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NEW COMPUTER EXPRESS

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- Colour Harlekin
- Dynasty Wars review
- MIDI association

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- Neo-Geo battle

SPECTRUM
- C64 console coming
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Specialist Columns for:
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Thousands to be found in
SHOPPING EXPRESS

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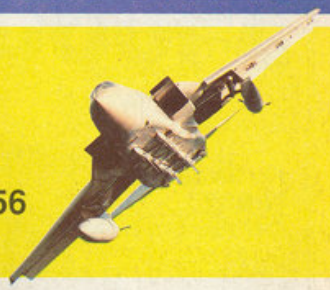

'WE'LL SAVE THE COUPE'

MGT receiver seeks buyer. User group ready to provide crisis cover. What chance of a rescue? page 3

BUT BACK IN THE USSR...

A Spectrum emulating micro is waiting in the wings page 4

'THE GAMEBOY SUCKS'

says Atari US president Sam Tramiel. And wait till you hear what he thinks about the Amiga 3000... page 46

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Derby schools first to get CD Amiga

A new system based on Commodore Dynamic Total Vision (CDTV) will be helping to teach Japanese language and culture to Derbyshire school children later this year. The initiative has been set up by Global Learning Systems (GLS) of Derby and Commodore.

The CDTV system was launched at the US Consumer Electronics Show in Chicago two weeks ago. It offers CD-ROM, Amiga compatibility and infra-red remote control. The Derbyshire system will allow for hi-fi sound as well as digitised video/computer graphics and text to be stored on the CD-ROM.

Software is being produced with the help of Central Television's studio complex in Nottingham where the system will be launched in September.

The reason for this innovative move is that Toyota, the giant Japanese motor manufacturer, has decided to set up a major car assembly plant in the county. The CDTV-based system will also be used to store and maintain records of personal progress as 'an incentive for the students and information for the teacher.'

• CDTV turning Derbyshire Japanese.

Derbyshire County Council commented: "By giving our children these options, Derbyshire will be providing the management and supervisory recruits for tomorrow's Japanese factories. Once the Japanese venture is operating successfully we will consider how the learning system can be integrated into other curriculum areas."

This move by Commodore is obviously aimed at strengthening its claim to be the foremost educational hardware house. "CDTV will be able to revolutionise educational teaching for all types of students," was the comment from Commodore's Steve Franklin. ■

September release date set

C64 CONSOLE IN AUTUMN

A cartridge-based C64 console will be released on September 13 at Olympia's Computer Entertainment Show.

The as yet unnamed machine, dubbed the C64GS by industry insiders, is expected to retail for under £100 and Commodore is forecasting UK sales of 100,000 in its first year.

While rumours of a C64 console have circulated for nearly two years, the company has always been reluctant to confirm or deny press speculation as to its specifications. *Express* understands that publishers developing games software are working on a maximum cartridge storage limit of 4Mb. Already, two titles, *Fiendish Freddy* and *Flimbo's Quest*, are lined up for launch release at a £24.95 price point.

The new machine will not be pitched as a replacement for the current C64, although it believed that console software will be compatible with old C64's cartridge port.

The launch of the console will herald a Christmas-time sales war between Commodore and rival Amstrad, which is expected to unveil its own console in late August. ■

Virtual reality to order

Dimension International, a company formed by Freescape author Incentive, has announced plans to offer a bureau service for PC owners wishing to convert two dimensional plans into interactive walk-through three dimensional environments.

Two years in development, the *SuperScape Alternate Reality System* is an extension of the solid 3D Freescape routines used in popular games such as *Driller* and *Dark Side* and is billed as 'the nearest thing to being there'.

SARS currently runs on any 286 or 386 PC with VGA graphics, and allows 3D designs of buildings to be explored at real-time speeds using a mouse, joystick or cursor keys.

Macintosh and workstation versions are also planned and the company envisages releasing *SARS* as a stand-alone package in two years time.

Further enhancements may include Dataglove and Eyephone compatibility for virtual reality interaction.

Dimension is on 0734 810077. ■

• Ralph Steadman has repainted the Last Supper, he's even turned the Polaroid into an art form – now he's working with Macs.

To be exact he's drawn a 30-frame story, The Computer's Dream, using the Fingerprints graphics system. The tale chronicles the relationship between a computer operator, his (female) machine, a viral temptress in the shape of a Macintosh apple logo, and a knight in shining armour.

The Computer's Dream was commissioned for the opening of Fingerprint's new offices. The finished work will be auctioned off in aid of Save the Children. ■

Miles Gordon and INDUG pledge support for existing SAM owners

MGT URGENTLY LOOKING FOR A BUYER FOR THE SAM COUPE

SAM Coupé manufacturer Miles Gordon Technology, which last week appointed a receiver, is urgently seeking a buyer for the company to save the machine from effective extinction.

Meanwhile, the user group INDUG is standing by to help existing Coupé owners in case attempts to sell MGT fail or become excessively protracted.

MGT's Alan Miles told *Express*: "We have failed as a company, but we've got a good product and we're making sure that it doesn't fail too. We are making every effort to find a buyer quickly in order to protect our customers.

"There are half a dozen companies interested. If a buyer is found soon, the whole business will be transparent to existing customers as the customer support will continue."

• *The SAM Coupé: buyer being sought.*

BADLY WRONG

It is believed that things started to go badly wrong during March, when the company hit a cash flow crisis. MGT's money was by then all tied up in stocks of finished Coupés.

Possibly because the machine had launched far too late for the prime autumn sales period, the company had produced considerably more machines in its first manufacturing batch than it would be able able to sell in the immediate future. Some sources put MGT's unsold stocks of the machine at anything up to 6,000 units.

Reputedly owed around £100,000 by others, and with possibly only 8,000 Coupés actually sold to date, MGT found itself under-financed at a stage where it was planning to buy and send out ROM chip upgrades to existing owners. Its stocks of Spectrum peripherals were sold off to Datel, but the move did not free sufficient cash to solve the problem.

The company is said to have approached Johnson Fry, which handled the original flotation, with a view to raising extra funding. An initially negative response reportedly prompted MGT's bank to implement a no-payments-out policy, and by the time Johnson Fry reconsidered an underwriting offer the company had reached a point where bringing in the receivers was its only feasible course of action.

FIVE PER CENT

Receiver manager Robert Ellis of Touche Ross said: "In five months the Coupé has captured five per cent of the UK leisure computer market, but [MGT] had to borrow heavily to to bring the product to market.

"Since then they have sought funds to finance further expansion, but at a time of financial restraint, backers were unwilling to release further funds, and closure is seen as the only option."

While five per cent of the market during the relatively sluggish summer sales period does not account for a very large number of units, in the lucrative quarter to next Christmas the percentage, if anything like sustained, would represent a healthy level of turnover for any new owner.

The Coupé also has the advantage of being a machine which has been researched and developed, with all the necessary tools and accessories for its manufacture already in existence. Its problems have been identified, and many of them already dealt with.

It is unclear, however, who the claimed half-dozen or so potential suitors might be. Informed opinion has it that an improved profit margin could be realised by shifting the Coupé's manufacture to a base outside the UK, with Far Eastern countries the likeliest contenders.

One source has offered the comment that 'Atari could produce it cheaper than anyone else' but declined to amplify this statement. Atari, for its part, is firmly denying any involvement, while Amstrad and Acorn have also gone on record as having no interest in the company. ■

What to do if you own a SAM

MGT is pledging to repay its customers' loyalty one way or another, preferably by rapidly placing the Coupé with another manufacturer, ensuring its continued support and the honouring of warranties.

"We are talking about as short a period as possible," said Alan Miles. "If it gets above a week or two, we have a couple of contingency plans. We've talked to the Coupé user group about a possible support package from them, and we've even considered putting the upgrade ROM file in the public domain."

Bob Brenchley at the user group INDUG said: "We will give whatever support we can."

Coupé owners who wish to join the user club should contact Bob Brenchley on 0452 412572.

History lesson

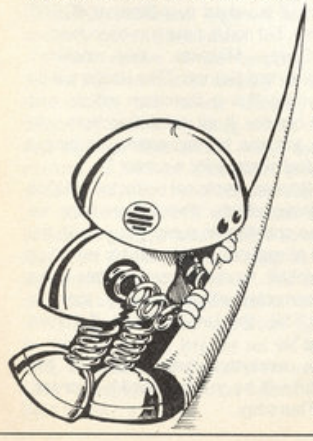
1986 Alan Miles teams up with Bruce Gordon.

1987 Miles Gordon Technology had grown to a four-person operation, successful at producing interfaces, drives and peripherals.

1988 MGT was ready to expand to Swansea. In December the MGT partnership became MGT Limited.

1989 The company began to concentrate on the Coupé and Johnson Fry was brought in to organise a share fund that would make MGT a PLC. In September problems with the company producing the ASIC chip forced its production to be switched to the US. The Coupé was eventually launched on December 19.

The Coupé's catalogue of problems...



Early hopes that the Coupé would be a sub-£100 home and education computer were dashed as manufacturing costs forced the price up to £160

The Coupé eventually arrived in time to miss the 1989 Christmas market. It was shipped to eager buyers but the ink had hardly dried on the till-rolls before murmurings about problems with the machine were heard.

The machine's optional disk drives were claimed to be useless by some purchasers because the Coupé was shipped without a proper disk operating system.

Hurried huddles at MGT provided an instant solution. A simple POKE cured the problem and allowed users to access their disk drives. An update of the system ROM was promised with the problem fixed.

Eager gamesters turned to their Spectrum software when Coupé programs weren't available, but found sound and display problems with the Spectrum emulator. A 36-hour programming session repaired/rewrote the emulator, but inconsistencies in ROM versions reported by the programmer indicated further difficulties.

MGT announced that a new version of the system ROM had been developed and that it would be mailed out to users who had returned their guarantee card. Instructions that would allow an average person to open up the machine and effect the ROM swap would be included.

Program developers next reported that a serious problem with the custom ASIC chip made it impossible to implement MIDI on the machine. The same problem also made it difficult if not impossible to successfully network Coupés.

A mouse and light pen which were originally to have been made available for the machine have not appeared.

Mickey gets into PC hardware...

Walt Disney is heading into computer land with a will. Not content with software alone, Disney recently announced that it is to produce hardware. Its first foray into this market will be an audio device for IBM compatibles.

Called the Sound Source, it is a three-inch speaker which plugs into the parallel port and is said to give higher quality audio reproduction than the standard PC speaker. The Sound Source will be able to handle music, sound and speech. Although the device makes use of Disney's own programming system, the company is prepared to to make it available to other software houses for further development.

Somewhat more in line with its pedigree, Walt Disney Software of Burbank also demonstrated a package called *The Animation Studio* for the Amiga. This makes use of 'onion skin' technology, a system which allows animators to see the animation cell on which they are currently working as well as the three behind it. The program comes with a tutorial which uses examples of Disney cartooning to ease the learning process and maybe produce even more Don Bluths.

Once the images have been created they can be distributed to other animators via a bundled public domain 'projector'. You can even add a soundtrack by using yet another release from the firm, a range of sound effects from Disney Cartoons. All of this rides on the back of a three-pronged strategy of software releases planned to the third and fourth quarters of this year. These will include entertainment, educational and personal development packages for the Amiga, PC, C64 and Apple Macintosh II.

• Mickey gets into interrupt vectors and dip switch settings.

Atari Portfolio goes down the drain

Atari is taking its bid for hand-held world domination underground. It has bought the exclusive rights to all the advertising sites on the Waterloo & City link – known as The Drain – in central London.

The Waterloo & City line carries 900,000 of the wealthiest executives in the country from the South East's premier station to Bank in London's financial heart.

The June campaign is part of a £5 million advertising strategy aimed at introducing Atari's pocket-sized MS-DOS-based computer, the Portfolio, to a wider audience.

There are five new software releases for the tiny machine which come in card form this month. *Financial Calculator* performs financial, business and statistical calculations. *Scientific Calculator* combines stats with scientific and mathematical calculations. More interesting is the *Extended DOS Utilities* card which provides 22 extra facilities.

Two games are also due out for the busy executive who needs a break, *Portfolio Chess* which is, er... chess, and *Mindgames* which includes backgammon, reversi (known sometimes as othello or iago) and draughts.

The Portfolio will set you back £249.99. For more information call Atari on 0753 33344.

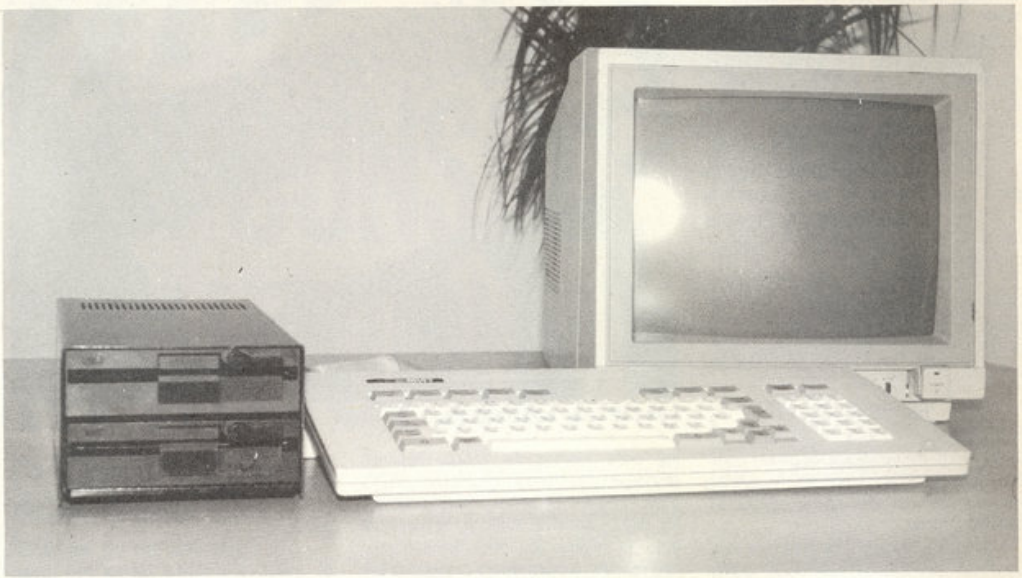
Tiny A4 laser quality printer

A portable bubble-jet printer slightly bigger than an A4 pad, weighing only four pounds and running on rechargeable batteries, will be launched by Canon in September.

The £345 BJ-10 is fitted with a print head filled with tiny nozzles which heat up ink and deposit it on paper.

With a claimed 360 dots per square inch, the bubble-jet's print resolution is higher than that of most lasers, and it runs at a print speed of over 140 character per second.

EXCLUSIVE: Russian 'Hobbit' in Britain soon



• First pictures of the Russian Spectrum clone, the Hobbit, with its disk drives and networking operating system.

SOVIET SPECTRUM STAKES UK CLAIM

As the UK's SAM Coupé hit trouble, news reached *Express* that the Russians have developed a similar machine and are planning on launching it in Britain.

Last week Soviet computer designers Michail Osetinskij and Dmitry Michailov flew in from Leningrad to show *Express* their Spectrum emulating micro named the Hobbit. While in the UK they had talks with software houses, programmers and publishers about supporting and promoting the machine.

The Soviet Spectrum has the ability to network, fileserve, run CP/M and run Logo from ROM. It can also work in the Roman, Cyrillic and Arabic alphabets at the push of a single key.

The Z80-based machine is well specified with three joystick ports (two Sinclair and one Kempston), serial and parallel ports as standard, a disk controller that can run up to four disk drives including a hard disk, and a full-sized 74-key keyboard of which 33 of the keys are programmable.

The basic machine has two 5.25-inch drives and the flexible operating system allows a 'crashed' machine on a network to be controlled and revived remotely. Diagnostic software in the system ROM makes it a programmer's dream

As well as the TV connection, there is an RGB output that works with most standard monitors.

The machine is in production in Leningrad, and 15,000 have been delivered to schools and educational establishments. It is valued over there at 40,000 roubles, but no UK price has been fixed.

Dmitry Mikhailov, the machine's designer told *Express*: "The Hobbit will do everything that a Spectrum will do and more besides. It will run all Spectrum software and also has networking, making it the ideal machine for a school."

Russian technical director Michail Osetinskij added: "While we are here, we will be speaking to many people with the hope of expanding and possibly exporting the Hobbit. Its multi-lingual abilities make it a computer without frontiers, ideal for the USSR, the UK and even the Third World."

• An exclusive full review of the Hobbit will be in next week's *Express*, out Thursday.

Kick Off 2 launched as cup confusion reigns

Anco's footie sim *Kick Off*, 1989's Game of the Year and one of the most addictive games ever, has been upgraded to coincide with the World Cup finals.

Kick Off 2 now offers up to four players a choice of hundreds of team members with different skills, improved tackling and ball control options.

After-touch control allows you to bend or dip the ball, you can build defensive walls for set pieces and store up to 10 goals for action replays. And yes, the pixel perfect passing blazes along at the same pace.

Kick Off 2 is available for the ST and Amiga at £19.95, PC for £24.95, and C64, Spectrum and CPC for £14.95.

• Meanwhile a country-wide *Kick Off* competition run by CFA of Feltham has run into some confusion.

People have as yet not received confirmation of membership or details of the rules, although cheques have been cashed. The involvement of Anco, the publisher of the *Kick Off* series, is yet another complication.

CFA was under the impression that Anco was giving full support to the competition, but Anco boss Anil Gupta commented: "I cannot say that we will have any involvement with CFA."

While Anco will express no support for the CFA competition, it will put up the prize money of some £2,500 if the competition goes ahead.

For anyone who has sent off £5 to enter the challenge, Steve Anderson informs us that "people will be receiving things at the end of the week". ■

Official UK Neo-Geo near

The official release date for the excellent but expensive Neo-Geo games console has been brought forward to the end of this month because of excessive grey imports.

Luther de Gale, a spokesman for DG Marketing, the authorised outlet for the Neo-Geo in this country, told *Express* last week that the launch date had been brought forward.

SNK, the Japanese producer of the Neo-Geo games machine, has been stung into action as a response to grey importers selling the machine in the UK The original date for release was to be September at the Computer Entertainment Show.

Reacting to the grey imports, SNK earlier this month sent a letter to PC Engine Supplies, one of the companies which sells Neo-Geos, threatening further action if they did not stop selling the machines.

Steve Lowe of PC Engine Supplies confirmed that the Neo-Geos presently on sale were from a wholesaler in Hong Kong. He continued: "We are trying to work out whether putting a notice saying that our Neo-Geos are not the official ones from Japan but are from Hong Kong would solve the problem." ■

Your very own arcade machine

Like to turn your computer or games console into a full-blown arcade machine? Cybertech Distribution of Gloucester might well have the answer by the end of this month.

Kevin Stenner of the company told *Express* this week that his company will soon be marketing two 'arcade cabinets', the Budget Boy and Pro Boy. Along with the cabinets will come video panels, arcade quality monitors and, the heart of the matter, genuine arcade game printed circuit boards (PCBs).

Games start at £15, with originals such as *Gauntlet* going for around £60. If business is good the company will be "looking into the legal implications of PCB rental". This could mean that a library of games would be set up.

The Budget Boy will cost around £125, the price on the Pro Boy has not yet been fixed. The video panel will cost in the area of £150. For more information call Cybertech on 0453 544582. ■

Japanese CD-ROM 386 PC imported into UK

FM TOWNS ARRIVES IN BRITAIN AT LAST

If you want to get your hands on one of Fujitsu's famed FM Towns CD-ROM PCs – they're on their way!

While Commodore was in Chicago showing its CDTV , Cybertech Distribution of Gloucester was arranging to import the Japanese answer to the CD-ROM computer question. And an extremely powerful and elegant solution it is.

Cybertech will be supplying the basic model, the FM Towns 1F, which comes with a high-resolution VGA colour monitor, CD-ROM (which can also be used as a CD player), 1Mb RAM, a 720K 3.5-inch disk drive and an 80386 processor.

Top of the range is the FM Towns 2H which comes with an additional 40Mb internal hard disk, an extra disk drive and an extra 1Mb of RAM.

One obvious advantage of the FM Towns series is that, because they are PC-based, there is an enormous range of software available and the machine is by no means limited to a 'home entertainment' role – however spectacular.

Cybertech will be selling the FM Towns 1F at £2,500 each. Not cheap admittedly, but as its spokesman Kevin Stenner explained: "The price of an Amstrad with the same chip won't leave much change out of £2,000 – and that doesn't have CD-ROM.

• *The FM Towns CD PC – a games player's dream.*

"We can't be specific as far as games are concerned," he added, "because we'll be ordering them for each individual customer on a mail order, 28-day delivery basis. But you can rest assured that we will definitely be able to get hold of any games that are available. An unless demand becomes acute, we're confident we can cut delivery times to a couple of weeks."

At the moment some 20 games are said to be ready. Software houses approached so far include Psygnosis, Electronic Arts and Mirrorsoft – with *Dungeon Master* already converted.

"As far as prices for games are concerned it's too soon to tell," added Stenner. "Whatever the cost is in Japan, plus the conversion rate, plus the European hike. We won't be trying to make too much on them because we want to create a user base." ■

The price is right?

As the first to import the machine Cybertech is clearly going to sell the FM Towns at a premium. But is £2,500 fair? *Express* compiled the following shopping list to estimate how much it would cost to build yourself a similar piece of equipment:

An Amstrad PC1386SD can be obtained for £1,479, and we tracked down a CDR3600 CD-ROM drive from Hitachi for £540. Identifying a matching audio expansion card was harder, so let's call it £200.

This already comes to £2,219, without including any software, connecting leads and the time and trouble to cobble it all together – plus of course your DIY version won't have that 'designer' look. So it's not a bad deal after all.

Tech talk

The FM Towns computers offer CD storage of up to 540Mb of data – which includes music. They can also manage eight channels of sampled sound and six channels of FM-synthesised sound, and a MIDI interface can be slotted into one of the expansion ports.

There are two software packages, *TownsSOUND* and *Euphony II*, each allowing the in-built sound chip to be programmed so that the user can score music and control any MIDI devices.

The monitor can display up to 32,768 colours simultaneously, or in another mode, you can choose from over 16 million colours. Graphics can also be superimposed on to moving video images.

• *Lisa: buried without flowers.*

It's Lisa with an aaaah...

Apple Macintosh (US) put the theory of controlled obsolescence into hyperdrive recently when 2,700 Lisas were given an unceremonial burial. The machines were interred in a landfill in Logan, California.

The action was taken because Apple was not offered enough money for the machines by Sun Remarketing. Sun normally buys the Lisas and upgrade them to the equivalent of Mac Pluses.

The 2,700 old favourites were taken to their final resting place by Apple employees. Each Lisa went to its grave with 512K of memory, a 400K drive and no hard disk. It is not known if any kind of service was held; no flowers were requested.

Customised upgraded Lisas are available in the UK in small quantities. Watch this space for a full review of MacSolutions' basic 'Macintosh XL' in around two issues' time.

Over 130 exhibitors sign up for the 16 Bit fair

SUMMER SIZZLER FOR BARGAIN HUNTERS

The Royal Horticultural Halls, Victoria, opens its doors for the 16 Bit Computer Fair Summer Event from June 29 to July 1. The organisers promise it will be a paradise for bargain hunters and computing enthusiasts, and a day out that all the family can enjoy.

