/MS-DOS tutorial, to £79 + VAT for Lotus 1-2-3 and dBase III Plus.

Lesson

prescribed sequence of operation, but perhaps Intouch could trap the odd little problem such as this, by asking whether you're using the tutorial for the first time and then reminding you to use different program names. Back to the lesson. You're now at the Edit screen, with the edit menu at the top, and a blank screen below. The tutorial overlays a box at the bottom of the screen, with a pointer to the edit menu, detailing several things you should be aware of: text scrolling, cursor movement and the way to other menus. You are then introduced to the status line at the top of the screen. Everything explained in easy to understand, friendly prose. It's amazing just how effective this method of teaching is. Boxes with soothing messages on-screen, and pointers to just the place you were wondering about.

After changing the screen width, you are told to type your first line of text. A box appears asking whether you have used computer word processors previously; answering 'no' as this takes you into a series of windows detailing the advantages of word processors over typewriters - the ability to print the document several times, easy correction of mistakes etc.

All the basics are well covered in the first lesson - cursor movement, file saving, basic editing and so on - without assuming any prior knowledge.

Back on the opening menu, there is a question to determine whether you have managed to save the file correctly, and that's it. Lesson one is over, and even the complete beginner should find they've mastered the WordStar basics.

Each lesson is followed with a short quiz based around what you've learnt and a series of suggested exercises, so that you can consolidate the knowledge gleaned from the tutorial. Complete these and you're ready for lesson number two, and so it goes on. Each lesson builds upon your knowledge from the last lesson, until finally, you have a complete understanding of the application. No manuals, no jargonising, just a simple and effective method of learning.

Please Sir, me

Sir

Who will use the Intouch tutorials? Well at these prices (£49 + VAT or £59.79 + VAT for disks and audio cassettes), everyone!

If you run a small company, and were about to send some of your employees on a word processing, database, spreadsheet or whatever course, then use the Intouch package. With just one disk - registered in your company name - all your employees can be taught for a fraction of the

cost of half-day courses.

Home users should find it useful too, and the only real equation to balance up is whether you would prefer to spend a few evenings hacking through the program yourself or spend money on the tutorial program.

For the absolute beginners it's ideal - it'll get you running programs you've never touched before straight away, and will no doubt prove popular with harassed office managers and home users alike. ●

The alternatives

What are the alternatives to disk-based courses? What if you really need one-to-one contact with a teacher, or if you actually enjoy reading manuals? Here's what's available for you:

● Training Courses:

Widely available but very expensive. Course lengths range from half a day to a week or more. You can be taught on-site or at the premises of the company offering the course. Prices? Well, don't expect to see much change from £100 for half a day. Unfortunately, personal contact costs megabucks, although it is very reassuring to have your questions and problems answered immediately by an informed teacher.

● Your local technical college:

An alternative to commercially available training courses. They will be running courses covering everything from basic computer appreciation and word

processing, to advanced digital electronics and programming. Prices are usually very reasonable and the standard of teaching will be high, but there may be rather a long wait for a place.

● Manuals:

Probably - depending upon yourself - the least attractive alternative. They come in all shapes and sizes, some good and some bad. You pay your money and takes... etc. Don't dismiss the good old textbook out of hand though, they've come a long way in the last few years and no longer resemble the little-read dusty tomes of a bygone age. There will be a book available on any aspect of computing you can think of - and probably some you can't, and they are definitely the cheapest alternative. If there's something you've just got to know about and your reading age is marginally greater than that necessary for the average sci-fi novella, get along to your local bookstore!

A picture is worth a thousand WordStar manuals...



• The tutorial's opening screen



• Several steps into the tutorial you've reached the edit menu



• Easy or what? The tutorial even tells you what you're going to write and where you're going to write it!



• You've finished the lesson, saved your file - and now we hope you were paying attention because we're going to ask you a few questions...

NEC

PC Engine

"A NEW AGE HAS DAWNED"



Chan + Chan



Vigilante



Galaga 88



Victory Run



R-Type

"The PC Engine is not an expensive console, it's a cheap arcade machine"

The Games Machine

"Forget Nintendo and Sega, they are not even a spit in the ocean in terms of power and gameplay. Even the Amiga would be very hard pushed when you come up against THE MOST POWERFUL CONSOLE IN THE WORLD"

Computer and Video Games

"No flicker, detailed and smooth. Oh gorgeous!!"

Computer and Video Games

"Games on the PC Engine are, quite simply, the best you've ever seen. It's the most impressive piece of video game hardware I've ever seen"

Geoff Minter, The Nature of the Beast

"The PC Engine is no fantasy"

Computer and Video Games



HARDWARE — Look out for the latest computer innovations available on the PC Engine such as a portable colour LCD screen. How about a CD Rom player capable of orchestral sound tracks and true voiceovers with previously unheard of storage capabilities. Imagine if it could double as a top of the range hi-fi compact disk player with amazing software drives facilities.



SOFTWARE — All titles £29.95. R-Type 1, Space Harrier, Chan + Chan, Victory Road, Fantasy Zone, The Legendary Axe, Vigilante, Galaga 88", R-Type 2, Wonderboy. These titles represent a small selection of the PC Engine extensive software library. Send SAE for more details.

IN AN IDEAL WORLD THE GAMES CONSOLE WOULD OFFER YOU

- Unsurpassed software excellence
- Arcade-perfect graphics
- Multi-channel stereophonic sound.

WE ACCEPT EXPRESS VOUCHERS

- State-of-the-art micro circuitry
- The most compact design in the world.
- Unparalleled expandability — designed with the future in mind

WELCOME TO THE IDEAL WORLD!

- Instant game load and access (no waiting for disks or tapes)
- Multi-player interaction
- The fastest running speed of any games machine in existence.

Please send me the following:

SCART PC ENGINE — for use with monitors equipped with Scart/Euro connectors at £199.95

PAL PC ENGINE — For use with standard British TV sets at £224.95

SCART PC ENGINE with PHILIPS CM833 COLOUR MONITOR at £399.95

Add £4.95 towards p & p

Please supply the following games at £29.95 each

1. _____ 2. _____

3. _____ 4. _____

5. _____ 6. _____

7. _____ 8. _____

9. _____ 10. _____

SUB TOTAL _____ TOTAL _____

Name _____ Tel. _____

Address _____

I enclose a cheque/PO for _____

Expiry Date _____

Visa/Access Card No. _____

Signature _____

or tick box for weekly payment details ☐

Trade Enquiries Welcome

MICROMEDIA

DEPT NCE 1 The Moor Hall, Ludlow, Shropshire, SY8 3EG.
TEL: 0584 75604, FAX: 0584 75387

Deluxe Delights

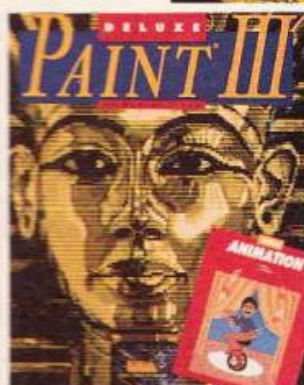
When Electronic Arts launched DeluxePaint on the Amiga back in 1985, it soon established itself as the paint package standard to judge all other paint programs by. A year later, EA released DeluxePaint II, which had even greater graphical capabilities than its predecessor. Now EA has launched DeluxePaint III, which combines paint and animation in one program. Rik Haynes rediscovers the State of the Art...

DeluxePaint III Paint and Animation Package ● Amiga (Minimum 1Mb of RAM required) ● £79.99 ● Electronic Arts ● Upgrade offer available to owners of DeluxePaint (£50 + £5 carriage) or DeluxePaint II (£30 + £5 carriage) ● Further details from EA's Customer Service Department on 0753 46465

DeluxePaint III is a flexible and powerful graphics tool. It not only allows you to create works of static art to incorporate in a picture slideshow, photograph or include in your own programs, but also lets you design animations which can be output to video tape - or if used in conjunction with a genlock device enables you to mix your computer-generated image with your favourite video film.



• Using the wrap brush to remodel DPaint III text

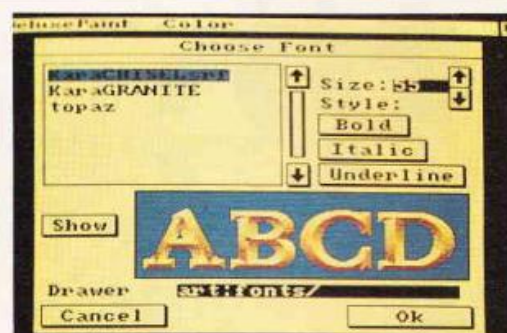


• DPaint III: Latest and greatest

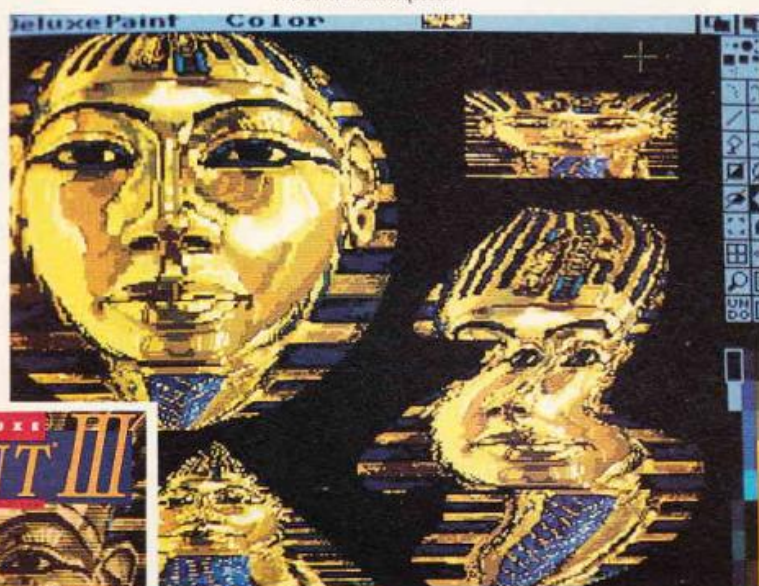
the standard tools for drawing shapes like dots, circles and polygons. However DeluxePaint III really comes into its own with its huge range of brush manipulative commands and AnimPaint animation paint controls, which allow you to draw sequences of animated screens as easily as you would a static screen.

User interface

User control of DeluxePaint III is split between drop-down menus, clickable icon boxes and keystrokes. Fortunately, every function is easily accessible, immediately identifiable and very ergonomic. In fact, the DeluxePaint series of programs



• The all-new font requester



• Reshaping Old Toot in a variety of ways at high speed

Features

DeluxePaint III allows complete control over the graphics modes to work in, and includes all

are about the easiest-to-use paint packages we've ever used on any micro.

Documentation

The manual accompanying DeluxePaint III is an impressive 250-odd page, ring-bound beastie which comprehensively covers all the features found in the package in a clear, concise and easy to understand way. It includes an index and appendices covering DeluxePaint III's keyboard commands, memory management etc for your reference.

Verdict

With DeluxePaint II, Electronic Arts had already produced the easiest to use, most versatile paint package available for the Amiga. Now EA has released DeluxePaint III, the State of the Art has taken a significant step forward.

DeluxePaint III's new features

- Faster operation
- Incorporates excellent animation functions
- Supports overscan and 64-colour extra-half-brite graphics modes
- Wrap and tint brushes
- Enhanced font handler
- Improved airbrush
- Compatible with ANIM file format
- Compression mode

HIGHLIGHTS

- Superbly easy to use, fast and flexible - but powerful - paint and animation facilities.
- Supports all graphics modes except HAM mode.
- Excellent manual.

DRAWBACKS

- Requires at least 1Mb of RAM.
- Doesn't support 4,096 HAM graphics mode.



YOUR FORMAT

MACHINE-SPECIFIC COLUMNS



Dragon's Lair for ST

Sensational news for *Dragon's Lair* fans: it's coming out on the ST. ReadySoft in the States is working on the version at this moment; this comes as a surprise as it was claimed by Entertainment International - UK distributors of the Amiga version - that there would be no ST translation.



• Dragon's Lair: Already out on the Amiga

It's still early days and ReadySoft isn't committing itself to a release date or to a UK supplier. The Amiga version comes on six disks; how many will the ST come on? Remember that Amiga disks store 880K and single sided ST disks manage around 160K. Surely the ST version won't come on 12 disks? ReadySoft (isn't saying anything at this stage. It's certainly going to be interesting to see what appears.

Dragon's Lair has already appeared on the ST... in video disc format. Early last year Microdeal arranged a scheme whereby owners of a special video disc player could buy the *Dragon's Lair* disc and control the game from the ST. The laser disc player required its own television while the ST needed to be connected to the ST. At strategic points in the action, motion would stop and your ST's screen would request you to press a key to go left or right, draw your sword or go on. Not exactly pulsating interactive stuff. Microdeal dropped the product a while back.

Multiface V2

Less than two weeks after the announcement of Multiface 1.4, Romantic Robot has started shipping version 2. The latest Multiface, it is claimed, will stop all software. Once stopped, memory can be viewed or edited and a snapshot of RAM saved to disk. Most snapshot software can then be reloaded and continued from the point at which it was halted. Not all can be restarted though.

What makes the Multiface different from other copying/hacking devices is that the hardware gadget must be attached for memory snapshots to reload and execute correctly.

Along with an improved success rate, the version 2 *Disk Organizer* (an optional £10 disk utility program on ROM that sits beside the Multiface ROM software) can be called from anywhere with the Multiface menu, has a better printout option and can cope with wildcards.

A bug which prevented the Multiface working with Mega ST4s has also been fixed. The reason the device didn't work, it transpires, is the same reason that much

software falls down on the top-end Mega machine: the software tried to read or write beyond the 4Mb limit.

A disassembler ROM, which will let you disassemble (logically enough) baited programs, is nearing completion. This will set you back £19.95 when it's finished. Further information from Romantic Robot, 54 Deanscroft Ave, London, NW9 8EN (01-200 8870).

A bit more

Tony Racine at 2-Bit systems was chatting to me the other day and mentioned various exciting ST projects he's working on. 2-Bit, if you don't know, is the development house responsible for the Pro Sound Designer and Replay 4 sound sampling software. Anyway, the project nearing completion is the software for *Replay Deluxe* which, by all accounts, sounds excellent.

The *Deluxe* hardware will feature a 12-bit analogue to digital converter (ADC) which means sampled sound will be breathtaking. Digital sound can be thought of as precise measurements of analogue sound. An 8-bit ADC will therefore measure a sound 256 times. Naturally the more measurements per wave the more accurate the digital representation of the sound will be. A 12-bit ADC is capable of measuring sound to 4096 levels. That's an impressive leap from 256 levels. It's not difficult, therefore, to understand why the sound quality attainable with *Replay Deluxe* will be spectacular.

Also on the cards by 2-Bit is a 16-bit sampler (that measures sound waves to 65,536 levels - CD quality). Naturally this won't be cheap and will most likely be sold to professional musicians. The reason it won't be cheap is because of the price of ADCs. An 8-bit ADC costs around £5, a 12-bit version comes in at around £14, while the 16-bit variety costs £50.

Snippets

• Silica Shop is selling the Quadram Multisync monitor at £399 - that's £100 below the RRP. The beauty of this monitor is that it works with all ST resolutions. Details on 01-

Heroes of the Lance cheat

Just a quickie for this infuriatingly addictive game. Use the find traps spell often as falling rocks tend to hurt. Always place Goldmoon third and Tanis fourth in your party. Put Flint first as he can avoid most spells and is deadly with his axe. During the early stages the only real problem in combat should be the hatchlings, so use deflect dragon breath spell and get Tanis to the front. Use the Bow and aim at the hatchlings stomach. Several well placed arrows will dispose of it.

309 1111. Do note that a special lead is required. This, and virtually any ST to monitor lead, is available from Lightwave Leisure on 051 6365050.

• Users of GFA products will be interested to know that there's a club that supports all System Technik titles. GFA User, as it's called, publishes a magazine that comes out every two months. Interested? Write to GFA User magazine, 136 Holland Street, Crewe, Cheshire.

• Have you seen the latest *ST/Amiga Form* at magazine? What! You haven't? Well get down to your local newsagents 'cos on the cover disk you'll find *Devpac 1*. It's the complete package. Astounding!

• Last week I mentioned Photophile's digitising service; well, I've just been sent a demo disk containing some of their grabs. The pictures are in the multi-thousand colour Quantum Paint picture format and the results are superb. You've got to see to believe. The number, again, is 0602 481997.

Adrian McHerriot

PUBLIC DOMAIN

OVER 500 DISKS
FOR THE
ATARI ST
The best selection available
anywhere in the UK.

OVER 500 DISKS
FOR THE
COMMODORE AMIGA
The best catalogue you'll
find anywhere in Britain.

OVER 300 DISKS
FOR THE PC
(IBM, Amstrad etc.
and compatibles)
A selection of some of the
best programs available.

send a stamp or phone for a
FREE Catalogue. Remember
to quote
this magazine
and your type of
machine (important)

SHAREWARE
from
£1.50
per disk

SOFTVILLE PD SERVICE
55 HIGHFIELD AVENUE
WATERLOOVILLE HAMPSHIRE
PO7 7PY. Tel 0705-266509

ATARI 520STFM MAIL-CENTA NEW YEAR PACKS

PACK A	PACK B	PACK C
ATARI 520STFM With Built in 1mb Disc Drive Mouse, Owners Handbook, Business Organizer 21 Game Software Pack Joystick ONLY £358.95	Atari 520STFM With Built in 1mb Disc Drive Mouse, Owners Handbook Business Organizer 21 Game Software Pack Joystick, Mouse Mat Twin Joystick Extension Lead Disk Storage Box - Holds 80 Ten Blank Discs, Computer Cover ONLY £399.95	ATARI 520STFM with Built in 1mb Disc Drive Mouse, Owners Handbook Business Organizer 21 Game Software Pack Joystick Plus!!! Philips CM8833 Colour Monitor with lead ONLY £599.95

Plus THREE! Only from Mail-Centa - a superb Software Starter Pack comprising: First Word WordProcessor, Spreadsheet, Word Count Program, Spellchecker Program, Mono Monitor Emulator, DataBase, Neochrome Drawing Package, Towers of Hanoi Game, Pacman, Fruit Machine Simulation, Sensor!
ALL THE ABOVE PACKS CURRENTLY AVAILABLE WITH A 1040STFM INSTEAD OF A 520STFM.
JUST ADD £100.00 TO THE PRICE.

ATARI 520STFM EXPLORER PACK

ATARI 520STFM Built in 1mb Disc Drive, Mouse Controller, BASIC Language Disk, Source Book and Tutorial Disk of Desk Accessories, Ramenani Game.
ONLY £279.95

ATARI 1040STFM PROFESSIONAL PACK

ATARI 1040STFM Built in TV Modulator, Mouse Controller, BASIC Language Disk, Source Book and Tutorial, VIP Professional RRP £149.95
Microsoft Write RRP £149.95
Superbase Personal RRP £69.95
ONLY £448.95

PLUS PAY BY CASH OR CHEQUE (NOT CREDIT CARDS) ON ANY OF THE ABOVE 2 PACKS AND WE WILL GIVE YOU 10 BLANK DISKS

COMMODORE AMIGA A500 MARCH SPECIAL OFFERS

PACK B	PACK C	PACK D
Commodore Amiga A500 Mouse Controller Owners Handbook BASIC Program Guide Workbench, Workbench Extras Tutorial Disk Modulator ONLY £368.95	Commodore Amiga A500 Mouse Controller Owners Handbook BASIC Program Guide Workbench, Workbench Extras Tutorial Disk Modulator, Nine Game Pack ONLY £399.95	Commodore Amiga A500 Mouse Controller, Owners Handbook BASIC Program Guide Workbench Workbench Extras, Tutorial Disk Philips CM8833 Colour Monitor, Nine Game Pack NEW LOW PRICE £379.95

MONITOR	PRINTER BARGAINS
PHILIPS CM8833 Colour monitor £219.95 Inc V.A.T, delivery and cable	Sekonic SP 180 (Commodore 64 only) £109.95 Citizen 1200 £138.00 Citizen 150E £158.00 Citizen MCP45 (25 pins) £349.95 Star LC10 £199.95 Star LC 1024 (24 pins) £329.95 Panasonic KXP 1080 £169.95 All prices incl. V.A.T, cable & delivery. Courier delivery £4.00 extra.

MAIL-CENTA
17 CAMPBELL STREET, BELPER, DERBY, DE5
1AP TELEPHONE 0773 826830

All Prices include VAT and Delivery to UK Mainland. All Goods Despatched same day whenever possible. Personal callers welcome at our Retail Shop but please bring this advert as prices may vary. Closed Wednesdays. Proprietor: Martin Bridges

COMPUTER STATIONERY (U.K.)

