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SEX AND SOFTWARE

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PIRATES GET HEAVY

- **DEALER FIREBOMBED BY PIRATES**
- **TETRIS PIRATED TO SEGA MEGADRIVE**
- **BIG BUST IN HONG KONG**
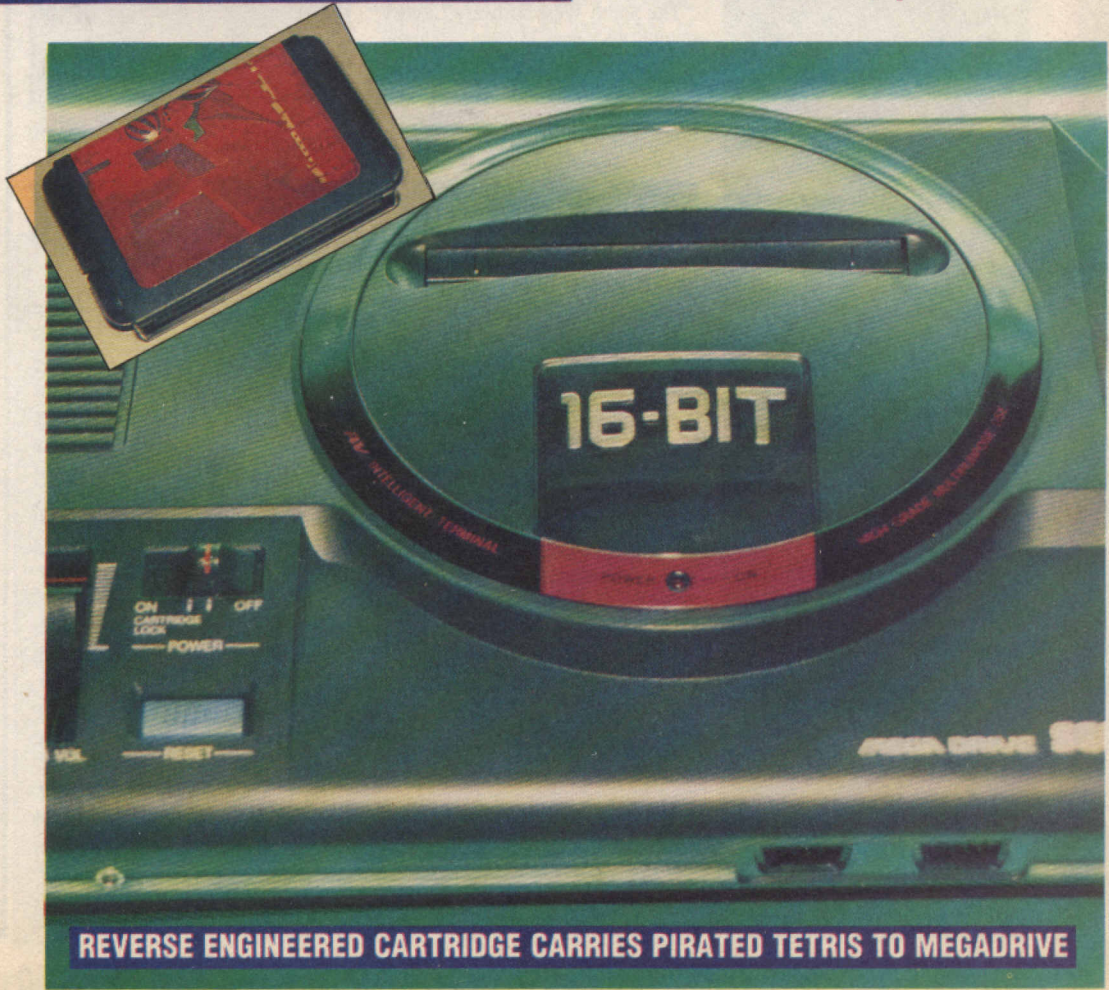- **NEW EC LAWS MAY AID PIRATES SEE REPORTS, p3.**

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16-BIT

REVERSE ENGINEERED CARTRIDGE CARRIES PIRATED TETRIS TO MEGADRIVE

SHORTS

BASHERS ON THE LOOSE

STRATHCLYDE Police have drawn a blank from their enquiries into the authorship of the appalling racist game, *Paki-Bash*, which was exposed by *Popular Computing Weekly* earlier this year. A spokesman for Strathclyde Police said that while the case was not closed, they were waiting for new evidence, or for similar software to rear its head elsewhere. Authors of such software could face charges of incitement to racial hatred if apprehended.

BIG BUST UP IN HONKERS

IMPORTED pirate software from the Far East could be severely cut back following raids on nine premises of an alleged pirate syndicate in Hong Kong. The raid netted detectives over 100,000 fake manuals and 23,000 copied discs.

Newsbytes on the Compuserve database reports that 15 people have been arrested.

Sources suggest that at least 70 percent of Hong Kong's pirate "business" has been eradicated through the raids. The US Business Software Association says it will be pressing charges against the syndicate which it claims has cost them "millions of dollars".