When the 16 Bit fair opened its doors for the first time in January, over 11,000 people crossed the threshold, and it was felt that the show was popular enough to justify a second event during the better summer weather.

Over 130 exhibitors including software houses, hardware companies and peripherals manufacturers and distributors will be rubbing shoulders for the three days, and the list of companies involved reads like an industry ABC.

There are adventure specialists, educational companies, computer bargain distributors, modem manufacturers, public domain libraries and even computer-radio specialists.

As well as famous names like US Gold, Audiogenic, and Gremlin Graphics, Amiga add-on company Bit Con will be giving the A500 PC board its first full-featured public airing. The board offers complete PC compatibility on the Amiga A500, and it will bring the *Autoroute* road atlas and route planner within the grasp of Amiga users.

US Amiga/ST hard drive specialist ICD will be displaying the latest in high density storage.

Scottish firm Rombo is to show the latest version of its video digitiser, and linemen will leap at the chance to see the company's all singing, all dancing Demon IV modem, currently fastest in its class.

Admission to the show is £4 for adults, with under-10s free. Book by phone in advance and you can save £2 per ticket.

The Royal Horticultural Halls are located an easy amble from Victoria Station in London. Opening times for the event are 10am-6pm on June 29-30 and 10am-4pm on July 1.

You may obtain further information or order your tickets from Westminster Exhibitions on 081-549 3444. Additionally, there is credit card hotline on 0726 68020.

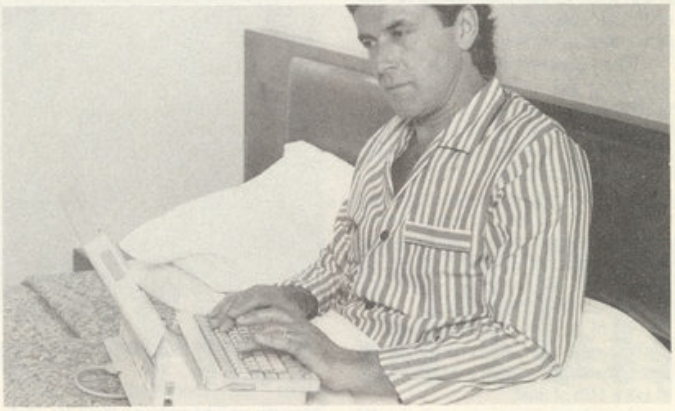
Are you sick of consoles?

The old saw that playing games makes you ill is back with us. Two supposed new Nintendo-related 'diseases' were recently discussed in the *New England Journal of Medicine*.

The first of the reported ailments is Nintenditis, as suffered by a 35-year-old woman after playing a Nintendo game for five hours. It shows itself as a sore thumb. Roll on voice command units.

The second disease said to have been identified is so-called Nintendo Epilepsy – a 13-year-old girl collapsed with this after a three-hour stint with the *Super Mario Brothers*.

NO SLEEP TILL PUTNEY



Modern business practices call for modern tools. The executive of today needs a portable computer, access to the office PC from home or hotel and a set of power jim-jams.

Portables are easy to get hold of and now, according to PC Communications Ltd, so is access to the office. The company has just launched *Breakout Repro*, a piece of software which allows the portable PC user to access an office computer running *Breakout Plus* software.

There are two modes are available – Repro and Teletype. The former gives the user complete remote control of any PC running *Breakout Plus* while the latter is a straight file transfer system.

Price for *Breakout Repro* is dependent on your choice of modem hardware and starts from £349.

For more information call PC Communications on 081-392 2347. Power pyjamas are available at £65 from Gieves and Hawkes.

RGB colour goes to print

A new thermal transfer colour printer can take input from the computer or direct from the RGB signal from the monitor.

The Panasonic 203dpi can reproduce 4,096 colours or up to 226,000 with dithering while maintaining high resolution, and it can output to poly paper, coated paper or transparency film.

Two versions are available: the EPL-8543 with Centronic interface only at £6,950 and the RGB model, the EPL-8541, at £7,800.

For more details contact Panasonic Industrial on 0344 853336.

Smart comms

A PC communications program aimed at business travellers will be launched by US modem manufacturer Hayes this month.

Smartcom Exec works in a DOS framework and allows communication with mainframes, bulletin boards and on-line services.

The program will cost £92 from Hayes Europe. Call 081-848 1858.

Amiga mix-up

G2 Systems' £800 VideoCenter for the Amiga is a S-VHS compatible video mixer, genlock and PAL encoder designed for desktop video applications.

It mixes incoming video signals with Amiga text, graphics and animation, using sliding faders or under software control, for subsequent RGB output to videotape or screen. More information on 0252 737151.

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AMIGA

SOVIETS LOVE AMIGA

The famous Soviet programmer of *Tetris*, Alexey Pajitnov, was recently interviewed in the US newspaper, the *Boston Globe*.

When asked about his opinions on the current state of computer technology, Pajitnov was quoted as saying that he was not interested in computer brands, or the latest computer wizzbang, but he then went on to admit that the one machine he would like to own is an Amiga.

Pajitnov joins the ranks of Arthur C Clarke, the famous science fiction writer and general brainy person, who is also a fellow Amiga user. With names like this behind the Amiga, it only goes to prove that our wonderful machine is the choice of those in the know.

HIGH DENSITY DRIVE FOR AMIGA

Applied Engineering of Texas has produced the first high density 3.5-inch floppy disk for the Amiga. The drive supports both standard 880K and 1.76Mb 3.5-inch disks. Housed in a thick, high impact Amiga coloured box, the unit uses the finest Sony drive mechanism available. The AE3.5 also supports 1.44Mb high density MS-DOS disks and features Macintosh-like electronic disk ejection.

Also new from Applied is the DataLink series of modems for the Amiga 2000 (internal card) and Amiga 500 (external). As well as offering 2400 baud operation, what makes these modems so special is the addition of send and recieve fax options which allow your Amiga to be used as a fax machine.

The DataLink 2000 card also includes software to allow several DataLinks to be run simultaneously, thereby making it the ideal choice for bulletin board users. Contact Applied on 010 214 241 6060.

AMOS VERDICT

By the time you read this latest issue of *Express*, many of you will probably already own Mandarin's AMOS. As many of you will therefore already know, AMOS really is something pretty special. But can AMOS really be used to produce a commercial quality game? Well, the answer is 'yes' and 'no'.

Although many have called AMOS a games creation system, it must be stressed that AMOS certainly will not produce your game for you. AMOS is only a tool; what it can do is limited by the programming proficiency of the user.

This is the case with any programming language – no matter how easy the language may make the task of producing a game, it's down to the programmer to learn how to use the facilities that the language provides. If you think you will produce a commercial quality game with AMOS within your first week of use, then you're sadly mistaken.

However, AMOS is a considerably easier way of achieving the final goal. Previously, the vast majority of time spent producing a game was wasted on sections of code that had absolutely nothing to do with the gameplay at all – handling the double buffering of screens, etc.

AMOS will happily handle such dirty work, thereby allowing you to spend more time on the mechanics of the actual game. If you've got the programming skill, it's perfectly possible to produce a game that could be sold commercially.

Mandarin already has at least one AMOS game in the pipeline – *Cartoon Capers*, a fun little beat-'em-up game. If you can produce something of similar quality, Mandarin may consider marketing your game.

It's fair to say that AMOS certainly isn't a jack of all trades. For serious applications programming, you're probably better off sticking with one of the more established languages such as GFA or HiSoft BASIC. But for producing programs that need to use ultra fast graphics and animation, super smooth scrolling and scintillating sound, then AMOS is the one to choose. No other Amiga programming language provides such a simple and direct method of getting the very most from everything the Amiga offers.

LISTEN UP, FATTY!

TAM Marketing, headed up by that industry nice person, Steve Marriot, is soon to release a follow up to its successful *Tipster and Punter* prediction programs – *The Slimmer*.

As something of a departure for TAM, *The Slimmer* is a utility designed to help failed fatties to lose those pounds. For beta testing, Steve has enlisted the help of his mother and sister (both of which, according to Steve, need to use the program badly). Both ladies will be trying to lose weight using the program. For more information, contact TAM on 0392 215485.

Also new from TAM is *Small Business Manager*, a program originally marketed by Hi-Tension. *Small Business Manager* is a control system for businesses that offers stock control, invoicing and VAT returns; *SBM* sells for £115.

BIBLE ON DISK

EasyScript in the States has released the *Bible Reader*, a package consisting of the entire bible text in ASCII format, complete with a utility program to enable you to easily search through the text.

Neurolink has produced a similar product for hypertext processors that lets you jump anywhere within the bible text by clicking on the book, chapter and verse. You can even insert your own notes and, in true hypertext-style, link them to references, outlines and charts.

Jason Holborn

RETURN OF THE JUGGLER

Just when I started to think the Amiga demos scene had gone stale (I really am going to go something nasty to my Amiga if I see another scrolly-text, starfield, copper-colour-bars, *Sound Tracker*-tune plus loadsabobs demo!), a demo arrives that revitalises my faith in the creativity of demo producers.

Although it certainly isn't original (far from it), it's good to see an old friend back on the demos scene – we are of course talking the now famous Amiga Juggler. For those of you who don't remember back to those early days when the Amiga came in just a single flavour (the A1000), *The Juggler* did more to promote the Amiga than Commodore's PR people of that time could come up with.

The good news is that *The Juggler* is indeed back... but not quite. Instead of the little chap that we have come to know and love, this latest demo features a female juggler, a juggette (as the demo calls her).

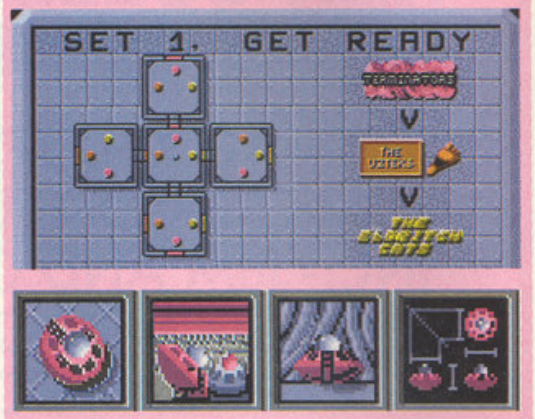
The juggette has sacrificed the ray traced HAM graphics of the original in favour of the now seemingly trendy Extra Half Brite mode. Although this basically means that the demo lacks the photographic quality of the original, it stills retains that special *Juggler* magic that made the original such a smash. Contact George Thomson Services on 0770 82234 and demand a copy of TBAG disk 41 now!

PROJECTYLE

Electronic Arts • £24.99

Ever since James Caan stepped onto the silver screen as Jonothan E in the classic *Rollerball*, the idea of violent futuresports has intrigued sci-fi and sports fans alike. The trend continued with the *Harlem Heroes in 2000AD* and years later with the superb Bitmap Brothers thrash – *Speedball*. Now Electronic Arts has come up with a game to challenge the throne held by the Bitmap's metallic gem in the shape of *Projectyle*.

The game is a jacked up, freaked out and spiked up version of ice hockey. Three teams of four players mounted on hover-boards knock a ball around a pitch split into five sections – the central (or neutral) zone where the ball is kicked off, three goal zones each containing one target of each



team and the 'Frantic' zone. This last is where the real action takes place, as each of the three teams has a goal to defend, causing a mad thrash to score before a goal is conceded.

League and cup competitions can be played between eight teams, each with its own characteristics and home pitch, from the metallic beasts

PROJECTYLE LEAGUE TABLE

TRIBE	P	W	D	L	F	A	PTS
ELDRITCH CATS	024	024	000	000	0258	0031	032
SOUTH JELLO JUGGERNAUTS	023	022	000	001	0231	0017	020
DEVILS	023	021	000	002	0032	0024	016
MANIC MOOSE	024	000	001	023	0023	0032	014

the Sledgehammers to the ethereal, digital team the Vectors. Data such as scores and individual player performances is recorded, ready for you to play the manager and re-structure your team – moving and training players to present the most formidable attack possible.

Projectyle has a staggering array of options to back up the already swift action, making it not only one of the most playable futuresport games available, but bringing it into line with some of the top-rate football manager games.

Playing *Projectyle* as a single player is exciting and involved enough, but the real fun comes when a larger number of players get going, especially when the special adapter is used to allow three human teams to compete at once. Having played a tournament between eight people all day, I can say without doubt the involvement was as high as any other sports sim I've seen...except my girfriend beat everyone. Swiz!

Projectyle is an excellent product which will prove immensely enjoyable to both the solo player and groups of friends looking for a new pastime.

Maff Evans

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ST

COLOUR HARLEKIN

You may recall a few weeks ago I was raving about HiSoft's latest release, the rather spiffing *Harlekin*. This is a collection of accessories, principal among which is a fabulous scrapbook-cum-diary-cum-notebook-cum-reminder-cum-alarm-cum-everthing-else. It's amazing, and I find it a great boon, especially since I have a memory like a... what do you call those things you sieve rice with?

The only problem with *Harlekin*, apart from a £49.95 price tag, is the fact that it runs only in mono. Or rather, it did.

For at the recent Atari Show at the Novotel, HiSoft was showing the colour version, which is due for release before long. I'll let you know the finalised details when I get them – though I understand a price-cut is not intended. Meanwhile call HiSoft on 0525 718181.

NEW COLOURS

Silica Systems is now supplying *Megapaint II*, claimed to be the first true ST WYSIWYG (what you see is what you get) graphics program, which uses a screen pixel to printer point ratio of 1:1, giving a life-like dot-matrix and laser printer quality to screen images. *Megapaint II*, scrolls faster than most ST-based graphics packages.

Other neat touches include *Calamus* compatibility and full editing facilities on images right up to the generous A2-size maximum. *Megapaint II* is available for the cost of £99.95 from Silica: details from the good people on 081-309 1111.

Arnor was still being cagey about the upgrade to *Protext* – version 5. My best guess is late August, though these things almost inevitably slip.

MIDI GETS IT ON

The United Kingdom MIDI Association (UKMA), set up with the approval of the International MIDI Association, was busy signing up members at the recent Atari show at the Novotel. The £34.50 subscription buys a monthly newsletter, a phone/bulletin board helpline and 10 per cent off the Hal-Leonard range of music books.

It is certainly about time there was some organisation in the UK to unite music hardware manufacturers, users and software developers, and it is to be hoped that UKMA really takes off in the coming months.

Vic Lennard, organiser of UKMA, told me it is the aim of the association to create a database of MIDI-related problems and solutions, thereby speeding up proceedings. Get in touch with UKMA on 081-368 3667, or write for more details to UKMA, 26 Brunswick Park Gardens, New Southgate, London N11 1EJ.

BAUD OF THE RINGS

I've just had a letter from Daron Brewood, European Network Co-ordinator for the ST-based Forum/Turbo Computer Bulletin Board Network within the UK and Europe. It's one of Daron's functions to ensure the UK Net links into the worldwide network of over 1,000 boards.

In the UK and Europe there are currently 18 boards operating or due to come into operation. All the sysops work together to keep the network as up to date as possible, ensuring good mailing connections to the United States via Luxembourg.

Daron was responding to criticism levelled at bulletin boards and sysops who permit the up- and down-loading of pirated software, and he is doing his best to make clear the position of Forum/Turbo on the subject. "All our sysops," he writes, "police their systems to ensure no pirated or other commercial software is uploaded onto the board.

"Users who upload such software are usually given a strong warning and if the action is repeated are summarily deleted from the user list on the board and their name added into a 'Lockout,' preventing them from making further calls in that name."

It's good to see that sysops are taking the lead in helping to prevent piracy – a big problem on the ST. Anyone wishing to contact Forum/Turbo can get onto The Stun User Network, Daron's own bulletin board, by phoning 061-429 9803 (2400 baud max – 24hrs).

AGAINST PIRACY

Incidentally, the Federation Against Software Theft (FAST), in conjunction with the Entertainment and Leisure Software Publishers Association (ELSPA), is involved in another campaign against piracy.

You may have seen the advertisements in this very organ, or in our sister magazine *ST Format*. If you know anything at all about anyone offering or taking advantage of pirated software on the ST, ring the FAST hotline, 071-497 8973. There's a £1,000 reward on offer if your information leads to a successful prosecution, too!

SERVICE WITH A SMILE

Some time back I asked for your experiences of ST mail order companies. Russell Brown sent a long and detailed letter, and I shall share with you the benefits of his experience.

Russell has high praise for Evesham Micros, recently voted Atari's Dealer of the Year, from whom he's ordered hardware on several occasions. Each time, despite his not paying any extra carriage, the goods were with him within two to three days. (My own experience of Evesham has been with its service department, who've unfailingly been polite, helpful and courteous. That's a nice one chaps!)

When complaints arrive, however, they're usually from people who've had less than perfect service from mail order software companies. One afternoon Russell ordered *Chaos Strikes Back* from Byteback, who were charging a very reasonable £15.90.

The device was delivered at 8am the next morning! Well done Byteback. Still, Russell complains that a subsequent order placed on a Friday was not processed until the next Monday – hardly an unreasonable delay, I wouldn't have thought!

Another interesting story comes from 15-year-old Ian Muirhead of Norwich, who ordered an accounts program from Softville PD (0705 266509). Two days later the wrong program arrived: it turned out two orders had crossed. Tut, tut Softville, you say? Not a bit of it, for Softville told Ian and the other chap they could keep the disks, and sent out the original orders that day, with compliments from the library.

A much more thorough survey was carried out by Kurt Frary, also of Norwich. Kurt wrote to 23 libraries asking for a catalogue and further information. Best responses were from B-Soft, who sent a catalogue back within three days and MPH (who sent some free PD on disk), within four. Best catalogue by far was Mike Goodman's, a library I've never heard anything but good about. Interestingly, after four weeks seven of the 23 libraries had bothered to reply – a disappointing proportion.

I hope when you make initial contact with a PD library you enclose a suitably-sized SAE. These people aren't making a killing, and without your co-operation they'll make even less.

Write with your stories to Service report, Steve Carey, 30 Monmouth St, Bath BA1 2AP.

Steve Carey

FILE RECOVERY EXTRA

• *Andreas Ramos: at the show*

Andreas Ramos, all-round ST guru and author of the phenomenally-successful *Your Second Manual* (also published by HiSoft), has sent me a whole pile of stuff about *Harlekin*'s undocumented features.

There's a file recovery device, for example, which is invaluable when that RAM disk you were sure was reset-proof turns out not to be.

All you do is go to *Harlekin*'s remarkably friendly memory monitor, click on search and type in one or more unique words you recall from the document. Then you simply note the address of the beginning and the end of the document, 'print' the area into the print spooler and then collect it from there.

This kind of procedure is not going to be worthwhile when the disk has been in constant use and your sectors are spread all over the place.

DYNASTY WARS

ST GAME of the WEEK

US Gold • £19.95

Dynasty Wars hit the arcades last year and it had some of the most visually exciting graphics of any arcade game. US Gold acquired the licence to this Capcom game earlier this year and passed the conversion onto Tiertex, the team previously responsible for programming *Strider* and *Thunderblade*.

The exciting visuals are due in part to the setting of the game. Based in China at the beginning of the millennium, the objective is to assume the role of a great warrior and wander the terrain in search of a giant warlord.

The game is a horizontally-scrolling blast with a difference. Instead of moving backwards and forwards through the level in the traditional manner, you can also move closer to the screen or further into the background.

As you race through the levels on your horse, you need to hack the heads off foot soldiers. Since you can move into the background, it's necessary to line yourself up correctly if you're going to wipe them out. This positioning makes it especially difficult to wipe out all the bad guys on the screen, and you can find yourself coming under attack from all quarters in no time at all.

The scrolling in *Dynasty Wars* stops at certain points to give you time to hack everyone on the screen to death. If you're successful the scrolling continues until you eventually reach the end-of-level bad guy. This character rides around on a horse and takes many hits before he's eventually defeated.

To start with, the foot soldiers are cannon fodder, but as you proceed through the levels, they become increasingly sophisticated. In no time, they acquire bows and arrows and start firing balls of flame at you. But these aren't the only problem. At times the landscape also proves a headache. Rocks fall down from cliffs threatening to flatten you, and boulders on the ground need to be avoided.

Although there's no doubt that Tiertex has done a wonderful job capturing the graphics, the gameplay suffers the same problems discovered in the arcades. Trying to line yourself up with the enemies can be ridiculously tricky, and with slow scrolling, the game doesn't have nearly the same impact as it did in the arcades. Although it has wonderful graphics, *Dynasty Wars* falls sadly short of perfect in the addiction stakes.

Mark Higham

PC

DOWN TO A MICRON

Times were hard a couple of years back in the PC industry, with a massive shortage of RAM chips – I'm sure you remember. At that time it looked a shrewd move to buy stakes in chip manufacturers, particularly if that stake guaranteed you part of the manufacturer's chip output. That's what Amstrad did with a US company called Micron. It managed to keep the effect of chip shortages down by taking nine per cent of the company's output, though it was still hard to get hold of the 4Mb PC 2386 for most of last year.

Now, however, the situation has eased a lot and chip supplies are plentiful. Amstrad is therefore debating whether to sell its Micron shares. The problem is in predicting the market. It could be awkward for the company if another shortage reared its head and Amstrad had just sold all its shares.

SECOND TIME AROUND

Mark Beevers writes with a series of questions as long as your arm, but some are of general interest, so here goes with the answers. Mark has an IBM PS/2 Model 30, the version based around the 8086 chip, which, as I recall, has an AT bus rather than the Microchannel Architecture (MCA) of the rest of the range. This means that in expansion terms it is much like a 'regular' AT and uses Industry Standard Architecture (ISA) expansion sockets.

Upgrading the machine should therefore be pretty straightforward, as there are still many more ISA standard cards than MCA ones. Mark needs more speed and is therefore considering adding a 286 processor card to his machine.

This should be possible, but check that the add-on card comes with its own memory, as the memory in the PS/2 may not be fast enough to avoid drop-outs with the speedier processor. Turbo cards of this type cost in the neighbourhood of £300-£400.

The next item on the list is the use of a math's co-processor for extra speed. These chips can speed up maths functions by a factor of up to ten, but beware of the software that can use them. Use of the co-processor is by no means automatic and software has to be purpose-written to take advantage of the chip. Applications such as *AutoCAD* and *Ventura Publisher* need the speed and are written to use co-processors, but it's by no means a general rule. Check the software you're going to use before buying the chip.

What are the differences between MS-DOS 3.3 and MS-DOS 4? I'm tempted to answer that MS-DOS 3.3 works, but I believe most of the bugs have now been ironed out of MS-DOS 4. Nonetheless, it's still more bulky than 3.3 with not a lot of advantage, unless you have a large hard disk and want to create big partitions on it.

An alternative you might like to consider is DR-DOS, an MS-DOS-compatible operating system which is smaller than DOS 3.3 but with a lot of the extra features of DOS 4, including the large disk partitions. The latest version is very stable and is being taken up by several hardware manufacturers as their supplied DOS. It comes with several worthwhile extras, including a sensible text editor.