Commercial House, Commercial Road,
South Shields, Tyne & Wear, NE33 1RW
Telephone: (091) 455 4300 Telex: 537390 Fax: (091) 455 1847

PROBABLY THE BEST PRICES IN THE U.K.!
- ALL INCLUDE V.A.T. AND DELIVERY

DISKETTES	Nashua 5 1/4" DS/DD 48 TPI	£0.42 each
	Nashua 3 1/2" DS/DD 135TPI	£1.07 each
	Amsoft 3" CP2	£1.99 each

RIBBONS	Citizen 120D	£2.29
	Epson MX100/FX 100	£2.52
	Commodore NPS 501	£2.38
	Oki Microline 192/193	£3.32
	STAR LC24-10 (Original)	£5.68
	Amstrad DMP 2000/3000	£2.50
	Amstrad 8256/8512	£3.25
	STAR LC10 Nylon	£2.89

(All other makes at up to 50% off R.R.P.)

DISK STORAGE	5 1/4" 10 Capacity	£1.20
	5 1/4" 50 Capacity	£4.50
	3 1/2" 40 Capacity	£4.50

***** STOP PRESS !!** Laser Cartridges Canon MK1/MKII £57.90 (Inclusive)

These are just samples of our fantastic offers. Please send £1.00 for our full product listing (refundable), or ring for a price.

Cheques/Postal Orders/Official Orders to:
Computer Stationery U.K.
Commercial House,
Commercial Road,
South Shields,
Tyne & Wear,
NE33 1RW

(All Orders under £10.00 - Please add £1.00 Postage & Packing)

16-BIT HARDWARE SUPERDEALS

**AMIGA 500
GAMES PACK
ONLY £399.00**
(including Photon Paint)

with FREE TV Modulator, Mouse, Mouse Mat,
14 Top Quality Games worth £300, PHOTON
PAINT, 2 Utilities Disks with over 30 useful
application programs, 2 Manuals,
AmigaBASIC/Extras and Tutorial Disks

**AMIGA 500
DRAGON'S LAIR PACK
ONLY £499.95**

with FREE TV Modulator, Mouse, Mouse Mat,
1 Meg Memory, Dragon's Lair Game, 2
Manuals, WorkBench, Amiga BASIC/Extras
and Tutorial Disks

**AMIGA 500
ECONOMY PACK
ONLY £359.00**

with FREE TV Modulator, Mouse, Mouse Mat, 2
Manuals, WorkBench, Amiga BASIC/Extras
and Tutorial Disks

AMIGA 500 + 1084S MONITOR + GAMES PACK (without Modulator) ONLY £620.00

**ATARI 520STFM SUPERPACK
ONLY £345.00**

with FREE 21 Games, ST Organiser, Mouse,
Mouse Mat, Joystick, 1 Meg Internal Drive, ST
BASIC Source Book and Tutorial and BASIC
Disk (New Version)

**ATARI 520STFM
ONLY £275.00**

with FREE 1 Meg Internal Disk Drive, Desktop
Accessories, Ranarama, Tutorial and ST
BASIC

**ATARI 1040STFM
BUSI-PACK
ONLY £445.00**

with FREE V.I.P. Professional Spreadsheet,
Superbase Personal Database, Microsoft Write
Word Processor, and BASIC Sourcebook &
Tutorial - Disk

PRINTERS

Seikosha KX-SP120 with FREE Parallel Interface & Lead	£144.95
Commodore MPS 1230 with FREE Parallel Interface & Lead	£154.95
Star LC-10 with FREE Parallel Interface & Lead	£199.95
Star LC-10 Colour with FREE Parallel Interface & Lead	£230.00

OTHER ITEMS

Superbase Personal (Amiga)	£39.95
A501 Amiga - 5 Meg Memory Expansion	£129.95
A501 Amiga - 5 Meg Memory Expansion + Dungeon Master Game	£199.95
Philips CM8833 Colour Monitor (with Mono Screen Option)	£224.95

All Prices include 15% VAT. Add £5 per item for
Carriage/Insurance. Credit Cards Customers may have
Next Day Courier for just £8
Access/Visa/Mastercard orders & Enquiries -
Phone 0706 43519

Visit our New Showroom at:
Unit 9, 160 Drake St. Rochdale for Demo
Send All Orders to: 16-Bit Software (Dept F1),
24 Bankfield Lane, Norden, Rochdale, Lancs., OL11 5RJ



YOUR FORMAT MACHINE-SPECIFIC COLUMNS

PC UPDATE

Deceptive Deals

There is a current spate of PC offers from a number of companies which appear to be extremely good value. Good value, that is, until you examine closely what you are getting.

Take the Walters AT, for instance. A base price for this Taiwanese-sourced machine is £970, plus VAT. That buys you an 8MHz 80286-powered PC with a single 1.2Mb floppy, 640K of memory, mono monitor and no serial port. It suddenly looks less attractive.

By the time you've added a 20Mb hard disk, VGA monitor, and the missing serial port, you're looking at £1,885! A similar spec though 50% faster machine from Elonex, one of the mid-runners in the field, would set you back only £1,295. So what? There are always price discrepancies between manufacturers. The point is that it pays not to be taken in by low entry-level prices, when what you're after is not the base model.

While I'm carping, it's hard to credit the entry-level specs of some machines. What's the point of advertising a 386 machine for under £1,000, if that spec includes no hard disk and only 512K of memory? What could you use such a system for? Nobody's going to buy one as a terminal on a network, and there's no sensible way of using a machine with that little memory. The only guess is that the low price really is the carrot the supplier obviously thinks it is. And, in the end, that must say something for the inexperience of the PC buying public.

Page Processor

When reviewing the exotica of PC software for a living, it's easy to forget the thousands of users, perhaps the majority, who can't afford or don't have the requirement for such sophistication. There are plenty of people who have their PC attached to a humble 9-pin printer, but are still interested in getting the best out of it to produce attractive documents. For these people, there is now another DTP system calling for attention. Describing itself as a page processor, rather than a desktop publisher, MicroDesign sets out to do what it can for the keen amateur.

Though I've not had the chance to give the program a detailed run-through, it seems competent, well designed and quite quick. It offers to integrate text and graphics on a single page with over 20 fonts and a good selection of icons and symbols, though no clip-art as such.



One of the strong points of the program should be its font handling. Not only is there a good selection provided on the library disk, but a complete font editor is incorporated into the program, giving you the opportunity to modify

or design your own fonts.

Even given the market area at which the product is aimed, there are a few design decisions which need questioning. MicroDesign runs in monochrome CGA display only. If you're going for the low-end market, why not cater for Hercules screens as well as CGA? Hercules screens are actually cheaper, and offer much higher resolution than CGA's 640x200. Why not offer facilities to load as many different graphic formats as possible? What most DTP users lack is artistic training, and the easiest way round this is a wealth of ready-made clip-art. Lastly, why copy-protect the program? When major software houses are

PHAXswitch

Following on from what I said the other week about Fax machines and voice telephone lines, Other People have obviously been thinking about the same problem. And being American, those Other People have come up with a \$100 solution in the form of the PHAXswitch.

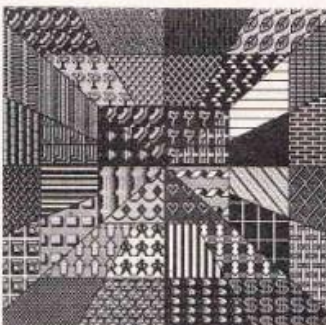
This little box of silicon trickery sits on your phone line, detects incoming calls and transfers them to your Fax or your phone depending on whether it hears a Fax carrier tone or not. All very clever, but the really ingenious part comes when it has to deal with manually operated Faxes. On receipt of this kind of call, it's very difficult for the switch to tell the difference between it and an ordinary voice call, until the Fax operator starts his/her machine sending the Fax.

The PHAXswitch gets over this by saying, no doubt in a silky-smooth stateside voice "This is a BIT FAXswitch answering your call. If you want to send a Fax, say Fax after the tone, otherwise wait until the phone is answered." It then listens for the word (which it can presumably distinguish from soundlike obscenities) and routes to the Fax if it gets confirmation. You can ring MDS, the US company marketing the device, on 0101 714 739 0995 for more information.

going around removing copy protection from their products every day, nobody should have to use their precious master disk as a key into the program they've just bought.

GEM Patterns

A tip, by way of a Little Known Fact. As well as all the handy features of GEM Paint, which still seems to me to be one of the best designed bit-map paint packages on the PC, you can use a



• A selection of the 'other' patterns in GEM Paint

number of fill patterns in your drawings. When you load the program, you are provided with a selection of 21 colours and textures in the pattern toolkit down the right-hand side of the screen.

What I've only recently discovered, though, is that there are seven other files of patterns provided on the GEM Paint disk and loaded onto your work disk on installation. These other patterns include some nicely drawn symbols and fills which can be used very effectively in bar graphs, diagrams and other illustrations. Because of the nature of GEM Paint, you can mix and match patterns from all eight sets in one picture, too. The load and save patterns commands are logically enough in the patterns menu.

Simon Williams

AMIGA BLIT

A Look at DPaint 3

After many weeks of waiting, I've finally managed to get my hands on *Deluxe Paint 3*. Under normal circumstances, I'd usually start by giving you a little background information about *Deluxe Paint*, but seriously, is there a single Amiga owner that hasn't already heard of the product? I'd be very surprised indeed if there was!

The only thing that can be said about this latest release is that it is quite simply the most complete paint and animation package available on the Amiga. As far as paint packages go, *Deluxe Paint 2* was the market leader and with this latest release, the competition just as well count their losses and give up; there is just nothing to touch *DPaint 3*.

The animation facilities may not be as powerful as those in packages such as *Sculpt 4D* or *VideoScape 3D*, but they are most definitely getting there. What *Deluxe Paint 3* does provide is an ideal solution for anyone requiring complex animations with very little work involved at all. This is another factor the programs favour: its simplicity. What other programs allow you to spin a logo in realtime in three dimensions just by typing in two numbers? *Deluxe Paint 3* lets you.

I'm not easily impressed, but *Deluxe Paint 3* is quite simply the best software package available on the Amiga. If I was to be cast away on a desert island with my Amiga 2000 and just one program, *Deluxe Paint 3* would most certainly be it (of course, finding a power supply could be a problem!).

Game Snippets...

● Those of you who are fans of *Psygnosis'* excellent shoot-'em-up, *Menace* will be pleased to know that the follow up, *Blood Money*, isn't far off. I've been lucky enough to have been able to play *Blood Money* and was very impressed by what I saw. The game features some of the largest and ugliest aliens ever seen on an Amiga screen. If you thought *Denaris* was good, you ain't seen nothing yet!

● Of Guv, fancy a Strip Poker game? It'll be in a plain brown paper bag of course! Yep, you've guessed it, the Amiga has got yet another strip poker game, this time from US Action. *Hollywood Poker Pro* is another run of



• Why should you possibly want a zoom facility in a strip poker game?

The *mini* strip poker game that uses digitised RAM mode pictures. However, this one has a rather strange feature; a zoom mode. Why would you possibly want a zoom mode in a

The Complete Virus Survival Kit

Have you suffered at some time or another at the hands of one of the many Viruses (Virus?) floating around on the Amiga? You can imagine the scene: there you are putting the finishing touches to a masterpiece in *Deluxe Paint* when all of a sudden the machine completely locks! Who usually gets the blame? The poor old Guru of course. However, chances are that something more sinister could well be the culprit.

The following Virus Survival Kit was sent in by Greg Hewitt-Long from Devizes in Wiltshire and will give you all the information you'll ever need to combat the dreaded viruses. Not only will Greg's invaluable words of wisdom help you combat the more common SCA and Byte Bandit strains, but they will also help you keep the latest IRQ virus at bay.

The first thing you should do is to arm yourself with the necessary tools for the job. In this case, the PD programs KV and VirusX 3.10 (or later). There are other virus killers available, but these two will do the job perfectly. Both programs are available from most good PD suppliers such as George Thomson Services.

Once you've managed to acquire these two programs, use the KV programs on the C directory of all your boot disks, they will now be clean from any IRQ viruses that may have crept in before hand. Next, edit your StartUp-

Message Port

If you have any views on any issues raised within AmigaBLIT, or even the Amiga scene in general, then why not send them in. Similarly, if you have any great hints or tips that you think would be of interest to you fellow Amiga user, then I'd love to hear from you. You can contact me by writing to: AmigaBlit, New Computer Express, 4 Queen Street, Bath BA1 1EJ

Sequence file (found in the S directory of your Boot disks) and include a 'dummy' line at the very beginning such as:

Echo "Computer Viruses Suck!"

Next, using the CLI, enter the following two commands:

Protect C:Echo R <Press RETURN>
Protect C:Dir R <Press RETURN>

For those of you wondering why this is necessary, I'll explain. The IRQ virus is a very crafty little chap in that it reads the first line of your StartUp-Sequence and tries to tack itself on it. If it fails, it then tries to infect the DIR command. By protecting these two files and making the necessary change to your StartUp-Sequence, the IRQ virus will be unable to touch your disk.

The next type of virus commonly found on the Amiga is of course the boot block virus. These are very much easier to protect against.

The most effective way is simply to write-protect all your program disks. As an extra precaution, copy the VirusX program to all your boot disks and edit your StartUp-Sequence in such a way that VirusX is always loaded during the boot procedure. If any viruses rear their ugly heads while VirusX is active, you'll be informed instantly and the virus removed before it can do any harm.

Both the KV and VirusX virus killers are available from George Thomson Services on 077082 234.

Jason Holborn

SHEKHANA COMPUTER SERVICES

SPECIAL OFFER ON BLANK DISCS

Sony Disks 3.5" DSDD 135TPI Box Of 10
Genuine Quality Sony Disks Guaranteed

Quantity:	1-5 Boxes	6-9 Boxes	10+ Boxes
Price	£12.99	£12.50	£11.99

Bulk Disks - 3.5" DSDD 135 TPI All Guaranteed

Quantity:	10	20	40	60	100
Price	£8.70	£16.99	£33.49	£48.99	£74.99

Maxell - 5.25" DSDD Box of 10 + One Free Game Only £7.99

Please Note: We stock Software for all Home Micros. Send S.A.E for list.
Please note: We have the PC Engine in Stock now.
Chq/P.O. payable to: SCS (W)
655 Green Lanes, London N8 0QY

Trade and Official Orders Accepted
Access & Visa Cards Accepted.
Ring : 01-348-2907, 01-340 8565,
01-631-4627.
Fax your order to : 01-436 9590
Please send 50p P+P per box of 10 Disks.

COMPUTER REPAIRS

Fixed Super Low Prices!

Inclusive of parts, labour and VAT

1 WEEK TURNROUND

*** AMSTRAD / SINCLAIR AUTHORISED ***

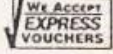
SPECTRUM 48K	£14 + Free Game	VIC 20, C+4	£22
SPECTRUM 128	£18	1541 DISK DRIVE	£36
C64	£22 + Free Game	C2N TDECK	£19
C128	£29	MPS 801	£38
C16	£18	C64 PSU FOR SALE	£20

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



W.T.S. ELECTRONICS LTD
(NCE 020389)

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



Standard terms of business apply

S COMPUTER SYSTEMS

	10	20	50	100+
5.25" DS/DD 48tpi	7.99	7.75	7.29	7.05
DS/DD 96tpi	9.59	9.25	8.90	8.54
DS/HD 96tpi	14.49	14.15	13.79	12.50
3.5" DS/DD 135tpi	14.15	13.69	13.34	12.98

WE WOULD LIKE TO EMPHASISE THE FOLLOWING POINTS:

1. That all our disks are "CIS" Branded Disks with Lifetime Guarantee.
2. That all our disks come with a FREE Clear Deluxe Library Case.
3. That as an introductory offer, for every 5 Boxes of same disks purchased in a single order, we will give one Box FREE
4. All our prices include VAT and Carriage. (orders less than £15.00 Add £1.00 P&P)

We can also supply Disk Boxes, Joysticks, Mouse Mats, Dust Covers and other accessories at competitive prices.

Phone or write for a Price List.

All Cheques/P.O. Payable to:
S&H Computer Systems
11 Hempstead Lane, Potten End
Berkhamsted, Herts. HP4 2QJ



FOR GENERAL ENQUIRIES AND FOR LARGER DISCOUNTS PHONE:
0737 833136 24 Hrs

Prices may be subject to change without notice.

E. & O.E.

BYTEBACK



KEENEST PRICES

FAST

DELIVERY SERVICE

We're programmed to help, so ring us now.

WE ACCEPT
EXPRESS
VOUCHERS

SPECIAL CHRISTMAS BARGAINS

ONLY!

AMIGA PACKS

AMIGA A500
(New 1.3 Kickstart)
£369.00

AMIGA A500 GAMES PACK
(New 1.3 Kickstart)
£399.00

* INCLUDING *

Choice of Software Packs
Phone/Write for details

AMIGA A500 IMB SPECIAL PACK
(New 1.3 Kickstart)
£499.00

* INCLUDING *

A501 RAM/CLOCK EXPANSION
DRAGON'S LAIR Game

ATARI ST PACKS

ATARI 520 STEF EXPLORER PACK
£359.00

* INCLUDING *

RANA RAMA Game + ORGANISER PACK

ATARI 520 STEF SUPER PACK
£399.00

* INCLUDING *

21 GAMES + ORGANISER BUSINESS PACK

ATARI 1040 STEF BUSINESS PACK
£449.00

* INCLUDING *

VIP PROFESSIONAL + MICROSOFT
WRITE, SUPERBASE PERSONAL
* OR *
21 GAMES + ORGANISER PACK!

All Computer Packs include: IMB Disk Drive, Mouse, Manuals, Modulator...
and are delivered by NEXT DAY Carrier Service!

AMIGA - LEISURE

Denaris	19.95	14.90
Willow	24.99	15.90
After Burner	24.99	15.90
Games - Winter Edn.	19.99	14.90
Super Hang On	24.95	19.90
Tiger Road	19.99	15.90
AB Zoo	14.95	11.50
Inc. Shrinking Sphere	19.95	12.90
Baal	19.95	12.90
Batman	24.95	15.90
Gauntlet II	24.90	15.90
Vixen	19.95	11.90
Emmanuelle	19.95	12.90
Victory Road	24.95	15.90
LED Storm	19.95	12.90
Galdregon's Domain	19.95	12.90
Dragon's Lair	49.95	34.90
Fantavision	39.95	34.90
IK +	24.95	15.90
Falcon	29.95	19.90
Dungeon Master	24.99	15.90
Teenage Queen	19.95	12.90
Captain Fizz	14.95	11.50
Sword of Sodan	24.95	15.90
Hybris	24.95	15.90
TV Sports Football	29.95	19.90

ATARI ST - LEISURE

Combat Pilot	24.95	15.90
Cosmic Pirate	19.90	12.90
Prison	19.95	12.90
The Deep	19.95	15.90
Custodian	19.99	12.90
Ballistix	19.95	12.90
Kenny Dalglish	19.95	12.90
Zak McKracken	24.99	19.90
Raffles	19.95	12.90
Falcon	19.95	15.90
Inc. Shrinking Sphere	19.95	12.90
Barbarian II	19.95	12.90
Fed. of Free Traders	29.95	19.90
Emmanuelle	19.95	12.90
Galdregon's Domain	19.95	12.90
Zany Golf	24.95	15.90
Batman	19.95	12.90
Teenage Queen	19.95	12.90
Wanted	19.95	12.90
Dungeon Master	19.95	15.90
Colossus Chess X	25.00	15.90
Leisure Suit Larry 2	29.95	19.90
Elite	24.95	15.90
Garfield	19.95	12.90
Heroes of the Lance	24.99	18.90
Chuckie Egg	19.95	12.90

AMIGA - SERIOUS

BBC Emulator	49.95	39.90
MiniGEN	114.95	99.90
Workbench 1.3	14.95	12.90
Pixmate	49.95	39.90
Deluxe PhotoLab	69.95	52.50
GFA Basic (V.3)	65.00	59.95
Hisoft Basic	99.95	64.90
Home Accounts	29.95	22.95

X-COPY (NEW V1.3) £29.90

ATARI ST - SERIOUS

First Word Plus	79.95	59.90
Scan Art + Draw Art	69.95	52.50
WERCS Plus	49.90	37.90
Protext (4)	99.95	74.90
Turbo ST	39.95	32.90
GFA BASIC (NEW v.3)	65.00	49.90
Mini Office - Spreadsheet		15.90
Mini Office - Pro. Comms		15.90

COPY ST (NEW V1.2m) £29.90

The above is just a small selection of our VAST stock of 16 BIT software!
All Stock items sent by RETURN OF POST - FIRST CLASS!