MORE DTP FOR CPC

MIRRORSOFT has updated its *Fleet Street Editor* DTP package for CPC owners with a number of new features. Users will have to have a 464 with expanded memory and a disc drive or a 664 with expanded memory.

Loading speed is improved by fitting the main program on one side of the disc, graphics can now be saved from any position on the page and a Scroll option has been added. Also the Insert option has been removed – you can go to the text edit mode by just selecting a font.

Fleet Street Editor for the CPC costs £39.99 or £10 as an upgrade. More from Mirrorsoft on 01 928 1454.

SHOPPER SHOW PACKS A PUNCH

By Andrew Banner

HUNDREDS of computer buffs cheered as they were allowed into the inaugural *Computer Shopper Show* last week, after last minute delays at Alexandra Palace left many frustrated.

New products, while not abundant, were certainly interesting. Direct Digital Distribution (0708 754704) announced that the new *Sony SMO-S501*, a re-writable optical disc storage medium, was now available. The drive provides a mere 600Mb on removable laser discs for a snappy £4,900.


● Boxshifters displaying their wares.

Mandarin Software (0625 859333) was giving regular demos of *AMOS* the Amiga version of the STOS games writing language. This was its first public showing and it was well received.

The South West Software Library announced a new 28-page catalogue of ST public domain software. The list contains over 600 discs with approximately 1,000 pieces of software.

Out in force for Christmas were the armies of boxshifters, but curiously fewer than at last week's Commodore Show.
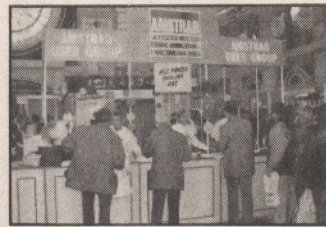
● The Amstrad User Group: make new friends.

Punters chasing computer furniture were well catered for with at least two stands trying to sell impressive looking steel framed computer desks and shelves. The steep prices put some people off – at about £110 for a desk.

As the day grew older, the hall filled. By 1 o'clock, there was little room to move in the aisles and the pushing and shoving became unbearable. I left with a few cracked ribs and thought I was lucky to get away with that.

● Guess the price challenge: enticing shoppers into the lair.

CHANGE OF SCENERY

WHETHER YOU have an important business presentation to make or just want to leave a flashy visual and aural message to say 'dinner's in the oven', the latest version of *DeluxeVideo*, version III, could be what Amiga users have been waiting for.

With a new 'intuitive' interface, the program combines graphics, animation and sound which, say Electronic Arts, allows you to create your own videos. It supports all Amiga resolution modes – including HAM, hires and interlace – super bitmaps, high speed animation, MIDI output and IFF standard sound and music files.

Clever scene changes can be achieved with one of the transition effects and other features include timing to 1/60th of a second, overscan mode and automatic scrolling backgrounds.

DeluxeVideo III controls external devices such as MIDI equipment and genlocks.

The package is available for a limited time at £79.99 or as an upgrade to 1.0 or 1.2 owners for £45. More from Electronic Arts on 0753 49442.

MORE MICE

LOOK OUT for three new MS DOS-compatible mice from Mitsubishi. The M-Mouse (200 dpi) is £49.95, the E-Mouse (400 dpi) is £64.95 and the S-Mouse, with an automatic variable resolution between 200 and 800 dpi, is £69.95. Prices exclude VAT.

All the mice come with utility software which allows users to pop-up menus with popular programs or create their own. See your local dealer or contact Winghigh Ltd. on 0582 451395.

POPULAR computing WEEKLY

TETRIS PIRATED TO MEGA

THE SOVIET computer game *Tetris* has been pirated onto the 16-bit Sega Megadrive console. Hong Kong-based pirates have reverse-engineered the Megadrive's proprietary games cartridge and have ported a version of Tetris to the machine.

The picture on the cover of this
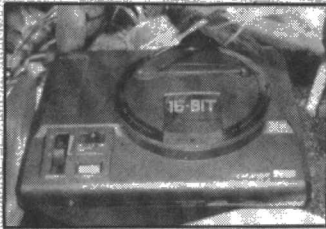
The Sega Megadrive – the West meets the East.

issue shows a Megadrive with the pirate cartridge – showing the distinctive Tetris artwork of St Basil's Cathedral in Moscow.

The cartridge supplied to *Popular Computing Weekly* failed to operate but our sources claim the game to be "very addictive" and a respectable 16-bit version of the game.

The console licence for Tetris resides with Japanese console maker Nintendo, which recently won the rights in a hard-fought legal battle with Tengen – though this is subject to appeal.

Whichever way that appeal goes, the game is certainly not in the Sega domain – as the company is Nintendo's arch rival. Sources

suggest that Sega itself will launch Flashpoint, a game similar to Tetris for its 8-bit Mastersystem in the New Year.