Mark can't get high-resolution graphics out of GW BASIC – join the gang, Mark. GW BASIC is really no longer very GW (Gee Wizz), if it ever was. Microsoft throws it in with every copy of MS-DOS they sell these days. It was written long before high-res screens like VGA and MCGA came along, and you should consider QuickBASIC or Turbo BASIC if you want to write programs which handle graphics well. Both these programs have the advantage of speed, as they both compile, and produce stand-alone programs which don't need an interpreter.

P5 PLUG

An unashamed advert for the *PC Plus Personal Productivity Pack* follows, mainly as I'm nominally its editor. The first issue of this disk-based software pack should be on the shelves by the time you read this. It contains two, 5.25-inch disks of solid software that make life more meaningful – honest.

The first issue of *P5*, an abbreviation sorely needed, contains the latest version of *Contacts Manager*. This is a program I've followed with interest for the last year or so. The product of *dBASE* programmer Matthew Wittich, it really can claim to handle just about any aspect of a business diary, to-do-list, address list, reminder, appointments scheduler and a cheque printer.

The program is fast and well integrated program, fully menu-driven, with built-in word processor and some database potential. It's well worth a look at if you continually find yourself writing names and addresses on Post-It! stickers.

Also featured on the first P5 disks are *XDIR*, a windowing file and directory displayer,

• *New offer from* PC Plus*: the P5.*

utilities to translate printer codes, and securely delete files. A maze game, *Labyrinth*, is included to make your leisure time more productive and there's also a series of PCX clips to brighten up your DTP. All in all a good £4.95's worth. Buy one and keep an old hack in beer for a month.

Simon Williams

MAGIC WAND

There's a good range of image scanners available for the PC. At the budget end of the market, hand scanners can be had for a couple of hundred pounds, and if the width of your image is small you can get good quality reproduction from these at resolutions of up to 300DPI.

Sitting at the other end of the scale are the flat-bed scanners, looking a bit like squashed photocopiers. These machines take a full A4 sheet and can be programmed to scan all or a part of the paper under software control. Prices for these machines start at £800-£900, though.

There is a halfway house, both in terms of price and flexibility. The Mitsubishi hand-held scanner is about the size and shape of a rolling pin, but without the handles and with a flat face behind, which is an array of LEDs and scanning elements.

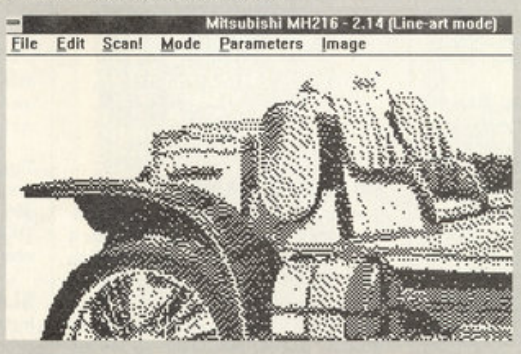
The scanner can be laid on an A4 sheet and wiped down the sheet's length to scan its contents. Sets of fixed rollers prevent the scanner skewing to either side, but if you feel that your hand might not be even this steady, an optional powered cradle is also available.

Furthermore, the cradle unit turns the machine into something like a miniature fax. You feed the paper in at the front and it is pulled through at a steady speed under the scanner. The whole process is really very quick and simple.

Two software packages provided with the unit offer a wide variety of image manipulations both inside and outside the Windows environment. A good Optical Character Recognition (OCR) system is also provided for automatic document reading.

Images can be saved in PCX and TIFF formats and the whole system will set you back less than £700.

The MH216AF and its MH01FA cradle – two snappy names, there – are available through Mitsubishi dealers.

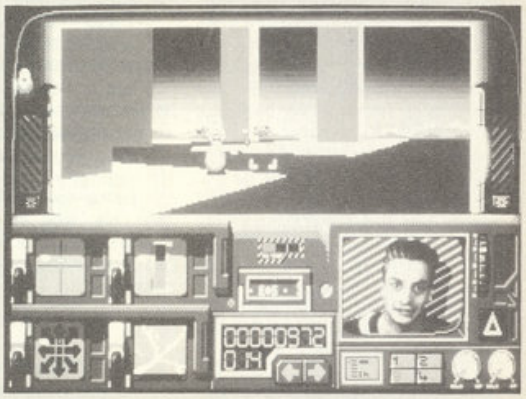


• *A detail, showing some of what the Mitsubishi scanner can do using Windows and* Paintbrush.

RESOLUTION 101

PC GAME of the WEEK

Millenium • £29.99



One of the greatest challenges for the computer programmer is high speed solid 3D graphics. Although the arrival of high speed hardware has helped somewhat, it still requires clever programming to get smooth movement through a truly three dimensional world.

***Resolution 101* manages it with a vengeance, not only providing a smoothly scrolling cityscape but populating it with various extraordinary vehicles that zoom around in a purposeful fashion, digitised faces that grimace and grin depending on their fate, rivers that actually ripple and a sky that fades towards the horizon. It looks particularly spectacular on a VGA display.**

It would almost be enough simply to explore this multi-coloured world as it stands, but *Resolution 101* offers you plenty of action, too. The city is populated by criminals and you, another criminal, will be granted amnesty if you can rid the streets of the four drug barons.

The drug baron is easily recognised in his squat, three engine skimmer accompanied by his black bodyguard ships. However it's not worth bothering the main man until you've collected enough drugs as evidence. This means persuading his henchmen to drop their load – usually by vaporising them with machine guns and missiles.

Frequently they drop cash rather than drugs, which you can use at any of the 12 shopping centres around the city to repair your skimmer or upgrade your weapons system. You've got five lives and each of your victims have got three – so you've got quite a lot of work to do.

A good, fast game then, coupled to some of the best graphics you'll see on any games machine outside an arcade. We had some trouble using the mouse in VGA mode, when the device hung from time to time. *Resolution 101* can be played from the keyboard, but not as easily as with the mouse.

Matt Nicholson

SPECTRUM

HEY YOU

Achtung all you programmers! The Spectrum Unemployed User Group is planning a charity compilation called Micro Care 90, and the good folks could do with your help putting the very worthy thing together.

They're after homegrown software submissions of all ltypes to make up the compliations' proposed 600K's worth of goodies and hopefully to provide piles of money for Child Concern, a pilot nursery scheme faced with closure.

So if you've got absolutely any Speccy creations that could be put to such a positive and deserving cause dig them out, dust them off and donate them with all haste to Micro Care 90, 19 Moore Street, Normanton, Derby DE3 6SN. Naturally you won't get any financial reward for programs submitted, just full credit in the inlay and a feeling of radiant warmth in knowing your awesome mega game/revolutionary utility/stunning demo/or whatever is helping someone.

Micro Care 90 is due for release in November for a paltry £6 and I hope to bring you further progress reports before then.

THE GOOD, THE BAD AND THE BRAVE

Good to see there are still a few brave Speccy users out there publishing their own fanzines. I mentioned the first issue of an organ called *Advanced ZAT Programming* a month or two back, and encouragingly it's survived to reach number two – quite a rare occurence in the fanzine world I can tell you.

Heading the contents of this latest issue is a bit of a scoop interview with the person dubbed 'Europe's Funniest Man' by *Your Sinclair* – Mel Croucher. Apart from that, there's a regular programming section, soapbox page, part two of a well drawn comic strip and non-Spectrum related bits on science fiction, comics and CB radio. Layout and design is excellent throughout the mag's 32 A5-sized pages, and the resident arty type shows off his talent with some great illustrations and page headings.

Overall, it's a good, well presented read and well worth the asking price of 60p and a stamp. Get your copy from PO Box 488, Tweedale, Madely, Telford, Shropshire TF7 4SU.

WRITE ON

Are you involved in a sadly neglected Speccy fanzine or a user group without that many users? Send full details and a latest issue for a gratuitous and completely free plug (although a cash bribe wouldn't do any harm) to me C/O the usual *Express* address.

NEW HEIGHTS OF MIKTOR

When it comes to poking, that's to say the practice of writing little programs which let you cheat in games rather than the prodding-someone-with-a-sharp-stick way of doing it, the mysterious Miktor of Faversham has no equal. This week he's provided a hack for Ocean's *N.O.M.A.D.* Applaud him at will!

```
10 CLEAR 32768: PRINT "START
   N.O.M.A.D. TAPE"
   : LOAD ""CODE : POKE 65217,135:
    POKE 65218,73
20 FOR N=23437 TO 23444:
   READ A: POKE N,A: NEXT N
30 RANDOMIZE USER 65024
40 DATA 62, 255, 50 81,
   159, 195, 32, 123
```

Furthermore, Ashley Price has supplied me with the passwords for Empire's megagame *Pipe Mania*. Thanks and a resounding cheer to Ashley. The passwords are: – Disc Nail Once Rope Pens Slip Each Rise

Robin Alway

SAM COUPE

SAM NEWS

For more information regarding the Coupé, check out *Express* news pages last week, and again this week, as the story about MGT unfolds.

SOME SOFTWARE

Now a Coupé disassembler is available. It's called *007 Disassembler* and has been written by ZX-Guaranteed.

The good news for SAMsters everywhere is that this company is now devoting itself entirely to the Coupé and is trying to think up a new more Coupé-esque name as I write.

On the flip side of the same disk is *007 Reveal*, a program which allows you to look through machine code listings for the messages put there by wagish programmers.

Both programs on one disk (no tape version is available) cost a very reasonable £6.95 from G.A. Bobker, 29 Chadderton Drive, Unsworth, Bury, Lancs BL9 8NL.

The same company's next few SAM specific releases will be *Disc-Doctor* and Address & *Disc Manager*. Send the usual SAE for more details.

BARRY WRITES

Regular Coupé correspondent Barry Walton of Whitley Bay had a problem transferring Basic programs from his Speccy to the Coupé using Btrans. Here's his solution:-

"Connect the tape lead from the Plus 3 to the Coupé using the MIC lead. Select SAVE "t:" on the Speccy. Run the "Btrans" through the Coupé and when it says "Play the Spectrum tape now" type into the Plus 3 SAVE "name" and press ENTER. When the whizzing and flashing have stopped, clear away the smoke and select "device d1" on the Coupé and then save the translated Basic if you wish. It's as easy as that!!" Sounds quite complicated to me but thanks Barry!

Robin Alway

PCW

FOR THE RECHORD

Re-chord is a music database that enables you to keep lists on disk of your record/tape/CD collection. You can make selections, print out some or all details of your collection, and even produce cassette labels printed up to the right size.

Cavalier Software markets this software, which costs £29.95 from the people on 071-639 6683.

PREDICTABLE JOKE

The PCW has a lot of prediction software available – *I Ching*, *Astrology* and so on, as well as character and handwriting analysis programs. Last week I wrote about the chap whose PCW can tell the future. (Wonder what it said about the World Cup?)

Anyway, postponed from then due to unforeseen circumstances (bet you knew I was going to say that) is this item on the *Tarot Program* from one K Heywood – enquiries 0269 826664. For £25 you can get your PCW to do tarot readings and give over five pages of interpretation. I haven't seen the program yet but would be interested to hear from anyone who has. A demo is available for £8.

KEY FACTS

BASIC programmers should be familiar with the INPUT$ command. Suppose you want the user to give a one-letter answer and then proceed according to that answer. The following does the trick, with the program waiting at line 20 until you hit a key, then going on – no need for INKEY and WHILE... WEND!

```
10 PRINT "Proceed? (y/n)";
20 a$=INPUT$(1)
25 PRINT "You pressed ";a$
30 IF a$ IN "Yy" THEN
   GOTO 100 ELSE GOTO 200
```

But what if you want to do something the instant a key is released, instead of depressed? This listing sets up a user function USR; line 50 shows how it is used. This was written by Keith Simons of Cheadle, Cheshire.

```
5 c$=CHR$(27)+"H" : PRINT
   CHR$(27)+"E"
10 DATA 54,5d,f3,3e,83,
   d3,f0,af,21,f0,3f,06
20 DATA 0b,b6,23,10,fc,12,
   3e,84,d3,f0,fb,c9
30 h=HIMEM : MEMORY INT (HIMEM - 25):
   DEF USR = HIMEM+1
40 FOR a%=1 TO 24 : READ a$ :
   POKE HIMEM+a%, VAL
   ("&H"+a$) : NEXT
50 IF USR(0)<>0 THEN PRINT c$;
   "key depressed" ; : ELSE PRINT
    c$;"key released " ;
60 GOTO 50
```

PD NOTICEBOARD

A while ago I talked about PD – free software written by people who charge you a small copying fee. If your interested, you might try the PCW Software Library, 11 Older Way, Angmering, Sussex BN16 4HQ. Send an SAE for a catalogue – languages, utilities, databases, games etc etc. They're cheap and I've heard good things about them.

Rob Ainsley

MSX

SIMPLY AMAZING

For weeks you hear nothing from the major MSX user groups, then suddenly three newsletters drop through your letterbox within the space of a week.

It is good to see that *MSX Link*, *MSX Central*, and *Network* are still producing and distributing their respective magazines, although I read in each of them that few members of these groups are actually submitting anything in the way of material for publication.

As these clubs have several hundred members, surely a few members would be willing to send in even a few lines for publication. After all, as the editors of these newsletters state in the editorials, without the aid of the membership, all the work then has to be done by one or two people, and believe me, this can be very time consuming, and the quality of the newsletters suffer as a consequence.

If you think you can review a game, give an opinion on a piece of software, or just wish to air a grievance, write to your user group.

A NEW DIMENSION

Recently a group that calls itself New Dimension Software sent me a couple of mailshots from Holland, but as all the text of these letters is written in Dutch, I did not, unfortunately understand the communique all that well.

In fact, I have no idea whether New Dimension Software is a user group, or a retailer of MSX software. A couple of items I did understand related to firstly a spelling checker on disk for the MSX 1 and 2 computers – unfortunately Dutch only at present – and secondly a game called *Bandit* for the MSX 2 computer.

No prizes for guessing what this game involves – yep, it's a sophisticated one armed bandit, although why anyone would want to play a fruit machine that never pays out is beyond me.

If you wish to know more about this group, and you think your Dutch is up to it, contact New Dimension Software at Postbus 247, 3840 AE HARDERWIJK, (KvK H'wijk"16.907), Netherlands.

BLOOD TEST

I have been looking for a way of progressing further with the excellent game *R-Type*, and at last help is at hand courtesy of Vernon Wyland's *Network* magazine. I'm sure that Vernon won't mind if I pass on these tips for this game: using the <ESC> key with F7 plus the following keys, these options are available:

```
BS key = Next field, A = Invulnerabil-
ity, B = Vulnerability, C = Speed up,
D = Speed Down, E = Extra lives, F =
Delete extra lives, 1, 2 or 3 =
Options or weapons, 0 = Delete
options.
```

Thanks to Vernon Wyland for the *Network* magazine, the address of which is 396 Park Lane, Maghull, Mersyside L31 1HQ. Remember to enclose an SAE when you write to any user group.

BLACK NIGHTS

Nightdare Ltd of Chelston, Torquay, has a good selection of MSX 2 games in stock: phone the digits 0803 606146 for more information.

Keith Neal

CPC

BASIC ACCOUNTS

It's often forgotten amid the continual barrage of games releases for the CPC that the machine was orginally sold as a leisure-cum-business machine.

Mind you, it's not forgotten by self-employed carpenter Andy Constant of Weston-super-Mare. He's been a keen CPC owner from the year dot, and has used it to keep track of the cash going in and out of the business. In fact, his home-made software has reached such a degree of polish that he's decided to sell it commercially.

Small Business Accounts is the result – a package designed to be as user-friendly as possible, and incorporating all the features Andy found mis sing from other off-the-shelf accounting packages for the CPC.

The program comes with a clear and easy-to-follow manual, but really you can pick it up as you go along without that. The oddest thing, however, is that it's written in BASIC!

"I did start off writing it in machine code," says Andy, "but it was near-impossible to add the various features I found I wanted as I went along. BASIC turned out to be much better."

Small Business Accounts costs £23 on disk, and you can find out more on 0934 516714.

AIRBORNE RANGER POKE

The tape version of Microprose's cerebral combat sim gets the infinite first aid version. Just press DEL for as many band-aids as you need.

```
1 'Airborne Ranger
2 '
3 'Infinite First Aid
4 'Press "DEL".
5 '
10 DATA dd,2a,38,00,11,19
20 DATA 80,1a,dd,ad,12,13
30 DATA 7a,fe,82,20,f6,21
40 DATA 1a,bf,22,42,80,c3
50 DATA 1a,80,21,94,40,36
60 DATA c3,23,36,28,23,36
70 DATA bf,c3,00,40,3e,5c
80 DATA 32,5a,94,01,00,f6
90 DATA c3,97,40
100 MEMORY &7FFF:y=0
110 FOR x=&BF00 TO &BF32
120 READ a$:a=VAL("&"+a$)
130 POKE x,a:y=y+a:NEXT
140 IF y<>&12D2 THEN 170
150 LOAD"airborne"
160 CALL &BF00
170 PRINT"data error!
```

You'll notice, and give me credit for the fact that I haven't said how this is one of the 750 tips in AA's *Cheat Mode II – The Revenge*. I'll tell you what, though – it's one of the few that isn't.

WRITE ON!

C'mon you CPC-ers out there, drop me a line. If something captures your interest, gets you excited (steady on, now) or simply drives you raving mad, don't keep it to yourself!

The address is: CPC Column, the Cardboard Box just to the left of the Filing Cabinet, *New Computer Express*, Beauford Court, 30 Monmouth Street, Bath BA1 2AP. Got it?

Rod Lawton

FOOTBALL FRENZY

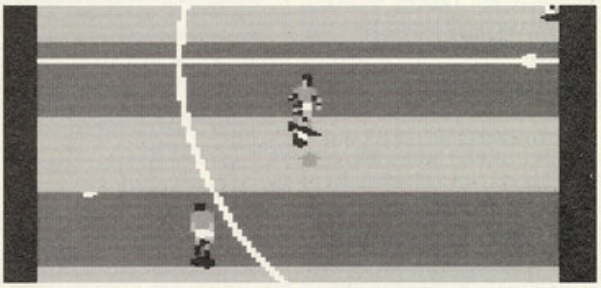
Any regular readers of sister mag *Amstrad Action* will know what I think of football.

Yes, I know it's World Cup time, and it only happens every four years, and it's a wonderful carnival atmosphere and it brings whole nations together under the single banner of sport... (I should write Desmond Lynam's scripts) but I'd sooner watch four weeks of crown green bowling from Wigan...

So you can imagine what I think of most football games on the CPC (except of course for the brill *Kick Off*): which is why I loaded up *Italy 1990* from US Gold with some trepidation.

Well, I was wrong. *Italy 1990* is absolutely excellent. It's almost enough to turn me into a football fan (but not quite). The sprites are pretty functional but quite visible at first sight – but the real revelation comes when you kick off.

I've never seen anything move so fast in my life! *Kick Off* was fast largely due, I imagine, to its minimal sprites, but *Italy 1990* manages to shove its little players around at equally maniac speeds.



• The sprites are detailed, particularly given their incredible speed. They are fast...

Playing is rather simpler and easier than in *Kick Off*. Send your player careering into the ball and his nimble feet immediately start dribbling. You don't lose possession until you kick (by pressing the Fire button) or one of your opponent's team tackles it out from under your feet.

This means that even computer football novices can play a pretty mean game straight away. With the ball safely at your player's feet, all you have to do is send him charging willy-nilly at the other guy's goal, dodging defenders, and then when the goalie comes out to meet him, you maneuver your man by the goalie too, going on to slam the ball into the back of the net. Great stuff!

That's the theory, anyway. Your opponent will be trying all the time to scoop the ball from under your feet to go on his own little rampage up the pitch.

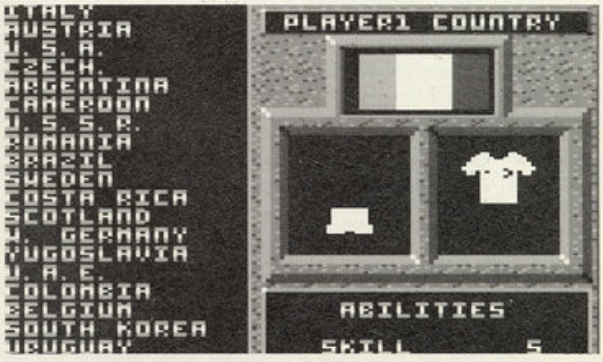
If you can't find another human opponent, Italy 1990 has a pretty mean computer opponent to play against. The only problem is, it's not quite mean enough. Play the world in a World Cup tournament, and you'll find yourself in the final by the second or third attempt.

Or you will if you pick the right team. This is yet another excellent feature of the game. Not only can you choose which side you want to be, your players automatically adopt that country's strip – and its team's abilities.

If you really wanted to make life hard against the computer, don't pick a strong side like Brazil or Argentina – go for the underdog instead. *Italy 1990* helps here again by providing a brief set of stats on each team's strengths on the menu screen.

Despite the World Cup tournament feature, *Italy 1990* is best in two-player human vs human mode. Just get those muscles limbered up, pick a good friend to play with, and away you go: the game will do its part, being incredibly fast, utterly manic and hugely playable from the outset.

And the price, you could quite reasonably ask? Well, I have good news in this department too, because *Italy 1990* comes in at the very low price of £9.99 on cassette, £14.99 on disk.



• Choose your team and your players get kitted out the that country's strip – brill!

YOUR FORMAT

MACHINE SPECIFIC COLUMN

Amiga 8

• The Juggler arrives – oomplete with the trendy Extra Half Brite Mode.

ST 10

• Dynasty Wars on the ST returns you to the ancient world of Chinese pre-history.

PC 11

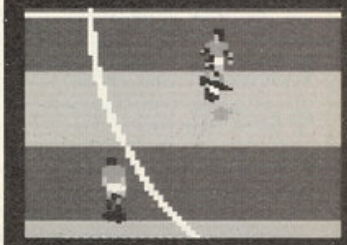
Spectrum 12

SAM Coupé 12

PCW 12

MSX 12

CPC 13



• Italy 1990 from US Gold: a footie sim with a lot going for it.

QL 14

BBC 14

Archimedes 14

C64 14

C64

MYTHICAL HELP

Anyone struggling with the game *Myth* might like to try this handy hint for level 2. To collect all the available weapons and other items on that level, just hold down the A and ? keys and everything will be yours. Anybody out there got any bright ideas for any other level?

GAMBLING MAN

I am not one of nature's gamblers. To me the world of horse racing only conjures up an image of the lunatic presenter on Channel 4 who waves his arms about in a fashion that I find deeply confusing. As for placing a bet, I usually restrict myself to the National and several other big races. However, all is now changed, as I have in my possession a collection of programs from Brimardon, a computer racing service.

The programs are functional rather than decorative, but who cares what the screen looks like if the programs come up with a 12-1 winner?

Entering the information for each race takes quite some time when you first attack the software, but becomes easier as you cover races. Naturally, the more information you put in, the better the chance of coming up with the right horse – patience is the order of the day.

In the 1989/90 season the software showed a profit of £185 on an outlay of £1,001, which means that it paid for itself and provided a lot more fun than an account with a building society. For details write to Brimardon at 75 Cockerton Green, Darlington DL3 9EG

MORE POKES

I will risk the Post Office this week (see *Express* 83) and return to giving you half a dozen POKEs to help you on your way. Okay, Boo-Boo, on *Yogi Bear* you can `POKE 6478,0:SYS 2067` to go to cheat mode.