BYTEBACK DEPT NCE6 MUMBY CLOSE
NEWARK, NOTTS NG24 1JE

PAY BY CHEQUE,
POSTAL ORDER OR USE
YOUR CREDIT CARD
0636-79097



24 HOUR

SERVICE

YOUR FORMAT

MACHINE-SPECIFIC COLUMNS



Twice as obscure

A copy of a fanzine called TAG has just landed on my bill-laden in-tray, demanding a plug. The title stands for Twice As Good. Twice as good as what? We're not told, but such is the way with snappy one-word computer mag titles.

Apparently, TAG started out as a Spectrum, Commodore and Amstrad magazine, but an exploding photocopy soon put a stop to that by setting the resident C64 on fire. Hold back the tears if you can. We're not told what happened to the CPC, but I wouldn't mind betting it's a case for the Royal Society for the Prevention of Cruelty to Computers.

Anyway, the people behind TAG have managed to find a brave replacement photocopy and the second issue is due to roll off the presses soon. Meanwhile, I had a look at and quite liked the first one, which contained a fairly ordinary mix of reviews, news, letters and previews, and was nicely presented and well produced. If you'd like to see it, send 50p to Vincent Vitty, 11 Willow Road, Bare, Morecambe, Lancs.

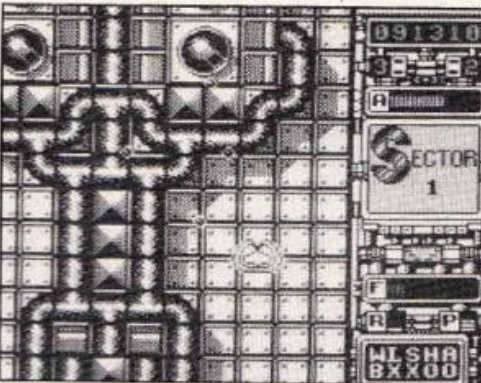
Solid Incentive

Good news. Good to the point of being great news, even. Not wholly unsurprisingly, Incentive Software is planning continued support for the Speccy in the form of several solid 3D games à la Driller etc. What these games will be like or called, I haven't the foggiest, but I thought you'd like to know anyway. For what it's worth, I think Incentive should squeeze its code even smaller, or maybe write for the +2/+3 and come up with a fast-ish 3D filled shoot-'em-up. Its three puzzle-based Freescape games so far have all been superb, don't get me wrong. I just can't think of a more pleasant way to see an alien die than in solid 3D.

Friend for life

I knew you wouldn't be able to resist the thought of receiving my eternal gratitude. This was originally promised in issue 16 to the sender of any gaming tips. A man of true integrity, who values things like eternal gratitude higher than cash or software, has written in with these:

● Xenon: Pause the game and hold down the T, I, N and Y keys to become indestructible.



● Xenon: Infinite indestructibility - at your fingertips

● REX: For infinite everything on Level One (providing I've typed it in correctly), Merge the loader and add the following before the Randomize USB statement.

POKE 40057,0 :POKE 38745,0 :POKE 39396,189 :POKE 38157,0

● DT's Olympic Challenge: When training,

select Kempston joystick but don't plug it in to achieve 100 per cent fitness.

● Empire Strikes Back: Hold down CAPS, Z, X, C and V for infinite lives.

That morally sound, compassionate and good-looking guy is Eddy James. For similar amounts of embarrassing creeping, send your tips, pokes and cheats to me at the usual address.

F A coup

Staying with the fanzine scene a moment longer, I've just heard from Gareth Pitchford, who as well as having a hand in more publications than Rupert Murdoch (all of them much better written, one suspects) has also just set up the International Amateur Fanzine Association. This is a group offering a number of services to computer fanzine Eds. These include free advertising in all IAFAs-affiliated mags and a logo-designing service. Something a few professionally-produced mags could do with, I reckon. Send an SAE for details to 45 Underwood Drive, Whitby, Ellesmere Port, South Wirral L65 9BH.

Get your head screwed on

Picture the scene. You're flicking through the latest issue of Express - a back-up copy, obviously, since you have already stored the original collector's item in your indestructible titanium binder. You see that long-awaited Spectrum mega-game reviewed. It's so good it gets five stars plus recommendations from the

Amiga, ST and PC columnists. You buy the game, rush home from the chemist-cum-software store, slam it into your tape recorder and start drooling. Three days later is still hasn't loaded. It's a duff copy. You rush back to the shop in search of a replacement. They try loading the game on their Spectrum. Naturally, it works. Cue one embarrassed punter clutching a tenner's worth of really useful foot treatment - or worse, vouchers.

The problem is, shop computers get their cassette decks properly aligned regularly, and so are that much more likely to load stubborn

software than the one you have got at home. Here are a few tips and wrinkles for getting things to load that I've picked up through the years:

Firstly, keep those tape heads clean. Rather than the cleaning cassette which you chuck in and play I advocate cotton buds and a bottle of head-cleaning fluid. Just dab some cleaner on the end of a bud and gently wipe the play and record heads. Whilst you're there, wipe any excess gunk from that little roller thingy near the heads (technically-minded, aren't I?). Remember when buying cotton buds to allow for the huge number you'll use cleaning out your ears etc.

More often than not, your tape recorder head needs realigning as well as cleaning. To do this, have a look around the heads for a small, small screw - sometimes it's positioned in front of the buttons. Use a small screwdriver to turn it a few millimetres either

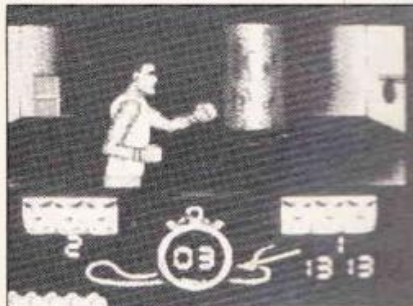
way. To find out if it's correctly positioned, play an audio tape. If it sounds as clear and sharp as possible you've got it right. For obvious reasons, playing a Bros album is not recommended.

Robin Alway

Coming soon!

Players' new £2.99 label Premiere Edition will be releasing two new games later this month.

• **Street Cred Boxing** is a three-part loading arcade box-em-up. You play the part of Joe



• **Street Cred Boxing:** Coming soon from Players

Lebrinski, and must help save your gym from a consortium of yuppies.

The first part of the game sees you training in the gym, where by hitting the punchbag you must get as many members of your gang trained up as you can. You then go into the fighting gym, where you and your team must beat the enemy. If you succeed, you then go on to street fighting, clearing the head yuppie's bouncers out of the way until you're finally confronted with the toughest fighter of them all.

• **Subway Vigilante** give you the chance to clean up the low-life. You control a Guardian

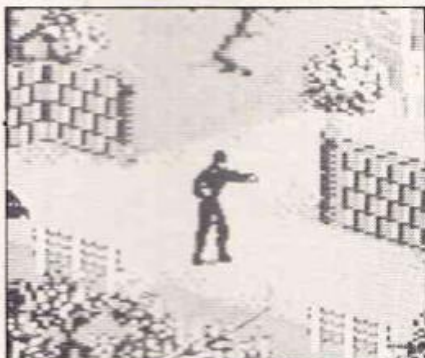
to type the following:
POKE 13622,44:POKE 8500,44:POKE 13135,44
SYS 4092 (to re-run the game)
Thanks once more to Gary Gould for that cheat.

If only they knew!

Do you get frustrated by the dummies who work in computer stores? When we were last in the town we thought let's pop into the computer shop. There we saw an Amiga, and by sheer coincidence Ian had his Amiga demo disk with him. But what we didn't know was that the Amiga was linked to stereo speakers around the shop, which were set to a very high volume. After looking around, we popped our disk into the drive to show the demo off to all around. Then there was sudden panic. The music was loud enough (almost) to smash the shop windows! Needless to say, this caused a bit of a stir. Within moments the assistant came over to find out who was touching the Amiga. The manager then turned around and said to the trainee, 'Don't let people put disks into the Amiga because viruses jump off the disk and into the shop's ROM! And that costs the shop money, having to send the duffed Amiga back!'

Is it real?

Computer games are getting more and more real-looking. People can associate with most of the games published now, such as street fighting games, football simulators and arcade adventures with amazing animation. Years ago computer games were mostly about shooting aliens and flying over sci-fi backdrops, and when a layman took a look at the computer screen, all they saw was loads of squares and colours thrown together. All that has changed now, though. Background graphics particularly are now altogether more realistic so that if your granny were to see them she'd say 'Oh! Watching cartoons again!'. This means that the *Undum-type* shoot-em-ups and *NOMAD-type* adventures could never be seen again. To be quite honest, if I was a complete stranger to home computers and saw a game like *NOMAD* I would have no idea what it represented - it would just look like so many pretty patterns. But after the release of the first street fighting game, programmers have all been hard at work trying to write games to attract your attention. Backdrops are now quite different, featuring such everyday things as chip shops,



• **Last Ninja II** from System 3. Much more realistic than earlier computer games

cafes, motorways and pavements. Realistic software is now a big thing, and pretty well three quarters of software houses now use modern-day scenarios.

Ian + Mic

Your very own game?

By special arrangement with Wow!, here's a special survey for you budding games players. What type of game would you most like to see written for the C64? Send your answers to Sector 64, New Computer Express, 4 Queen Street, Bath BA1 1EA. Who knows, if the demand is great enough you could have your own ideal game written by Wow! Stay tuned.

Angel-type hero who must clear the London Underground of thugs, punks, dealers, pushers and muggers as you travel around the capital by tube. It's your duty to protect all those law-abiding citizens and wipe out rival gangs.

Both games are being written by Wow!, and will have soundtracks by Maniacs of Noise.

On its way next week from Titus is the C64 version of *Titan* - which is already on every other format, including Amstrad, ST and Amiga.

Titan is yet another *Breakout* clone - but with a difference. The scrolling is fast and smooth, and the playing area scrolls up, down, left and right as you guide your ball onto the bricks. You can start on any of the four levels, and face a tough challenge in this new variation on an old theme. *Titan* will be £9.95 on the C64.

Cheat

This week's lonely cheat is for US Gold's *Thunderblade*. Load the game, and then reset

AT £9.95

WE'RE REALLY TALKING!

FREE MODEM
with annual subscription

Turn your computer into a communications terminal that will download free software, access up-to-the minute computing information, play exciting multi-user games and talk to other people for only £9.95. Just join Micronet* before March 31st 1989 and you'll discover a whole new world for less than half the normal price.



FREE SOFTWARE Browse through an extensive software library of free programs for all popular machines, including PC compatibles, the ST and Amiga.

COMMUNICATIONS Use your computer to communicate with thousands of other users. With electronic mail, chatlines and teleconferencing,

Micronet lets you do the talking.



INFORMATION Stay informed with Micronet's daily computer news, reviews and features, and then access the huge Prestel database.

ENTERTAINMENT Play a range of games, including the popular multi-user game, *Shades*, where the action is live and so are your opponents!



Low Cost

Now, not only is your first quarter's membership to Micronet less than half price, but using Micronet starts at just 50p an hour,

including telephone charges! And if you need a modem, we'll even give you one free when you take out a year's subscription.

Just phone our Sales Desk on 01-837 7872 or clip the coupon today for more information and a free brochure.

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 021-618 1111 and use the ID 4444444444 and password 4444.
You can look up a local telephone number once on-line.

Return to: Micronet, Telemap Group Ltd,
Durrant House, 8 Herbal Hill, London EC1R 5EJ.

Name: _____

Address: _____

Tel. No.: _____ Age: _____

Machine Type: _____



NCE/SH/23.03.89

MICRONET

* Price includes 1st quarter residential subscription by direct debit only (monthly £20) and does not include hardware or software. Minimum subscription period 1 year. Offer available only in the UK to new members. Free modem offer available to first time UK subscribers while stocks last.



Drawing strength

People seem as keen to produce new products for the PCW these days as they do to bring out new books against Islam. And while the PCW hasn't quite been around as long as the Koran (though some of its documentation is just as difficult to translate) it's nevertheless surprising, and refreshing, that a Major New Program should be coming out for it now.

Micro Design is a full featured desktop publisher and graphic package that beats the current competition (Stop Press, Newsdesk, Fleet St, The DTP) hollow - on paper at least, but then that's probably quite enough for a



desktop publisher. The makers say it squeezes twice as much resolution as the other programs out of the PCW and the printer (pages are 256K in Micro Design as opposed to 56K in Stop Press) and demo

printouts certainly seem startlingly good. It works with mouse or keyboard, 8256s or 8512s, 9512s (with Epson compatible printer) and has lots of graphics facilities such as expanding or shrinking designs.

You won't need a million pounds either - prices should be around £50 or so when the package is officially launched at the PC User Show on May 9th. Creative Technology is not going into hiding over its new package; it can be contacted on 0889 567160.

Keytop tip

Are your keytops wearing down? Going thin on top is an unfortunate consequence of age for many of us, and on the keyboard it means the letters can fade away. Rejuvenate them with a permanent marker from any stationers and seal them with clear nail varnish.

TV Times

You may have seen the 9512 featuring in those Stanley Unwin ads currently being re-run. Love that claim that they use 1Mb disks. Only when you look at the small print do you see the proviso that they're '1 Mb unformatted, 720K formatted', which is a bit like saying your car would be able to carry another two or three passengers if only it wasn't for these tedious things called 'seats' which get in the way.

The PCW though has found its way into television culture on a wider scale. A Tarzan clone is seen swinging over a 9512 night after night in an ad for an employment agency; a Grange Hill inmate uses one for an unspecified home service; Amos Brearly, Landlord of The Woolpack in Emmerdale, appears so taken by a PCW bought for Henry Wilks that he's taken it over; there is even one on Jill Archer's desk.

Basil Pigg



QJUMP news

When I spoke to Tony Tebby (designer of the QL) recently about his plans for QJUMP, he said that although he had been thinking about pulling out of the QL market, there appeared to be a resurgence of interest in the QL, and that he had a couple of new products in the pipeline. These are a replacement for the popular ORAM WIMP environment, and a set of maintenance utilities.

ROM disassembly

Quanta member Wolfgang Goeller has spent many months disassembling the QL ROMs to produce a commented source code

Have you too got a dirty head?

It is quite a good idea to check the Microdrive heads occasionally; they are positioned just inside the slots. If they are dirty, give them a wipe with a Q-Tip moistened with cassette head cleaning fluid.

listing. He has made such a good job of it that the listing can be reassembled, generating code that is identical to the original ROM. Of course, he can also modify the source code to produce his own

EPROMs, with modifications and enhancements.

Atari ST QL emulator

I recently saw the Atari ST QL emulator, marketed by Strong Systems, in action, and I was most impressed. The emulator consists of a small circuit board that has to be mounted inside the ST case, making the ST display QL-compatible, and some software. The modified ST behaves as normal until the emulation software is loaded. It then behaves exactly like a QL, except that it runs QL software about three times as fast as a standard QL. The modifications costs £199 on top of the price of the ST (£299) if you buy it from Strong - which makes it quite a good buy if you compare it to the price of a QL with memory expansion, disk interface and disk drive.

Text87

Readers who are fed up with the vagaries of Quill should look at Software87's text87 word processor, which has just been updated to version 2.00. I first saw this product over three years ago, when it was a programmer's text editor written in BCPL (the precursor of C) for author Fred Tassi's own use. Since BCPL is a very efficient language, text87 is very fast in use. Among its many features are multiple fonts (displayed on-screen), multiple-line headers and footers and up to four columns of text.

Software87 claims that text87 running on the Atari ST with the aforementioned QL emulator outperforms most multifont word processors running on the ST, Amiga or Macintosh Plus.

John Torofex

Free Membership

For Free membership to the GOLD CLUB Simply purchase any of the titles listed below from us. Gold membership means you will get an extra discount from our listed prices (which are already good value), you will also receive our P.D. catalogue for ST or Amiga.



Don't Delay Send Today



ATARI ST

Title	RRP	OURS
Ballistix	£19.95	£16.50
Barbarian II	£19.95	£16.50
Custodian	£19.99	£16.50
F.O.F.T.	£29.95	£25.00
Prison	£19.95	£16.50
Multiface ST	£59.95	£55.00

COMMODORE AMIGA

Title	RRP	OURS
Ballistix	£19.95	£16.50
Custodian	£19.99	£16.50
Denaris	£19.99	£16.50
Dragon's Lair	£44.95	£37.50
Galdregon's Domain	£19.95	£16.50
Prison	£19.95	£16.50

SPECIAL OFFER

10 3.5" Disks with free library case£9.95

All Disks are Double Sided Double Density, 135 TPI. Guaranteed

10 5.25" Disks with free library case£4.95

All Disks are Double Sided Single Density, Guaranteed

All software shown is available and advance orders can be taken for any title not yet released. All orders are sent by first class post. Gold Club membership is £3.00 without a purchase. P&P FREE in United Kingdom. Overseas orders welcome, add £3.00 P&P

Media Gold (0532) 304384

Dept NCE, Marcon House, Wyther Lane, Kirkstall, Leeds, LS5 3BT

Written any P.D.? Send it in to us

BEEB BOX

Electron conversion

As I reported the other week, Superior has converted *Firetrack* to the Elk. I put the program the way of an Elk owner for review, and this is what he said: "The speed and gameplay are every bit as good as the original, but the number and variety of attackers has been reduced." Well, I for one reckon that's a pretty good compromise, so go on - blast away.

Show time again?

Unconfirmed rumours suggest that not only the *Acorn User Show*, but also a *Micro User Show* could be resurrected this summer and winter respectively. I will believe it when I see it!

Good games

Blue Ribbon Software seems to have filled the last chink in the BBC games market with its cheap range. Certainly, *Galaxion*, *Thrust*, *Repton2* and *Ravenskull* are not to be sneezed at when priced at £2.99. Other games are priced at £1.99, thus keeping Superior happy and giving unpeccable Beeb owners the chance to pick up good games from their local order shop. Incidentally, Blue Ribbon is a division of CDS, so has been around for a while. Funny I thought it was Blue Riband, or maybe that's a brand of margarine.

Slow and obscure

Fast and powerful. Two words whose meaning is most abused by computer people everywhere. Fast usually means slower than you thought, and powerful means difficult to understand.

I had cause to ponder the meaning of these words recently when reviewing a hard disk upgrade for the Amiga, a machine which has the most appallingly slow disk drives.

The hard disk, while speeding things up to an acceptable level, will still be faster to use than a Beeb with standard floppy disks. Undoubtedly the Amiga is a more 'powerful' computer than the Beeb, but for simple text editing, using a BBC you can get the work done much more quickly.

If you want to get the best performance out of your floppies, however, some basic rules should be observed. These are: Keep back-ups - it could save hours of typing. Don't use double density modes - they take longer to access the catalogue. And lastly, set your drives for 3msec access by issuing a *FX255.15 <BREAK> before you start.

Right on cue

Firetrack's box new game *3D Pool* should be in your shops as you read this, at a price of £9.99 for the cassette version or £19.95 for the Amiga version with an Archimedes. The Electron version was in doubt at the launch, but it should appear eventually. I've seen the Am version, and if the Beeb version is anything like, then this will be an ace game. You can move round the table just like in real pool, and even try out all your favourite trick shots.

Andrew Brown

MSXTRA

Stone me!

Aarrghh! I'm tearing my hair out. Please, anyone, help me find a way to paint Fred's wall before Wilma gets home. What with Pebbles undoing all my good work by drawing on the wall, and that damned Dino wandering about getting in the way, at this rate Fred's never going to go bowling with Barney. Yes, it's *The Flintstones*, from Grand Slam (£8.95).

Thank goodness you can practise the driving section as well as play the first stage, otherwise frustration would ensue and I might just be tempted to throttle Pebbles. (Oops, mustn't encourage child abuse.)

You may think from reading the above that I didn't enjoy this game - but the contrary is true. It really is great fun to play. There are some very nice touches, such as Pebbles writing messages on the wall or drawing flowers etc, depending on how the mood takes her, I suppose.

The graphics are excellent, even if they are only two-colour, and the sound is also very good - a nice rendition of the *Flintstones* tune, in fact.

Nice one, Grand Slam. Hope your future MSX releases are as good as this.

Crazy price

I've had a chance to give *Crazy Cars* by Titus a "road test" this week, and as the game is on ROM and costs a hefty £24.95, I was expecting a game up to Konami standards (e.g. *Hyper Rally*). Alas no.

If this game had been priced at a more realistic £9.99, I think that it would have sold well, as it isn't a bad car racing game.

You are presented with a rear view picture of the car you control, just like *Hyper Rally*, only in this game you get two-colour graphics - black buildings and car, yellow

Boulderdash tip

I have been asked if anyone has tips for the MSX version of *Mandragore* by Infogrames. If you think that you can help with this game, please write to MSXtra c/o Express.