The Megadrive is a 68000-based machine currently available on import but which will be sold by Virgin Mastertronic from next summer.

Tetris take-away from Hong Kong.

DEALER ATTACKED OVER ANTI-PIRACY CRUSADE

A KENT computer dealer and his wife have been forced to move out of the flat above their shop after a series of firebomb attacks and threats from alleged pirates.

Dealer Mick Lane claims petrol bombs were thrown at his windows, and that his car was stolen and set alight. When he borrowed his sister's car it too was set on fire, outside the shop, says Lane.

After seeking help to combat a local piracy problem, he now intends to "lay low" he said: "We've put ourselves on the line, physically," he told *Popular Computing Weekly*, "and we still don't get help from FAST or any software houses." According to Lane, the police do not have enough evidence to pursue a prosecution. FAST spokesmen told us they could not comment whilst investigations were continuing – Popular Computing Weekly revealed in 1988 how FAST was investigating massive software cracking operations in Kent.

The arson attacks on Lane's premises came to light after an assistant working at his shop, Brian Webber, wrote (anonymously) to the trade press complaining about pirates operating unhindered from *within* the software industry.

He criticised in particular a games protection writer who, he alleged, was spreading the games he was being employed to safeguard. In addition, an unnamed trader was accused of selling pirate discs for as little as £1.50.

When Lane read the letter he promptly sacked Webber and wrote

to the magazine himself to deny any foreknowledge, or approval of, Webber's "wild accusations of piracy against various people". The original letter was printed anonymously, though, and it did not identify any of the alleged "pirates".

Lane told Popular Computing Weekly that it was well known who the local pirates were and that by going public Webber had alerted them to a swoop by FAST and trading standards officers.

Webber maintains that he was fired because of the violent threats that have been made against Lane. He

had written the letter, he said, because not enough was being done by FAST and the software houses to combat piracy and he felt he had to speak out.

It also emerged from the row that Lane had called in two Microprose people, a developer and a salesman, and invited them to buy copies of their own programs, including Stunt Car Racer and Afterburner, from the alleged pirate's outlet.

A spokesman at Microprose confirmed that the games were illegal duplications and said statements had been sent to FAST by the two staff.
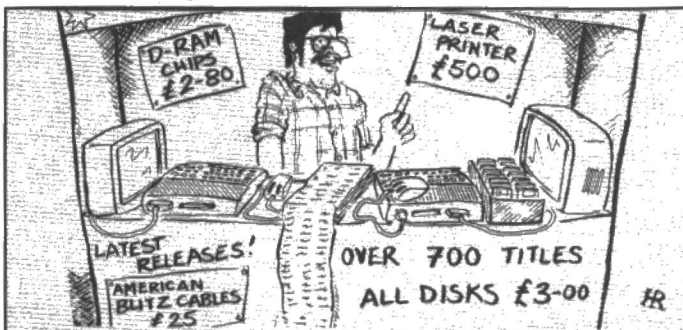
THE MANAGER of Glasgow's Barrowlands market who rents market stalls to software pirates claims no knowledge of any piracy occurring on the site.

The market is run by a firm called Margaret McIver Ltd, and its Market Manager is Mr Tom Joyes. Asked why the pirates were allowed to operate on the premises, Joyes said that he had yet to hear from any software houses or computer shops complaining about pirated goods.

"We can't do anything until we're pressed by legitimate companies to call in trading standards officers," Joyes said. "If the companies made more complaints we could do more."

"Even when we know they are operating, it's hard to catch them at it – they hide the pirated stuff. When we bring in the trading standards officers and try to trap them, they see us coming," said Joyes.

Any software house wishing to complain about the sale of hundreds of copied discs in Barrowlands can reach Tom Joyes on 041 552 4601.

EUROPEAN DIRECTIVE IS "PIRATES CHARTER"

ALARMED software houses are protesting against a planned EC Directive that could make life easier for software pirates. While the EC legislation aims to protect software copyright in much the same way as literature, it is unlikely to cover the logical framework (or algorithm) that dictates how a program works.

Some programmers reckon the *EC Directive on Legal Protection Of Computer Programs* will amount to a pirate's charter, allowing others to "reverse engineer" work-alike software packages. Reverse engineering involves decompiling program code to see how the various parts of the program work together.

A debate at the European Parliament in Brussels yesterday marked the first step to implementing a pan-European statute that could legalise reverse engineering. Some companies support the move, however, and a bitter fight looks likely to ensue.

There are two industry groups squaring up to fight the issue via lobbying MEPs. Supporting the concept of reverse engineering is the European Committee for Interoperable Systems (ECIS), which is supported, among others, by Amstrad, Tulip, Bull and NCR.

Against the motion are a group called the Software Action Group Europe (SAGE), which includes many members of FAST in its number.

ECIS supports reverse engineering because of the move in corporate computing circles to the UNIX operating system and so-called open systems. To make software packages "inter-operable", says ECIS, it must be allowed to take apart a rival's software to ensure that its own software is fully compatible with it.