On *Gobots*, you can `POKE 28798,80:SYS 16384` for the same effect. On *Exolon* you can `POKE 7427,205:SYS 2061`. On *Zynaps* you can `POKE 37281,255:SYS 32769`. On *Crazy Comets* you can `POKE 40362,252:SYS 24882`. And the last one coming up is *Trantor*, and for this one you can `POKE 6571,252:SYS 6454`. Please, Mr Postman, do not lose this week's copy!

DIRTY COMPUTERS

Heaven help your computer if you're one of those nasty people like myself who smokes. The computer suffers just as much as you do, but fortunately the computer can be cleaned.

Cleaning fluids would probably cause more damage than the grime they were meant to be removing. The answer, I was told, is to use aerosol antistatic foam cleaners: it works! A word of warning: never, ever, use spirit-based cleaners. Your 64 and television (or monitor) will not thank you for it.

Pete Gerrard

QL

DIY MEMORY EXPANSION

At an early stage in the QL's history, DIY memory expansion was quite popular, because of the high prices of commercial upgrades.

There were basically two methods: 'piggy-backing' 256K DRAMs onto the existing 64K devices (giving a total of 640K), and winkling out the old RAMs and replacing them with 256K chips (giving a total of 512K).

Both methods were fraught with danger – the former method often resulted in problems with poor solder joints, and the latter technique sometimes left the user with a knackered printed circuit board. Nevertheless, quite a lot of machines were successfully upgraded by their owners.

By the way, it isn't just a question of adding the new RAM chips, if you feel like doing your own upgrade. Some additional logic has to be added. Both techniques were documented in the QUANTA newsletter.

QUANTA DOINGS

QUANTA, the QL Users and Tinkerer's Association, is holding a workshop at the Anchor Hotel, Bridge Street, Thetford, Norfolk, this weekend, hosted by the East Anglia sub-group. Give Geraint Jones a ring on 0482 762406.

In the June issue of *QUANTA*, the group's newsletter, Melvyn Pearce reports that he has obtained the latest version (3.03B) of Rainer Kowallik's QL emulator for the Amiga. English keyboards are now catered for, and a bug in the utility which converts machine code programs to run on the emulator has been corrected.

Phil Gaskell has produced a 100 per cent solution to the real-time clock reliability problem, using an external clock chip with its own re-chargeable cell, mounted on a printed circuit board interfaced to the QL via the EPROM cartridge socket. Additionally an EPROM socket is provided.

Phil has decided to manufacture a small batch of these units, selling at £29.50 each. Contact him on 0342 312649 for more information.

ANOTHER FANZINE

Many QL users seem interested in fractals and chaotic systems. If so, you will find Andy Lunness's *Chaos and Complex Cartography* newsletter of interest. Details from Andy at 36 Linton Avenue, Bury, Lancashire BL9 6NL. Andy uses an Archimedes, to which he might add a transputer!

CARTRIDGES AVAILABLE

EEC has large stocks of Microdrive cartridges, in wallets of four, or boxes of 20. EEC Ltd is based at 18-21 Misbourne House, Chiltern Hill, Chalfont St Peter, Bucks SL0 0QE: or phone on: 0753 888866.

John Torofex

BBC

DESERT ISLAND DISKS

I think many people, would choose a computer as the single luxury allowed on Desert Island Discs. Why? Because a computer fulfils so many roles – including that of a games machine.

You could do worse than play *Inertia* from 4th Dimension. Although not completely original (echoes of *Marble Madness* and *Spindizzy*), it is a very well executed 3D game.

The aim is to move over special squares in the grid to collect extra lives and points. All is not straightforward, however, and some of the squares appear to be inaccessible at first sight. To collect these, you must work out a route through a monochrome landscape.

Once you begin to understand the logic it becomes easier, although this is the sort of game which will take days or weeks to complete. Movement is both a plus and a minus. Plus, because the feeling of gliding across a smooth surface comes across very well. Minus, because controlling your puck can be difficult at first (a tip here is to nudge it rather than try and make it go the way you want).

ON THE OTHER HAND

You could have *Hostages* from the superior/Peter Scott stable. While very much in the house style, the game is in three parts. Unfortunately I can only comment on the initial sequence, in which you must position your men – this part was fairly unexciting. I can only assume that the second and third parts contain most of the action.

Andrew Brown

ARCHIMEDES

WORLD CUP, PAH!

Are you as excited by the World Cup as I am? If I could choose to watch a first round match or have my sinuses syringed, I know which I'd choose.

Nonetheless, I do appreciate a well written and professional bit of software, and *Manchester United* from Krisalis is certainly that.

The game has the official backing of the club and is a full soccer sim with management and tactics stuck on behind to give a much broader game.

The initial playing screen is made up of a digitised black and white photo and eight, big, coloured icons. Each of these leads to a different part of the game.

You can of course check out your players; there are digitised snaps of each of them together with details of their form. You can see who's injured, who's suspended and who's available for transfer. You can buy and sell players, either through regular transfer channels or by sending out scouts.

You can specify the training schedules for each player to try and strengthen areas of their play or to bring them back to strength after injury. All this is fun, but the main action comes in the arcade section of the game, when you play each match of the season.

The pitch is shown in isometric relief, and the players are all well drawn. You can choose to control your team directly, in which case the game uses the 'player nearest the ball' technique to select the player under keyboard control. There's no option for two player action, though you can control the strengths of the opposition and there is also an option to watch both teams play under Arc control.

The graphics are good, sound is atmospheric and the animation is fair, though the referee is good at running forwards and moving backwards, like a mid-Eighties disco dancer.

A goal is greeted by a short digitised replay sequence on the electronic scoreboard. There are some other nice touches like the tabloid comments of the *Daily Sport* on your team's progress.

If you are a Man United fan, you're sure to find this game intriguing and a significant boost to your ego. Other footer fans will find it the best sim so far on the Arc.

COLOUR YOUR DESKTOP

I had a word with Paul Green of 628 software when I rang him to talk about *!Slideshow*, covered in this column last week. I mentioned one of the items on my 'Can you do' list, and was surprised to receive a short utility called *!Backdrop* through the post this week.

!Backdrop takes any full screen sprite file and displays it as a background to the desktop, thus livening the display and showing those ST and Amiga owners that the Arc can do it, as well.

The program only works with mode 12 screens at the moment, and since the Arc has so many screen modes this may perhaps prove a nuisance. Paul has put *!Backdrop* into the public domain and he sent it to all the Arc PD libraries he can think of – so you should be able to pick up a copy for next to nought.

This utility is well worth pursuing; and thanks, Paul, for responding to my request. Also, as I have a little space left, Paul's other creation deserves another mention: the address for your £14.95 screen display program, !Slideshow is 628 Software, 24 Mulgrave Road, Whitby, North Yorkshire YO21 3JS.

Bertrum Carrot

GRAB MODULE

Alex Card has been in touch again with a copy of the relocatable screen grabber module published originally in *A&B Computing*, with a reminder that I've mentioned *BBC Acorn User* and *The Micro User* in this column before without a similar piece about *A&B*.

I'm happy to put that straight with a mention that *A&B Computing* is another good monthly with Arc-specific material in it.

It's been very advantageous for *A&B* that the title which originally referred to the BBC Micro, models A and B, is now equally suited to coverage of the BBC Micro and the Archimedes.

THE ATARI ABC

Now, there's a PC-AT compatible that not only solves problems like other AT compatibles, it also solves the one problem that its predecessors have created ... affordability.

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The ABC is a reliable, high performance computer, built to exceptionally rigorous standards. It is well designed, to a state of the art specification, maintaining maximum expansion capability for the future. This includes up to 4Mb of RAM and 3 AT expansion slots. Plus, unusually for a PC at this price, the ABC has the ability to install two or three extra drives, with the cabling already inside the CPU.

The ABC has a host of impressive features, all built-in as standard, encouraging simple installation and ease of use. In addition, the ABC's small footprint and quiet operating, mean that you will notice it less on your desk than other PC's. Except, of course, when you begin to take advantage of its AT power.

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THE SHOPPING EXPRESS BUYER'S GUIDE TO DTP, GRAPHICS AND DIGITISERS

The computer has revolutionised the publishing industry. With some software and a few hardware add-ons it's now possible to create entire documents on screen, complete with photographs and illustrations. To find out what's available, read on...

From paste-up to PostScript, the world of desktop publishing has arrived on your micro. So whether its a club newssheet or a magazine like *Express*, there's a variety of packages to suit your needs.

Desktop publishing sells computers. Its massive growth in recent years on the Apple Macintosh and PCs has spawned a wide range of products for other micros. But you could easily spend £10,000 on a system so what should you look for if you've only a few hundred at your disposal? *Express* looks at the DTP packages that will allow you to input, import and edit text and graphics in a friendly environment. Last week we looked at scanners, so for good measure we also include a round-up of another means of importing pictorial material into your publishing efforts – digitisers.

PC DTP GUIDE

It's best to go for GEM-based DTP packages as they all offer output to dot-matrix and laser printers – and the device-independent, page description language PostScript used by professional printing companies.

● VENTURA PUBLISHER V2

Rank Xerox • 0895 51133
£914

A GEM-based heavyweight supporting documents up to 999 pages, and offering master templates, style sheets and text import. A comprehensive range of features with precise control over layout and typography ideally suited for technical applications.

▲ Complete PC DTP for business and technical documents
▲ Fully automated text entry and layout

▼ Can't flow text around graphics
▼ Expensive

Value for money ★★★★

● PAGEMAKER 3

Aldus Europe • 031-336 1727
£800

Running under Microsoft Windows and geared towards the pro-graphics designer, needs a 286 or 386 for effective use. Documents can be up to 128 pages, text can be flowed around graphics very easily and the package includes colour support. Perhaps most useful, parts of pages can be worked on separately and then combined when completed.

▲ Allows simultaneous control of different page components
▲ Easy to use with its pop-up menus

▼ A little slow even on fast PCs
▼ Price

Value for money ★★★

● FINESSE 2

Logi UK • 0925 413501
£171

Once known as *AMS*, this GEM-based package works with frames, but treats input or imported text and graphics separately and colour codes them. Documents may be up to 16 pages, and masters and paragraph styles can be pre-recorded for fast layout.

▲ Flexible with many useful features
▲ Good manual with excellent tips on design

▼ Limited typefaces

Value for money ★★★★

● JETSETTER 4

Garbo Systems • 0736 67166
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A wide variety of fonts and text sizes up to 750 point make *Jetsetter* unique. Separate menu driven screens for graphics and text allow good control of graphics but limited text editing functions. However graphics are bitmapped and can't be resized larger than the original

▲ Excellent with a laser printer
▲ Versatile graphics handling

▼ Difficult text editing

Value for money ★★★

● TIMEWORKS DTP

GST/Timeworks • 0954 81991
£129
ALSO AVAILABLE FOR ATARI ST

One of the first medium priced DTP packages, GEM based and compatible with the wide range of Bitstream Fontware. A frame based system incorporating master templates, paragraph styles, page guides and automatic text wrap-around graphics. *Timeworks* also includes a a good range of drawing facilities and is able to handle documents up to 999 pages.

▲ Excellent DTP at budget price
▲ Imports wide range of text and pictures

Value for money ★★★★★

● FLEET STREET EDITOR

Mirrorsoft • 071-928 1454
£184
ALSO AVAILABLE FOR ATARI ST,AMSTRAD PCW, AMSTRAD CPC, BBC

A GEM style package, Bitstream font compatible, but generally slower to use than real GEM DTPs. Both text and Graphics can be manipulated on the same screen and overlap each other. A wide selection of clip art is supplied but the working document has to be reloaded before insertion.

▲ Good clip art selection
▲ Wide file format supported

▼ No automatic reflowing of text
▼ Relatively slow and unfriendly

Value for money ★★

● GEM DESKTOP PUBLISHER 2

Digital Research • 0635 35304
£397

You might expect something special from GEM's authors but what you get is a package which is very memory intensive although offering the usual page layout, paragraph tags and frame-based text formatting. On the plus side, it does include good text and graphics import and the rare ability on PCs to alter spacing between words.

▲ Inexpensive frame formatting
▲ Flexible text handling

▼ Slow

Value for money ★★

AMIGA DTP

● PUBLISHER'S CHOICE

HB Marketing • 0895 444433
£99.95

Coming complete with the *Kindwords* word processor, the *PageSetter* text and graphics editor, a disk of headline fonts and the *LaserScript* utility that configures your documents as PostScript compatible, this really is a choice product. Working on the frame and grid principle, *PC* provides separate text, graphics and layout screens with the useful addition of full feature pasting facility.

▲ An comprehensive package
▲ Includes spell checker and thesaurus

▼ Slight lack of integration between component parts

Value for money ★★★★★

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REPAIRS FOR AMIGA AND ATARI

● PROFESSIONAL PAGE

HB Marketing • 0895 444433
£249.50

Based on the industry standard, *Pagemaker*, frame-based documents can be picked up moved off page and re-pasted at will and at ease. Supporting text flow, zooms, handy drawing utilities and high-resolution bitmapped graphics, *PP* also offers colour separation control – all at an amazingly low price. There's a page review mode and PostScript printing is also catered for.

▲ Excellent value for money
▲ Perfect for high-resolution pages and colour separation

▼ Needs two drives or a hard disk

Value for money ★★★★★

● PAGESTREAM

Silica Systems • 081-309 1111
£171.35

A frame based package, which also uniquely allows you to rotate text and graphics material in three dimensions. Aside from the usual DTP features, page view, variable zooms, automatic text wraps, and a range of text styles make the product very comprehensive.

▲ A wide range of flexible control
▲ Unique 3D text and graphics handling

▼ Limited colour separation

Value for money ★★★★★

● CITY DESK

Precision Software • 081-330 7166
£157

A different approach offers the user a column-based formatting package in which imported text can be shunted around the page as if it were a graphic object but font, sizing and style attributes are messy. A rather simplistic graphic editor does it business adequately enough but despite some power, CD suffers from the lack of a GEM-type interface.

▲ A powerful low-cost package
▲ PostScript supported

▼ Formatting commands entered as code
▼ Terrible manual complements a difficult interface

Value for money ★★★

● SHAKESPEARE

Cloudhall • 0604 231 2111
£99

The only budget DTP package that allows colour on the page to be carried through to hard copy also supports mono PostScript output and is frame-based. However there's no zoom facility and font,style and size attributes are lost when text is reflowed. IFF colour graphics can be imported but not HAM, however 32 colours can be displayed on screen and palettes changed accordingly.

▲ Ideal for colour printer owners
▲ Accurate text positioning

▼ No format data can be imported with text
▼ No drawing tools included

Value for money ★★★

ST DTP

● PUBLISHING PARTNER

Clik ST • 0753 682 988
£159.99

Excellent GEM-based pagemaker system, with multiple-on screen pages, impressive range of fonts and text sizes and facility to import different ST graphics formats. Also includes a range of drawing tools and variable magnification. Fast screen updates and high quality printer output

▲ Comprehensive and fast
▲ Excellent value

Value for money ★★★★★

● SIGNUM 2

Signa • 0252 31600
£184

Billed as a document processor, Signum allows text to be placed and adjusted to accuracies of up to 1/90th of an inch as well as imported graphics and technical fonts and symbols. Dot-matrix and laser printers are supported.

▲ Fast screen updates and response
▲ Compatible with Signa's scanners, digtisers and Mac emulators

▼ Price

Value for money ★★★

Also available:

● FLEET ST

£115

● TIMEWORKS

£99.95
see PC guide above for comments

ARCHIMEDES

● IMPRESSION

Computer Concepts • 0442 63933
£171

Designed specifically for RISCOS, *Impression* multi-tasks with other applications and supports data transfer between them. Capable of handling complex magazine layouts it comes with an outline font manager and typesetting quality printouts.

▲ Ease of import and editing
▲ Super-fast screen handling

Value for money ★★★★

● ACORN DTP

Acorn • 0223 245200
£149

Similar to the original *PageMaker* for the BBC B, Acorn's own package is based around frames into which a wide range of text styles, sizes and fonts can be combined with a range of imported graphics to produce high-quality printed output

▲ Demands a knowledge of DTP
▲ Fast screen handling

Value for money ★★★

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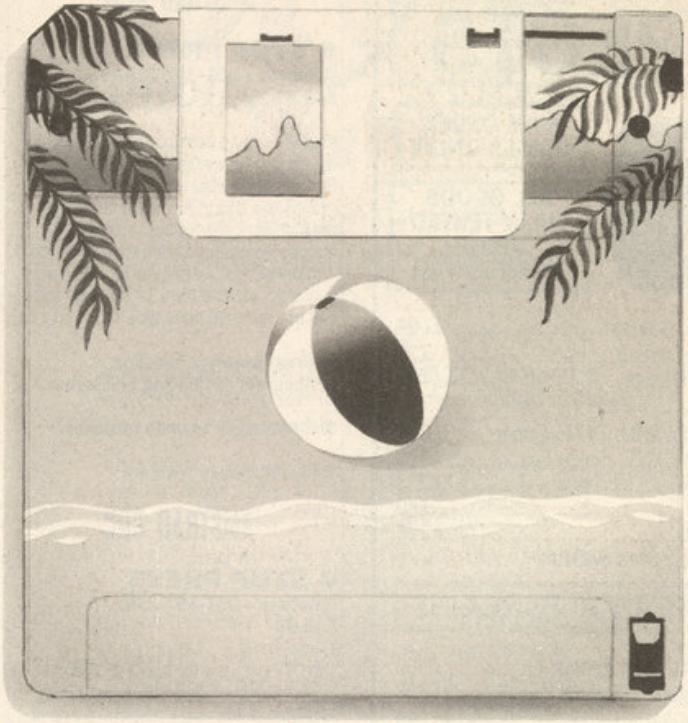

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AMSTRAD PCW

● STOP PRESS
Database • 051-357 2961
£49.99

A well-designed desktop publisher which doubles up as a graphics package. Besides being able to display data as graphs, pie charts etc, and manipulate draw objects, there's also a zoom feature, image superimposition and a clip art library. You can print up to 108 pages in one go, choose from 14 different fonts and use up to 96 point type size.

▲ Great graphics handling
▲ Accurate positioning and layout

▼ Poor facility to undo mistakes.

Value for money ★★★★★

AMSTRAD CPC

● STOP PRESS
Database • 051-357 2961
£49.99

The DTP package for the CPC, *Stop Press* allows you to produce text of any size with a wide range of fonts and run it around illustrations you've drawn and edited. You can make fine adjustments, add patterned borders, create boxes, add shaded backgrounds and even fill circles with text.

▲ An impressive and comprehensive all-rounder
▲ Fantastic text and graphics handling

▼ You need a mouse

Value for money ★★★★★

COMMODORE 64

● STOP PRESS
£39.99
See notes above

BBC

● WAPPING EDITOR
Watford Electronics • 0923 37774
£69

Coming on a 64K ROM, this package has a sophisticated graphics module, prototypesetting software, a word processor, font editor and a variety of printer dumps. It's mouse control allows you to create pages from A6 to A3, and print up to 150 characters across a A4 page. Multiple columns and pages are also supported.

▲ Very user friendly
▲ Extremely comprehensive range of features

Value for money ★★★★★

PC GRAPHICS

● PC PAINTBRUSH
Microsoft • 0734 500741
£145

Bitmapped painting package which offers a reasonable range of tools and functions to build impressive graphical displays. This program allows you to perform everything from simple sketches to complex and colourful designs.

▲ Microsoft is synonymous with quality
▲ Moderately easy to use

▼ Not cheap

Value for money ★★★

● DELUXE PAINT II
Electronic Arts • 0753 46465
£99.95

Comprehensive painting program also available for other machines which features functions such as dithering, lots of fills, stencils, in fact everything necessary for the budding silicon artist.

▲ Comprehensive and fully featured
▲ Gets the most from the limited PC display

Value for money ★★★★

● CORELDRAW!
CTRL ALT DELI • 0908 662759
£460

Advanced paint program with many functions including full traced bit-mapped graphics, lots of colours and fills and an easy to learn user interface. If you have a yen to tinker with paint and design but don't want to learn complex command sequences this is for you.

▲ Easy to learn and use
▲ Bit mapped graphics

Value for money ★

● VP GRAPHICS PLUS
Paperback Software • 0245 265017
£114.95

Not a paint package as such but rather a program which allows you the user to produce graphs and charts depicting a variety of information. You can draw histograms, pie charts, line graphs in fact everything necessary for business graphics display.

▲ Full range of charts available
▲ Easy to use

▼ Not for artists

Value for money ★★★

AMIGA GRAPHICS

● DELUXE PAINT III
Electronic Arts • 0753 46465
£79.95

The painting package for the Commodore Amiga. All possible functions including dithering, patterned fills, stencils, use of perspective, rotate and scaling effects as well as wrap fills, shadow painting using EHB and last but not least incredible animation making full use of all available tools.

▲ All possible painting functions
▲ Powerful animation

▼ A little daunting

Value for money ★★★★

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Access VISA

● PHOTON PAINT 2

Microillusions • 0480 49497
£79.95

This is the package for the novice. A very easy to use painting program that is both powerful yet simple to learn and exploit. There's full use of HAM modes, airbrush, texture mapping, variable blend control and animation. Recommended.

▲ Easy to use
▲ Many functions including animation

Value for money ★★★★

● PROFESSIONAL DRAW

HB Marketing • 0895 444433
£155

For those who want to create professional designs this is the package. Professional Draw has an easy to understand user interface featuring many icons which relate well to their respective operations making it easy to get the most from the program.

▲ Structured approach simplifies operations
▲ Reasonably priced for professional quality CAD

▼ Requires a little draughting knowledge to get the most from the program

Value for money ★★★

● DIGIPAINT V3.00

HB Marketing • 0895 444433
£60

The original and still one of the best. Fully-featured HAM painting package with sexy functions such as 4,096 colours on-screen and lots of special effects including `shading, blending and tinting. What's more this latest version also features text, overscan and texture mapping and is £20 cheaper than earlier versions.

▲ Plenty of features for the money
▲ Special effects tools

▼ Not the most comprehensive paint package

Value for money ★★★★

ATARI ST GRAPHICS

● CYBER PAINT

Electric Distribution • 0480 496666
£69.95

Breath-taking bitmapped animation and graphics package from American magazine/software publisher Antic. This program features some incredible effects including tweening (changing one object to another a line at a time) and very powerful animation functions. Rivals the Amiga and is highly recommended.

▲ Very powerful animation
▲ Stunning effects
▲ Cheap

Value for money ★★★★★

● DEGAS ELITE

Electronic Arts • 0753 46546
£24.95

Like *Digipaint* for the Amiga, Degas *Elite* was one of the very first painting programs available for the Atari and it's still one of the best. You can have up to eight word screens at once cut and paste between any of them and there are plenty of useful and powerful functions such as zoom, block handling etc.

▲ 8 screens available
▲ Powerful block handling

▼ Lacking in features when compared to latest offerings

Value for money ★★★

● SPECTRUM 512

Electric Distribution • 0480 496666
£59.95

Painting package featuring (as its name suggests) 512 colours. The program is simple to use and effective. There's some very powerful functions too in the form of anti aliasing and gradient fill.