This plea was from Richard Cross of Bournemouth, as is this tip for *Boulderdash*:

As soon as the game loads, select cave 1/1, 1/2 or 1/3. Collect as many objects as you can, and as soon as no more are available press ESC. The number of points scored should be enough to provide you with another life to continue with on the same screen.

backdrop. This is the most disappointing feature, because the sound is excellent and the impression of speed well captured.

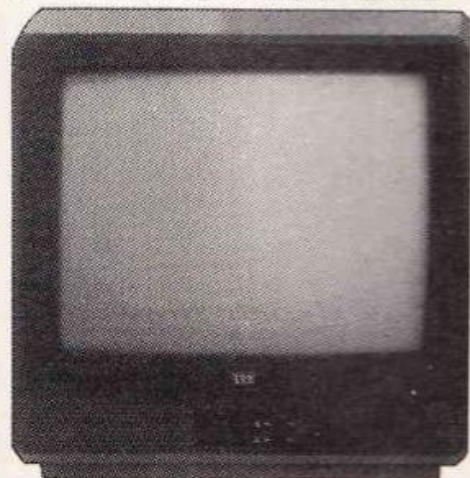
As you progress through the levels the going gets tougher, with the road undulating more and more and making your car jump spectacularly in the air if you hit a bump too fast. Hit another racer and your car leaps into the air then comes to a standstill, losing you valuable time - as does going off the road!

The car is easy to control and responds well to the joystick - this part of the game has been well-programmed. It is nevertheless hard to see how Titus can justify the price of £24.95.

Keith Neal

AN Evesham Micros SPECIAL PURCHASE

ITT CP3228 TV/MONITOR



COMBINES THE FEATURES OF A TV & MONITOR ; EXCELLENT DISPLAY QUALITY WHEN USED WITH AN ATARI ST OR CBM AMIGA AND A SCART CABLE

- ☐ 41cm (16 1/2") FST tube
- ☐ Multi feature infra-red remote control
- ☐ Full SCART monitor input socket
- ☐ 8 watts peak music power
- ☐ 40 station tuner presets
- ☐ Supplied with ST or Amiga SCART cable
- ☐ Full TWO YEAR guarantee
- ☐ Superb value for money
- ☐ Use EXPRESS voucher to save £4.00!



ONLY £229.00 including VAT and delivery

**Evesham
Micros**

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

Evesham Micros Ltd
63 BRIDGE STREET
EVESHAM
WORCS WR11 4SF
0386-765500
fax 0386-765354
telex 333294

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

VECTOR SOFTWARE

MAIL ORDER SPECIALISTS

DEPT.10
VECTOR SOFTWARE
170 Arabella Drive
Upper Richmond Road
London SW15 5LG

ATARI ST	
Title	Price
Afterburner	13.50
Amos Attack	6.75
Barbarian (Mel, Hae)	6.75
Barbarian 2	10.50
Bards Tale	16.50
Batman	13.50
Borodino	19.95
Carrier Command	14.95
Championship Cricket	6.75
Double Dragon	13.50
Elite	16.50
Fed. of Free Traders	19.95
F-16 Falcon	19.95
Fish	14.95
Five Star	16.50
Football Manager 2	13.50
Football Director 2	13.50
Gaidragon's Domain	13.50
Heroes of the Lance	16.50
Hostages	16.50
Hustler	10.50
Ludicrous	13.50
Joan of Arc	16.50
Leaderboard Collection	16.50
Led Storm	13.50
Operation Wolf	13.50
Outrun	13.50
Overlord	12.95
Powderpuff	16.50
SCI	13.50
Soldier of Light	6.75
Speedball	16.50
Starblaster 2	14.95
STOS	19.95
Tecmo Cop	13.50
Test Drive	14.95
Thunderblade	13.50
Times of Lore	16.50
Trackstar Manager	13.50
Trid	16.50

AMIGA	
Title	Price
Amos Attack	14.95
Barbarian	12.95
Bards Tale	16.50
Bards Tale 2	16.50
Battlechess	16.50
Batman	16.50
Captain Blood	16.50
Carrier Command	14.95
Double Dragon	13.50
Elite	16.50
F-16 Falcon	19.95
Fire & Forget	12.95
Fish	16.50
Football Director 2	13.50
Football Manager 2	13.50
Gaidragon's Domain	13.50
Gauntlet 2	13.50
Heroes of the Lance	16.50
I Ludicrous	13.50
Interceptor	16.50
Joan of Arc	16.50
Leaderboard Collection	16.50
Led Storm	16.50
Nebulus	13.50
Operation Wolf	16.50
Outrun	13.50
Phantom Fighter	13.50
Pioneer Plague	16.50
Rocket Ranger	19.95
Sentinel	14.95
Starblaster 2	16.50
Sword of Sodan	19.95
Tecmo Cop	13.50
Thunderblade	16.50
Trackstar Manager	13.50
TV Sports Football	19.95
Virus	12.95
World Tour Golf	14.95

Advance Orders Accepted
Call 01-878-6025 and ask
for VECTOR SOFTWARE
Enquiries always welcome

* denotes a sale item. Prices apply
only whilst stock lasts - please
phone to check availability. No
visitors please - we are a specialist
mail order company

All prices include VAT and P&P in the UK. Please add £2.00 to overseas orders for P&P.
Add 50p to your order if you require recorded delivery (UK only). Please make
Cheques Postal Orders payable to VECTOR SOFTWARE. Orders normally dispatched
within 24 Hours. Send Stamped, Addressed Envelope for free Price List -
Please specify machine.

YOUR FORMAT

MACHINE-SPECIFIC COLUMNS



Database claims AMS

In what is being touted as "a vote of confidence in the CPC market," Database Software has purchased the exclusive manufacturing rights for all AMS products from Logitech. The deal covers the three DTP packages *Stop Press* (£49.99), *Stop Press* and mouse (£79.99), and *Extra!* (£24.99); the art and graphics package ART and mouse (£69.99); and the DTP environment utility MAX (£19.99).



* Chris Payne of Database - "vote of confidence in the CPC"

"It's our vote of confidence in the CPC," Database's marketing manager Chris Payne told *Express*. "Some companies have ended their love affair with the Amstrad. We certainly haven't." Well, you don't have to listen to this old guff, but certainly Database is only doing it because there's money to be made.

Nick Pearson, General Manager of Logitech - which claims, incidentally, to be the world's largest manufacturer of computer mice - offered: "As Database Software specialises in fields relevant to the AMS products, we felt that it would be better suited than ourselves to look after the existing user and carry forward" (whatever that means) "the AMS range of 8-bit products."

This latest move is part of a growing trend in CPC software. Most of the major packages have already been written, and I have to say that I'd be surprised if many more are yet to come. But as they continue to sell, and as the companies that originally developed them find themselves moving into different markets, programs are increasingly going to be re-packaged and licenses to sell shifted to other companies specialising in the 8-bit market.

It happened just a couple of months ago when the original holders of *Art Studio* and the *Advanced Art Studio* bought back the licence from Rainbird.

The good thing about it is that rather than letting products fade away, such deals give them an injection of new enthusiasm and may even lead to their revitalisation. Let's hope that's what happens to the AMS range.

Cheerful message

If you have CPM 2.2, Setup gives you the opportunity to have a warm, friendly start-up message when you boot up. Here's how to do

it in CPM Plus. Insert a system disk into your drive and type [Bar] CPM as usual. When you have the A> prompt insert your programming utilities disk and enter SIDB:C10CPM3.EMS and wait until the SID message appears. (SID, by the way, stands for Symbolic Instruction Debugger.) Remove the utilities disk and re-insert your system disk. You should see:

```

NEXT      MSIZE PC  END
6500      6500 0100 DAFF

```

Type S1168 and you ought to get 1168.43. This is the beginning of the start-up message. To insert a character at this location type an apostrophe ['] followed by a character and ending with another apostrophe. You should end up with something like:

```

1168 43 'H'
Press [Return] and you get 1169.43. After each group of numbers appears you can enter another character, eventually building up a message. Your message can only go to location 1792 (if you alter anything after this you may corrupt CPM.) To stop entering characters press the full stop and hit [Return]. So your list may look something like this:
1168 43 'H'
1169 43 'E'
116A 43 'L'
116B 49 .

```

(It's not complete, but you get the idea.) You should now get a hash [#] prompt. Now type F (last address edited), 1192, 20. 'Last address' refers to the location at which you pressed the full stop. Finally type WC10CPM3.EMS and to see your message on the screen reboot CPM.

Thanks to Cormac Gaughey of Cusendall in Country Antrim for that nifty bit of investigative work!

Moral outrage shock horror boredom

The latest punch-n-kick-em-up - an increasingly popular genre, so it seems - comes from US Gold. Entitled *HKM*, for *Human Killing Machine*, it takes you to strange and exotic locations in your quest to beat the stuffing out of all and sundry opponents. These include the usual pack of stereotyped baddies such as Ivan the wicked Russian, a pair of Arabs, a couple of Germans, two Dutch women, a Spaniard, a bull and a dog. That would appear to offend anti-racists, feminists and animal lovers all in one game! And come to think of it, since Spain is one of the CPC's big markets it would also appear to alienate a fair proportion of its potential customers, too!

Up, up and away!

Which of the two CPC magazines, do you think, has just returned readership figures for the second half of last year up some 9.5% from 35,095 to 38,457? Is it a) Amstrad Computer User, or is it b) Amstrad Action? No prizes, but there's a clue at the end of this column.

Now what can one say that hasn't been said 100 times before about such an amoral game? Well, how about it's more fun than most? Although the sprites move a little too slowly for my liking, they're rather graceful fighters and have an impressive smooth kicking and punching action. Another thing I noticed is that they have exceptionally long legs. Evidently the programmers weren't so much interested in the faithful reproduction of the human form as in conveying the impression of fighting machines.

So despite my reservations about the tackiness of the scenario, I must admit to having whiled away many a happy hour (after work, you understand) with *HKM*.

Available from US Gold at £9.99 tape and £14.99 disk.

Steve Carey (editor, *Amstrad Action*)

PC ENGINE SUPPLIES

PC Engines £195.00 (Works On Any TV)
SOFTWARE ALSO AVAILABLE

R-Type I	£27.00	Tennis	£34.00
Baseball	£27.00	Legendary Axe	£34.00
Victory Run	£27.00	Dragon Spirit	£37.00
R-Type II	£34.00	Space Harrier	£40.00
Galaga 88	£34.00	Dungeon Explorer	Phone
Vigilante (NEW!!)	£40.00	Wattara (NEW!!)	£37.00
Motorcade (NEW!!)	£40.00	Fantasy Zone	£34.00
Chan and Chan	£27.00	Son and Son 2	£37.00
5 Player Adaptor	£27.00	Auto Fire Joypad	£22.00

We Only Deal In PC Engines & Software

Please make Cheques and P.O.s payable to:-

PC ENGINE SUPPLIES
223b WATERLOO ROAD, COBRIDGE,
STOKE-ON-TRENT, STAFFS, ST6 2HS
ALL PRICES INCLUDE POSTAGE & PACKING
TEL: 0782 213993



AMIGA DESIGN DISKS

Exclusive
to
ISM

SCULPT 3D/4D
and
VIDEOSCAPE 3D
Formats

Hot from
ANTIC
U.S.A.

- Architectural: 3D Arches, stairways, roofs, complete house or city designs
- FUTURE: Build 3D spacecraft, vehicles, and androids, even complete space stations.
- HUMAN: Complete 3D male and female prototypes with complex limbs etc.
- MICROBOT: Advanced robotic designs and component parts to create your own robots.

£24.95 inc VAT

ZOETROPE
The Amiga Animation Programme

Requires 1meg. £99.95 inc VAT Pal version. For more information contact:

ISM Tel: 0983 864674

or SEE YOUR LOCAL AMIGA SPECIALIST

520ST-FM SUPER PACK

**1Mb DISK DRIVE
£450 OF SOFTWARE
ARCADE GAMES**

Arkanoid II	Imagine	£19.95
Beyond The Ice Palace	Elite	£19.95
Black Lamp	Firebird	£19.95
Buggy Boy	Elite	£19.95
Chopper X	Mastertronic	£9.99
Ikari Warriors	Elite	£14.95
Marble Madness	Electronic Arts	£24.95
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	£19.99

SPORTS SIMULATIONS

Eddie Edwards Super Ski	Elite	£19.95
Seconds Out	Tynesoft	£19.95
Summer Olympics '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 on our 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 £364.84), if you buy the Professional Pack from Silica Shop, you will also receive the Silica ST Starter Kit (worth over £200), Free Of Charge. Return the coupon for further information.

£499
INCLUDING VAT

With SM124 mono monitor: £598 INC VAT

With SC1224 colour monitor: £798 INC VAT



ATARI 1040ST-FM	(Computer)	£499.99
VIP PROFESSIONAL	(Spreadsheet)	£149.95
MICROSOFT WRITE	(Word Processor)	£149.95
SUPERBASE PERSONAL	(Database)	£59.95
BASIC DISK & MANUAL	(Language)	£24.98

NORMAL RRP: £884.82

LESS DISCOUNT: - £385.82

PROFESSIONAL PACK PRICE: £499.00



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 SERVICE: 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

2Mb & 4Mb MEGA ST

The MEGA ST computers are styled as lightweight keyboards 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 £364.84) detailed above, plus the Silica ST Starter Kit (worth over £200) with Free Of Charge. Return the coupon for further details.

2Mb MEGA ST £899 <small>INC VAT</small> + mono monitor = £998 + colour monitor = £1198	4Mb MEGA ST £1199 <small>INC VAT</small> + 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 introduce 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 Seikosha SP-160A 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.

- 800-PAGE A4-BOUND GRAPHICS
- BACKGROUND OF TEXT & GRAPHICS
- SLANT OR TWIST ANY OBJECT
- POSTSCRIPT COMPATIBLE
- 800 PAGES
- AUTOMATIC LAYOUT & HYPHENATION
- GROUPING OF OBJECTS

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 Silica Shop and begin experiencing a specialist ST service that is second to none.

SILICA SHOP:

SIDCUP (& Mail Order) 01-309 1111
1-4 The Mews, Hatherley Road, Sidcup, Kent, DA14 4DX
OPEN: MON-SAT 9am - 5.30pm LATE NIGHT: FRIDAY 9am - 7pm

LONDON 01-580 4000
52 Tottenham Court Road, London, W1P 0BA
OPEN: MON-SAT 9.30am - 6.00pm LATE NIGHT: NONE

LONDON 01-629 1234 ext 3914
Selfridges (1st floor), Oxford Street, London, W1A 1AB
OPEN: MON-SAT 9am - 6.00pm LATE NIGHT: THURSDAY 9am - 8pm

To: Silica Shop Ltd, Dept NCE 03 89, 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: Dept NCE 03 89,

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

DTP ☐

SPECIAL OFFER — SPECIAL OFFER — SPECIAL OFFER — SPECIAL OFFER — SPECIAL OFFER

PUBLIC APOLOGY

We at M.D. Office Supplies would like to take this opportunity to apologise to all its competitors.
We shall, with immediate effect supply,
COMPUTER DISCS AND STORAGE BOXES ETC.,
AT BELOW WHOLESALE PRICES

JUST LOOK AT THESE AMAZING OFFERS

5 1/4 5.25" DISCS & BOXES 5 1/4

25 5.25" DS DD 96 TPI with 50 Capacity Lockable Storage Box	£12.49
50 5.25" DS DD 96 TPI with 100 Capacity Lockable Storage Box	£18.49
75 5.25" DS DD 96 TPI with 100 Capacity Lockable Storage Box	£23.49
100 5.25" DS DD 96 TPI with 100 Capacity Lockable Storage Box	£29.49

ALL DISCS ARE CERTIFIED 100% ERROR FREE
AND ARE SUPPLIED WITH FULL USER SETS

AT M.D. OFFICE THE BEST COST LESS

3 1/2 3.5" DISCS & BOXES 3 1/2

25 3.5" DS DD 135 TPI with 40 Capacity Lockable Storage Box	£22.95
35 3.5" DS DD 135 TPI with 80 Capacity Lockable Storage Box	£31.95
45 3.5" DS DD 135 TPI with 80 Capacity Lockable Storage Box	£37.95
55 3.5" DS DD 135 TPI with 80 Capacity Lockable Storage Box	£44.95
65 3.5" DS DD 135 TPI with 80 Capacity Lockable Storage Box	£49.95
75 3.5" DS DD 135 TPI with 80 Capacity Lockable Storage Box	£59.95

ALL DISCS ARE CERTIFIED 100% ERROR FREE
AND ARE SUPPLIED WITH LABELS

ACCESSORIES

3.5" 40 Capacity Lockable Box	£4.99
3.5" 80 Capacity Lockable Box	£9.99
5.25" 50 Capacity Lockable Box	£19.99
5.25" 100 Capacity Lockable Box	£29.99
3.5 or 5.25 Head Cleaner £2.95 only if ordered with other goods	
Mouse Mats £2.95 only if ordered with other goods	

BULK BUYERS

250 DSDD 5.25"	£64.99
500 DSDD 5.25"	£119.99
150 DSDD 3.5"	£110.00
250 DSDD 3.5"	£169.99
500 DSDD 3.5"	£316.99
1000 DSDD 5.25"	£224.99

PRICE AND QUALITY GUARANTEE

All our Discs are top quality products and are certified 100% error free. Should you ever see a comparable product advertised in this magazine at a lower price we will not match it we will **BEAT IT GUARANTEED**



M.D. OFFICE SUPPLIES

18 CRESCENT WAY, FARNBOROUGH, KENT BR6 9LS
TELESALES HOTLINES: 0689 61400



All prices include VAT and Delivery UK only

Supplied subject to availability. E & OE

SPECIAL OFFER — SPECIAL OFFER — SPECIAL OFFER — SPECIAL OFFER — SPECIAL OFFER

MERRYMODE

**BUSINESS, UTILITY
EDUCATIONAL GAMES
& PERIPHERALS**

MAIL ORDER
133 TUDOR ROAD, HAYES, MIDDX UB3 2QF
TEL: 01 573 4314

**ALL PRICES
INCLUDE VAT P&P**

GAMES

	AMIGA	ST
Falcon	21.95	18.95
Operation Wolf	18.95	15.50
TV Sports F/Ball	21.95	—
Dungeon Master	18.95	18.95
Stos	—	21.95
Elite	18.95	18.95
Afterburner	18.95	15.50
Batman	18.95	15.54
Speedball	18.95	18.95
Baal	15.50	15.50
Obliterator	18.95	18.95
Double Dragon	15.50	15.50
Captain Blood	18.95	18.95
Sword of Sodan	21.95	—
Falcon	21.95	18.95
Purple Saturn Day	18.95	18.95
Thunderblade	18.95	15.50
Flying Shark	18.95	18.95

**MERRYMODE
GIFT VOUCHERS
SOLVE THOSE GIFT PROBLEMS
£5, £10 & £20
POSTAGE FREE**

**AMIGA 500
WITH MODULATOR
PHOTON PAINT
WORKBENCH 1.3
ONLY
£350
INCLUDING
VAT & POSTAGE**

**PLEASE NOTE
THIS OFFER EXCLUDES ALL
EXISTING OFFERS**

AMIGA UTILITIES

Animator	39.95
Audio Master	32.95
Amigafile	34.95
Digi Paint	42.50
Digicalc	29.95
Drum Studio	29.95
Excellence	149.95
Express Paint	50.95
Superbase Personal	69.95
Wordperfect	172.50

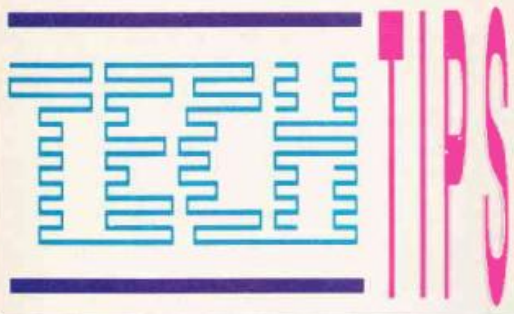
**TELEPHONE OR WRITE FOR FREE
PRICE LIST AMIGA, ATARI ST, C64,
AMSTRAD, SPECTRUM,
IBM & COMPATIBLES**



Disk Box 3.5 holds 50 Lockable	6.95
Amiga Dust Cover durable clear plastic	8.50
3.5 Drive Cleaner	5.95
Top Quality mouse mat	4.95



CUSTOMERS IN EIRE PLEASE CONTACT: MERRYMODE, PO BOX 26, CARLOW. TEL 0503 41543



HELP! Serious 64-ers

I would be grateful if you could recommend a good graphics/paint package and a fairly easy-to-use word processor for the Commodore 64. Could you tell me where to obtain these items and their cost?

K Wilcox, London, SW6

HELP! Cable query

I have just got a Brother HR5 printer for my Commodore 64. I have the centronics cable which fits the printer but not the computer. I know I need an interface, but which one?