SAGE counters with the assertion: "The exclusion of logic, algorithms, programming languages and interface specifications would severely damage the protection of legitimate works . . . Any amendment enabling commercial copying under the guise of so-called "research and analysis" would deny software authors the level of protection to which their individual and time consuming efforts are entitled."

As *Popular Computing Weekly* went to press, it was unclear whether the European Parliament would get as far as voting on this issue. Expect an update on the result next week.

TORIES SCRAP ANTI-HACKING LEGISLATION

By Mike Johnson

COMPUTER data users were shocked last Tuesday when the first televised Queen's speech omitted any mention of legislation to deal with computer misuse, notably hacking.

Industry Secretary Nicholas Ridley later made a rare apology for not putting forward his department's long-awaited anti-hacking bill – which had been promised in the wake of the Law Commission report on Computer Misuse in October. Instead, Ridley promised government support in the drafting of any similar bill which a private member may want to introduce.

Tim Hackworth of the British Computing Society told us he was "very disappointed" that the Law Commission's recommendations had not been implemented: "Somehow we haven't persuaded Nicholas Ridley that this is one of the things he should have done."

Looking to the future, he said: "We foresee that sooner or later there is going to be a major catastrophe which is due to hacking or some other form of computer misuse."

When we asked a DTI spokeswoman why the expected bill had failed to materialise she blamed a "heavy legislative programme" – which will include a major shake up of the NHS.

She explained that although the Government "considers computer abuse a very important issue, it was decided that other legislation should take priority."

Until an MP decides to take up the issue – Emma Nicholson's private members bill was dropped during the last Parliamentary session – Britain will remain one of the few countries in Europe without proposed or existing legislation on computer crime.

● No room in the house for an Anti-Hacking Bill.

TROVE OF QL'S DISCOVERED

By Marc Jones

JUST when you thought it was safe to say Sinclair is a has-been, up pops the old Sinclair QL roaring like a C5 into the hands of a new supplier. A software and peripherals specialist, EEC Ltd, has informed us that it is in possession of the persevering Quantum Leap computer.

Following the success of the 'ZX' and the 'Spectrum', Sir Clive's building upon Planck's quantum theory of matter produced the QL for small businesses, students and boffin-hatted hobbyists. The QL was taken out of production about two years ago when Amstrad placed its sugary hands upon the computer and laid it to rest. So how has the QL managed to sustain its presence on a market that continually seeks innovation?

EEC claims that the QL was ahead of its time and its continued use in the States and parts of Europe has influenced its continued use in the UK, although it has maintained a low-key image.

The QL is supplied with four standard programs. An easy-to-learn wordprocessor called *Quill*, an *Abacus* spreadsheet package, a database filing system, *Archive* and a graph designing pack entitled *Easel*. Priced at £65 and £135 depending on the desired specification, the Sinclair Quantum Leap computer is a mere snip for the potential computer goer. Contact EEC (Exotic Electronic Components) on 0753 888866.

● The Sinclair QL is resurrected as an exotic specimen.

PLAY THE (PC) GAME

FOR THOSE who like a bit of sport with their PC, Dynamics Marketing has released a *Home Games Starter Pack* for PC owners. Priced at £49.95 the pack includes a Competition Pro PC joystick, a Dynamics Marketing A-D Games Card and a selection of four games from Ocean.

The pack heralds the end of keyboard control blues for the PC gamester with an add-on card enabling the use of the Competition Pro joystick or any other digital joystick. The A-D Games Card features twin ports for a two-joystick operation and is compatible with IBM-PC, AT and XT machines as well as Schneider Euro PCs.

Perhaps the most exciting PC release since yesterday, the Games Pack is available at a retail store near you and is sure to be a hit with the Christmas shoppers. If the High Street lets you down, contact Dynamics Marketing on 061 626 7222.

● Starting out with good intentions.

Stateside

by Steve Gold

COMMODORE GETS DIRECTION

AMIGAWORLD in the US has announced the formation of the Amiga Developer's Association (ADA). The developer's group will be formally announced at Ami-Expo in Washington DC on 15 March, 1990.

The primary purpose behind ADA is to influence Commodore's decisions on how and what products to market. Amigaworld says that once ADA has been launched it will have no further involvement with Commodore and will be an independent operation.

Anyone whose livelihood depends on the Amiga (animators, engineers, video artists, musicians or software developers) is encouraged to attend the inaugural meeting. Interested parties are asked to contact Wendie Haines-Marro by the end of this December. The address is: The Amiga Developer's Association, 80 Elm Street, Peterborough, New Hampshire NH 03458, United States.

◆ ASA: will Canadian David Jensen be allowed to join?

POWER PACKED

★ Nico Francois, a Belgian Amiga software developer, has released *Powerpacker*, a $10 shareware file compression utility for all Amiga versions. The package compresses and decompresses program files "on the fly". Powerpacker has five levels of operation, ranging from fast to best. In fast mode the program takes a second to decompress a file and load it into the Amiga's memory before running, and is transparent in operation.