▲ Lots of colours
▲ Easy to use

▼ A little expensive

Value for money ★★

● ADVANCED ART STUDIO

Rainbird • 071-240 8838
£22.95

Aimed at those with a serious interest in producing quality art/graphics displays. The Advanced Art Studio has an enormous range of fills as well as comprehensive zoom and text handling complete this package.

▲ Lots of fills
▲ Powerful manipulation tools

Value for money ★★★★

ARCHIE GRAPHICS

● ATELIER

Minerva Software • 0392 437756
£99.95

The Acorn Archimedes with its immense computing power is the ideal machine for complex graphics manipulation and *Atelier* from Minerva Software exploits that power to the full. All tools and functions necessary for complex design and drawing.

▲ Powerful and comprehensive
▲ Easy to use

▼ A little expensive

Value for money ★★★

● PRO ARTISAN

Clares Micro Supplies • 0606 48511
£99.95

Professional release of the evergreen *Artisan* paint program. This package features 256 colours and 15 modes of operation.

▲ Lots of help screens

▼ Requires at least 1Mb of memory

Value for money ★★★★

PCW GRAPHICS

● MASTERPAINT/ MASTERSCAN

Database Software • 051-357 2961
£79.95

PCW and painting programs? Now it is a possibility with *MasterPaint* from Database Software. You can draw circles, ellipses, boxes, use fills cut and paste etc. There's comprehensive text manipulation and a variety of fonts. Only available with the Masterscan scanner

▲ Fully featured
▲ Exploits the power of your PCW

Value for money ★★★★

CPC GRAPHICS

● ADVANCED ART STUDIO

Rainbird • 071-240 8838
£22.95 disk only

Very similar to the Spectrum and Commodore 64 versions this popular painting package produces pixel appointed perfection and performs well!

▲ All the features necessary for pretty pictures
▲ Reasonably priced

Value for money ★★★★

SPECTRUM

● ADVANCED ART STUDIO

Rainbird • 071-240 8838
£22.95

Superior painting program for Spectrums equipped with 128K or above. Plenty of fills, colours and features such as zooming, windows and text handling. Reasonably priced and featured.

▲ Plenty of tools, colours and fills
▲ Easy to use

Value for money ★★★★

COMMODORE 64 GRAPHICS

● ADVANCED ART STUDIO

Rainbird • 071-240 8838
£22.95 disk only

Very similar to the Spectrum version but works with the basic Commodore 64 as well as the larger RAM memory machines. Fine range of features for a reasonable price.

▲ Full featured
▲ Plenty of colours
▲ Works with the 64K machines

Value for money ★★★★

DIGITISERS

● VIDI

ROMBO PRODUCTIONS • 0506 414631
(free demo disc available)
FOR PC £115
FOR AMIGA £99.95, £119.95 (colour version)
FOR ST £99.95
FOR PCW £99.95
FOR CPC £99.95

Grabs 16 shades of grey from videotape recorder or camera with software. the plug in card feature as a phono socket for the video signal input and controls for brightness and contrast. depending on the machine,the software allows real-time capture and display – on the Amiga it's four frames a second. If you have extra memory you can store images in RAM and play back animated sequences.

▲ Good low-cost performance
▲ Can control hardware from your own programs

▼ Performance dependent on host machine

Value for money ★★★★★

● THE DIGITISER

DATEL • 0782 744707
FOR AMIGA £89.99
FOR ST £79.99 (works in mono and colour)
FOR COMMODORE 64 £79.99

Plugging into a parallel port, the hardware frame grabs at 1/50th second and screen updates at one frame per second allowing the software to edit,cut and paste portions of the 16 grey scale picture along with special effects such as reversals and mirroring.

▲ Impressive features at the price
▲ Single, continuous or buffered display

Value for money ★★★★★

AMIGA

● DIGI·VIEW GOLD

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▲ Good range of control for the price
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PCW

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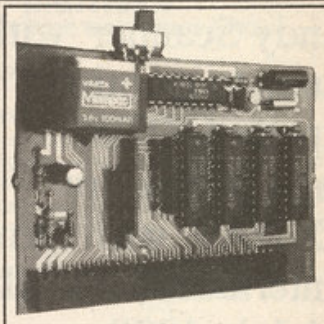

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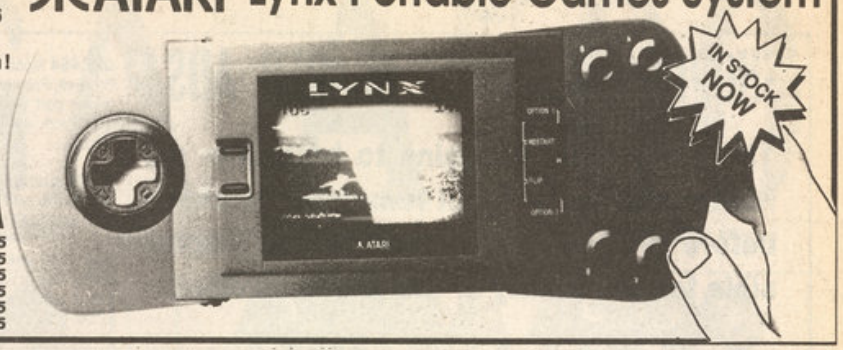

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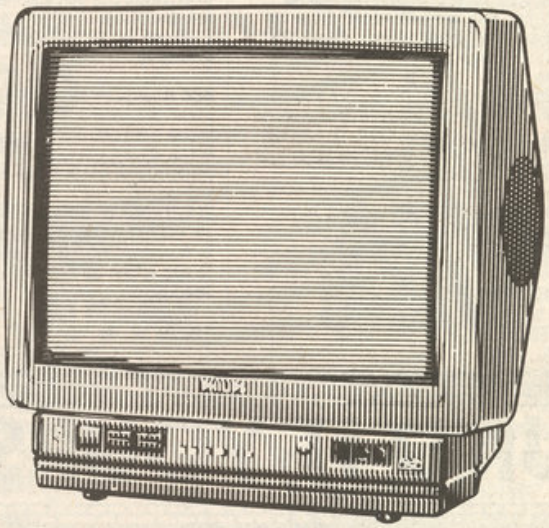

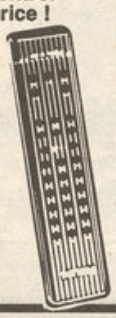

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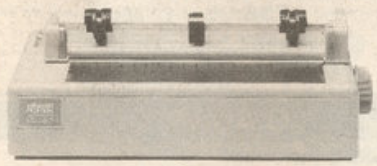

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THE PD COLUMN

There is a lot of software out there available for the price of a disk. This week Adam Waring looks at some of the software for the CPC and Amiga as well as providing information on where you can find the library near you.

Amiga nuts on the lookout for good PD need look no further than... Amiganuts. The library has been going strong for three years now, and consequently has built up a whopping great collection. A small sample from the library landed on my desk, and good stuff it is too.

Disk 528 – Quest for the Holy Grail, is an adventure of the old sort. You'll find no graphics here – just atmospheric text, lengthy descriptions and a cracking plot. Now I've rescued a dangerous dragon or two, and slain the odd distressed damsel in my day, but I seem to have lost my touch through the passage of time.

The quest starts in a dungeon – luckily an unlocked and unguarded dungeon. I strutted out bravely, ready to face anything. A sword lay on the ground, so I picked it up – you never know when you might need one. I then wandered round in circles and got lost immediately. Ho hum.

Quest is an adventure of truly epic proportions. Due to its size, it won't run on A500s I'm afraid. You'll have to be prepared to forgo the graphics that modern commercial adventures offer. But if – like I was – you were brought up on adventures with text only displays, then *Quest for the Holy Grail* may be just what you're after (ho ho).

Disk 581, or *Sid* for those who like to get on a first name basis, provides a new sparkling front end to the Amiga's disk operating system. There are two user interfaces as far as AmigaDOS is concerned. There's Workbench, with lots of nice friendly icons and pointers and other WIMP like thingies all over the place. Let's face it though, it's not got an awful lot of power.

The *CLI* (Command Line Interface to you) on the other hand is a powerful beast, and can do virtually everything you could wish for (at least when it comes to file editing). It's not exactly the easiest system to learn though, what with all the complicated commands.

That's where *Sid* comes in. It adds pointing and clicking to *CLI*, adding a friendly dimension to the environment. All your favorite commands are here (and more, I might add), without the hassle of remembering them. Move your mouse around the screen and everything becomes so much easier.

Two directory windows show all the folders in orange, and the files are marked in a bright, glowing white. There are two windows, by the way, to make copying between different disks and directories possible.

All the important commands are clearly laid out at the bottom of the screen. It really does make a world of difference to have this convenience. In fact, if you get this disk and you and *Sid* will be getting along like you've been friends for years.

CPC

New CPC libraries seem to be popping up on almost a daily basis. The latest to come to my notice is Scull PD, based in Glasgow. Scull PD operates both a tape and disk service.

The arrangement is that you supply the media plus a copying charge and a few days later it will be back, crammed full of goodies. There are 12 disks and 22 cassettes in the library, and the numbers are growing all the time. An SAE will get you a copy of the latest list.

Scull has obtained permission to use demos of commercial games such as *The Untouchables*, which appeared on the cover cassette of *Amstrad Action* over Christmas (The latest issue of *AA* is available from all good newsagents,

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542 (1) - Bootblock champion III (excellent utility)
551 (1) - Sleepy. Animate those sleepy icons. (CHARITYWARE), please support!

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Disk 581: SID updated version 1.6 by Tim Martin, this dir utility is simply one of the best of those who find the CLI a pain in the ass!
Disk 586: The very latest (May 1990), updates of Zerovirus/Brainfile III, Fullview V2.01, plus 14 more, from the Australian author Jonathon Potter.
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PLEASE NOTE: Some demos contain language that may be considered offensive.

and at only £1.45 it's a bargain too!). Many of the listings from the Type-Ins section of *AA* also appear in *Scull*. So if you can't be bothered to type them in yourselves, you know a man who can...

Mac is one of the programs from the library. No, it's not a Macintosh emulator for the CPC – that has yet to see the light of day. *Mac* is one of those maze-type games where you wander around picking up keys and dodging loads of nasties.

In terms of looks, *Mac* scores well. It has big bold graphics, and reasonably cute characters. The amazing thing is that *Mac* is written almost entirely in bog-standard BASIC! I have no idea what I'm supposed to be doing in the game yet, but I'm sure I'll figure it out...

Lots and lots of utilities, routines and other bits and pieces came crammed on the Scull disk. There's loads of stuff that can be used to spice up your own programs. You know the sort of thing – fancy screen fade programs and italised character sets. Best of all though, all these trillions of programs will cost you just a £1!

IT'S ALL RELATIVE

Owners of computers that have perhaps seen better days in the popularity stakes needn't feel left out. What little commercial software was available has dried up. But before you relegate your unfashionable machine to the category of bad purchasing decision, why not check out PD libraries that may be around?

Take the Tatung Einstein for instance. A fine machine with an in-built disk drive and psuedo-Spectrum compatibility (ie, it ran the more well behaved Speccy software). It must have sold in droves when Dixons had them at ridiculous prices during the mid-eighties. Even so, little commercial software is available for this machine. Thus the only software available has been written by enthusiastic users.

Enter Einstein PD. This newly formed library boasts a collection of over 200 volumes, covering everything an Einstein owner could wish for. From Astronomy to Z80 assemblers – it's all here. Simply send an SAE to the Einstein PD Library address below, and before you can say: 'By golly, my computer's not the antiquated fossil I thought it was', you'll have the latest list.

PD OR NOT PD

Public domain software is entirely free, and can be passed along to friends, even enemies, without fear of infringing copyright laws. The money that the libraries ask for is simply a charge for copying the software for you. After all, they've spent a lot of time hunting it down and compiling it onto disks. There's wear and tear on their disk drives and computers, too.

However, not all that the PD libraries offer is necessarily public domain. Shareware and licenceware software are similar, but not quite PD.

Shareware is distributed in the same way as PD, and can be passed on to friends in the same way. However, it's for evaluation purposes only.

After you've had a reasonable time to check it out – let's say a week, give or take a day – you must either pay a registration fee to the author or erase all copies in your possession.

Licenceware is available from PD libraries, but you're not permitted to pass it around freely. The PD library pays the author a percentage royalty of the cost of the money received for the program.

The libraries are used as distribution centres, allowing potential star programmers to provide their software at what ends up being exceptionally reasonable expense.

Licenceware must not be copied at all. If a friend has a hankering after your for your disk and he or she thinks that your latest licenceware program is the hottest thing off the rack since the Spectrum's power supply, then he or she will have to purchase his or her own copy from the library.

SEND IT IN

Do you run a PD library that deserves a mention in these pages? Well send it in then! We want to see your best stuff, preferably on disk.

And for goodness sake, don't forget to include all those important details such as your prices, address, catalogue...

Our address, if you didn't know, is: The PD Column, *New Computer Express*, Beauford Court, 30 Monmouth Street, Bath BA1 2AP

WHERE TO GO

Einstein PD Library, 23 Houldsworth Rise, Arnold, Nottingham HG5 8HZ. Newly formed PD group for this minority machine. Send an SAE to see what, exactly is going on.

Amiganuts United, 169 Dale Valley Road, Hollybrook, Southampton SO1 6QX. Tel: 0703 785680. Amiganuts offer a good selection of PD for the er, Amiga. Prices are good, most disks will cost you around £1.50.

Scull PD, 119 Laurel Drive, Greenhills, East Kilbride, Glasgow G75 9JG. Up and coming CPC PD library. Send a tape or disk to these guys, and within a week it'll be crammed to bursting point. Charges are just £1 per disk and 50p for a C15 cassette full.■

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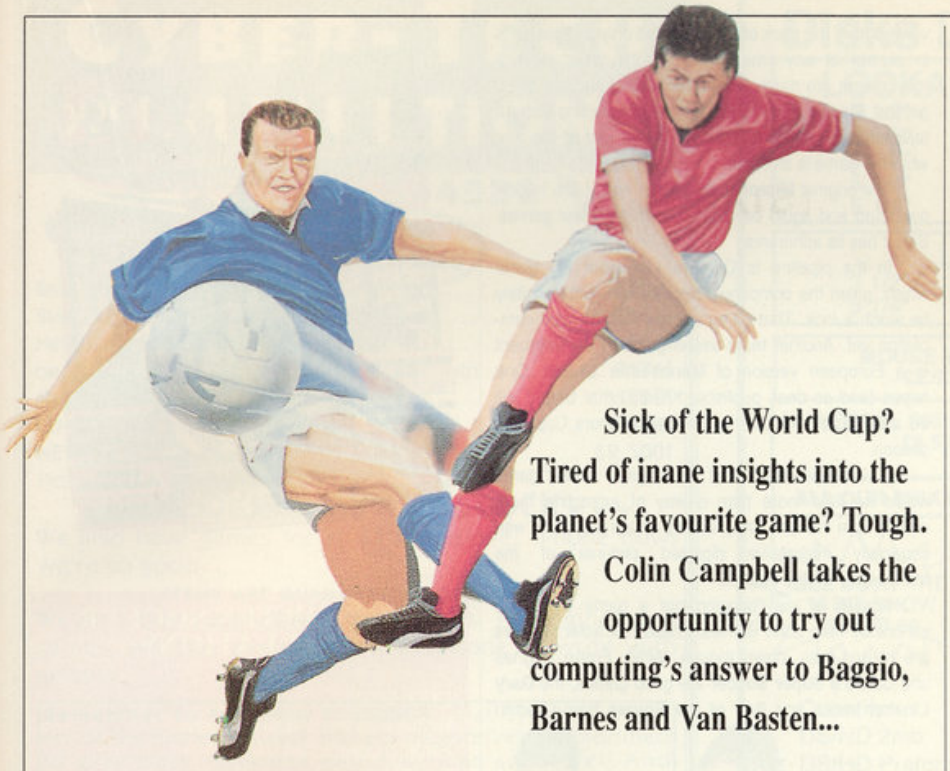


THEY THINK IT'S ALL OVER...

Sick of the World Cup? Tired of inane insights into the planet's favourite game? Tough. Colin Campbell takes the opportunity to try out computing's answer to Baggio, Barnes and Van Basten...

The newspapers are carrying articles along the lines of 'How to Avoid being a World Cup Widow', daytime television is engrossed in giving 'your man' a taste of Cagliari Cuisine and research shows that British homes contain, on average, 0.7 World Cup wall charts each.

El Mondiali is in full swing, but I guess you didn't need me to tell you that. So, if the likes of *Harper & Queen, Practical Fly Fishing* ar.d *Your Hamster* can find an angle on soccer, so can we.

Virtually every games software rack in the country is heaving with a line-up of soccer games ranging from the latest heavyweight licences, through the old classics and down to the shabby budget efforts. For the uninitiated software buyer the whole thing can be decidedly confusing.

No-one has the inclination to count, but it's reckoned that there are about 100 football games still in circulation and heaven knows how many which have been retired off to the great warehouse in the sky.

The last few months has seen intense activity, with few software publishers opting for the avant-garde approach of not releasing a football game. With everyone in the football mood even more big name licenses are being pulled in for next year including Everton FC and John Barnes.

They've all got an angle. But what's best for you?

BIG TIME

First of all, let's look at those games with the closest connections to the big event. Virgin/Mastertronic has made a big deal out of securing the official World Cup licence, but that doesn't normally count for much.

However, **World Cup Soccer Italia '90** is a good buy all round. The packaging is true to the cartoon idealism of soccer and the box contains (you guessed it) a World Cup wall chart. There's also a basic history of the game and a neat competition.

The game itself takes some getting used to and, to be honest, the passing and tackling control is initially fiddly and irksome rather than challenging. Instead of the game automatically selecting the closest player to the ball, you have to. It takes a few embarrassing defeats against USA to get the hang of this.

Once used to poor opposition, you have to work your way through progressive knock-out rounds of the cup – and it's almost the same as the real system.

Goalmouth action shots are exceptional as the view changes from standard overhead to behind goal perspective. It's all jolly good apart from the crowd noises which are dreadful, even on the Amiga.

Without a licence but with even more savvy is US Gold's **Italy '90**. It takes a lower to the ground 3D approach and, apart from a lack of scanner for long range passing, is polished and excellent fun. US Gold found itself looking extremely foolish when it released a footie game for Mexico '86 (**World Cup Carnival**) which was universally deemed to be the worst sports game of all time.

This week sees the launch of **Kick Off II**. In these circles the original game is held in the same esteem as the Brazilian national side, and I guess most people reading this have had a few frustrating hours with the game. Anco's follow-up, amazingly, possesses an almost supernaturally footballish feel. It's fast and shiny and altogether lovely.

Anco, for the record, is also responsible for **Player Manager** which probably ranks as the best in action/strategy hybrids. Buyers not all that bothered with Italian connections would be well advised to get hold of this. Hardened strategists of the soccer variety (and otherwise) have been perplexed by its depth and downright difficulty factor.

STRATEGIC MOVES

Fixing fun with strategic number crunching has been computer football's greatest challenge. Other than Anco's effort, the best option is **Emlyn Hughes' International Soccer.** The 8-bit version is getting long in the tooth, but it still stands up as a *bona fide* classic. Publisher Audiogenic (like Anco, not normally associated with blockbusters) has been making a lot of noise about the 16-bit versions and most expect it to be a corker when it's released in a few weeks time.

Also highly rated is Ocean's **Matchday** series. Here, fun is top of the agenda and even if the sprites look rough around the edges it's still a quirky and enjoyable game – especially on the 8-bits where looks seem to matter less. Not quite so impressive but still worth a look granted its budget price is CodeMasters' **Soccer Simulator** of four games including 11-a-side, 5-a-side, street football and indoor football.

For those crazy enough to emulate the likes of Roxburgh, Robson and co there's **Football Manager World Cup Edition 1990**. Eight years ago author ➤

Kevin Toms came up with the original **Football Manager.** It was an enormous success and is one of the few games to achieve mainstream status. If you talk to someone who has hardly played any computer games, the one they probably have tried is *Football Manager.*

The original and its follow-up lack the depth even of some of their management impersonators and Toms has promised "radical improvements" with the World Cup version. Oh, and there's a free wall chart...

D&H Games, a company which was founded by two *FM* enthusiasts, can now claim to be producing the best hard core management games. None of them are pretty to look at, but the number of features in the top games is nothing short of stunning. The firm has a new title out called **Multi Player Soccer Manager** which will allow up to four players to take part in a league at the same time. D&H has based much of its fortune on the **Football Director** series which is experiencing another World Cup inspired revival in software stores.

For strategists there's also the newly-released **Treble Champions** from software minnow Challenge. **The Double** from Goliath is also well worth a look at £2.99 on the 8-bits.

Goliath brought out the widely acclaimed **Tracksuit Manager** in 1988 which is exclusively based on international management. Due to the inevitable passage of time it is getting old, with some of the England squad well out of date *(surely not – Ed).* A follow up is promised, but one can't help feeling that now would have been as good a time as any.

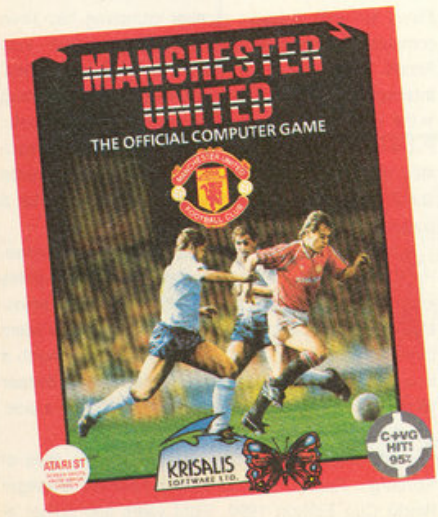
As an aside, Goliath is also working on a computer version of **Subutteo,** but lord only knows what that will be like.

MANY IN ONE

For bargain hunters the World Cup has lured a number of compilations out, the best of which appears to be **The World Cup Soccer Compilation** from Entertainment International. That includes the aforementioned *Kick Off* and *Tracksuit Manager* as well as **International Soccer** which, while not a work of stunning originality, is accurate and easy to play.

At the bottom end of the market is Alternative's budget effort of **Soccer Boss, Football Frenzy** and **Indoor Soccer**. None of the games is especially significant, but at £3.99 you can't go far wrong.

Football simulations are already moving into a new era – at least that's the case if you can believe MicroProse's hype. The American firm is working on a soccer game which utilises artificial intelligence! **MicroProse Soccer II** won't be ready until the beginning of the English domestic season, but those who've seen early demos are impressed. The whole game is viewed from the back of the pitch and only one player is in control at any time. However, the other players' movements are much less random than in many other games. Players have to get used to interacting with 10 team-mates – which is, after all, at the end of the day, what the game is all about.



The original **MicroProse Soccer** was, I felt, hugely overrated and could be mastered within a few games. Still, it has its adherents

In the pipeline is Ocean's **Liverpool FC** game which, given the company's track record, will definitely be worth a look. That game's a few months from completion yet. Another team-based game in development is a European version of **Manchester United**. One hopes (and so does publisher Krisalis) that United will be allowed to take part in the Cup Winners Cup next season.