Andrew Richardson, Wigan, Lancs

TIP Extra PC drive

Some software written for IBM-compatibles can only be used on a computer with twin disk drives, so if you only have a single drive here is a way to get round it.

Set up a ramdrive as large as you can (this depends on how much memory the software will use). If your ramdrive is created as drive G:, use the command SUBST B:C:\

This makes the ramdrive act as drive B: and allows the program you wish to use to work - provided that the files it expects to find on drive B can fit into the ramdrive.

This technique is particularly useful when unArising files, because otherwise you have to change disks a lot.
Graeme Kelly, Maidstone, Kent

• Hands up all C64 owners who are finding it very difficult to find any software that isn't strictly a game. It looks as though a lot of dealers, especially the high street chain stores, have forgotten that the C64 - like all 8-bit computers - can be used for more than game-playing.

However, all is not lost. The first possibility that springs to mind is the Geos series of software. Geos is a graphical operating system, rather like Gem on the PC and ST, or the Macintosh.

The basic Geos package costs around £25-£30 on the C64 and includes a word processor and paint package. You'll also need a mouse - the Commodore 1351 costs a shade under £30, or there's the Neos mouse (which comes with its own paint program) for around £25.

Also recommended for word processing is Superscript, a bargain at £25. All of these products are available mail order from Dimension Computers, 40/50 High Street, Leicester LE1 5YN, telephone 0533 517479.

HELP! Tandy RAM

I have a Tandy MC10 Color Computer which I bought some time ago. This machine was supposed to rival the ZX81 but arrived too late.

I also have an Amstrad which fills all my computer needs, but as a matter of interest I would like to expand the Tandy by building a large RAM pack and thus, perhaps, learn something about computers.

Can you advise if this would be possible, and if so, where would I get the parts. Tandy staff say they can't help.

Eric Sanders, Leamington Spa, Warks

• Well, Eric, you've already learned something about computers: always buy "big name" machines, preferably ones that have already sold in large numbers.

Sadly, if Tandy can't help I don't think I can. You'd really need to be something of an electronics wizard to undertake this sort of project and, even so, you'd have to have complete technical specs and circuit diagrams of the machine.

Best stick with your Amstrad.

great help if, in your infinite wisdom, you could guide me in the right direction. So what books and software would you recommend for a novice?

Gary Crook, Royston, Herts

• The key software is the assembler itself, and you have a choice of two: the "official" Metacomco Macro Assembler, or the unofficial but highly-regarded Devpac from Hisoft.

The former will set you back £70, the latter is ten quid cheaper.

A tougher question concerns the books you need. The Amiga is an immensely complicated critter to program in machine code and all the information you need is spread throughout a bunch of very expensive books - you can easily spend on more on books than the cost of your Amiga itself.

The Amiga System Programmer's Guide at £32.95 from Abacus is a good starting point. Although this sounds expensive, believe me it isn't. You'll also need a good general reference on the 68000 and there are several of those - find one that suits you.

TIP Extra ST channel

I'm sure there are many Atari ST owners out there who like me are unhappy with the mono sound the machine produces, especially when the computer is used with a stereo monitor like the Philips CM8833.

The following simple modification does not provide the missing stereo sound but it does give a more satisfying noise from both speakers in the monitor.

The answer is to provide the missing channel with a signal from the computer. Obviously to get any sound at all, either the LEFT or RIGHT channels will be

connected to the audio output of the ST.

To discover which is which, take the SCART connector out of your monitor and open it up. If pin 2 is connected then the signal is being directed to the RIGHT channel; if it is pin 6 then it is to the LEFT. The answer is to connect a small wire inside the plug that goes from pin 2 to pin 6. This provides a mono signal to both channels and, although not true stereo, is a big improvement.

The advantage of this method is that the monitor need not be opened up, thus voiding the guarantee.

Graham Brown, Tranent, East Lothian

HELP! PC200 5.25"?

I recently purchased a Sinclair PC 200, monitor and printer. This model has a single 3.5" drive which is fine



• The Sinclair PC200 comes with a 3.5" disk drive as standard, but what about 5.25" software? Can you use an external 5.25" drive? (PC200 5.25"?)

for my purposes but my son, who takes computing at school, uses a 5.25" model.

Can I buy a second disk drive and make it a 5.25" model? If so could you recommend one, and would I be able to copy from to another?

EP Ingram, Glenburn, Paisley

• Amstrad markets a 5.25" drive specifically to overcome this type of

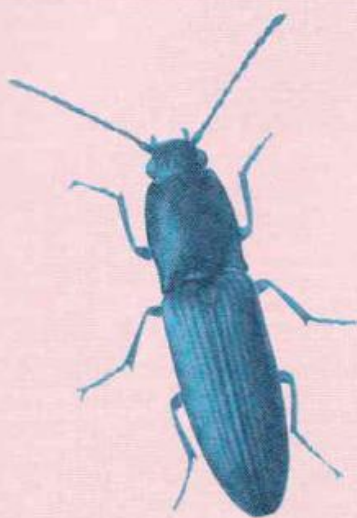
BUG OF THE WEEK

CRL have produced a package called *The Image System*, a kind of drawing and manipulating program. The bug comes to life when you've spent hours on a picture and then try to save it. You have to put a square round the picture to save it, but if the picture is too big it won't save, and you get the chance to try again - but you have to press a key to get back to the save menu. And when you press this key the colour palette at the bottom of the screen becomes corrupted. You don't lose the picture, but you have to reset the computer to get the proper colours back again.

Derek Edwards, London

• *Athous haemorrhoidalis*

Thirteen members of this genus are known in Central Europe, six of which are also found in the British Isles. The adults can be found in large numbers lurking behind trees and bushes and clip-art packages are frequently a source of infestation, though other routes exist. One your software is infected, you will experience regular and persistent pains in the posterior.



problem. So there's no problem...

You should be able to get one from the same dealer who sold you your PC200, price around £100. And you can copy files freely between the two formats.

HELP! 80-column Plus/4

I have been searching for months to find an 80-column screen utility for the Commodore Plus/4. I remember a peripheral device which was marketed for the C64 some years ago but unfortunately I have no idea who marketed it, or whether it is compatible with the Plus/4.

Also, there have been a number of software utilities written for the Commodore 64 which emulate an 80-column screen by the use of the hi-res screen. Are there any such utilities for the Plus/4?

Paul Clancy, Yateley, Surrey

• Unless some Plus/4 owner out there (hello,

Win a sub!

We want to hear your problems, but we also want helpful hints and tips. And reports of those bugs you've found, from the comical to the downright frustrating. You could scoop the weekly best-tip prize of a free 26-issue subscription! And remember, there's no waiting around for monthly publication dates. The best tips, and solutions to your problems will be in print before you can say Alan Sugar. (Please don't send SAs for replies, we can only answer enquiries in print).

So whether it's help offered or needed, write to:

Tech Tips, New Computer Express,
4 Queen Street,
Bath, Avon BA1 1EJ.

anyone there...?)

can prove the

contrary, I'd

hazard that your search is

fruitless. There were, in fact, several such

devices for the C64 but they never sold

well, at least partly because very little

software worked with them, and partly

because some of them could ruin your

eyes on the official Commodore monitor.

Someone may have converted a soft

utility from the C64 - it isn't particularly

difficult - but, again, the display will border

on the unreadable. My advice would be

that if your computing's reached the stage

where you need 80 columns, it's time to

ditch the old faithful Plus/4 and buy

something a tad more professional.

TIP CST interface and QL

Could you please pass on the following information through your pages to Kassim Selamat, who requested information about the CST interface and Sinclair QL.

The possible problem areas are:

1. Power supply problem in the drive.
2. Some early versions of the CST interface had the connector upside down. The problem can easily be corrected by filing the location lug on the interface flat and inserting in the correct way. This can also be confirmed if the indicator light is on continuously.
3. Pins may have become bent either on the QL connector side of the interface (very easy to do), or on the drive side.
4. Check that the drive select link is on the correct position, i.e. DRIVE 0 for FLP1_ or DRIVE 1 for FLP2_.

Hope this info is of help.
Joseph T. Millar, Bedlington,
Northumberland

HELP! Commodore printer

First of all I'd like to say how much I enjoy New Computer Express, especially Amiga Blit. Secondly, I would welcome your advice.

As you've guessed, I own an Amiga, but I also own a C64 and want to obtain a printer which would be compatible with both machines. I discovered that the Commodore MPS 1000 was suitable and reasonably priced (£159). However, it now appears that this printer is no longer available and I wonder if it is still being made.

Perhaps you could shed some light on suitable alternatives, if any.

AS Lewis, Upton, Wirral

• First, there are no printers compatible with both the C64 and Amiga. Second,

virtually any printer is

compatible with both

the C64 and

Amiga.

Perhaps you'd

like

an

explanation?

The C64

uses a very odd

system of interfacing

to peripherals. Only

Commodore's own printers specifically made for the C64 connect directly, but that precludes them working with the Amiga, which uses the industry-standard parallel/centronics interface.

However, there are third-party interfaces that allow the C64 to drive a standard parallel printer, so any parallel model can be made to work with your C64 and your Amiga.

HELP! Guru numbers

As an Amiga owner I am still trying to find out what the Guru meditation numbers mean. 00000003 seems to be a favourite of my machine, but I have numerous ones ending in three non-zero digits.

I have also had problems with an RS232 port on a card in an MS-DOS slot on the XT Bridgeboard in an Amiga 2000. I have a Diablo 630 printer which is currently interfaced for RS232 on the Amiga serial port (which can't be accessed by MS-DOS), and I would like to drive it from a serial card.

Apparently the interrupt needed for the printer is IRQ2. This doesn't seem to be available on my card (which is a dual port card offering IRQ4 or IRQ5 alternatives).

In the early days of my experience with MS-DOS, my

ignorance of MODE operation was a problem, but I have finally arrived at the conclusion that I need a different serial card. Do you know of one which doesn't need a second mortgage and which will drive my printer?

John W Stanley, Wistaston, Crewe

• Bet you thought the Guru was going to be the more difficult question. Nope ... there's nothing in the world more difficult than RS232.

But first, the Guru. There are two kinds of Guru alert: those that crash your machine, and those that don't. Also, there are two causes: system software problems, and 68000 traps. So it follows that there should be two kind of Guru message.

The first looks like this:

Guru Meditation

#00000003.0000xxyy (look familiar, John?)

The number before the full stop tells you the 68000 trap number, and number 3 is an address error - specifically, trying to access an even word on an odd-byte boundary. Others include 2, a bus error; 4, illegal instruction; 5 divide by zero; and 6, a privilege violation.

The numbers after the full stop give the address of the offensive instructions.

The second type of Guru message has more non-zero numbers and looks like:

Guru Meditation #aabbccccc.0000xxyy

Here, byte a identifies the area of system software that generated the problem; byte b flags the cause of the problem and echoes the accompanying text message; and word c gives a cross-reference to the specific error which can be found in the exec/alerts.h developers file.

For example, if the a-byte is 02, the problem is in the graphics library, 04 is intuition, 07 is AmigaDOS, 13 is the keyboard, and so on. The b-byte has a value from 1 to 6 (01 to 06) and may mean "no memory", and I/O error, or that the Amiga is having trouble with a library or device.

For a complete rundown on Gurus, acquire a copy of Ariadne Software's

TIP Spectrum pokes

I have gathered together some pokes for the ZX Spectrum, which I hope will be of interest to your readers.

POKE 23562,0 to 255 - Delay time of keypress.

POKE 23606,250 - Allow user fonts.

POKE 23609,9 - Beep after each keypress.

POKE 23659,9 - Bomb the BASIC, crashing the computer.

POKE 23658,8 - Caps lock on (POKE with 0 for caps lock off).

POKE 23756,0 - Make program line 0.

POKE 23570,10 - Edit disable.

POKE 23613,82 - Break disable (POKE with 84 to re-enable).

POKE 23570,16 - Stops listing whenever enter is pressed.

Richard Lissamore, Great Barr, Birmingham

Kickstart Guide to the Amiga, around £13 from most good bookshops.

The printer problem is a curious one. In Sybex's *The MS-DOS Handbook* (£18.95) by Richard Allen King, there is an example of using the serial port with a printer. Fortunately, the printer is a Diablo 630.

King gives the set-up details of:

MODE COM1:1200,N,8,1,P

then

MODE LPT1: = COM1

However, assuming you already new this, your problem lies elsewhere - and I mean somewhere other than the IRQ setting. Printers really don't care which IRQ is being used because they have no way of knowing. IRQs only become an issue when you're using more than one serial device, and I would guess that in an Amiga 2000 that would mean more than one device on the MS-DOS side.

If MS-DOS can't access the Amiga's serial port, that should mean it isn't aware of its existence.

What this boils down to is that I can't see any reason why your printer wouldn't work from any serial card under MS-DOS. If yours doesn't, I'm afraid you need more professional advice than I'm able to give you.

HELP! Telly on the ST?

I am thinking of buying an Atari STFM and I would like to know if it would work on colour and black and white televisions.

Also, what is Metacomco BASIC?

Mack Marshall, Ely, Cambs

• Yes. The Atari machine incorporates a television modulator which generates the signal necessary to drive a television.

Metacomco BASIC is intended as a direct replacement for the BASIC bundled with the Atari machine. The Metacomco package provides a superior range of features over the Atari offering. You can contact the company at 26 Portland Square, Bristol BS2 8RZ. Tel: 0272 428781.



• Do you need that monitor for your ST, or can you use your telly? (Telly on the ST?)

UNBEATABLE 3 1/2" Verbatim DISC PRICES

WE ACCEPT
EXPRESS
VOUCHERS



**FREE
WITH EACH ORDER
WHILE STOCKS LAST
BOX OF 3 DISC CLIPS
FOR FILOFAX
WORTH
£3.75**

	20	50	100	200	500
Single Sided	£25.95	£59.95	£113.95	£212.95	£449.95
Double Sided	£29.95	£68.95	£127.95	£239.95	£559.95

**PHONE
24 HOURS**

DISC VALUE

- Life-time Guaranteed, Double Density 135tpi Verbatim discs for your machine.
- Don't be put off by the low price, these discs are branded 'Datalife' top quality media, direct from the Verbatim warehouse in boxes of 10.
- "No quibble" money back guarantee.
- Absolutely no Extras, price includes VAT, label sets, plus first class post to your door.

Superb anti-static lockable Storage Boxes supplied with Two Keys and Plastic Dividers:

40 disc size £6.95; 80 disc size £8.95.



**JUST PHONE IN YOUR
CREDIT CARD
NUMBER TO:**

DOCTOR SOFT 0903 776000

OR CHEQUE/P.O. TO P.O. BOX 66 EAST PRESTON WEST SUSSEX BN16 2TX

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.

520 STFM Super Pack

£349.00

Inc VAT and Next Day Delivery

Super Pack includes:

- ★ 520STFM 512K Keyboard with Built-in 1 Megabyte disk drive and TV Modulator
 - ★ £450 of games software including BUGGY BOY, TEST DRIVE, MARBLE MADNESS, WIZBALL and 17 more.
 - ★ Organiser Business Software including WORDPROCESSOR, SPREADSHEET and DATABASE
 - ★ FREE JOYSTICK!
 - ★ 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.
Also available with only one free game and no joystick or Organiser -
£269.00 inc.

1040STFM Super Pack

£439.00

As above but with 1 meg 1040STFM

ATTENTION AMIGA
A500 OWNERS!
1024 Ram-Clock Card + Dragon's Lair
£169.00

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.
- ★ £360 worth of Business Software including MICROSOFT WRITE word processor (£150), SUPERBASE PERSONAL Database (£60) and VIP PROFESSIONAL Lotus 123 Spreadsheet clone (£150) ★ All leads, manuals and mouse

PRINTERS

Star LC10 including interface lead for ST/Amiga	£239.00
Star LC10 colour including interface lead for ST/Amiga	£269.00
Citizen 1200 including interface lead for ST/Amiga	£159.00

Amiga A500 System 1

£365.00

Inc Vat and Next Day Delivery

System 1 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.
- ★ Amiga BASIC, Amiga EXTRAS, Workbench PLUS the Amiga Step by step Tutorial.
- ★ All leads, manuals PLUS MOUSE and mains plug!

Amiga A500 System 2

£385.00

- ★ Amiga A500 System 1 PLUS £230.00 worth of software comprising 10 games

Amiga A500 System 3

£395.00

- ★ Amiga A500 System 1 PLUS £265 worth of software comprising 8 games and PHOTON PAINT graphics package plus Workbench 1.3.

NEW! AMIGA 1 MEG!

£499.00

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

AMIGA 1 MEG+

£519.00

Our Amiga 1 meg + also includes the £230 worth of games software normally given with our A500 System 2 Games Pack.

MONITORS

Commodore Amiga A1084 Stereo colour monitor inc lead	£269.00
Atari SC1224 Colour Monitor inc lead	£259.00
Atari SM124 Mono Monitor including lead	£104.00

CREDIT CARD ORDERLINE = 0908 78008 (Mon-Sat 9am - 6pm)

We've moved to larger premises - Callers most welcome!

DIGICOM

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



WE ACCEPT
EXPRESS
VOUCHERS

WE ACCEPT
EXPRESS
VOUCHERS



(Saturday) morning dreams come true...

Rik Haynes stops daydreaming and previews six new releases

WEIRD DREAMS RAINBIRD

You've seen the Saturday morning TV quiz show version on Motormouth, now comes the home micro version of *Weird Dreams* on the ST - with Spectrum, C64, CPC, Amiga and PC versions to follow. While lying unconscious on the operating table, you'll find a



whole meaning to the word terror, as you progress from one nightmare to another in this surreal arcade adventure from James Hutchby and Herman Serrano. For connoisseurs of compu-trivia, Motormouth's version of *Weird Dreams* ran on an Atari ST Mega 2 with a custom-built genlock device and MIDI hooked up to an Akai sound effect box.

From little Acorns...



INFINITY WHITE PANTHER SOFTWARE

Just in case any Beeb owners were feeling left out of the previews page, here's a new game for the BBC called *Infinity*, which features over 1,000 different screens, 32 alien types, 50 puzzles, over 80 objects and - wait for it - is written in 100% machine code. It's just a pity the screen shot is out of focus - ah well, you can't have everything.

OVERLOAD CLARES MICRO SUPPLIES

And to prove we're all-round nice guys, we've even included an Archie preview this week in the form of *Overload* - a rather unusual game, in that you take on the persona of an 11-legged flea with a mission to squash anything that moves. Further details from Clares Micro Supplies on 0606 48511.



VIGILANTE IREM/US GOLD

Vigilante, by Irem - the coin-op company responsible for the hugely successful *R-Type* - is a kick'em-up which sees you as the heroic vigilante in a rescue mission to free a so-called Madonna girlie from the clutches of an evil street gang. As you progress through five levels (Main Street, The Junkyard, Brooklyn Bridge, Back Street and Construction Site) of 1994 New York you'll encounter all manner of street-scurm - so let's hope you're strong enough to take the Pepsi challenge. Out from US Gold soon on Spectrum, C64, CPC, ST, Amiga and PC.



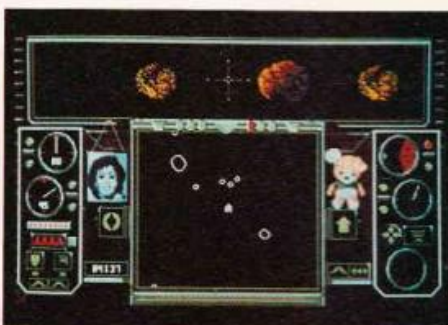
RISK™

LEISURE GENIUS-VIRGIN/MASTERTRONIC



RISK™ is a board game micro conversion allowing one to five players to partake in a touch of strategic world domination. Each person tries to wipe out the others by building armies, fortifying defences and generally making a nuisance of themselves. Already out on C64, *RISK™* will be out shortly on Spectrum, CPC, ST, Amiga and PC.

MARS COPS ARCANA



Already previewed elsewhere a long, long time ago - *Mars Cops* is a strategic shoot-em-up with simulation elements placing you in the role of a cop out to nick some crims on the planet Mars. Out sometime on Amiga.

BATH COMPUTER SHACK

YOU CAN'T AFFORD TO GO ELSEWHERE

*** ATARI SUPER PACK ***

Atari 520stfm, 1 meg drive, 22 games and a joystick	ONLY £349.00
Atari Explorer Pack	£279.00
Atari 1040stfm now with modulator	ONLY £419.00
Atari 1040stfm with SM124 high resolution mono monitor	ONLY £529.00
Atari Megafile 30 Hard Disc	£529.00
Atari SM124 High Res Monitor	£119.00
Atari SC1224 Colour Monitor	£279.00
Atari SLM802 Lazer Printer	£1049.00

ATARI MEGA'S AND PC'S

Please call for our very best prices, you won't be disappointed.