To tell the user that all is well, the program can either flash up a screen display when it is uncrunching a file, or flash the Amiga's power LED. Interested Amiga owners can watch out for the shareware package on their favourite online system, or register as a licensed user of the software for just $10 by writing to: Nico Francois, Corbielaan 13, 3060 Bertem, Belgium.

ATARI DESKBOUND

★ Strange reports reach my ears about *Deskset II*, the much-heralded DTP package for the Atari ST/Mega/SLM804 laser printer combination.

According to the *ST Report* online newsletter, Atari is on the verge of shipping the package. The program is, however, reported to be inferior to the multitude of DTP packages already available for the Atari ST and is limited to outputting to the Atari SLM804 laser printer.

ST Report notes that only a few thousand SLM804 laser printers have been sold by Atari, yet Deskset II has cost several hundred thousand dollars to develop. The newsletter questions Atari's reasoning behind limiting the program to the SLM804 laser printer. I'm inclined to agree with that question.

CHILD'S PLAY

★ Kidpublisher Professional has released a $25.00 DTP package of the same name for use by kids. The budget package is reported to be every bit as good as the "adult" DTP packages for the ST, but has a number of enhanced features included for kids.

The program runs on all STs, including the single-sided drive 520ST, and is not copy-protected. In fact, the software house behind the program suggests that adult users make copies of the package for use by several kids in the family! Despite its low price, *Kidpublisher Professional 6.0* comes with two manuals – one for the adults and one for the kids. Interested? Contact: D.A. Brumleve, Kidpublisher Professional, PO Box 4195, Urbana, IL 61801-8820 USA.

UPGRADE OFFER

★ Watch out for *Word Flair*, a new DTP/word processor package for the Atari ST series. The program, authored by Lauren Sellers, will be formally launched in the new year, but is available in a demonstration version via several on line services.

Sellers is allowing users of the demo version to upgrade to the full version for just $79.95, a fraction of what the commercial version will cost. First reports suggest that Word Flair is one of the best DTP and word processing packages around for the ST at the moment.
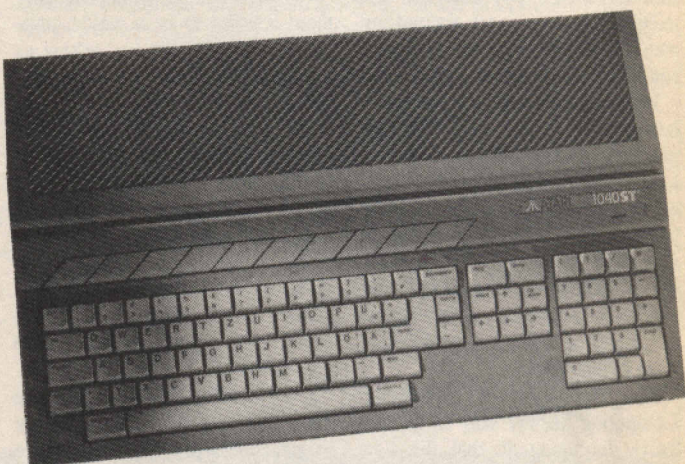
● User-group complaints could save the Mega ST from extinction.

MEGA ST MAY SURVIVE

★ Whispers on the Atari stand at Comdex Fall in Las Vegas earlier this month suggests that Atari is taking heed of the ST User Base's annoyance at its decision to phase out the Mega ST series in favour of the STE series, which is now on course for a Spring 1990 shipment.

Sources close to Atari suggest that the Mega ST will continue to be sold, but at a lower price, once the STE begins to ship. No-one seems to know for how long, but, judging from the inability of the STE to accept many third-party hardware add-ons, this could be Atari's way of appeasing the user community, whilst still offering the STE to those users who want the machine's enhanced facilities.

TASK MASTER

★ Also talked about at Comdex was a multi-tasking package for the Atari ST. The package, provisionally set for launch next spring (along with the STE series perhaps?), reportedly gives the ST the same multi-tasking facilities as the Commodore Amiga.

The as yet unnamed program runs under the new TOS operating system in auto mode, and allows several Gem window-based programs to be run concurrently. No memory partitioning is required.

The program was expected to be shown in a beta test edition at a developer's meeting on the evening of day three at Comdex, but – for reasons unknown – was never unveiled. Details of the program were, however, released to a few programmers and developers.

POPULAR COMMENT

We're wondering what on earth the Government thinks it's playing at with its dithering over the hacking issue. Shocked computer buffs could not quite believe the deafening silence on the matter in the Queen's speech.

The Law Commission was strongly supported by the "computer illiterate" Trade Secretary Nicholas Ridley (as his backbench colleague Emma Nicholson dubbed him) when anti-hacking legislation was proposed last month. Now, the Government that is "not for turning" has reneged on the deal businesses thought was in the bag. We're pleased that the basic "just looking" offence may not become law, but the criminal side needs dealing with – and fast.