It was anticipated that the original *United* game would be little more than a way of extracting more money from the Red Army, but it's an attractive title with especially impressive digitised pictures of the Manchester United players.

Krisalis is also bringing out a game based on schoolboy hero John Barnes. These character licenses are hit-and-miss affairs though. While *Emlyn Hughes* and **Gazza's Super Soccer** are good games, the **Gary Lineker** series and **Roy of the Rovers** from Gremlin were both poor, while Impressions' **Kenny Dalglish Soccer Match** and Grand Slam's **Peter Beardsley** are barely passable.

Two more management games with easily confusable names are **European Superleague** and **Superleague Soccer.** Both are management simulations, but while *SS* takes a fairly traditional graphical approach, *ES* has a style more akin to French graphic adventures than footie sims, with the management controled by indicating icons on your desk and talking to the press and the chairman of the board. On the whole *Superleague Soccer* is the better simulation, but *European Superleague* has an innovative approach which we can look forward to seeing in other games in the future.

BETTER AND BETTER

Whatever, you can look forward to better and better games in the next few years as well as the standard dross released to bolster more ambitious software projects. Football's global appeal and the ease at which licences can be obtained and games written make this genre computing's safest option for publishers and greatest pitfall for buyers.

But you could always join a number of oddball computer owners who have nothing but footie games in their collections... ■

THE TOP TEN SOCCER SIMULATIONS

1 KICK OFF 2
The follow-up improves on the original
2 WORLD CUP SOCCER ITALIA '90
The official World Cup game, and the best
3 MICROPROSE SOCCER 2
Leading edge in soccer sims
4 ITALY '90
Exellent entertainment
5 PLAYER MANAGER
The management counterpart to *Kick Off*
6 MANCHESTER UNITED
Not just for supporters
7 EMLYN HUGHES INTERNATIONAL SOCCER
A classic
8 SUPERIOR SOCCER
The best on the BBC
9 FOOTBALL MANAGER WORLD CUP EDITION
Update for a superb game
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Unique management game

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TECH TIPS

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BBC PD

In *Express* 78 you published a letter from Rafael Jay of Bath, who wants to start a BBC PD library, but despite his request you did not publish his full address. I would love to contribute to, and receive programs from, such a library. Please let me know his address.

I enclose a stamped addressed envelope so that you can reply with the utmost ease and speed. Thank you in anticipation.
John Goldsmith, Bury St. Edmunds, Suffolk.

Tech Tips has changed hands recently (bye bye Unc) and in the ensuing chaos, the letter that you refer to has been consigned to the depths of some removal lorry on its way to the retirement home for aging technophobes.

If Rafael writes in again we'll print his address, but in the meantime let me suggest that you cast around the bulletin boards for BBC PD. If you (or a friend) have access to a modem and some comms software, there's a wealth of BBC PD to be had on-line. A couple of places to try are Gnome at Home, a viewdata bulletin board running at 1,200/75 on 081-888 8894, and Aspects, a scrolling bulletin board which operates at 300/300, 1,200/75, 1,200/1,200, and 2,400/2,400 with a protocol setting of 8N1. Aspects is on 061-792 0260.

• A note to Techtippers. Please don't send stamped addressed envelopes as we can't answer letters individually. We only have time to reply in print.

Schizophrenic ST

After answering my last request through somebody else's letter, I hope you can answer this problem to the benefit of other ST owners.

What I would like to do (with my ST Mega 1) is have more than one program running in memory at one time. Not necessarily multi-tasking, where programs run side by side, but just having the program in memory so that a key press suspends one, and starts another. Is this possible, either in software or extra hardware? The Sinclair ZX Spectrum with Multiface can, so can I? Thanks for your help.
Simon Daniels, Long Buckby, Northants.

Surely not an ST owner wanting to do do something like an Amiga does? The program that you want is a public domain program called *ST Switch*. As it is PD it should cost you next to nothing from your local PD library.

The ST's operating system isn't as complex as the Amiga's and true multitasking is a no-no but it is possible to run two programs alternately using *ST Switch*. The bad news is that it is prone to crash, and if it takes a dislike to your software you could lose valuable data.

If you want something a bit more solid, HiSoft publishes a program which does the same only in a more elegant and less crash-prone way. It is called *Twist* and costs £24.95 from your local software dealer.

ST upgrade?

I am anxious to find out if it is possible to upgrade your STFM to an STE.

If not, is there a chance of getting hold of the stereo 8-bit PCM chip or anything like it? Is there any way of getting the STFM sounds sent through an amplifier like the STE?
Simon Koterrell, London E3.

Presently there is no way to upgrade an STFM to an STE, but it is possible to amplify the output of the STFM by attaching the Soundblaster to it. This amplifier/speaker combination, from Siren Software on 061-228 1831, can at least do justice to the 'square wave and white noise' sound chip of the STFM.

Speculator

In *Express* 51, there was a news article about the development of a Spectrum emulator for the PC. Since that time, I have not come across any details, but as I now have an Amstrad PC1512, I want to be able to transfer all my Spectrum Plus 2 data cassette tapes to the 1512 disk system.
R Hudson, Pontefract, West Yorkshire.

We spoke to the very chap who was developing the Spectrum emulator and he confirmed that it is ready. As soon as he's organised some sort of marketing deal, it should be available. To whet your appetite, here is the promised specification:

• It will consist of a hardware connection to transfer the Spectrum software from a data recorder to the PC;

• It should work with all unprotected Spectrum software that doesn't do ROM checksumming. It will work with software that has been Multifaced (although Multifacing certain software will most certainly be illegal);

• It should work with any true PC or clone that supports Hercules, CGA, EGA, or VGA graphics adapters;

• It will produce the Spectrum sound, but also offer volume control.

Best of all, the developer is sending one to *Express* so that we can try it out and see if it lives up to its promise.

Pass the etiquette

In March this year I wrote to you concerning a problem with an Amiga and a BBC disk drive And you still haven't bloody answered. So I have decided to try once more and hopefully this time you will reply, or there will be trouble!

I have a BBC B twin 5.25-inch Viglen drive which has two cables emanating from it. A 34 IDC cable and a three-way power cable. I understand that this drive can be connected to my A500. After several attempts my efforts were fruitless, I therefore wrote to you. My first question is: exactly how is the drive connected to my Amiga? Then assuming the drive is operational, will I be able to:

(a) read/write BBC software running on a BBC emulator?

(b) read/write Commodore 64 software running on a C64 emulator, with a '1541 emulation' option?

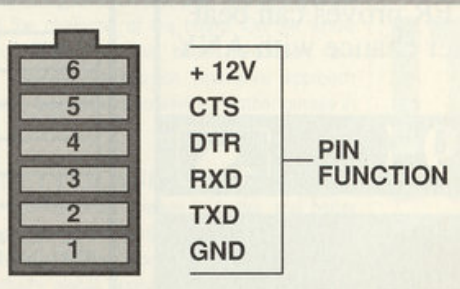
(c) read/write Amiga software, and will there be any disk memory restrictions eg 5.25-inch disks only hold 720K and 3.5-inch disks hold 880K.

Tagging on a typewriter to the Spectrum

I have a Silver Reed EX43 typewriter-cum-printer which I would like to use with my Spectrum 128 Plus 2. Silver Reed supplies a serial interface unit, but in order to make the interconnecting cable to the Spectrum, the good people need to know the wiring connections of the RS232 serial port of the computer.

Unfortunately, because wiring details seem to be a taboo area in user manuals, and because I am a newcomer to computing, I seem to be unable to obtain this information. Could you advise?
WD Harker, Radstock, Avon.

Turn to page 200 of the Plus 2 manual or page 318 of the Plus 3 manual. There under the heading of serial devices is a schematic of the RS232 serial socket and a description of the pin connections for the socket. The RS232 on a Plus 2 looks similar to the Telecom 400 phone socket and is on the rear of the machine. In order to persuade any software to work with the EX43, you will need a suitable printer driver to allow communication with the Plus 2. When you send the cable details to Silver Reed, make sure that it is clear that you require this too.



(d) read/write PC software running under the *Transformer* software?

Secondly, I would like to know if the PC emulator *Transformer* is crap, as I was told it runs only 10 per cent of an XT machine's software?

Thirdly, I intend to buy an upgrade processor the 68010, would this run programs like *Transformer* more quickly?

Any answers would be tremendously appreciated (and unexpected).
Sajad Rahman, Burnley, Lancs.

If your last letter was as rude as this one, I'm not surprised you haven't had an answer. The answer to your query about the connections for the Viglen to the Amiga is as follows.

Both the Viglen drives and the Amiga have a standard 34-way disk interface. If your cable is wired correctly there should be no problem. However, there are links inside the drive casing to tell the drives what number they are. The Amiga can address drives DF0:-DF3:. The internal drive is DF0: so the next two external drives should be set as DF1: and DF2:.

To answer your other questions:

(a) No

(b) No

(c) No, providing that the media you use is up to it.

(d) Possibly

2. I wouldn't that word to describe it, but you are right in surmising that the *Transformer* does have some limitations.

3. That depends on the program, but the 68010 isn't considered to be a prudent add-on for an A500.

Book plea

A few months back, I wrote to you to ask if I should learn assembly language for my Amiga or whether AMOS would be worth the massive wait. You gave one of your non-committal balanced answers, and so I thought I'd give assembler a bash.

I bought a book on the subject, the *Amiga Machine Code Programming Guide* published by Compute!. It's pretty good but I've one problem. The book is full of long listings, macros and loads of useful stuff but they're L-O-N-G! They're all available on a companion disk which also contains an assembler, but unless you can buy it locally, you have to write to the US. Can you help, I can't get it from my computer dealer. If you do, I'll write 600 fan letters to *Express* and generally lick your boots.
Rob Morris, Swansea.

I have tried all of our stockists and suppliers (and even those of our sister magazine *Amiga Format*) and although the books are easy enough to obtain, the disks aren't. It looks as if you'll have to enlist the help of good old air mail. A colleague who has taught himself machine language from books says that you'll learn more if you make the effort and type the routines in. Apparently you learn about de-bugging that way. I think I'll be happy to stick with Logo (where did I put that turtle...).

Inking up the PCW safely

I recently came across an example of sharp practice by Amsoft PLC, the supplier of PCW printer ribbons for the Amstrad 8256 & 8512. As supplied, my 8256 was provided with a printer ribbon in a cassette.

The cassette was ingenious in that the ribbon included a 180-degree twist which meant that by the time the ribbon had been through the cassette once the other edge of the ribbon came into use, and the whole width of the ribbon was used.

After considerable use I bought a new Amsoft cassette which had minor modifications, so being an engineer with an inquisitive nature I removed the cassette cover. To my consternation I found firstly that it not only contained only about half the length of ribbon, but that the 180-degree twist was missing. The obvious result of this will be that it's life will only be about one quarter of that of the original!

Thinking this might be a 'one-off', I went to my local council offices where there are five 8512s and checked two of their new stock cassettes. I found them to be the same as the one I bought, and that the staff had noticed the short life of replacement ribbons.

If anyone wishes not to be cheated in this way, I have found it is simple to re-ink my old ribbon using a spirit-based rubber stamp pad ink. It can easily be done if a piece of thick felt is firmly taped over the end of the ink bottle and the felt applied to the ribbon while the ribbon is steadily wound through the cassette. As proof, this letter was printed with my re-inked ribbon after some three weeks use. I have since offered to do this several times for friends with similar PCWs; it costs me about 6p each and takes less than 15 minutes.

I have been advised not to use a water based ink as it could rust the pins in the delicate printing head and would possibly not provide lubrication for them.
W E B Boothby, Totton, Hants.

You aren't the first person to notice the amazing shrinking PCW ribbons. At first they got shorter, but the recent de-twistification does indeed make them a bad buy.

Congratulations to your engineering background for the diagnosis, but a firm slap on the wrists for your solution. At best, it will cause your printer to turn up its toes early and at worst it will seriously damage the matrix print head.

You should never use anything but an ink that contains a silicon lubricant with a dot-matrix printer. Until recently, the only way to be assured of this ink was to have your ribbons re-inked by the services advertising in the small ads.

More recently, Caspell has made this silicon ink available to us all. It comes in an aerosol with an applicator (like a WD40 can) and contains the magic silicon. It is available from WACCI for eight quid a can. WACCI is at 9 South Close, Twickenham.

Quite likely

I use a Sinclair QL (the first real home computer that you could do the business on) and although many fellow users cast aside the Microdrives in favour of disk drives I have always been happy with these robust little tape units.

They don't occupy much space and the cartridges are strong and not susceptible to the vagaries of life in a house full of kids. As well as word-processing, I use the QL for many data- and number-intensive applications where I need to retain the full cartridges for future reference.

Recently I have found that the cartridges are in short supply and I wonder whether now would be the time to buy disk drives. I would rather stick with the Microdrives, but don't know what my options are. What are your suggestions?
Sue Denham, Windsor, Bucks

If you've found a system that you like and are comfortable with, stick with it. There were a few rumours about Microdrive cartridge shortages, but they are unfounded.

I spoke to Bill Richardson at EEC Ltd and he promises me that they still have thousands and will be supplying them as long as there is a demand. The QL was ahead of its time and many features from it (like the 68-series chip) were copied by later computers. It's a shame that the Microdrive never caught on with other manufacturers, but with the constant search for higher capacity, random access and greater density, the obvious media became the disk. More info on Microdrives and cartridges from EEC Ltd on 0753 888866.

• Did you know: As well as the Sinclair QL and Spectrum, the Microdrive appeared in the ICL One Per Desk, a combined workstation, telephone, modem, computer and monitor based around the architecture of the QL. It was flagged as the first step in the great move away from mainframes, but with networking and comms in their infancy, never caught on.

Are you there?

Now I wonder, do you really exist, or am I writing to some mad computer which spews out its own letters?

This is my fourth time of writing, yet no help or reply has arrived in my real world, which first cried out at Xmas '89.

Can I use a Honeywell terminal as a simple B/W monitor with my 48K rubber Speccy?

If applicable, how do I connect it to my Speccy?
J Reid, Old Colwyn, Clwyd.

I think that I must exist. My phone keeps ringing and I keep answering it. Anyway, on to your comments:

If at first you don't succeed and all that. A quick ferret in the mailbag *(What were you doing putting ferrets in the mailbag again – Ed)* showed that if we were to answer every technical query received, Tech Tips would occupy 14 pages – a tad impractical.

Your 48K rubber mat Speccy was designed to drive a TV from its internal modulator and as such was never equipped for connection to a monitor. After consultation with the Spec-heads at our sister mag *Your Sinclair*, the verdict has to be that although it may be possible using extensive hardware remodeling, it isn't exactly desirable or recommended that you attempt to undertake this yourself.

Press time

I have a Commodore 64 computer, which I think will be adequate for the system I have in mind. I would like to publish newsletters and magazines on it, and have my eye on *Stop Press*. My question is this is it possible to format disk output (1541) from such a system so that it can be printed professionally? Or is my ultra-cheap DTP idea impracticable?
S J Rogers, Newton Abbot, Devon

The output from *Stop Press* is adequate for the production of posters, newsletters, forms and documents. However, it was designed for use in a domestic environment, and it isn't equipped to write files for use on commercial publishing equipment.

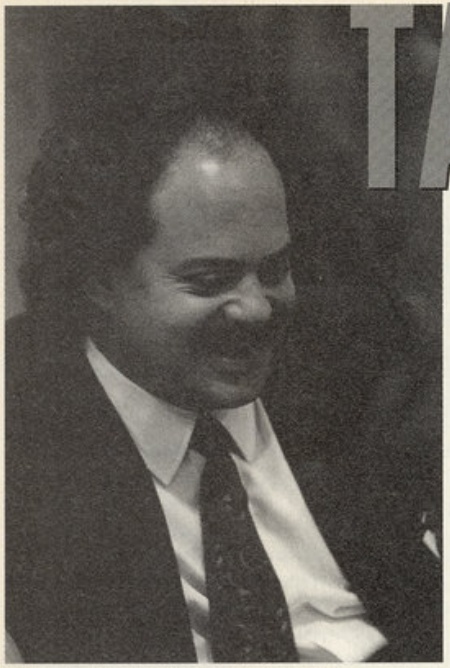
The best that you could hope to do is connect your C64 to a laser printer for high quality output. Then you would take the resultant output to a printer as 'camera ready' artwork, to be photographed into a published document.

The £1,000 or so that the laser printer would cost you would be better spent on a PC clone and a cheap desk top publishing package that could produce files that a computerised print shop could read directly.

If you only want to use *Stop Press* for the occasional document and high-quality output isn't essential then *Stop Press*, via a dot-matrix printer and photocopier, will do.

• Remember that Tech Tips is here for your tips, too. If you have solved a problem or found a new way to do something, let us know. Your tip may get someone out of a jam. ■

TALKING TURKEY



• *Sam Tramiel, optimistic head of Atari Corp.*

The Gameboy? It sucks. Amiga 3000? A joke. PC Engine? It's nothing. When Sam Trameil, head of Atari, spoke out in Chicago, Dave Roberts was listening...

How badly has the ST suffered in the general downturn in home computers in the States?
We've been out of the computer business in the US for the last two years and now we're coming back into it. Looking back to '87-'88, there was a big shortage of DRAM chips and we supported the European market and didn't support the US. Europe is doing so very well for us with the ST, and now we're going back to the US market with the STE and the TT. The TT being in the US will also get our name back in the market.

What sort of effect has the introduction of the STE had?
In Europe it has just given the machine a bit of a boost. In the US market the Atari enthusiasts are very excited saying "wow, we're getting a new machine at last". They're almost a year behind Europe now.

Are there any plans to update the 520 model?
Well, right now that's just the plain vanilla ST.

Where do you see the future of the ST?
We see it continuing to do very well as people realise its breadth of applications. It has high-res monochrome screen where Amiga doesn't. It has many more game and business applications than the Amiga. Also the A3000 compared to the TT is a joke in the graphics. You look at their high-res mode, it flickers like crazy. Our high-res mode is stable, rock-solid.

How has the introduction of the Stacy been?
The music groups just love it – they take Stacys on tour with them instead of lugging along with those big monitors and disk drives and hard disks. They get a little Stacy and they're off doing their thing.

What about its performance in Europe?
It's doing very well. Madonna's currently doing a really big world tour, and we've just been told that when she was in Japan, the Macs broke, the PCs broke, but the Stacys kept on going – they were ecstatic.

The other development people have talked about is a CD-ST, and that talk is bound to get louder now that a CD Amiga is on the market. What do you think of the CDTV?
We've actually had that idea for the last three to four years. But they have done a nice packaging job, that I will give them, and I'm dying for more CD machines to come out.

For us it has always been a software/hardware chicken-and-egg situation. They've got some software titles which I give them credit for – but we'll be right on their coat-tails.

So will you be bringing out either a separate CD drive or a complete all-in-one CD-ST?
I think we'll probably do both, bring out a low-price CD drive for today's STs and then bring out a CD-within-an-ST as one machine as well. The one machine will be next year, the separate machines might even be next year. We certainly have everything ready and now that the software people are behind CD we can start moving very quickly.

Was the main problem convincing publishers to start writing for a CD machine?
That's it, yes, and now that there's two – great.

Do you know roughly how many software houses are working on titles for the CD-ST?
Right now I would say not a lot, maybe 10.

And how many titles would you expect to have ready at launch?
If we had five good titles I would launch it and then we'd build it up from there. We have two right now which are pretty good, we just need a few more major ones and we can get going.

What sort of software is being designed for the machine?
Big database, educational-type stuff.

Similar to some of the packages being developed for the CDTV?
We're working with very similar people.

And what sort of price do you think you can get this external CD drive out for?
Right now our present machine was put at around $499. I'm now working towards $299 US price which I'd love to have, that would be a great thing to do.

And would that receive a British launch at the same sort of price level?
Of course.

At the same time?
Of course, probably before.

And the CD-ST, what sort of price do you think you could put on that?
No idea right now. We'd be very competitive as usual.

Turning to games, how are your consoles selling in the US?
It's doing OK over here but Nintendo are using some very unfair practices, so we can't get the software. We have a lawsuit against them on a monopoly action, and that goes to court in spring '91 and we are very much looking forward to it.

We have to break Nintendo's monopoly before we can get good software, brand name software, for the 2600 and 7800.

And if you win that, are you then confident of taking on Nintendo in the console arena?
If we win then we're off and running in a big way again. On an even footing I'm happy to go against them one-on-one.

But they will have an enormous head-start on you.
They will have an enormous head start, and it is the next generation of machines that we will have to do it with.

So what is this next generation?
There will be new machines coming out in '91 or '92 in the table-top video game market. They will be brand new technology – 16-, 32-bit, super-graphics.

Will these new machines be far advanced of things like NEC's TurboGrafx 16 (the PC Engine in the UK) and Sega's Genesis (the Megadrive)?
The TurboGrafx is just an extended 6502, Genesis is a 68000. TurboGrafx is nothing.

A **product which sees you toe-to-toe with Nintendo is the Lynx, how is that doing?**
The Lynx only went countrywide this April, but it is going to do very, very well for us, we're quite positive about that. We have the only colour hand-held machine in the world today.

There are some on the way though.
Sega were going to have it in this country and in Europe this year, but they're not going to now. NEC might have some at the end of the year, like 5,000 pieces, but they're almost twice the price of us. I'm not worried about that at all. The Lynx will do very well, the software we have for it is dynamite.

And what about the Gameboy?
It's the same market place, hand-helds, but it really is a whole different area. The Lynx is a real colourful great machine; the Gameboy sucks.

How many Lynx do you think you can shift this year?
World-wide we're planning to do 500-700,000 units in 1990. ■

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COMING SOON!

In addition to the excellent software built-in to the Portfolio Free of Charge (see right), other software and peripheral products, such as the sophisticated Pocket Finance package and serial/centronics interfaces are available. And it doesn't stop there. Many manufacturers have recognised the potential of the Portfolio and have already started to design new peripherals and software. Products currently under development include: Serial interface with built in mini modem, Apple Macintosh interface, business, utility and programming software plus a range of adventure and battle strategy games. For further free details on the Portfolio range, fill in the coupon below and return it to Silica Systems now.

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Portfolio has a complete address book facility that allows you to store hundreds of addresses and phone numbers. And, at the touch of a button, you can retrieve any one of them, or search for a specific grouping, such as "all Italian restaurants". And, when you are ready to book your table, hold your Portfolio to your telephone mouthpiece and use its special built-in tone dialler to dial the number for you.

TEXT PROCESSOR

The Portfolio's built-in text processor program includes word wrap, line and column count, string search, in fact most of the functions you would find in a word processor. It handles printer and word processor control codes and allows easy transfer of files between Portfolio and your desktop PC.

SPREADSHEET

For real calculating power, Portfolio has a Lotus 1-2-3 compatible spreadsheet built-in. It has 127 columns x 225 rows and reads/writes Lotus V1.0 and V2.01 files, so you can transfer data to and from Lotus 1-2-3 on your desktop PC. The Portfolio's 256K ROM includes MS-DOS and PC BIOS compatible systems software.

MEMORY CARDS

Portfolio can store and retrieve data and programs from its own RAM, or from small credit card size memory cards, that slot into its built-in card drive. The cards are available in three sizes, 32K, 64K and 128K, so you can carry a library of data in your pocket. The card drive also accepts ROM cards, which can contain commercial or custom software.