E.G. Atari Mega 4 Mono	£899.00
Atari PC 3 DDMM	£699.00

MONITORS

Philips CM8833	£259.00
Philips CM8852	£299.00

* NB: All prices include lead.

PRINTERS

Citizen 120D	£159.00
Panasonic KXP1081	£175.00
Epson LX800	£199.00
Star LC10 (with spare ribbon)	£215.00
Star LC10 colour	£265.00
Star LC24/10	£339.00
Star NB24-15 (free sheetfeeder)	£599.00

* NB: All above prices include lead.

ACCESSORIES

Handycap Keyboard Cover	£7.95
Monitor Stand	£24.95
Mouse Mats	£4.50
Monitor Master (ST Only)	£35.00
Mouse Master (ST & Amiga)	£24.95

COMMODORE

Amiga 500	£369.00
Amiga 500, Icon paint, 5 games	£389.00
Amiga 500, Icon paint, 2 games, 1084 Colour Stereo Monitor	£619.00
Amiga 500, Icon paint, 2 games modulator	£399.00
Amiga 500, Icon Paint, modulator	£389.00
Commodore 1084 Colour Stereo Monitor	£259.00

COMMODORE PC'S

PC10 SDMM	£573.85
PC10 DDMM	£679.00
PC 20 HDECD	£1259.00

AMSTRAD SPECIAL OFFER

Amstrad PC 1640 DD Mono	£669.00
Amstrad PC 1512 SD Mono + DMP 3160	£539.00
Amstrad PC 1512 DD Mono + DMP 3160	£649.00
Amstrad PC 1512 DD Colour + DMP 3160	£725.00

All other models available, please call for our very best prices.

Amstrad PPC512S	£429.00
Amstrad PPC512D	£549.00
Amstrad PPC640S	£549.00
Amstrad PPC640D	£629.00

DISCS & BOXES

At UNBEATABLE Prices

10 x 3.5" DS DD Discs in Box	£9.95
25 x 3.5" DS DD Discs in Box	£25.00
25 x 5.25" Discs	£8.50
100 x 5.25" Discs	£29.95

Above Discs Certified & Guaranteed

40 Cap 3.5" Lockable Box	£4.99
80 Cap 3.5" Lockable Box	£7.99
100 Cap 3.5" Lockable Box	£9.99

Orders under £50.00 - add £2.50 P & P

All prices include VAT
All Hardware is sent by next day courier F.O.C.



Access & Visa orders welcome.
Mail Order address below.

E&OE

SHOW ROOM
8E Chelsea Road
Lower Weston
Bath
Avon
BA1 3DU

TEL: (0225) 310300 FAX: (0225) 446827

MAIL ORDER
8E, Chelsea Road
Lower Weston
Bath
Avon
BA1 3DU

TEL:(0225) 310463 FAX: (0225) 446827

FOUR FREE ISSUES!

■ At only 48p *New Computer Express* is an incredible bargain, but take out a year's subscription and we'll send you an **additional four** issues of the magazine **absolutely free!**

■ So for just **£24.95**, you'll receive **56** copies of Britain's **most exciting** weekly computer magazine! (Or you can take out a six-month subscription (26 issues) for just **£12.50**.)

■ There's no better way of keeping **100%** up to date on the fast-changing computer scene! (Please allow three weeks for your subscription order to be processed.)

CREDIT CARD ORDERS 0458 74011

You can order your subscription by phone. Just dial 0458 74011 and ask for New Computer Express Subscriptions.



Collect the set!

Missed out on some earlier issues of *New Computer Express*? Here's how you can complete your collection.

We have limited numbers of back issues available for 75p each (48p plus 27p post and packing).

Just send details of the issues you require, your name and address plus a cheque made out to Future Publishing Ltd or your credit card details to:

Express Back Issues, Future Publishing Ltd, Somerton, Somerset TA11 7PY.

Here are the highlights of the previous issues – but remember they also contain all your regular favourites: news, games reviews, machine columns, beginners' guide, controversies, tech tips, letters, PSs, vouchers etc etc.

- Issue 1: Future of computing, PC graphics, revival of Basic, Xmas games
- Issue 2: Which computer?, the perfect wordprocessor, Konix console
- Issue 3: Portable computing, Alan Sugar profile part I, yuppie software
- Issue 4: Sega's 16-bit console, best value PC, games that change your life
- Issue 5: PC 200 fiasco, DTP guide, computer art, Unix explained
- Issue 6: MGT Coupe, careers in computing, Realtime profile, cracking
- Issue 7/8: Best games of '88, review of the year, look forward to '89
- Issue 9: Censorship controversy, classic computer problems solved
- Issue 10: PC software guide, Christmas games tips, Release Schedule wk 1
- Issue 11: CDI technology, choosing a printer, Alan Sugar profile final part
- Issue 12: Being a smart consumer, dyslexia and computers, Jack Tramiel story
- Issue 13: Konix console, da Vinci exhibition, best Amiga software, shareware
- Issue 14: Which PC?, PC Engine CD ROM, Hackers, Workbench 1.3
- Issue 15: MiniGEN, monitors, virus book reviews, Sir Clive Sinclair
- Issue 16: Music special, History of the PC, TV graphics, beginners' graphics
- Issue 17: Digitisers, programming languages, History of the Spectrum
- Issue 18: ST essentials, Hypertext, QuickBASIC review, History of the BBC
- Issue 19: Virus guide, History of the C64, Hanover show, hackers caught!

YES, I'd like to keep in touch with the latest computer news, releases and advertising bargains by subscribing to *New Computer Express*. I would like to subscribe for:

☐ 56 issues costing just £24.95 ☐ 26 issues costing just £12.50
(tick one box only)

Name

Address

Age: ☐ <18 ☐ 18-25 ☐ 26-35 ☐ 36-45 ☐ >45

Computer

Total payable

Payment by: ☐ Access ☐ Visa ☐ Cheque ☐ PO

Access/Visa no

Expiry date: April 10th 1989

Please make cheques or POs payable to **Future Publishing Ltd** and enclose them with this form in an envelope addressed to Express Subscriptions, Future Publishing Ltd, Somerton, Somerset TA11 7PY. No stamp required if posted in the UK.

**EXPRESS
EXPRESS
EXPRESS**

SALES

GOODMAN P.D.L.

Established as one of Britain's leading suppliers of Public Domain Software for the Atari ST.

The latest Catalogue gives details of the 100's of programmes that are now available including games/utilities/Demos etc.

Prices from only £2 fully inclusive or from 75p if you supply your own discs.

STOP PRESS! - Now available 'The Union Demo' the latest (and possibly the last) demo from the TEX Group
Send a 19p stamp for further details to:

GOODMAN P.D.L.

16 Conrad Close, Meir Hay Estate, Longton, Stoke-on-Trent ST3 1SW
☎ 0782-335650

D-DAY MK.II

New improved version. Runs only on expanded QL's and discs. Under license from Games Workshop. £12 or £6 to upgraded previous versions (send master or manual and blank disc).

Still available
QL ADVENTURERS FORUM 1 - 6
STARPLOD AND VALAGON
Ask about Public Domain

C.G.H Services, Cwm Gwen Hall, Pencader,
Dyfed, Cymru SA39 9HA
(055-934574)

PCW 9512 USERS

NOW YOU CAN AFFORD TO USE YOUR PRINTER !!

Send a used PCW 9512 Cassette (not a Laser Cassette) - £1.50 to:

AladdinLink, (Dept C.E.) Eyemouth,
Berwickshire, TD14 5AP

We will supply a BRAND NEW
Commodore Printer AS GOOD AS NEW
(INTRODUCTORY OFFER - expires 31st March 1989)
Limited to one cassette per household.
Also... Public Release is made for most printers. Send
S.A.E. for details, stating printer make and model or
Telephone: 08907 50963 to 8pm

EURO ST/AMIGA

HIRE AND PLAY LATEST ST HITS FOR
ONE WEEK!

UK and Irish ST/AMIGA owners send your address
for more information to:
EURO ST, KINSELLA HOUSE,
JOHNSTOWN, SEA ROAD, ARKLOW
CO. WICKLOW, EIRE.

FREE !!! (1 per Household)

10 Wrap Around 3 1/2" Disk Labels
S.A.E. to: N.B.S. (Label Offer)
21, Priory Rd, Newport, Isle of Wight

PROFESSIONAL DIGITIZED AMIGA PICTURES.

Variety of modes, size no
object. Interested?

Write:

S.L.H. DIGITIZING,
35 Cairo Ave, Peacehaven,
East Sussex, BN10 7PX

★ UNIQUE SPECTRUM SOFTWARE ★

Choose from:

1. "Dogtrack" Greyhound racing form analyser (+game).
2. "Pools" Program with form input.
3. "I Ching" For the more mystical.
4. "Subliminal Suggestion" Reduce stress - increase confidence.

Any two programs on one tape for £4.99 (please state)

Please send cheque/PO to:

JOHN LEWIS, 157 HAMILTON AVENUE,
TULWORTH, SURREY.

CHIPS FOR PC UPGRADES

★ All models covered ★

★ Call for details ★

★ Ex-equipment parts available from stock for
immediate delivery ★

★ All parts fully guaranteed ★

★ Telephone orders welcome ★

Perrymere Ltd

(051) 227 2482

miditech

**MIDI SOFTWARE
FOR ATARI AND AMIGA'S ?**

We deal only in Computer Music so we can offer you the biggest choice plus the Specialist Knowledge to help you get the most from your Midi Setup.
Write or phone for our Price Lists containing over 100 Programmes,
Accessories and Demo Discs.

The Midi Pack

Yamaha PSS - 480, Track 24, software, midi leads, plus instructions - the ideal starter
package for only - £249.00 including P&P
Amiga owners please add £30 for interface

Amiga Owners

At last...A Pro Featured Sequencer at a budget price.
Track 24 is a New Release from Comus featuring Real and
StepTimeRecording plus Notation Editing.

All this and more for only £75.00 or £100.00 with interface.

MIDITECH, THE COLOSSEUM, PORTLAND GATE, LEEDS, LS2 3AW TEL 0532 446520
ACCESS & VISA WELCOME MAIL ORDER AND TRAINING PACKAGES AVAILABLE

EAST MIDLANDS PUBLIC DOMAIN LIBRARY

Amiga PD disks over 400 in stock!
£5 p.a. Subscription including 2 FREE Catalogue Disks (regularly updated)
Also Blank Disks, Labels, Disk Banks etc.

* SPECIAL OFFERS MONTHLY *

Cheques or Postal Orders payable to:
E.M.P.D.L.

54 Watnall Road, Hucknall, Notts, NG15 7LE.
Tel: 0602 630071

MICORPRAXIS LTD, SHEFFIELD 68,000 SPECIALIST

COMPUTERS

Atari 520 STFM Superpack.....£379.99
Atari 1040 STFM.....£474.98
Commodore Amiga.....£380.00

MONITORS

Atari SM124.....£139.95
Philips CM8835.....£260.00

3.5" DISCS DS/DD

Box of 10.....£10.50
Commodore Double Sided Discs.....£15.95

PRINTERS

Citizen 120D.....£169.00
National Panasonic XP1081.....£189.95
NEC P2200.....£360.00

5.25" DISCS DS/DD

48TPI.....£5.49
96 TPI.....£5.99

All prices include VAT & delivery



MICROPRAXIS

1 VICTORIA STREET, SHEFFIELD, S3 7QB
Tel: 0742 739982



SUPERTRACE

Watch Basic in action plus single step
mode "indispensable". The most
reasonably priced tool released (see
August '87 QL World on MDV).

£5 including p&p
STACK SOFTWARE

Great Wolford, Shipton on Stour,
Warwickshire CV38 5NQ.
Tel: 0608 74369

COMPUTERS & BUSINESS

The Home Study course that works.
Learn about the role of computers in
today's businesses.

Study in the comfort of your own
home, our easy Home Study course
covering such topics as:

- * Computer at work *
- * Programming in BASIC *
- * Graphics *
- * Machine code *
- * Commercial applications *

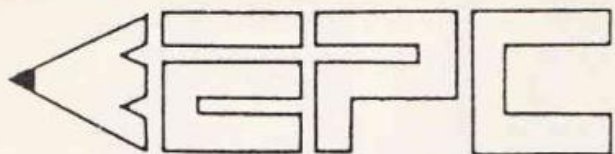
FREE brochure, no obligations from:
IDEAL SCHOOLS
FREEPOST CU4
GLASGOW G1 4BR

WANTED

ALL COMPUTER
HARDWARE/SOFTWARE WANTED
FOR CASH OR EXCHANGE
NOTHING REFUSED!!
01 727 3538

ATARI ST PUBLIC DOMAIN

Wordprocessors, Games, Utilities, Music,
Languages, Art, Educational
and even DTP progs from £1.75!
You'll be amazed at our Premier Service.
For a FREE catalogue send a 19p stamp to:
ALPHA COMPUTING
32 Meadow Drive, Halifax, W.Yorks HX3 5JZ



SO!

You're bright, talented and enthusiastic.

AND

You've probably had some programming experience (preferably at Assembler level).

OR

Your graphical abilities are matched only by ours.

IF

You're interested in joining a friendly and creative team who design and develop 16-Bit games as well as TV and video graphics.

THEN

We'd like to hear from you! Please send CV's and demos to WING LAI at

ELECTRONIC PENCIL CO

SECOND FLOOR, 447 GREEN LANES, HARINGEY, LONDON N4 1HA
OR RING 01-341-6866

CLASSIC SOFTWARE PRODUCTION

We are expanding our in house development team and have two programmer vacancies to work on our world beating Chess and Bridge Player simulations.

Senior programmer. Ideally with ST Amiga machine code experience, or a Z80 8086 programmer able to adapt quickly to 68000 assembler on the above machines.

Assistant programmer. with some experience of assembler (Z80 or 68000). You should be enthusiastic and willing to quickly learn a new language. This vacancy could suit a college or school leaver wishing to enter the profession.

For further details please contact:
Chris Whittington on 0993 82 3463, or write to:

CP Software, Stonefield House
198 The Hill, Burford, Oxfordshire, OX8 4HX



PROGRAMMERS

If you would like to work on some great licensed titles, we would like to hear from you. Freelance/full-time work available if you can code in Z80, 8086 (8) or 68,000.

Phone Mark or Richard on 0423 523884

or write in confidence to:

15 Unity Grove, Harrogate, North Yorkshire HG1 2AQ



Zeppelin Games require Z80 and 6502 programmers to work to the best game plans in the business.

Zeppelin produced the Budget Game of the Year and its full-price sister arm, Cognito, has just released THE soccer name game - KENNY DALGLISH'S SOCCER MANAGER.

Zeppelin's success has been built on sound relationships with its programming teams. Many coders have gone from unproven enthusiasm to the very top of professional programming - such is the encouragement and support from a management team who've all been programmers themselves. Freelance and permanent posts are available.

Please phone or write in confidence to:

**Derek Brewster, ZEPPELIN GAMES LTD, Osborne House,
28 Osborne Road, Jesmond, Newcastle upon Tyne NE2 2AJ
Telephone: 091 281 4401 between 9.30 am and 5.30pm.**

CLASSIC SOFTWARE

URGENTLY REQUIRE

FREELANCE GRAPHIC ARTISTS

Experience of JFF essential, must have own hardware. A previous track record is not necessary, but you must have high quality, stunning examples of your talent.

Either write to:

**CLASSIC SOFTWARE, PO BOX 8,
SANDOWN, ISLE OF WIGHT. PO36 8LT
or Telephone 0983 864674 for further details.**

ARGONAUT SOFTWARE

We are expanding our development team and have vacancies for talented programmers, graphic artists and software musicians with experience on one or more of the Amiga, ST, Mac or IBM computers.

A good knowledge of machine code in either 68000 or 8086 is required. There are also positions for Z80 and 6502 programmers wishing to learn a new language. You will be working in a stimulating environment with a dynamic team of top programmers; on very powerful computer equipment rarely seen in the games industry.

We are the leading creator of 3 dimensional games like the award winning Star Glider series, and are now working on new exciting game and simulation products to be the hits of 1989 and 1990!

Top Salaries paid according to Experience, Ability and Performance.

Contact Jez San or Richard Clucas at our North London Offices on
Tel: (01) 906 3744, Fax: (01) 959 5052

EXPERIENCED 68000 PROGRAMMERS

Emlyn Hughes International Soccer has just been awarded the accolade **BEST GAME OF THE YEAR** by Commodore Computing. Now we need to put this and other sports simulations onto the Amiga and Atari ST.

We are looking for mature, hard-working, and above all, experienced 68000 Programmers. Your experience need not necessarily have been gained writing games - though you should, of course, have an interest in sports and games. Knowledge of C, 8086/8088 assembler, and the IBM PC would also be useful.

You will be housed either in the Harrow area or in the Southampton area, and if you do not live in one of these areas you should be prepared to relocate. Applicants in the Coventry area may also be considered.

We will pay top salaries to the right people. If you are not capable of earning a substantial five figure salary, please do not apply.

Write to: **NIGEL ALDERTON, SOFTWARE MANAGER, AUDIOGENIC SOFTWARE LTD,
Winchester House, Canning Road, Harrow HA3 7SJ,
or telephone 01-861 1166 between 10 am and 7 pm.**

● *Ballistix* scored a hit in the Express offices this week with great graphics and novel gameplay. The rest ranged from the quite acceptable to...*Human Killing Machine*, which proved – astonishingly – worse than its artwork. *Realm of the Trolls* and *The Deep* gave it a run for its money, though...

REALM OF THE TROLLS

RAINBOW ARTS/US GOLD

Amiga • £24.95dk
Also on C64, ST

Realm of the Trolls is a platform/exploration game from German software company Rainbow Arts. It's based around an arcade adventure to retrieve priceless treasures from the thieving clutches of some Trolls in their underworld kingdom...

● GAMEPLAY

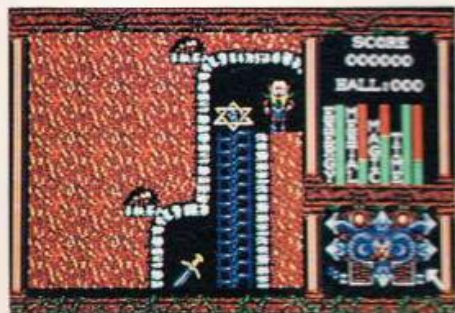
ROTT provides no surprises in the gameplay department as you persevere through a bog-standard and intensely boring approach to the genre – if you can stand the tedium of playing the game, that is. Obviously, this game is ROTTEN to the core...

● GRAPHICS AND SOUND

Audi-visuals are simple, strange and sketchy and do absolutely nothing to heighten the already appalling gameplay. The only half-appealing audio-visual aspect is the superb (but muffled) sampled soft soundtrack, which sounds out of place in a game about the trolls and tribulations of fairytale folk.

● OTHER VERSIONS

The ST version is similar, probably due to the restricted gameplay display in both versions. We haven't got our hands on C64 ROTT yet.



• Wot ROTT

● EXPRESS VERDICT

Rainbow Arts has released some spectacular (if sometimes controversial) games in the past, such as *Garrison*, *Great Giana Sisters* and *Demaris*. But of course, everybody is entitled to make at least one mistake – *Realm of the Trolls* is that mistake for Rainbow Arts.

We were playing far better versions of this game type back in 1983 on the C64, so we don't expect to pay full-price for *Realm of the Trolls* in 1989. Please take note US Gold – budget, or forget it. ROTT – you're not kidding.



Rik Haynes

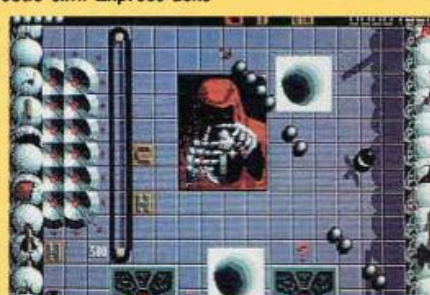
BALLISTIX

PSYGNOSIS

Amiga £19.95dk
Also on ST and C64

Pitching deep into *Crossfire* and *Speedball* territory is the latest pack of perfect pixels from Psygnosis – a futurismo footie sim. Express asks the definitive question "when will Jimmy Greaves be buying an Amiga?"