★ ★ ★

Meanwhile, this issue sees the launch of Your Computer, a section where we will provide shorts, news and reviews on a number of machines.

We want your views on what you want included here – drop us a line – the address is on page 9.

YOUR CONTACTS

01-834 1717

GAMESCAN
TOP-TWENTY
FULL PRICE CHARTS

No.	Title	Last Week
1	**Batman – The Movie** Ocean	2
2	**Robocop** Ocean	4
3	**Shinobi** Virgin	5
4	**Continental Circus** Virgin	15
5	**Power Drift** Activision	3
6	**Stunt Car Racer** Microstyle	1
7	**Cabal** Ocean	16
8	**Strider** US Gold	6
9	**Altered Beast** Activision	7
10	**Kick Off** Anco	RE
11	**Indiana Jones – Last Crusade** Mirrorsoft	19
12	**Xenon 2** Mirrorsoft	11
13	**Untouchables** Ocean	NE
14	**Dragon Ninja** Ocean	RE
15	**Barbarian** Klassix	12
16	**TV Sports Football** Mirrorsoft	RE
17	**Bloodwych** Mirrorsoft	RE
18	**Emlyn Hughes International Soccer** Audiogenic	9
19	**Crazy Cars 2** Titus	RE
20	**100% Dynamite** Ocean	NE

COMPILED BY GALLUP

HOTLINES

Just in case you were wondering about something in last week's Christmas buyers guide, in the console section, I thought I would make it clear. It said that the PC Engine was officially known as the PC Engine 2, which is of course complete dribble. The PC Engine isn't officially available yet, never mind the PC Engine 2.

Clear? Good, let's get on with the column then. *It Came From The Desert*!!!!! Yes, the one-meg-only Amiga version from Cinemaware is going to be here any day real soon now. Which is one of the reasons I've upgraded my humble A500 to a big, wobbly megabyte of RAM. Which leads me into this particular line of thinking. One meg of RAM is starting to become more and more essential so when is

Cyberball: Domark's attempt to top *Hard Drivin'*?

some enterprising company going to bundle their latest jumbo game with a RAM pack for around £60?

Anyway, more news from Muggersoft is that *Blade Warrior/Lord of the Dancing Pixies/Paladin* (delete as applicable), the game with the ever changing name is also straining at the leash to be released. I just can't wait for the game which features Sillouettevision. Also chomping at the fly spray is *DDT*, the cute platforms and monsters game with millions of colours in each sprite. Some of them different. Then there's a data disc for *Bloodwych* pro-
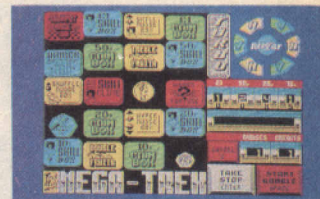
viding 25 extra levels, and improved gameplay (monsters joining parties, more magic), and Austerlitz by that man who did Borodino. Considering that it's taken very little time to knock 25 levels for Bloodwych, what on earth is FTL playing at with *Chaos Strikes Back*?

I put this very question to the frontwoman for Mirrorsoft and watched her squirm. Well, er, she said, wringing her hands, I'm having problems with my boyfriend. Or was it, FTL are inordinately fussy and take their time.

And now news from the bottom-end of the market, and the company with the biggest bottom of all, Codemasters. *Fruit Machine Simulator 2* has hundreds of nudge options, thousands of gambling odds, millions of entertaining features, and all the satisfaction of

dreaming you won a fortune in Las Vegas, and then woke up. It's yours for only £2.99 on all Speccies now, and the CPC in January.

The strain at Domark seems to be proving too much for the hard working staff as they cope with the launch of *Hard Drivin'*. I promised not to mention Clare's name so I won't, but there was manic laughter punctuated by despairing screams and the sound of sales staff frothing at the mouth. I was hoping to get some news out of them but the only coherent uttering was something about *Cyberball*, a

high-tech equivalent of Activision's *Grave Yardage*. Oh, and they babbled on about the classic Mac game, *Ancient Art of War*, coming out on the ST, Amiga and PC in March.

Speaking of Mac games, here's the low-down on *Trust and Betrayal* which I told you about last week and promised more details.
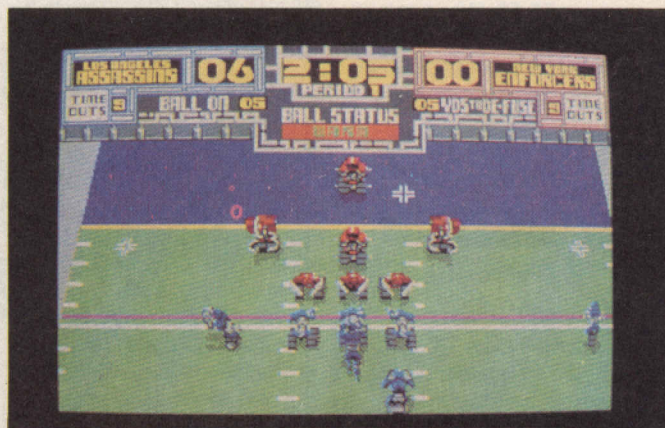

Fruit Machine Simulator 2: Nudge, nudge, my son.