POWER SUPPLY

Portfolio is powered by three AA batteries which will run for up to six weeks with normal use, or from the mains using an adaptor. All the peripherals take their power from the Portfolio, so no extra batteries or adaptors are required. A 'battery-low' warning and memory back-up ensure that information is not lost when the batteries are changed.

INTERFACES & PERIPHERALS

Portfolio can communicate with other computers and supports a growing range of peripherals via a built-in 60 pin bus connector. Peripherals available include serial and parallel interfaces and memory expanders (to 640K). You can also add a card drive to your desktop PC, to enable it to read/write to Portfolio's cards.

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Before you decide when to buy your new Atari Portfolio, we suggest you think very carefully about WHERE you buy it. Consider what it will be like a few months after buying your Portfolio, when you may require additional peripherals or software, or help and advice with your new purchase. And, will the company you buy from contact you with details of new Portfolio products? At Silica Systems, we ensure that you will have nothing to worry about. Silica Systems is a new division of Silica Shop, the UK's leading Atari specialists. This new division has been established to provide a service to the more serious home user, as well as to business and education purchasers. Silica have been established for over 12 years, and have an annual turnover of £13 million. With our unrivalled experience and expertise, we can now claim to meet our customers requirements with an understanding which is second to none. But don't just take our word for it. Complete and return the coupon now, for our latest Free literature and begin to experience the "Silica Systems Service".

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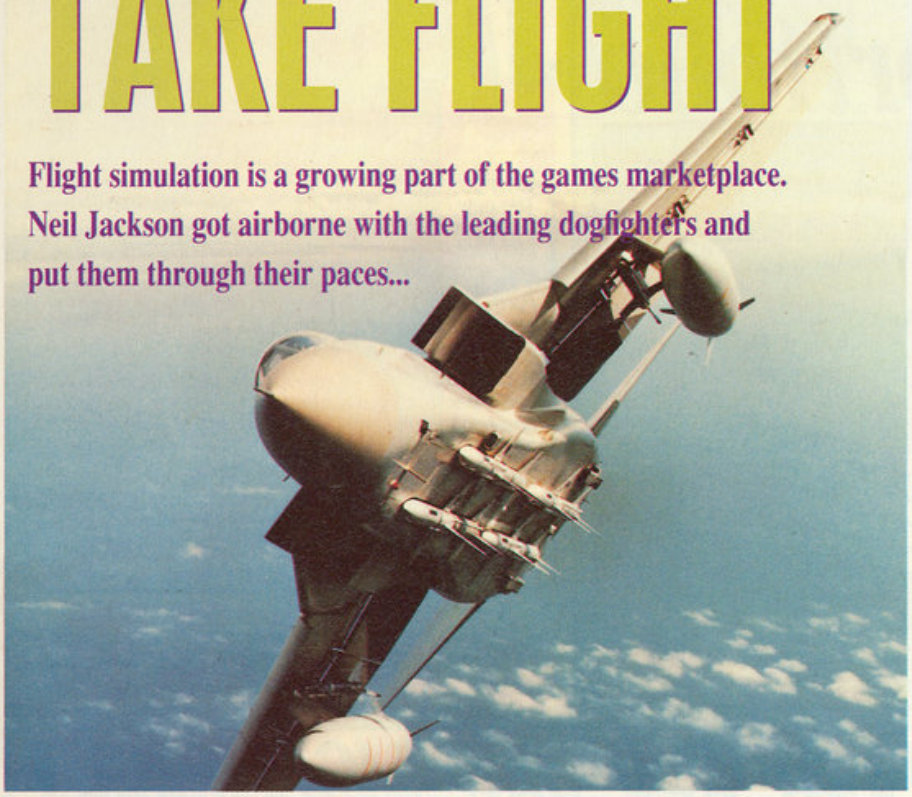
TAKE FLIGHT

Flight simulation is a growing part of the games marketplace. Neil Jackson got airborne with the leading dogfighters and put them through their paces...



You only have to glance at the computer press nowadays to find that a new flight simulator is on the way from virtually every software house. They have become a major battle-zone in themselves, with companies renowned for arcade conversions competing with hardened sim-specialists for a market share. It's not surprising, with the vast sales possible in this growing field. *Interceptor* and *Falcon* were both reputed to have sold in excess of 100,000 units on the Amiga and ST alone within the first six months after release. The reason for this may have something to do with the fact that being a fighter pilot is the dream of many adults let alone youngsters.

THE TRUE PERSPECTIVE

Flight simulations differ from most other games with their 3D vector-drawn displays. Instead of pre-drawn objects – like cars in road-race games and characters in beat-'em-ups – flight-sim displays are calculated in real-time from a three-dimensional map of buildings, landscapes, bridges and aircraft. This is usually overlaid with a cockpit display, using standard drawing techniques, producing a true first-person view of the world outside.

While objects cannot possibly be as detailed as those in arcade games, there is a major advantage in that they can be viewed from any angle and from any distance. This gives you the ability to go where you want to, and check out the whole of the game-world, something which just isn't possible in conventional games like *Out Run* or *Robocop*.

With a flight-sim, it's possible to fly all the way around mountains and buildings, looking at their construction from any viewpoint. The most basic sims enable you to check the view over your shoulder to see what's coming up your tail, as well as take a peek out of the side of your plane to watch the world rush by. Some will even give you the option of switching to a third-person view, letting you view the action from almost any position outside your plane. This may include a track-view (directly behind your plane), a satellite view (straight down onto your plane and the ground below) or a control-tower view (from a building near the runway to your plane).

It's this versatility which makes flight sims so appealing. You become the master of the game, able to dictate what you see and when you see it, rather than being the rat-in-the-maze that you are in most other games. You don't have to follow any pre-set course of action if you choose not to. Obviously, to score points and win medals, you need to follow the basic game plan, but it's possible to forget that entirely and follow the scenic route home if that's what you want.

FROM PILOTS TO PLAYERS

Until recently, the simulations arena was only able to offer crude wire-frame images in few colours and overly complex control methods requiring almost as much skill and study as a real plane.

Heralding the change was the *Flight Simulator* range from SubLogic, combining 'real-pilot' complexity with colourful, solid-looking objects and a wealth of detail. SubLogic aimed its products at the pilot-at-home and not the dreaming dogfighter. They used highly-technical realistic cockpit displays, civilian light aircraft and massive navigational charts and manuals. Consequently the sims served as an example to the games world of what was possible using 3D vector technology.

Soon afterwards, Electronic Arts released *Interceptor* for the Amiga to widespread acclaim. *Interceptor* differed in one major aspect from the SubLogic titles: It was meant to be playable, rather than educational. Emphasis was on action and excitement rather than realism and manual reading. This was evident in the choice of plane, a leading-edge US Navy fighter jet, the F/A-18 Hornet, armed to the teeth with missiles and cannon. After this, the 'utility' aura of simulations was gone forever.

Due largely to the success of *Interceptor* across a wide audience age-group, flight-sims have really taken off. Every major software house has identified the market as a real profit-maker and has attempted to jump on the bandwagon. Now you have *Falcon* (from Mirrorsoft), *F-16* (Digital Integration), *Fighter Bomber* (Activision), *F-29 Retaliator* (Ocean) and *F-19 Stealth Fighter* (MicroProse) to choose from and still more to come. No matter what machine you have, there's an dogfight waiting to be had. ■

A GOOD START

Fighter Bomber (PC, Amiga, ST, C64, CPC & Spectrum, Activision)

SCENARIO AND MISSIONS

Bomber is set in Dakota, USA, during the Curtis E Le May bombing competition which is held annually. The entire region has been faithfully recreated, including accurate airbases, cities and rivers. Rapid City includes hotels, office blocks and even a dinosaur statue which all exist in the real world.

The missions are highly detailed, but are mainly ground attack oriented using a wide range of missile and bomb systems. There are 16 in total, and a designer section where you can create your own. A variety of planes can be selected prior to starting and each has its own weapons loading capability. Some are better than others, but all are able to do the job.

FLYING THE AIRCRAFT

All the planes in *Bomber* have similar flight characteristics, and, sadly, they are not very realistic. The emphasis has been placed on ease of operation rather than a faithful conversion of aerodynamics. Consequently it's possible to do impossible things like flat rudder turns and dropping almost vertically onto a runway without harm.

Ideal for newcomers to the world of simulations, *Bomber* is incredibly easy to operate. Aficionados of the genre may find *Bomber*'s lack of realism in terms of flight unfulfilling and boring.

DISPLAYS AND VIEWS

Each different plane (there are six different types) has its own cockpit display with its own set of instruments. None are entirely realistic, but they look convincing enough. Radar screens occasionally suffer from a few problems, making tracking enemies hard work.

Bomber's strongest point by far lies with the multitude of viewpoints that can be selected. There are the usual cockpit views plus external, control tower, enemy, missile and track views. It's possible to cut between these on the fly and create some impressive action sequences.

Controlling the views, plane and weapons is not the easiest of tasks due to a crammed keyboard layout with some strange choices for important keys.

VERDICT

A good starter for beginners, but you'll soon grow out of the unrealistic feel. Activision is working on mission disks which may improve this and should keep *Bomber* alive for a while longer. You do have the option to save your own mission creations to disk and swap them with friends, which is a nice touch. For experienced pilots the only things to redeem the poor controls are the excellent views of Rapid City and Mount Rushmore, which are the best of any sim to date.

THE MOST REALISTIC

• Falcon's *main flight screen, showing its comprehensive instrumentation.*

Falcon
(ST, Amiga & PC, Mirrorsoft)

SCENARIO AND MISSIONS

Falcon is set in a fictitious location where a small area contains both your airbase and a region to practise air strikes. The rest is enemy territory. The only runway at your base using the instrument landing system (ILS) requires you to line up in enemy airspace, which results in hassle from enemy fighters at a crucial point in landings.

The missions are either ground attack, air-to-air combat or a combination of both. All can be entered at a variety of skill levels, denoted by a military rank from First Lieutenant to Colonel. These alter flight characteristics, weapons limits and scoring potential.

More targets and enemy aircraft appear as you go through each mission. Most are centred on objects like bridges, runways, and headquarters.

You can select the maximum number of enemy planes, ranging from none to three at once. This can aid the learning process and provide more rewards for the experienced pilot.

FLYING THE AIRCRAFT

For some strange reason there's no rudder, which makes the plane impossible to turn without steep banking. Minor adjustments to left/right positioning are incredibly difficult.

Small movements on the joystick are often ignored and large ones get over-read. The plane refuses to turn one moment and then whizzes round at a ridiculous rate the next. The tendency to over-correct becomes extremely frustrating, even using the control sensitivity option. The twitchy controls and the inability to use rudder for centre-line positioning make landing a treacherous affair.

First Lieutenants are allowed to crash land without penalty, but this doesn't make you feel like you've really deserved to get home. At the Major level and above, getting home in one piece is a minor miracle. To lose it all with a crash landing reduces the most hardened pilot to tears after the 20th time.

DISPLAYS AND VIEWS

Falcon's internal cockpit display is well-detailed and features realistic instumentation. At first it's confusing, but you soon learn the important dials and readouts to check. Indicators even extend to the side view screens, making the job of staying in control difficult under pressure.

Sophisticated keyboard mastery is needed, as there is a plethora of controls. Each weapon requires a combination of keys to ready it for firing and the head-up display is different in each case. Confusing, but not impossible and most rewarding when successful.

Falcon features excellent aircraft shapes and some complex factories and bridges. Also provided are rudimentary mountains in the shape of pyramids.

There are a large number of possible internal and external viewpoints including control tower and satellite. The external aircraft view is annoying because you must rotate the camera position around the aircraft and you can only do this in one direction.

VERDICT

In terms of realism *Falcon* is the best, at least as far as the display and systems are concerned. The handling characteristics, though purported to be accurate, make flying difficult and unenjoyable.

Extras like the inclusion of extensive front-end screens and a head-to-head modem link enhance its value. Mirrorsoft has released an extended missions disk and is planning another which makes *Falcon* a long-player and one to own. But be prepared, there will be times when you will hate it, usually just after crashing.

• *Starting out from a makeshift base camp in* Falcon.

GREAT ATTENTION TO DETAIL

F-19 Stealth Fighter
(ST, Amiga & PC, MicroProse)

SCENARIO AND MISSIONS

F-19 has a wide range of maps, including Libya, the Persian Gulf and Central Europe. All are incredibly detailed showing radar coverage and enemy bases as well as terrain features like mountains.

Missions vary in style from ground attack and reconnaissance to air combat, using the latest in stealth technology. You can select the level of danger you'll experience by choosing a number of options from the introductory briefing screens.

The planes available in *F-19* are based on leaked information from Lockheed and are believable, though probably not 100 per cent accurate.

FLYING THE AIRCRAFT

Getting airborne and staying there is uncomplicated, thanks to a realistic flying 'feel'. The plane behaves as you'd expect, and there are no fudges in the gravity or aerodynamics departments. A handy autopilot can prevent you from unintentionally flying below 200 feet and this can be a life saver in some situations.

• *Coming up to the Golden Gate Bridge with your missiles armed.*

Landing is straightforward and more realistic than either *Bomber* or *F-29*. Careful flying is necessary for perfect landings,but realistic approach speeds and touchdown makes it exciting.

DISPLAYS AND VIEWS

Cockpit displays are detailed and easy to read, without seeming to be fake. The large weapons indicators make it clear which set up you have selected, and the main screens can be toggled between radars and maps.

Stealth indicators and threat displays make spotting enemies easy, but dealing with them can be hard work.

The 3D world in *F-19* contains a few bizarre surprises which set it above the rest of the field. Most notable is the perfect star map in the night sky, which can even be used for navigation if your instruments are out. The external views of your plane show its curved surfaces and smooth lines, which again makes it more interesting than the standard angular polygons in all other sims.

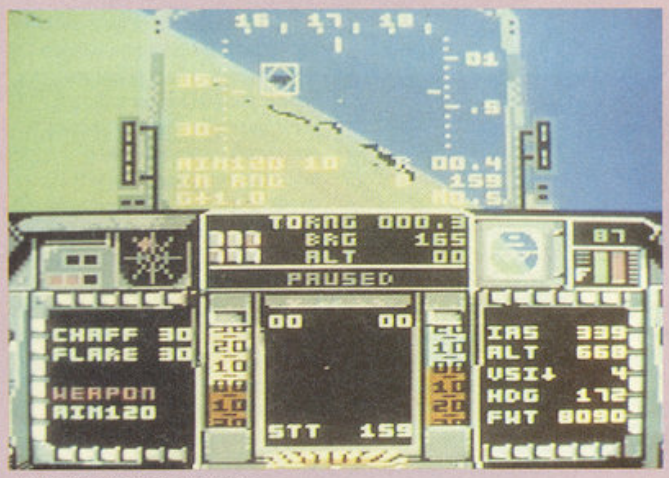
Controlling the views and flight systems is a tough job, as *F-19* has 11 possible viewpoints, and a wealth of controls. MicroProse has reduced the hassle factor by including a keyboard overlay with all the relevant keys clearly marked on it. Pop it over the keyboard and bingo! It's not a computer any longer; it's a flight deck.

VERDICT

MicroProse has surpassed its reputation for high-quality military simulations with *F-19*. The attention to detail in the missions, presentation and control make it an excellent choice no matter what level of skill you have. Newcomers will enjoy the complex missions and the tweakable action, while the old hands will appreciate the plane's handling in the air. An expensive sim at £30, but incredible value for money. Not to be missed.

RECOMMENDED FOR DIE-HARDS

F-16 Combat Pilot
(PC, ST & Amiga, Digital Integration)



• F-16 Combat Pilot *is a joy to fly.*

SCENARIO AND MISSIONS

The maps in *Combat Pilot* are all fictitious and are only displayed just prior to take off, with the exception of the training area. This remains constant whereas the others are specific to each mission, requiring careful study and navigation work before attempting them.

The missions are split into air-to-air combat, military and civilian ground targets, reconnaissance and tank-busting. One from each category must be completed before entering a campaign mode, where you have control over a number of squadrons in a full-scale war.

The excellent missions are complimented by a full tactics and briefing section prior to takeoff. The worst aspect of the missions is the enemy surface-to-air missiles, which are far too effective. The only real indication of their proximity is often your explosion.

FLYING THE AIRCRAFT

The flight characteristics are excellent, more stable than *Falcon* and more accurate than *Interceptor*. A second joystick can be used for rudder and throttle control, making it feel even more realistic. This can be tricky to master and is best done using joysticks with rubber sucker feet as you still have keyboard controls to operate.

Landing is an absolute pig, which is unfortunate, but there's an excellent 'talk-down' mode where correct headings, speeds and landing info is passed to you from the tower. If all else fails, there's an autopilot landing mode, but this only works if the airfield has ILS in operation. This does defeat the object though, so it's worth trying to master the landings. Be prepared for rude language.

DISPLAYS AND VIEWS

Unlike *Falcon* or *Interceptor* (below), *Combat Pilot* is limited to only four views of the outside world, all from within the cockpit. This lack of versatility is countered by a comprehensive array of realistic cockpit panel display screens which can be swapped around at will. There are many different readouts which can be called up, including ground radar, ILS, artificial horizons and missile cameras.

Operating the multi-function displays and the rest of the plane's systems, like flaps, landing gear and target selectors, requires a good deal of keyboard work. Most of this is intuitive but some controls can be difficult to find in a hurry.

The content of the 3D world is very similar to *Falcon*, but with less realistic colours. Objects include tanks, early warning radar bases and mountains. There is also a helicopter lurking somewhere in enemy territory, but it's very difficult to locate.

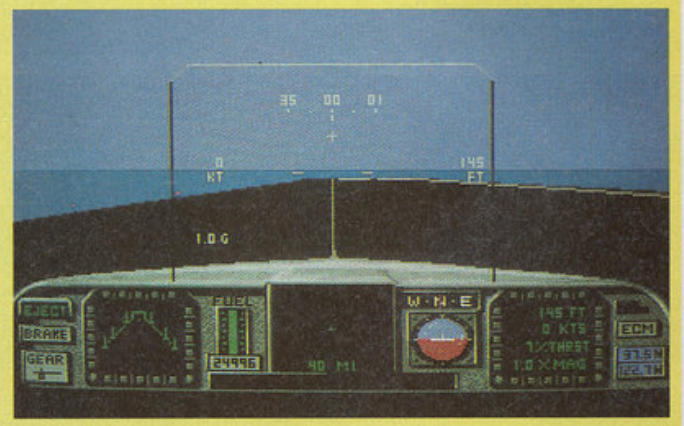
VERDICT

F-16 Combat Pilot is well presented, beautiful to fly, but murder to complete successfully. It will keep you entertained for weeks, but unfortunately most of the time will be spent re-doing landings and praying for a lucky break.

A bit tough for beginners, *Combat Pilot* is recommended for real die-hards with a lot of spare time.

THE DADDY OF THEM ALL

Interceptor (Amiga, EA)
JetFighter (PC, Broderbund)
(Despite the different names and publishers, these two programs are essentially the same, written by the same programmer.)



• *The simple, uncluttered display of* Interceptor.

SCENARIO AND MISSIONS

A free-flight mode enables you to choose either an F-16 Falcon or F/A-18 Hornet as your plane, and you select your starting location. There are three airfields based in San Francisco and an aircraft carrier just off shore. You can practice landing and taking off before you embark on the missions in earnest, a useful feature as most revolve around the carrier and its deadly landing strip.

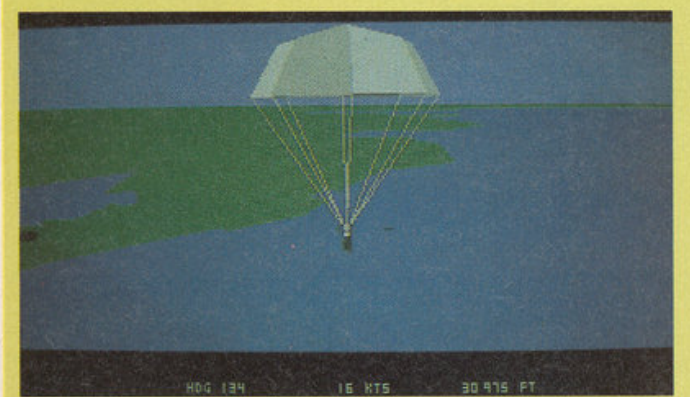
The missions range from the rescue of the President's plane to the diversion of defecting American aircraft, requiring skilful flying but providing excellent action scenes.

FLYING THE AIRCRAFT

The plane's flight characteristics are generally realistic, but rudder operation is a joke, for example you can turn corners at Mach 2 without banking. Other manoeuvres such as low-speed and high-altitude stalls, work correctly, .

There's an intuitive keyboard layout and joystick or keyboard flight controls. It's simple to get airborne and easy to engage in combat without getting killed instantly.

Landing is difficult to master, but once learned is rarely forgotten. The rudder eases lining up, and touchdown is realistic. At first you'll often experience the yellow flash and explosion as you crash into the tarmac. You must re-learn the technique to land on the carrier. This requires a great deal of patience to crack, but the excitement it generates is still there on the 30th mission.



• *The end of an unsuccessful mission.*

DISPLAYS AND VIEWS

The cockpit panel is simplistic – a basic radar and flight information readout which is enough to do the job – but wins no prizes for realism. You can look eight ways inside and out of the plane and there's also a control tower view.

The objects within the game include the Golden Gate Bridge, Alcatraz on Devil's Island, and enemy aircraft, all in reasonable detail, but not particularly outstanding.

The speed of the screen updates is good and is always fast enough to convince the eye.

VERDICT

The inspiration for many that were to follow, *Interceptor* is still the best all-round flight-sim.

Not too complex and easy once mastered, *Interceptor* can be forgiven for not being as glossy as its later competitors because the variation of gameplay and its exciting feel have set the standards to beat. A must for any collection.

Win Paperback power for your PCW

Just the Word

At last PCW owners have the chance to win some software for their machines this week, with Paperback Software's *Cracker II* and *NewWord II* the packages up for grabs.

Cracker II is a spreadsheet which also produces graphics from the spreadsheet data. According to our sister PCW magazine *8000 Plus*: "*Cracker* is full of surprises". The first one is that the basic spreadsheet grid is built up by the user – this cuts down on memory use and speeds calculation and printing.

The second surprise is the ability to produce graphs and charts from the data captured. *Cracker* also includes advanced financial and statistical functions.

The PCW comes with *LocoScript* as a bundled word processor, but if you want greater speed and a *WordStar* like feel then *NewWord* could be the one. "For the touch-typist and for someone prepared to learn their way into powerful system, it should pay dividends." was *8000 Plus*' verdict in its March 1990 issue.

NewWord II would cost you £69.99 to buy, while *Cracker II* would set you back a very reasonable £49.99, but you can win a copy of each for the price of a postage stamp by answering one simple question correctly.

Somewhere in this issue of *Express* – either in the editorial or in an advertisement – is the word VESPERTILIO. To win the prize you just find the word, then fill in the number of the page it appears on in the space provided on the answer form below.