● **GAMEPLAY**
A vertically-scrolling game of skill for two players in which you attempt to blast balls at a puck to send it into your opponent's goal. You may also choose to play against the computer, in which case there are only 50 levels instead of 80 and the pitch is tilted towards your own goal. You can predetermine the ball speed, the number of balls available and the auto-repeat rate. You can also alter the power of your shots and the



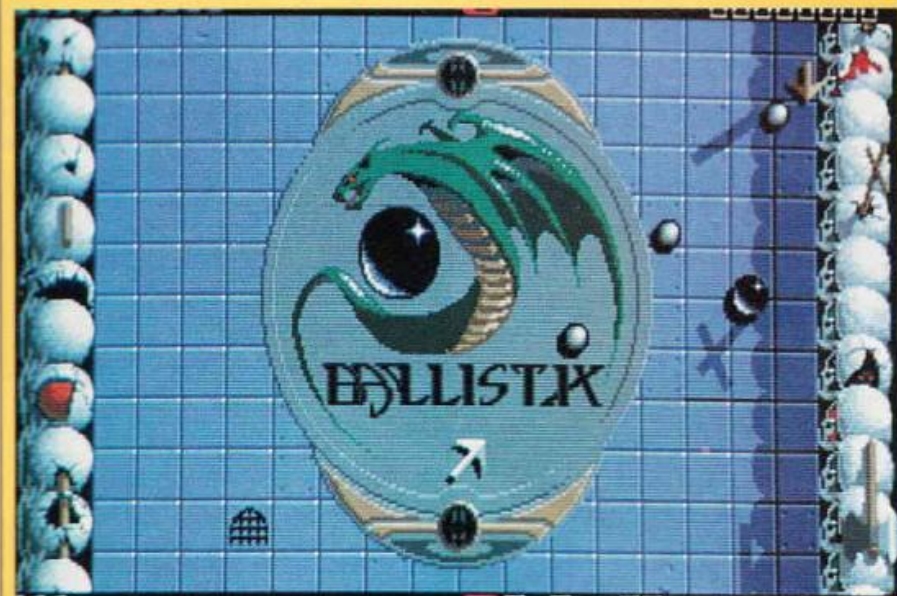
• Ballistix is reminiscent of the old *Crossfire* game

• Footie sims were never like this...

'Ricochet' results in 10,000 extra points. There are also curious additional features such as acid pools, pipes, splitters and hyperspace tunnels.

● GRAPHICS AND SOUND

Ballistix's visuals are right up there with the quality of the Bitmap Bros – scrolling is smooth and animated action fast and furious. Since there's a total of 130 different screen configurations on show you won't get tired of the vertical-scrolling format. Sound is impressive too – there's a continuous music score mixed in with crowd applause throughout.



• Just one of the 130 different screen configurations

number of goals and games needed to win and thereby progress to the next level.

Each level has a number of obstacles, which are most easily described as reminiscent of pinball features – bumpers, fenders, and magnetic attractors. In addition, there are random appearances of bonus phenomena occupying the grid squares making up each level. To collect the special effect you fire balls at the icons and in return you may receive extra points, shield your own goals and invert your opponent's joystick control. But beware – firing into the wrong icons may have the effect of slowing down your control. Firing through letters and making up the word

● OTHER VERSIONS

The ST version suffers from dreadful sound effects but no apparent difference in the quality of the graphics. The C64 outing is as yet unreleased, though it should be pretty good.

● EXPRESS VERDICT

Although *Ballistix* bears more than a passing resemblance to *Crossfire*, there's enough action here to ensure good sales.

The option to alter gameplay configurations can only ensure its continuing playability. This release is well worth a look.



Andy Storer

ELIMINATOR

HEWSON

Spectrum • £9.99
Also on C64, ST, Amiga, CPC

If you like *Impossaball* and *Nebulus* and are a fan of burn-up roadster violence, you'll like *Eliminator*, the latest from the same author – John Phillips.

● GAMEPLAY

You fly a hover ship along an undulating road that twists and curves through barren wastes, tunnels and space bridges. All along the route masses of aliens fire charges at you whilst strange obstacles and barriers litter the road ahead. You have a range of weapons at your disposal which are collected by driving through cubes – you can switch between dual-fire cannons,



INCREDIBLE SHRINKING SPHERE

ELECTRIC DREAMS

C64 £9.99cs, £14.99dk

Also on Spectrum, CPC, ST, Amiga

Incredible Shrinking Sphere (ISS) combines puzzle, exploration and shoot-em-up in a *Marble Madness*-like arcade adventure from Fours Fields/Software Studios.

● **GAMEPLAY**

Taking the helm of a Fighter Sphere, you've got to rescue Matt Ridley, a pen-pushing colonel-in-chief of Sphere Corps who thought he could handle The Death Run (the Sphere Corps training arena) but chilled out somewhere inside.

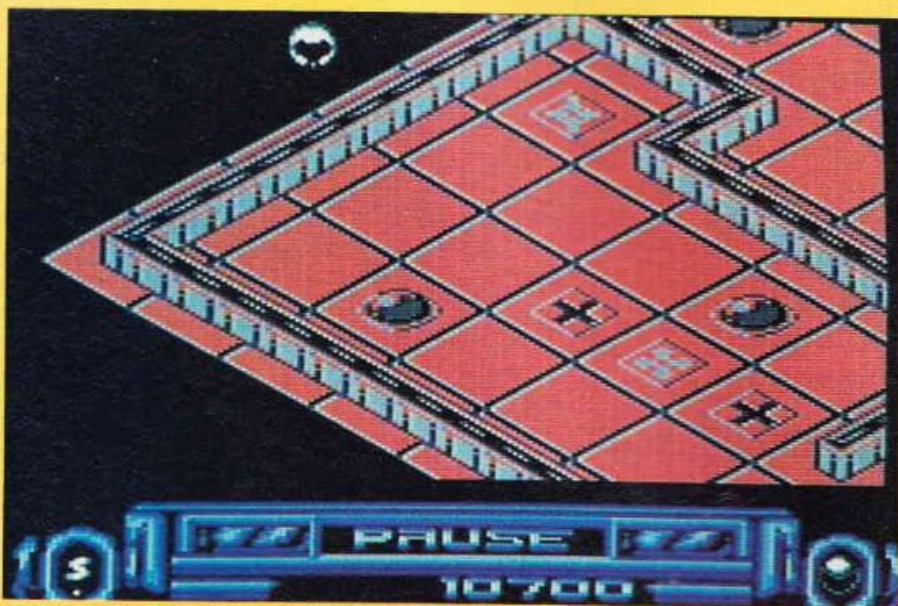
In-game entertainment consists of you manoeuvring your Fighter Sphere around levels of mazes, avoiding traps and hazards, and blasting Assassin Spheres. Along the way, you discover tiles which will increase your Fighter Sphere's mass, volume or make it bounce at a chaotic speed – to name but a few.

● **GRAPHICS AND SOUND**

Visuals are admirable, with pseudo-3D backdrops and sprites. The Fighter Sphere sprite is well drawn and moves around realistically. Sound-spot effects are OK but not exemplary, and are overwhelmingly overshadowed by the brilliant Anthony Lees soundtrack.

● **OTHER VERSIONS**

ISS on the Spectrum and CPC perform well, as ISS relies just as heavily on gameplay as audio-visuals. The ST version is more colourful, but the audio is a little



• Bouncing your way into Level One

disappointing. We haven't seen the Amiga version yet.

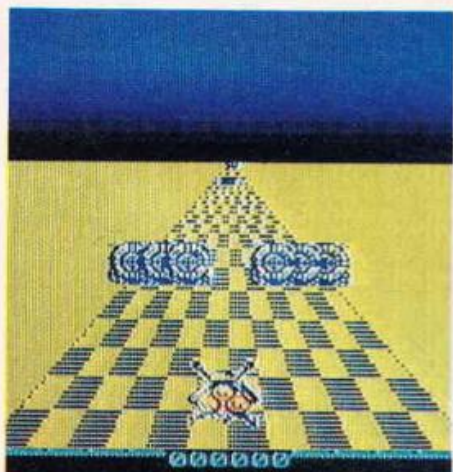
● **EXPRESS VERDICT**

ISS is a workable combination of puzzle-solving and explore-action, backed up by appealing visuals,

proficient sound spot-effects and an excellent soundtrack.

★ ★ ★

Rik Haynes



• Speeding down the highway in your Turbonutterhovership

bouncing bombs and triple blasters in a bid to rid the road of everything in your way.

Eliminator takes practice, even more so since some stretches are inverted so that you're flying upside down along a road hanging in the sky!

● **GRAPHICS AND SOUND**

This little beauty shifts along at a fair old whack for the Speccy, and uses colour to great effect too. Obstacles and barriers are clearly depicted and the vertical and horizontal movements of your ship are very smooth. The backing music track is tiresome, but then once you've heard the range of spot-effects you'll probably keep the volume off in any case.

● **OTHER VERSIONS**

We've only seen the ST version, which moves at the speed of light, takes quite a bit of practice and is a great escape.

● **EXPRESS VERDICT**

A great conversion from the 16-bit parent, which does justice to the Speccy's spec and one of those addictive little numbers that'll have you loading up until it's cracked. Which could take some time.

★ ★ ★

Andy Storer

THE DEEP

US GOLD

C64 • £9.99cs, £14.99dk

Also on ST, Spectrum, CPC

An early 'eighties style 'drop the charges and destroy the submarines' effort from US Gold.

● **GAMEPLAY**

The Deep features an utterly laughable ship pitted against innumerable aquamarine objects which, for the sake of clarity, we shall call submarines.

All you have to do is wobble away, dropping as many mines as you like and wasting the submarines. The joystick controls (somewhat crudely) control how fast the depth charges sink to the bed. To stay alive you have the task of avoiding lots of missiles and such like.

Along the way there are a few bobs to be picked up which prompt a helicopter to drop off a package. This will give you the option to change into an underwater probe and pick up goodies – or it will give the charges extra strength depending on the type of bob which emerges.

This option sometimes stretches to giving the vessel a



• Sub standard game?

pair of skis (à la hydrofoil) for extra speed. Given the narrowness of the gameplay, this is all but pointless.

● **GRAPHICS AND SOUND**

Basically, all the sprites are awful. The ship moves in a baffling style and realism has clearly been thrown straight out of the porthole. Some of the underwater enemies are so abysmal as to make it impossible to identify them plausibly.

Even by C64 standards the sound is dreadful, restricting itself to that 'pingy' noise submarines make in World War 2 movies, as well as dreary crashes every time something explodes.

● **OTHER VERSIONS**

Thankfully, we were unable to load the ST version. The Deep is also on the Spectrum and CPC. We couldn't imagine that these versions would be any better, given the limited gameplay.

● **EXPRESS VERDICT**

This really is an abysmal effort. Interest is short-lived since it's all too simple and repetitive. This would have been dreadful five years ago. Today, it's unforgivable.

★

John McCleary

JUG

MICRODEAL

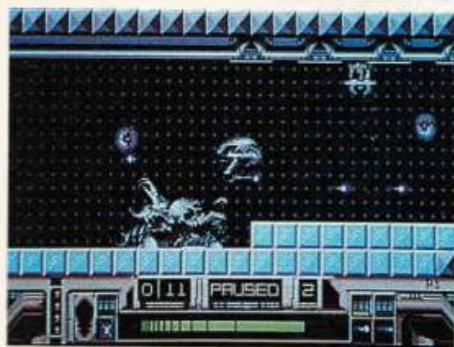
ST • £19.95dk

Out soon on Amiga

Microdeal, the software house behind the infamous vertically-scrolling *Goldrunner II* (Express issue 19), has now turned its attention to a horizontally-scrolling shoot-em-up/arcade adventure in the guise of Jug.

● **GAMEPLAY**

In control of a INTERACTIVE humanoid nicknamed "Jug", you're assigned with the task of saving the poor souls of the planet Spiraes from a deadly virus (something wonderful has happened to your planet, perhaps?) Fortunately, to help you in your monumental task



• An eye to eye confrontation

you're able to pickup and use three different types of weapon - plasma fire, laser cannon and smart bomb - as you travel through the zones of the planet.

GRAPHICS AND SOUND

Jug's visuals are skilful, with excellent backdrop objects and competent sprites - but this quality is offset by the awfully slow execution of your sprite's movements and the horizontal scroll. The imaginative animated title screen is worthy of particular note, although it doesn't add anything to the in-game display.

Audio is split between a terrible soundtrack on the title page and tedious sound spot-effects.

OTHER VERSIONS

No details on the Amiga version are currently available.

EXPRESS VERDICT

Even with its above-average sprites and backdrops, Jug's slow speed of execution makes for a very tiring and tiresome game which falls far short of what we expected. With Microdeal's recent batch of sub-standard (so called "mega") releases such as Slipstream and Goldrunner II, and now the disheartening Jug, let's hope Fright Night fulfils its promise when it finally arrives.



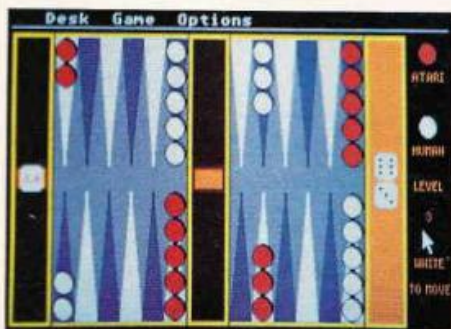
Rik Haynes

BACKGAMMON

ATARI MINDGAMES

ST • T.B.A.

PC and Amiga versions planned



• Will the Amiga version be in HAM mode...?

Backgammon's been around for some 5,000 years now and has been found among the relics of Chinese, Aztec, Celtic and Mesopotamian cultures. How could it have surfaced in so many places so long ago? Easy. Backgammon's from another galaxy.

GAMEPLAY

Playing Backgammon is simplicity itself. After choosing whether to play the computer and fixing the difficulty level, it's merely a matter of clicking on the piece, holding down the left button and moving it to the desired point. You wait a short while for the machine to make its move and continue.

You can also set up desired positions to play through, print out and replay games from scratch, change levels at any point, swap sides, move back and restore moves. If you're prone to a little punting, there's also a doubling cube for whacking up the stakes to 65536 times the original pot.

HUMAN KILLING MACHINE

D.O.A.

US GOLD

Amiga £14.99dk

Also on ST, Spectrum, C64, CPC

GRAPHICS AND SOUND

Something approaching terrible. Animation's smooth enough, but then we're only talking about a handful of sprite frames against a static background. Neither is there even any spot-effect sound for all the crunching kicks and pows. Just an inane backing track.



• Don't matter who he is - just 'it' 'im

At least there's little doubt as to what treats this little number will serve up.

GAMEPLAY

From Moscow to Amsterdam to Barcelona to Munich to Beirut, all there is to do is kill - and in the words of the package blurb, "Carve out a path of destruction as you battle to stamp your supremacy..." This boils down to another beat-'em-up where you punch and kick your way through a variety of opponents. And...er...that's it.

OTHER VERSIONS

Apart from the ST version, which we haven't seen, the 8-bit outings do a little more justice to their respective machine specs. But this is a travesty on the Amiga.

EXPRESS VERDICT

An unoriginal, unexciting and unacceptable release. Truly unimpressive.



Andy Storer

GRAPHICS AND SOUND

Graphics are also simplicity itself. There's nothing that could be described as anything more than functional - but then you wouldn't expect anything more would you? There's no sound either. None needed.

OTHER VERSIONS

No other versions released as yet.

EXPRESS VERDICT

A straightforward sim of a deceptively simple game, which should appeal to anyone wanting to while away a few hours whilst improving their chances of beating the dice at their own game.



Andy Storer

PACLAND

QUICKSILVA/GRANDSLAM

Spectrum • £8.95cs, £12.95dk

Also on C64, CPC, MSX

Out soon on ST, Amiga

towns, mountains and deserts while avoiding his/her/its arch ghostie enemies: Inky, Blinky, Pinky and Clyde.

On his travels, Pac will have to feed his addiction to fruit, negotiate various natural hazards and evade ghosties on foot(?), in cars and flying in planes!

GRAPHICS AND SOUND

Audio-visuals are authentic to the coin-op parent. The sprites and backdrops are reasonably drawn and animated, and the foot-tapping (but ultimately annoying) soundtrack is very accurate.

OTHER VERSIONS

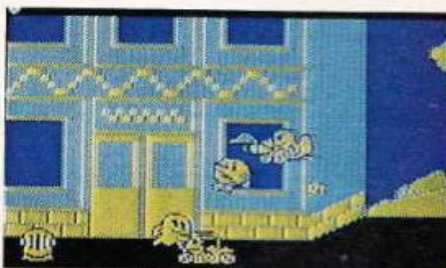
C64 Pacland has been out some time, and is a good playable conversion complemented by decent audio-visuals. The CPC, MSX, ST and Amiga versions also look as though they will follow the trend set by the C64's and Spectrum's faithful conversions.

EXPRESS VERDICT

While Pacland is not as good a game as Pacmania, it's still a cute, playable and enjoyable game which is should appeal to male and female pre-teen gamer alike (not that we would endorse any preconceived gamer stereotypes).



Rik Haynes



• Pac up your troubles

Pac - the star of Pacman the cult coin-op, Pacman the cult TV cartoon series and Pacman the (cult?) breakfast cereal - is back with a vengeance in Pacland - the cult horizontally-scrolling arcade adventure coin-op from Namco.

GAMEPLAY

Pac is a walking "Smiley" badge with a mission: to reunite a lost fairy with her fairy-folk back in fairyland (ah!). To achieve this quest, Pac must travel through

**The
incredible
New
Computer
Express
voucher
scheme can
save you
£10
when you buy
from adverts
in this
magazine!**

Full details on next page

**EXPRESS
VOUCHER**

£1

**EXPRESS
VOUCHER**

£2

**EXPRESS
VOUCHER**

£3

**EXPRESS
VOUCHER**

£4

£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.

Your name _____

Address _____

Telephone (if possible) _____

Item (s) purchased _____

Only one voucher per order is allowed. This voucher and its accompanying order must be received by the advertiser before 9am **April 24, 1989.**

£2 voucher. Valid for orders above £40

This voucher may be used as £2.00 part payment on any order totalling over £40 from a participating advertiser in *New Computer Express*. You simply fill in the details below and send it off with your order.

Your name _____

Address _____

Telephone (if possible) _____

Item (s) purchased _____

Only one voucher per order is allowed. This voucher and its accompanying order must be received by the advertiser before 9am **April 24, 1989.**

£3 voucher. Valid for orders above £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.

Your name _____

Address _____

Telephone (if possible) _____

Item (s) purchased _____

Only one voucher per order is allowed. This voucher and its accompanying order must be received by the advertiser before 9am **April 24, 1989.**

£4 voucher. Valid for orders above £80

This voucher may be used as £4.00 part payment on any order totalling over £80 from a participating advertiser in *New Computer Express*. You simply fill in the details below and send it off with your order.

Your name _____

Address _____

Telephone (if possible) _____

Item (s) purchased _____

Only one voucher per order is allowed. This voucher and its accompanying order must be received by the advertiser before 9am **April 24, 1989.**

EXPRESS VOUCHERS

How the scheme works

● The Express voucher is a special scheme to encourage you to buy *New Computer Express* regularly.

● It offers you savings of up to £10 when you buy goods through the magazine.

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

● Most mail order advertisers in this magazine are taking part in the scheme – just look for this sign. →



● Remember. The use of just one voucher could more than recoup the price of the magazine.

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 requested on the voucher.

Evesham Micros

WE ACCEPT
EXPRESS
VOUCHERS

All prices include VAT and Delivery

ATARI 520STFM SUPER PACK

Includes STFM with 1MEG drive, 21 games with business software (worth over £450) & joystick.