Basically, you are an alien that looks like a Michelin man that's half melted, and you interact with six other aliens, whose shapes range from cat-like to T-Bone steak and pelican. The object is to collect eight auras, which come in three flavours. You do this by challenging the other aliens, or Kirians as they are known, to mind combat which uses one of the three types of aura. One type defeats another but loses to the third, rather like playing Scissors Cut Paper. The object is to guess what aura your opponent is going to use, and also to try and get them to use the type of aura that you want to collect, because winner takes all. To discover exactly how many of each aura another player has, so that you can guess what they will use and what they want to win, it is necessary to become involved in diplomatic dealings of promising not to betray friends, or attack them at night, and flattering, or offering information to sweeten an exchange of information. This would be complex enough if everyone was just a cold-hearted swine who was out to get the best deal, but it is further complicated by the fact that each alien has a distinct personality, some are close-mouthed and others will talk their heads off about almost anyone.

A very complex game, which is totally different to anything around at the moment, check out Trust and Betrayal from Mindscape if you get the opportunity. ☐

Duncan Evans

STAR LETTER

Clever toads

In reply to Atif Khan's letter (issue 387) the virus he talks about first is called the BGS9 virus and was written by some German toads. The reason that VirusX or System 7 cannot find it is because (a) it does not reside on the boot track of a disc and (b) it is not activated every time you use the infected disc. It took me ages to find a virus killer to combat the BGS9 virus but I found one eventually.

The second 'virus' that Mr. Khan talks about isn't actually a virus (unless of course it's a new one out!). The only experience I have had of a disc being renamed Lazarus is after I have used Disk Doctor on it – try it Mr. K – see for yourself!

If Mr. Khan or anyone else out there in that great land of silicon is experiencing problems due to viruses (or is that supposed to be viri – what is the plural of virus anyway?) or they think they have problems which may be virus related then they can get in touch with me if they wish. I have quite a collection of bona fide virus checkers/killers which I will only be too pleased to give them including the BGS9 detector/killer. *R. Hughes, 45 Springfield Road, Bury St. Edmunds, Suffolk IP33 3AS.*

Our toad correspondent writes: Yes it's true. Computer literate amphibians have been around for some time now. The term "wise old toad" is no misnomer – indeed, one species has already decided to invade Australia, and is largely to blame for that country's crippling software piracy problem. You, sir, call it BGS9 virus, but that is merely German for 'Natterjack'. Excuse me, but I'm tired of all this croak and dagger stuff . . .

POPULAR POSTBAG
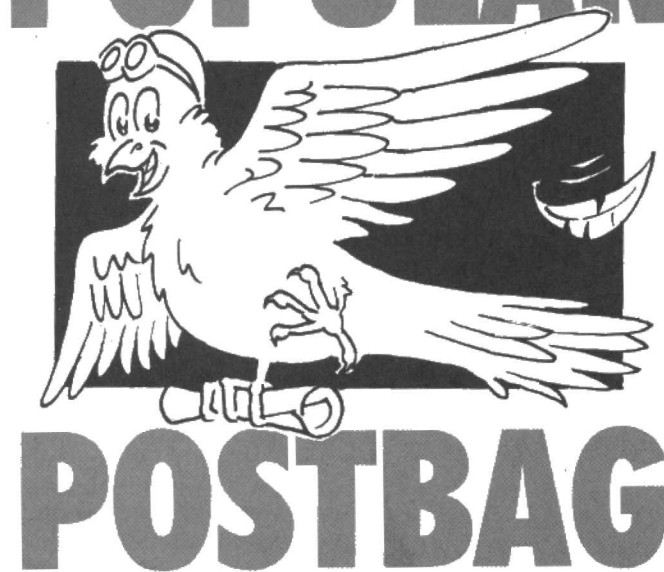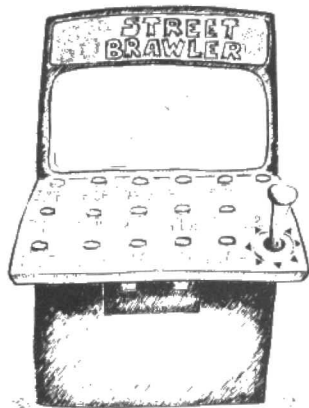
WRITE TO: Popular Computing Weekly, Greencoat House, Francis Street, London SW1P 1DG.

Tired fingers

Christmas is coming and we are all wondering what surprises will be on show in the High Street shops. Gone are those early days when rubber-keyed Spectrums were the glittering harbingers of computing glee, and the Commodore 64 was the most boasted about games machine. Where have all the Beebs gone, long time passing?