Fill in your name and address and send you entry to Paperback Competition, *New Computer Express*, 30 Monmouth Street, Bath BA1 2AP, to arrive not later than Monday July 2.

The first five correct entries out of the hat will each win a copy of both packages, and the editor's decision is final.

WINNERS!

Readers in their droves seemed to have little difficulty in finding the reference to Oswaldtwistle in Express 82's Going On Line feature. The lucky first three out of the hat were: Richard McCrea, Carrickfergus, County Antrim; Adrian Jones, Weston-Super-Mare, Avon; W D G Cox, Middlesbrough, Cleveland.

Well done; expect your prizes to arrive very shortly.

NAME .....

ADDRESS .....

.....

.....

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The page containing the phrase VESPERTILIO IS .....

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EXPRESS MAIL

Britain's liveliest computing forum – packed with comment, controversy and conflict. Write and tell us what you think! Reach us at: *Express Mail, 30 Monmouth St., Bath BA1 2AP* Sorry, no personal replies, even with an SAE. This week's replies written by Keith Pomfret.

The cheek is in

I write to you in plight. I, being the dork, I have made a bet with my dad (I'm 14) that I can get a PCW, or any computer, for free in two months.

If anyone has a computer, working or not, then I would appreciate it! Please print my full address as well. Thanks.
Simon Baker

Ten out of ten for your cheek, but a severe smack on the head for thinking that we'd pay for your postage. Writing Freepost on the envelope and not putting a stamp on was a bad idea!

We are holding your address to ransom until you send us a cheque for the forty pence that we had to pay for the honour of reading your begging letter. In the meantime, anyone wishing to donate a computer to this cheeky upstart should send it (postage paid) to Express Mail, *New Computer Express*, Future Publishing, 30 Monmouth Street, Bath BA1 2AP and we'll pass it on, maybe...

To err is human

I wrote about a fortnight ago and had a little window to myself entitled "Hiding the facts about those Amiga hard drives", and (rather stupidly) I missed out the whole point about which I was writing.

I meant to say that I bought my A590 for £400 (in November) and now A590s can be bought even cheaper – eg £360. Maybe £574 is the suggested price, but nobody is selling the machine for that. (That was the point that I missed.)

The other thing was a slight muff, the line that said:

```
OPEN "PRT:' FOR OUTPUT AS No.1
```

should have read:

```
OPEN "PAR:" FOR OUTPUT AS No.1
```

This was entirely my fault and I'm sorry for any confusion caused because of this.

Lastly, thanks to everybody who responded to my letter. Various printer drivers were much appreciated.
David French, Salcombe, Devon

What is this techie stuff doing on the letters page? We really must banish this French chap to the Tech Tips page, where he'll be in his element. We're glad that you got the printer thingy sorted out.

In a bind

The sudden arrival upon the scene of *Express* binders prompts me to ask one or two questions:

1 How soon can we expect to have them made available to those of us who can't afford a subscription?

2 How many issues will each binder hold? They seem to be of a similar design to the *8000 Plus* binders, so my guess is that they won't hold more than about 20 copies each.

3 Don't you think that £5.95 is a bit steep? Binders for *8000 Plus* and *ST Format* are a quid cheaper than this!

4 Some of us (for whatever perverse reasons) have been buying and collecting *Express* since the year dot. Some of us are also unemployed. Am I really going to have to find £30 (for five binders) to maintain my collection in pristine condition – or will you consider some sort of discount scheme for those of us who've been here since day one?

I'd really like to have collection in binders, but at £5.95 a time, I'm gonna have to dream for a while! *Express* is a cracking read, and long may it by so....
Andrew W, Wakefield, West Yorkshire

To answer your points in the order that they appear: 1) You can buy the binders from the same address that the subscriptions come from for £5.95; 2) Sixteen copies; 3) £5.95 is a lot of cash if you haven't got it, but a survey of the *Express* office found that cut down crispie boxes covered in sticky back plastic or painted with water colours were an adequate house for any or all of our back issues. We didn't think that giving something away free with a subscription was particularly expensive but you may disagree; 4) We applaud your loyalty to our august organ and trust that its quality will continue to attract 58 pence of your valuable cash.

You are right: £30 is a not an inconsiderable sum to find on a limited income. But if you turn your talents as a wordsmith to more physically practical skills, I'm sure you will be able to attain a cost effective solution. (And if you do, send us a picture)

SAM words

Having been a SAM Coupé owner for about a month, I feel I must write and express my concern, perhaps all Coupé owners' concern, at the severe lack of software available for the machine.

At the launch of the machine many titles were promised, none of which have yet emerged. Then, either Alan Miles or Bruce Gordon (I cannot remember which) said the games "...would have to be sold at Spectrum prices...". Five months later, the first title was about to be released, ie *Football Director II* at the extortionate price of £19.99 for disk or tape.

On the subject of the first SAM Coupé-specific game, it was almost universally recognised that US Gold would release a SAM version of *Strider*. Up until about a month ago this held true, with US Gold spokespersons making such claims as: "All we have to do is take the Spectrum code and the ST graphics and sort of mix them together. We only have to sell six Coupé games and we're in profit."

I think US Gold owes the Coupé-owning population an explanation of why this has not happened. If it was technical problems with the coders, that mixed the code and graphics, then I can accept that. But now the so-called support of the SAM has dwindled to giving us standard Spectrum games with SAM-compatible loaders. What is the point of this? We may as well buy the Spectrum version and start gaming on our aged machines.

So far the best support given to the SAM is by small companies advertising in the classified ads of various computer magazines. It's high time the larger companies followed suit. We don't want Spectrum games!

We want full-blown, full-colour graphics utilising every last byte of memory – not a monochrome slush with invisible graphics and no playability! Can't the larger companies (especially US Gold) see that there are an awful lot of people waiting to jump on any piece of software that says 'Coupé version'?

Perhaps if every Coupé owner wrote to US Gold complaining about the so called SAM version of *Strider*, the good people there might reverse their decision and start producing software for a computer that deserves all the praise it gets.

All in all, if more software does not appear in the next few months, then I will have to seriously reconsider my choice of upgrade. Although it is extremely expensive, at least with an Amiga I know there would be a lot of software.available.

At this current moment, the software situation for the SAM prohibits its viability as a suitable computer system for any application.
Paul Everitt, Nuneaton, Warcs

With MGT in receivership the future of the Coupé and its software seems to hang on the decision of some kind soul to buy the company, but have heart. At least one software company has sent *Express* a fax pledging to support the Coupé providing there's a demand.

The soap box foams

I feel I must put pen to paper and warn you that this is one of those stupid letters again! I have a couple of complaints about the magazine in general apart from the price (the magazine should cost more).

1 What happens to short snips?

2 Why isn't Mel consigned to the back page where he belongs?

3 Who inserts the '[sic]' everywhere? And what is the significance of 'Answers on a postcard please...'

4 Why ask all these daft questions?

Now on a more serious note. How about some more of these features. I love the way that nice person Keith writes these – especially the one on comms. I see you mention it costs quite a lot on Prestel, which isn't my experience. I have had no bills from them at all – mind you, I am not using my password!

Why don't you set up a comms column, thus creating more problems for your underworked staff. Also, a note to Iolo Davidson. Are you the person who wrote for magazines a couple of years back (a bit like saying Ian Sinclair wrote some computer books) or are you someone else? If your aren't, what happened? Consigned to a QL magazine or what?

I would like to mention that I like QLs – my best friend is one. And just to keep the old proverbial balls rolling, I will make the obligatory comment about consoles, Spectrums and C64s, Amigas and STs, Crays and N-Cubes, OS/2 and dustbins – and in doing so I'll say nothing, so no arguments will ensue.

If someone would like to loan me a 4Mb 11ms hard disc, 40Mb and a 586, I'll be willing to use OS/2 as it is a nice desktop package environment with tons of useful functions like a word processor spell checker and other things which can be run on an 8086 with 256K and 360K drive.
Lawrence Sheed

1) Big news won't fit into small snips and we always bring you BIG news at *Express*; 2) We put him there but he won't sit still;. 3a) The production staff and b) none at all; 4) Because you're clearly puddled.

We'll pass your name and address on to Prestel in order that they can bill you. The reason that comms features are rationed is that, in real terms, only a small percentage of computer users use modems and comms. We cover each and every relevant computer-oriented subject, but only in the appropriate, proportional amounts.

We'd be grateful if you didn't send notes to Iolo – they only encourage him. The rest of your letter doesn't bear reply, but I suppose that you can keep taking the tabloids.

The best of Express

I have been a reader of *Express* since day one, and I have stuck with the magazine since then. One of the most popular sections is without a shadow of a doubt the letters pages.

These few printed leaves of paper offer the gamer and serious user alike a platform to air their views. Over the issues these views have ranged from piracy to the ever present 'my machine is far superior to yours' debate.

The letters pages are good fun and isn't that what life is all about? They are also part of the overall learning process, the letters being both informative and lively. I felt that after reading the letters page in Issue 83 that D Phillips (Bangor) was well wide of the mark in some of the comments in his/her letter.

To say "I often find some of the replies funny but the majority are just downright ignorant and patronising..." and to follow that line up with..."Is your name God by any chance?" seems to me to be hypocritical in the extreme.

By all means write in and air your views, but lets keep it constructive and, above all, civil.
D P Hackett, Penilee, Glasgow

As you no doubt saw, we do like to offer our readers a place in the forum even if they don't agree with us. We think that we get a better feedback from a balanced letters page.

We took notice of D Phillips' comments and even tried to get a god in to answer the letters but unfortunately he was too busy running the NUM. One man's meat and all that.

The majority of our readers seem to like our particular brand of ignorant, patronising, god-like hypocrisy.

C64, C64, C64

Picture this: I walk into my local computer shop to have a look around. I see well over twice as many CBM 64/128 games as there are Amstrad CPC games.

I go into several shops, and this more or less appears to be the case. I then look at a release schedule for the forthcoming few weeks. What do I see? I see that there are about double the amount of programs to be released for the C64 than the CPC. (Bear in mind that the schedule takes into account all types of releases, including educational and business software, etc).

I then go into my local W H Smith's and buy the latest issue of *New Computer Express*, which I have been buying for about six months or so. I turn to the 'Your Format' pages once outside the shop, and guess what I see? The CPC has twice as much space as the 64. There must be something wrong here.

I turn to the public domain pages, and search for any mention of my beloved Commodore. As you well know, I had no luck, as the only machines catered for were the ST, Amiga, Macintosh, PC, CP/M computers, and yes, wait for it... the CPC. Why is this?

I have purchased public domain software from two libraries for the 64. Ever heard of Kingsway Computer Services or Silver Wing Software? Maybe Crystal Unicorn User Group, which supplies demos, rings a bell? Silly question really, as your blatant negligence of the 64 answers my question immediately: of course not. I turn next to the "Comprehensive review of the best software for your machine." Oh good, I think, I would like a new word processor.

I turn to the appropriate page and what do I find? *Easyscript* is "no longer in production," and *Paperclip* is "difficult to find." (More like impossible, as I found out.) Don't you think that putting two obsolete programs down as "the best word processors" for the C64 is a bit stupid, or maybe the compiler of the review is just downright lazy? Hardly comprehensive, is it?

Haven't you ever heard of *Superscript*, or *GeoWrite*, which are still fairly commonly available through mail order companies? Just out of interest, I decide to flick through the rest of the review, to see what I was missing.

I turn back one page, and my eyes rest on the CPC section. I read through them and what do I find, *Tasword* and *Mini Office II* are recommended. What is wrong with the 64 versions of these programs? They, unlike *Paperclip* and *Easyscript*, are still being produced. My question is simple: Why weren't they put in the 64 section as well?

I use *Mini Office II* regularly (I am writing this letter with it) and I find it caters adequately for my needs, and it has many useful features. Also, whenever I phone up companies asking for *Paperclip*, I am frequently offered *Tasword* instead. I defy you to give me a reasonable explanation for their being omitted.

My next point is also concerning the lack of 64 coverage. There were recently in *New Computer Express* a series of articles concerning making music on computers. I waited patiently for software for the 64 to be reviewed, and guess what? I had no luck again.

The ST, Amiga, PC, Archimedes, Spectrum, CPC (of course), BBC and even MSX were given space, so why not the Commodore 64? There is absolutely no excuse for this further disregarding of the 64, that I can see, anyway.

The internal SID chip is one of the most advanced 8-bit sound chips, and it is far better than its PC and ST counterparts, and if you care to give Datel Electronics a ring, the good people at that upstanding firm will, with all their willing hearts, tell you about their exemplary MIDI interface and excellent software.

Do you also remember doing an article on hard disks a few months ago? The CPC was mentioned, although such a peripheral no longer exists. (*yes it does – Ed*). The 64, for which hard drives are available, was ignored. Again.

Do you ever review any software for the 64, or does the CPC (yet again) and the Spectrum get the 8-bit allocation of games? Sure we are told about the impending release of one or two games, but no actual reviews.

To my knowledge, great games like *Space Rogue, TV Sports Football, International 3D Tennis, Vendetta* and *Turrican* have not even got a mention (at least not on the 64). All we are subjected to are 'technical hints and tips', pokes and cheats for games, and constant plugs for *Crystal Unicorn*. Are you trying to kill off the Commodore 64, as the magazine appears to be heading in that unseemly direction.

With all the criticism in this letter, I understand that if it is printed, it will be considerably 'butchered' by the letters editor. Even so, I hope you do take note of my opinions, and perhaps act on some of them – one or two?

I mean, it has got to thje stage where your rival, *Popular Computing Weekly*, has more 64 coverage than you have. I think at least something should be done to avert this trend; expanding the column would be a step in the right direction. I can but live in hope.
Anon, Copmanthorpe, York

Thanks very much for an informative and interesting (and not very butchered) letter. Your points are noted, and although you are erroneous in parts, you are entitled to your opinion.

We're not in the business of reasonable explanations, defied or otherwise. Our Feudal King, (that is the other name for editor) has taken note of your complaints and banished the former PD columnist and guide compiler to the nether wastelands of Cheshire. A replacement has been found.

Should this veritable oracle of computer knowledge not live up to your expectations, inform us and we will have him whipped. ■

Tough ST and heat sinks on the BBC

Lets get the grovelling out of the way (yea, O Supreme One! Please publish my letter!) and get down to some serious wittering.

It's all very well talking about add-ons for my generally wonderful ST, but Oswaldtwistle me! The minute you lift off that superior, high-quality plastic case, you are confronted with more metal than a tank.

Not only this, but this offending shielding is fixed on with more rivets, nuts, screws and retaining bolts than Thatcher's hairstyle.

The purpose of my quest into the dark, dank bowels of my machine was to see if I could fit a memory upgrade. After the use of several high-power winches and Cyril Smith as a counter-weight, I had still failed to prise off the computer's bullet-proof 10-inch steel protective layer.

I then put my desktop Cray X/MP, with parallel processing Ncube and ZX81, to the problem, whereupon it crashed out with a "Small blue teapots at line 10" message. Why has the ST (hurrah!) got innards like the *Titanic* and do you need a five-million ton iceberg to get in?

Take, for example, that paragon of virtue, the trusty BBC. Recently, at the local computing posse meeting (to discuss annoying network managers), a curious odour filled the room. No, not a flatulent 14-year-old, but the smell of burning heat sinks!

With a swift screwdriver and a cunning strategy, we put out every light in Weston (yes, that's Weston near you! Yes, the village by Bath! We're local yokels, y'know) and after half an hour's frantic disembowelling, we found the cause of the smell was a fiendish workman with a soldering iron!

The point is, we could actually get into the BBC B. If an ST had been involved, it would be a hose pipe in the disk drive and every programmer for himself. Why must manufacturers insist on using surface-mounted chips and impenetrable defences to the motherboard?
Brian Sivyour, Weston, Bath

A bouquet of crinkly heat sinks to Acorn and a Halon fire extinguisher to all at Atari. Only the brave with no regard for warranty ever delve beyond the keyboard, but if you must, don't be surprised if the maufacturer has made it difficult for you.

COMMENT

As Miles Gordon Technology sinks slowly in the west, is there any hope for the Same Coupé? Can good faith and a willing user base save the day?

What hope has the SAM Coupé now that the receivers are in at Miles Gordon Technology? Are confident declarations from Alan Miles and receiver-manager Robert Ellis that a buyer will be found for the machine a sure sign of its imminent salvation, or is everyone just whistling in the dark?

Cynics would point out, with some justification, that it is the receiver's job to present as optimistic a face as is possible under the circumstances. He has the difficult task both of attempting to keep as much of the operation up and running as he can – saving the jobs of staff in the process – while not doing so to the detriment of creditors.

The preferred course in dealing with MGT would seem to represent no conflict of interests in this sense. Creditors stand to gain from a sale of the SAM Coupé as a viable concept – if kept alive and in production, the machine is worth a good deal more money than it would be as a couple of thousands of units of prematurely obsolete computer.

Around 8,000 Coupés are reckoned to have been sold to date, with 4,000-6,000 sitting in stock at MGT. Software producers have been fully prepared to develop material for a mere 8,000 buyers on the basis that this level would rise rapidly in the pre-Christmas period and continue to grow over a number of years.

This attempt to keep faith with existent owners bears out a widespread opinion that MGT are nice chaps who have simply got it wrong.

But if it were clear that no more units were to be made, this sub-15,000 user base might not represent a particularly attractive market for developers to expend time and money trying to exploit.

You can read this between the lines of a fax which arrived at *Express* only hours after the situation at MGT became public knowledge. "We would like to continue writing games for the machine..." said *Defenders of the Earth* software house Enigma Variations. But this would, they pointed out, depend on the level of user interest. (It is worth noting, in passing, that if you can't find a copy of *Defenders* in your local shops, you can get it direct from Enigma for £11.99/£14.99 including p&p. Call 0423 510595).

Turning aside from the receiver, Miles and Gordon's attitude is a more promising one. Although they know that their public limited company has all but gone up in smoke, they appear to be making every effort to save the machine itself.

This attempt to keep faith with existent owners bears out a widespread opinion that MGT are essentially nice chaps who have simply got it wrong. It also shows how much confidence they have in a product they have invested an appreciable chunk of their lives and talents in, and faith at this level has saved many a beleaguered product from the scrap heap before now.

Does the Coupé deserve this sort of faith? Is it worth saving? The answer is surely yes. Its aesthetics are a matter of taste, but the machine is a good one, and solutions are said to be within reach for any technical problems still outstanding.

For the sake of existent owners, who deserve not to be left stranded with an unsupported machine, and for the sake of not wasting the good work that has already gone into it, let us hope that the Coupé quickly finds an owner who can give it the stability it needs for a long and successful future.■

NEXT WEEK

COURSE FISHING
Education and training for computer users

KICK OFF 2
The long-awaited soccer sequel reviewed

HOBBIT FORMING
A close look at the Spectrum-emulating micro from Leningrad

OOH, I SAY...
Tennis sims to tackle while rain holds up play

PLUS

Columns for your machine, all the regulars and the most up to date news service in computing

OUT THURSDAY

FROM the ARCHIVE

ONE YEAR AGO

An 'amazing' new and enhanced ST, called the STE, roared into view, and threatened to trounce the Amiga once and for all.

Intended as a replacement for the STFM, the STE boasted a graphics mode that could display 256 of a possible 4,094 colours at the same time.

The ST's 'three squarewaves and a bit of hiss' sound chip was augmented by a new, four channel, dedicated version with amplitude and frequency modulation capabilities.

With all these features and the added bonus of dedicated hardware scrolling, it was a pity that a good proportion of popular STFM games software wouldn't run on the STE. This, claimed Atari, was because the programmers broke the rules.

Sir Clive Sinclair's, firm Sinclair Research, was reported to be working on a reduced instruction set chip (RISC) that would bowl along at over 60 times the speed of the RISC processor in the Archimedes.

Sir Clive was reticent when it came to discussing details of the PCG-1 – as it was then being dubbed. The chip, ideal for graphics workstations and applications where large images have to be manipulated quickly, still hasn't arrived.

Former US President, Ronald Reagan, predicted that the advances in communications technology would be the downfall of 'Big Brother' governments.

He said: "The Goliath of totalitarian control will rapidly be brought down by the David of the microchip." He added that the Iron Curtain was "like lace against the flow of information through technical means."

For once it looks like Ronnie was right. All those viruses and technological breakthroughs seem to have caused a certain wall to crumble.

Teachers weren't being trained properly in technology according to a report commissioned by the Education Secretary, Mr Kenneth Baker.

Janet Trotter, head of the report's working group, said: "We were greatly disturbed by the patchiness evident in all dimensions of information technology provision."

The report suggested that the Government should pour resources into those colleges and teacher training centres designed to forge links with technology based industry.

Home shopping by computer seemed to have arrived with a scheme to provide three million homes with computer shopping terminals.

The Keyline terminals were to be attached to domestic telephone lines, allowing shoppers to choose from the wares of the 20 'big name' companies which backed the scheme.

One year on, the queues are just as long in Asda, Gateway, Littlewoods, Mothercare and the other stores involved.

A device which emulated the Macintosh mouse and so enabled tetraplegics to use Macintosh computers was announced by 32 Bit of merseyside.

People used the gadget by blowing and sucking through a tube and also by the movement of their heads. These motions were then transmitted via a special interface which broiught the full capabilities of the Mac within reach of disabled people.

FIVE YEARS AGO

Cobol, was translated into Japanese by UK software house Micro Focus.

Police said that computer theft was becoming comparable to the organised theft of cars. Items were 'ordered', then a gang would search for the required equipment and arrange the dirty deed.

A 23-year-old student, Jagjee Babra, offered a 'reward' of £1,000 to any company willing to offer him computer-based empolyment in his native Birmingham.

£1,000 was duly deducted from his salary by the company which took him up.

TEN YEARS AGO

One secondary school pupil in 20 had access to a computer or pocket calculator claimed the then Shadow Education Secretary, Neil Kinnock.

The Education minister, Mark Carlisle, denied the claims rigourously.

Sources:*New Computer Express* and *CTW*

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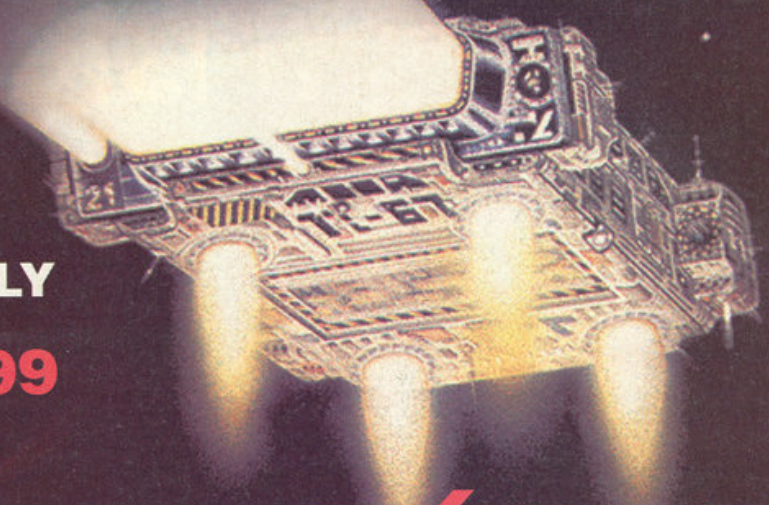

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