Only £339.00

- 520 STFM latest version with 1MEG drive fitted £269.00
1040 STFM latest model, including TV modulator £399.00
1040 STFM machine as above, with 'Microsoft Write' & 'VIP Professional' £419.00
1040 STFM machine as above, including 21 games, business software & joystick extras as supplied with above '520 STFM Super Pack' £419.00
1040 STFM as above with super pack extras, 'MS-Write' & 'VIP Pro.' £459.00
- Buy a monochrome monitor with any 1040 from above for £110.00 extra
- Mega ST2 package - includes Mega ST2, mono monitor, external 1Mb 3.5" drive, SLM804 laser printer, 'Microsoft Write', 'VIP Professional', 'Fleet St. Publisher' software and 90 days on site maintenance £1795.00
Atari DTP system - includes Mega ST4, mono monitor, SLM804 laser printer, 30Mb hard disk, 'Fleet Street Publisher' software and 90 days on site maintenance £2795.00
5.25" External drive 40/80 track 360/720K formatted capacity £159.95
Pace Linnet Modern Pack inc. cable & software £179.00
Pye 1185 16" FST teletext remote ctrl. TV/Monitor c/w ST or Amiga cable .. £269.00
Philips CM8833 colour monitor c/w ST or Amiga cable £229.00
Philips CM8852 as above, higher resolution £299.00
Cameron Handy Mouse, high quality replacement ST mouse £39.95

commodore hardware

SPECIAL OFFER AMIGA PACK

A new Amiga 500 package including the following: (extras worth over £270)

- * Amiga 500 computer
- * TV Modulator
- * Mouse & Mouse mat
- * Joystick
- * Las Vegas
- * Photon Paint
- * Karate Kid II
- * Goldrunner
- * XR 35
- * Grid Start
- * Demolition
- * 5.25"
- * plus 5 disks of public domain software

all for only
£399.00

- Oceanic OC-118 64/128 disk drive for 64/128 with free GEOS software ... £129.95
Oceanic OC-118 as above with Freeze Machine £149.95
Freeze Machine complete backup cartridge, with integral reset button £28.95
LC-10 commodore 64/128 ready printer inc. 2 extra black ribbons free £199.00
LC-10 7-colour version of above printer inc. 2 extra black ribbons £249.00

Amiga & ST 3.5" Drives

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

Fully compatible, high quality 3.5" external drives for the ST and Amiga

Amiga version only £79.95

Atari ST version only £82.95

Prices include VAT & delivery

Western Digital Filecards

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

20 MEG...£219.00 32 MEG...£239.00

DISECTOR ST V4

for all Atari ST models
only **£24.95**

Version 4 disk utilities for the ST, features include: protected software backup, featuring the new turbo nibbler, a faster and more powerful copier, which uses all available drives & memory and includes 56 parameter options for handling a greater range of software; drive B boot to allow many programs to startup from drive B; organiser accessory providing many major disk management commands; extra format giving over 15% extra user storage area per floppy disk; fast backup; ramdisk accessory; undelete file; PLUS many more!

3.5" disks

10...£11.95 in plastic case £13.95
25...£27.95 in 40 cap case £34.95
Fully guaranteed double sided media

5.25" disks

25...£13.95 in 50 cap box £22.95
100...£24.95 in 100 cap box £24.95
Fully guaranteed double sided media

Amstrad PC1512/1640/2086

We offer a wide choice of Amstrad PCs with many upgrade options, including the very latest PC2086 range. For the hard disk option, check our 'Evesham Upgraded Models'. Only the best will do - so we normally upgrade by means of a Western Digital Filecard, which includes XTree and SpeedRead software; however on single drive 1512/1640 models we can offer internal installations at the same price (leaving more expansion room but no upgrade opportunity for a 2nd floppy drive). On-site service contracts are available on any PC1512/1640 model for only £44.00 inc.VAT. Prices in lighter type exclude VAT.

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

	SD	DD	AMS H.D.	SD 20MEG	DD 20MEG	SD 32MEG	DD 32MEG
EVESHAM UPGRADED MODELS							
MONO 1512	384.35 442.00	477.39 549.00	N/A N/A	574.76 661.00	667.83 768.00	582.17 681.00	665.22 788.00
COLOUR 1512	494.78 569.00	555.65 639.00	N/A N/A	685.22 788.00	746.09 858.00	702.61 808.00	763.48 878.00
MONO 1640	474.78 546.00	555.65 639.00	738.26 849.00	665.22 765.00	746.09 858.00	662.61 785.00	763.48 878.00
CGA colour 1640	581.74 669.00	651.30 749.00	825.22 949.00	772.17 888.00	841.74 968.00	769.57 908.00	859.13 988.00
EGA (ECD) 1640	677.39 779.00	738.26 849.00	938.26 1079.00	867.83 998.00	926.70 1068.00	885.22 1018.00	946.09 1088.00
2086 MONO	578.26 665.00	686.96 790.00	917.39 1055.00	768.70 884.00	877.39 1009.00	786.09 904.00	894.78 1029.00
2086 CD	717.39 825.00	825.22 949.00	1056.52 1215.00	907.83 1044.00	1015.65 1168.00	925.22 1064.00	1033.04 1188.00
2086 12" HRCD	806.70 930.00	920.00 1058.00	1147.83 1320.00	999.13 1149.00	1110.43 1277.00	1016.62 1169.00	1127.83 1297.00
2086 14" HRCD	900.67 1036.00	1012.17 1164.00	1241.74 1428.00	1091.30 1255.00	1202.61 1383.00	1108.70 1275.00	1220.00 1403.00

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

optional extras

- 1512 memory upgrade to 640K £39.95
Maths Co-processor 8087-2 £129.00
NEC V30 (8088 replacement) £24.95
Cipher CT1525 tape streamer £319.00
Amstrad Modem Card V21/23 £99.00
Amstrad MC2400 Modem Card £199.00
- 3.5 inch drive (720K) for any single drive models £79.95
PC2000 series compatible 5.25" (360K) external drive £100.00
Joystick & Controller Card self centering analog type £34.95

Amstrad PPCs

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

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

New low price External 3.5" floppy drive (720K) to suit ANY Amstrad 1512/1640 inc. DD and HD models! Uses no expansion slots £99.95

Central Point Software

For all your PC disk management requirements

PC Tools Deluxe Version 5.....Other utilities may claim to 'do it all' but only PC Tools Deluxe is the complete disk utility package, providing a fast hard disk backup, the best undelete available, 100% safe formatting of floppy and hard disks, uniform, reliable disk caching, compress facility, in fact everything required to manage & protect your data at a sensible price.....£49.95

Copy II PC Version 5.....The most effective floppy disk backup utility of its type. We always ship the latest version. Can also transfer many programs to hard disk and then run them without reference to floppy. Supports both 5.25" and 3.5" disk format. Don't be without it.....£24.95

Copy II Deluxe Option Board.....The ultimate solution to backing up copy-protected software using the hardware option. All the original features of the Option Board, including the most powerful backup copier product on the market, can even transform any PC equipped with a 3.5" drive into a dual purpose IBM/Macintosh drive. Allows your PC to read and write to MAC data disks easily through DOS. Comes as an easy-to-fit short card.....£84.95

PRINTERS

All prices include VAT, delivery and cable

star

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

- Star LC10 best-selling 144/36cps printer, 4 NLQ fonts, inc.2 extra ribbons free .. £199.00
Star LC10 7-colour version of above printer, inc.2 extra black ribbons £249.00
Star LC24-10 feature-packed multifont 24 pin printer £339.00
Star NB24-10 great value 24pin inc. cut sheet feeder + 2 extra ribbons £499.00
Star NX-15 budget wide carriage printer £329.00
Star NB24-15 wide carr.version of NB24-10 inc. cut sheet feeder £649.00
NEC P2200 budget 24pin, great value 168/56 cps £319.00
Amstrad DMP3160/3250D good value 10" 9pin £169.00
Panasonic KXP1081 reliable budget 10" printer 120/24 cps £169.00
Panasonic KXP1160 super new 9pin with over 3400 typesetstyles, 11" carriage £199.00
Panasonic KXP1124 great new sturdy 11" multifont 24pin printer £319.00
Epson LX800 popular 10" 180/25 cps £199.00
Epson LQ500 good 24pin printer 150/50 cps £319.00
Citizen LQ200 good value 10" 120 cps £139.00
Citizen HQP-45 wide carriage 24pin printer £399.00

How to order

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

Evesham Micros Ltd

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

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

The Pirates of PC-DOS

Dave Langford contacts the spirit world, and brings us an operatic masterpiece

I was playing round with a joke program to produce computerised ouija-board messages (you generate random letters with the correct distribution frequency for English, and let the spelling checker make its best guess at each word). Imagine my surprise when I began to receive astral-sensual communications from Sir William Schwenck Gilbert of Gilbert and Sullivan fame, who is trying to finish a new, topical and posthumous operetta. Here is all I can remember of his draft libretto for *The Pirates of PC-DOS*.

This opens with software pirates debating an apprentice who's been signed up with them on his 21st birthday - which is today. But since DOS accepts no dates existing before 1 January 1980, they argue that the poor guy can't clock up 21 years and escape his indentures until 2001. "We've bugs and glitches met in flocks, But none to beat this paradox!" Then comes a song as the buccaneers plan their foray into data theft...

A rollicking band of pirates we,
Who, tired of BASIC and of C,
Are trying our hand at burglary
With weapons grim and gory.
We are not hacking for bankers' gold,
A story pays much more, we're told:
We seek a royalty fiftyfold
From selling our hacking story!

The grim and gory weapons are duly distributed:

Take your modem and your cable kit,
Your BIOS manual - helps you tweak
that bit -
Your disassembler and your DEBUG
seize,
Take your disk with the algorithmic keys

Against these miscreants, however, are ranged the stout-hearted men of the Federation Against Software Theft, all somewhat surprisingly equipped with golden hearts full of sympathy for the wicked...

When the enterprising hacker's not a-
hacking
At the Stock Exchange or starting World
War III,
He loves to hear his Sony Walkman
quacking,
Or to watch the Blues of Hill Street - as
do we -
When the copy-breaker's flogged a
stolen copy,
He loves to scan the third page of The
Sun;
Ah, forgive us that we're pardonably
stodgy:
A FASTman's lot is not a happy one.

The ensuing debacle is confused by the entrance of a Sorcerer who does a self-advertisement routine:

My name is A Solomon (Doc),
I'm a dealer in panic and shock,
In rumours of piracies,
Charmis against viruses:
Placebos always in stock!

This is in turn interrupted by the Mikado himself, who has strong personal views on prison reform - "something humorous and lingering, with boiling oil or molten silicon" -

The software pirate and overpriced
vendor,
Their dooms are just the same;
For they're made to fight through
endless night
With an obsolete video game:
At Kong, Invaders, Frogger, Defender,
Each hapless felon strives,
On a duff machine with flickery screen
And a poke for fewer lives.

My object all sublime,
I shall achieve in time,
To let the punishment fit the crime,
The punishment fit the crime!

After some backchat from Sir Clive Pooh-Bah ("My family pride is something inconceivable. I can trace my ancestry back to a protoplasmal primordial membrane keyboard"), there enters a mysterious figure who seems to have strayed from yet another production, and who launches into something called the Sucrose Patter Song.

If you ask me how to rise in this
hardware enterprise and become a
mega-star,
I say, fill the papers' pages with some
sentiments outrageous, never mind
just what they are.
So a scheme that's hardly practical for
selling weapons (tactical) means
column space for free -
Then in headlines that are shockers you
may castigate the "knockers", and it's
all publicitee!

And everyone will say,
As you walk your flagrant way,
"If that young man gets quoted even on
the BBC,
Why, what a most particularly famous
man that bearded man must be."

Then does your product need improving?
Still you keep the boxes moving and
don't ever tell a soul:
But ensure each media mention is
designed to shift attention from your
quality control.
Though the magazines may grumble,
you will never take a tumble while the
punters all admire
Your delightfully outspoken words of
confidence unbroken - in a cockney
accent, squire.

And everyone will say,
As you walk your rough-hewn way,
"If that young man needs elocution
lessons just like me,
Why, what a most particularly unspoilt
man that bearded man must be!"

Enter, at this point, the Lord High Executioner, cooling his motherboard with a large Japanese fan, and...and...will someone please take this libretto away from me before the lawyers do?

NEXT WEEK

Comms

Get the best out of your modem! The Express guide on How to be a Smart Comms User

History of the ST

How a STar was born

DeLuxe Paint III

The man who made it all happen

Your machine

More fact and news-packed columns

PLUS

Another ratatouille of letters, tech tips, reviews, features, jobs, games... and the very latest in news and comment on the current computer scene

On sale
Thursday March
30th

Order
yours now!

Only
48p!

Shoot from the Lip... the week's most quotable sayings

"Hollywood Poker contains a zoom-in feature - because Germans are pervies."
US Action's Howard Newmark dubious theory on the new German strip poker game

TES's Nick Evans on the declining popularity of computer studies in schools

"It is a matter of grave concern that our culture is defining computers as pre-eminently male machines."

Celia Hoyle, author of *Girls and Computers*.

"Computer studies now is a subject which is tackled by a declining number of students in search of an ill-defined objective."

COMPUTER



WE ACCEPT
EXPRESS
VOUCHERS

EXPRESS

ATARI 520ST-FM 1Mb £299

plus V.A.T.

With SUPER PACK of over £450 worth of FREE software

plus FREE STARTER KIT

Exclusive Computer Express Atari starter kit.
* ST OWNER'S SECOND MANUAL
* PUBLIC DOMAIN SOFTWARE * MOUSE MAT

ATARI HARDWARE

Atari 520STFM, 512K RAM, 1Mb Disk Drive, Mouse	£235.99
Atari 520STFM 512K RAM, 1Mb Drive, Super Pack S/Ware	£299.00
Atari 1040STFM, 1Mb RAM, Disk Drive, Mouse	£399.00
Atari 1040STFM with SM124 Mono Monitor	£499.00
Atari 1040STFM with Philips 8833 Colour Monitor	£639.00
Atari Mega ST2, 2Mb RAM, Mouse, Mono Monitor	£799.00
Atari SM124 12" High Res Mono Monitor	£119.00
Atari SC1224 12" Med Res Colour Monitor	£339.00
Cumana 1Mb Double sided 3.5" Disk Drive	£99.00
Philips 8833 Med Res Colour Monitor - Excellent Buy	£249.00
Super Drive 20Mb Hard Disk - Auto Boot!	£455.00

PROFESSIONAL ATARI SOFTWARE

Ex Heaven Editor - Mid Synth Editor	£88.00
Steinberg Pro 24 software - from as little as	£150.00
Film Director - Animation Package for Art Director	£44.00
PC Dito - At Last a Full IBM Emulator	£66.00
Timeworks DTP - Xerox Ventura Clone	£89.99
Easy Draw II - Great with Timeworks DTP	£39.00
Spectrum 512 - The Ultimate Paint Programme	£35.00
First Word Plus	£56.00
WordPerfect	£169.00
Superbase Personal - Powerful Relational Database	£73.00
Timeworks Desk Top Publisher - The Ventura DTP Clone	£34.00
Fastcom - Popular ST Communications Package	£36.00
Mark Williams 'C' Compiler - 'C' How You Like This	£90.00
Fast ST Basic (ROM) - It's really fast!	£66.00
Fast ST Basic (Disk) - Disk Version of Above	£33.00
CAD 3D 2.0 Cyberstude - The Best 3D Drawing Kit	£66.00

ATARI TOP SELLING LEISURE SOFTWARE

Advanced OCP Art Studio - Low Cost Art Package	£18.45
Chessmaster 2000 - 3D Graphics With Speech	£18.45
Flight Simulator III - Very Realistic Best Seller	£36.00
Flight Simulator Scenery Disks - For Use with Above	£18.45
International Soccer - Kick 'em to death	£17.95
Oblierator - Through the plasma in Cinemascope graphics	£21.95
Tenorads - Watch Out They're Here!	£18.45

MANY OTHER TOP RELEASES AVAILABLE

All goods guaranteed. Official Purchase orders accepted from Government, Local Authorities, Universities and PLC's. All prices exclusive of VAT and subject to change without notice. Delivery charges extra. No returns or repairs accepted without Returns Authorisation Number (obtainable from our Technical Support Department). Defective dead-on-arrival merchandise repaired or replaced immediately at our carriage expense. Carriage on warranty repairs is paid by the customer. Non-defective credit returns subject to a 15% restocking fee. Technical support available Monday to Friday. Export and trade enquiries welcome.

FOR FULL PRICE LIST PLEASE CALL
EXPORT & TRADE ENQUIRIES WELCOME
TELEPHONE & MAIL ORDERS WELCOME



CALL 0727 37451



MICRO-COMPUTERS, PERIPHERALS
SOFTWARE, SALES & SUPPORT
CREDIT CARDS NOT DEBITED UNTIL DESPATCH

HEAD OFFICE

NORTH LONDON
MANCHESTER
WEST LONDON
BIRMINGHAM

• CAXTON CENTRE • PORTERS WOOD • ST. ALBANS • HERTS • AL3 6XT • (0727) 37451
• 99 PARK STREET LANE • BRICKET WOOD • ST. ALBANS • HERTS AL2 2JA • (0727) 72790
• 85 WASHWAY ROAD (A56) • SALE • MANCHESTER M33 1TQ • 061 962 0780
• 304 KINGS HILL AVE • HAYES • MIDDLESEX • 01-841 8744
• 1046-1048 COVENTRY ROAD (A45) • HAYMILLS • BIRMINGHAM B25 8DP • 021-772 5212
SHOWROOM OPENING HOURS: Monday-Friday 9am-6pm Saturday 10am-5pm

showroom
near you

ATARI MEGA ST2

Serious computing with unlimited expandability. 68000 processor running at 8MHz; built-in 720K floppy drive, Midi ports with 3 programmable sound channels, Mouse, GEM. Choice of Monitors. High resolution Mono Monitor. £799
Medium resolution Colour Monitor £934
20Mb Supra Hard Disk ex stock £455

ATARI MEGA WP LASER PACK

A bargain if ever there was one! 2Mb Atari Mega with Mono Monitor, Atari SLM804 Laser Printer, Lotus 1-2-3 compatible spreadsheet and Microsoft Write WP pack. Our Special Price £1479

ATARI LASER PRINTER

8 pages per minute in 300 dots per inch resolution at a price not to be missed £1085

ATARI 1040ST-FM

All the brilliance of the Atari with 1Mb of RAM and 1Mb double sided disk drive. £399



GAMES SOFTWARE

Afterburner	Call
Carrier Command	Atari Amiga £21
Corruption	Atari Amiga £23
Dagaz Elite	Atari Amiga £23
Daley Thompson	Amiga £19
Dragon Ninja	Call
Dungeon Master	Atari £19
F16 Falcon	Call
Flight Simulator 3 IBM	Atari Amiga £39
Garfield	Amiga £16
Interceptor	Amiga £23
Manace	Amiga £17
Operation Wolf	Atari Amiga £18
Starglider 2	Atari Amiga £19
Star Ray	Atari £16
Star Ray	Amiga £23
STOS Game Creator	Atari £26
Super Hang-on	Atari £19
Thunderblade	Call
U.M.S	Atari £23
Virus	Atari Amiga £19
Where Time Stood Still	Atari £16

Plus a full range of all popular software at low prices.

COMMODORE AMIGA 500

£319

plus V.A.T.

AMIGA

Amiga 500 with free TV Modulator	£319
Amiga 500 with modulator and 10 Games	£355
Amiga Colour Monitor	£249
Amiga Mini Genlock	£99
Amiga External Drive 3.5"	£79
Amiga 500 External 20Mb Hard Disk with SCSI	£499
Amiga 2000(B) CPU and Keyboard	£979

AMIGA PRODUCTIVITY SOFTWARE

Page Flipper with FX animated graphics and sound	£99.00
Descartes? Educational Graphing Tool	£21.99
Silver Ray Tracing and Animation	£99.00
IntroCAD - Amiga aided design	£44.99
Director - Thames TV on your Amiga	£42.99
Professional Pagesetting - under	£100.00
Educational Software - from	£32.50
Deluxe Photo Lab - omnicolour paint system	£56
Photon Paint - the latest word in paint packages	£49

MIDI for the AMIGA

Call for details of our range of Midi equipment and software.

STAR LC-10

For the money no other printer offers so much. 80 column multifont printer with 8 resident fonts and paper parking. 144cps draft and 36cps in NLQ quality. Parallel or Commodore interface versions available. £209
Colour version printing 7 colours £239

EPSON LX800

This latest offering from Epson zips along at 150cps in draft and 25cps in NLQ. Comes complete with Parallel Esc-P or IBM Parallel interface as standard, plus top mounted tractor feed. Good clear typeface, and 80 column wide. £159

PANASONIC 1081

At this price who can ignore this little winner. 120cps draft and 30cps in NLQ makes it everybody's favourite. £143

NEC P2200

At last a 24 pin printer you can afford, and with NEC's renowned reliability. This little baby cruises along at 168cps in high speed, 140cps in standard and a really nippy 56cps in Letter Quality mode. This printer should be on every discerning buyers list: NEC P2200 £289
Cut Sheet Feed £65

TIMWORKS

The latest in low-cost DTP. An excellent package for anyone wanting to make a start in DTP for a very modest sum. Timeworks is very popular, and has good telephone support from the manufacturer. IBM £89
Atari £89

Sort out the  MEN from the  BOYS!

RUN THE GAUNTLET



JETSKIS

HOVERS

SPEEDBOATS

METEORS

BUGGYS

Inflatables

SUPERCATS

QUADS

THE HILL

SPECTRUM 8.99
COMMODORE 9.99
AMSTRAD 9.99

ocean

ATARI 19.99
AMIGA 24.99

Also available on DISK.

6 Central Street - Manchester - M2 5NS
Telephone: 061 832 6633

"... What a brilliant game! ... all the action, thrills and spills. This is an excellent game, so go and run The Gauntlet, NOW!"
"... apart from technical excellence, it's the sheer range of playable sections that makes Run The Gauntlet one of the best multi-event games ..."
Crash

9
EXPLOSIVE
EVENTS