Curry's I believe are tentatively rejoining the computer sales market with a Spectrum +2 (or two). But what of Boots – all software gone? It seems that computers have become a specialised business and the buyers, much better informed, need careful guidance in making their choice. Now it is an argument between Atari and a SAM, or between an Amiga and an Archie, and more often now an IBM clone is the only one that will do.

Is it that we've all got one? Or had one, and can't afford another? Or are we all waiting for a revolutionary new super machine which is as small as a laptop and as versatile as a Cray?

Well, I for one am quite happy with what I've got. The only advances for me must be through modifications to the PC or new chips and ECS and a multisync monitor for the Amiga. They both do well enough now – I can play games like *Interceptor*, go for a flight up the river to Niagara Falls with Sublogic's *FSII* in the delightful little Cessna propeller plane, or embark on a submarine battle off Japan in *Silent Service* or play Golf and only suffer from a tired finger after 18 holes.

The PC and Protext does all my correspondence very well; and provides a lot of programming interest in *GW BASIC* which surprisingly has some more comprehensive circle and arc and ellipse commands than many other high level languages, and the DRAW command takes a lot of beating too.

Perhaps we should all try to look further ahead and make a New Year's Resolution to learn at least one language really thoroughly. And the only one that can be found on practically every well-known computer is still – BASIC.

In conclusion I'd like to thank your clever artist for the recent funny picture of me "Couped up" in bed with my computer. That is something I have never done yet and if I did I guess it would have to be a Laptop or a PC with an extended lead to the keyboard.

Best wishes to the best editor and the best page in the best weekly.
John Gray, Eastbourne, Sussex.

Thanks. Look, are you honestly saying that people will be choosing between a SAM and an ST in the near future? They are very different machines with very different software bases – there's loads available for the ST and hardly anything for the SAM, although this week Miles Gordon Technology told me SAM-specific games titles will be coming from US Gold, Activision, System 3, Codemasters, Virgin, Domark Audiogenic and Goliath.

But in the same way that many Amiga games are straight ports from the ST, with no blitter routines or sound additions, will SAM software be straight carry-overs from the Spectrum? Time will tell, but as John Wase revealed in his developers conference report two weeks ago, ST graphics can be imported to the SAM, so it may be that we will see some

intricate loading screens followed by Spectrum games – unless software houses realise the potential of this powerful-for-the price micro, with its all singing all dancing custom hardware. Let's hope they do.

Chuffed

As 1990 is rapidly approaching, it is an appropriate time to wish your magazine well, in the New Year.

Despite some reduction in the glossiness of the paper used for printing, as one must expect from the greatly reduced cover price (from 70p to 55p) *Popular Computing Weekly* remains highly readable and informative.

One does not need a magnifying glass to read all but the first few pages, and the technical advice is second to none. All the important events get reported, including business shows such as that for Apple Macintosh users.

Popular Computing Weekly deserves to prosper. It may be that two weekly computer mags can survive, but if one must fail, then I hope it will not be yours.
Michael Kingston, Yate, Bristol.

Thanks for your very kind words. Don't worry about whether we'll be around in the future – we're already planning something pretty special for our tenth birthday in 1992! As for the opposition, well if they're steaming headlong up *PCN* (or *BANG!*) alley, who knows?
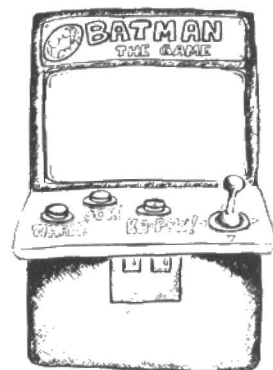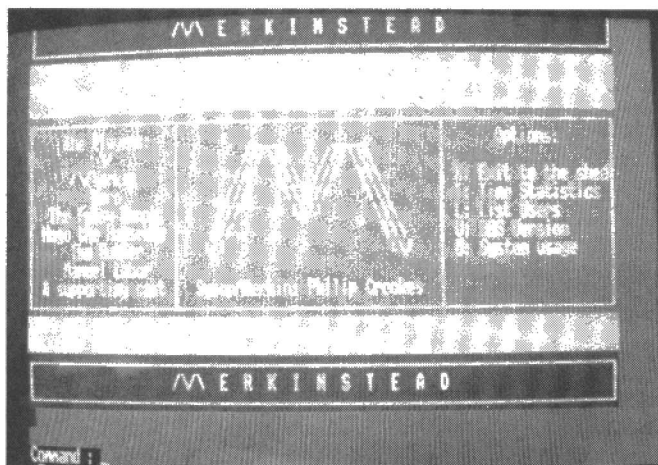
Back issues

Is it possible to obtain back copies of September 14-20 issue of *Popular Computing Weekly*? We'd like another six if possible.
H.E. Minter, Tadley, Hants.

Check out the back issue info section we've included in this week's Contacts Box on page 6 – all you need to know is there.

MICROLINKING AND MERKINSTEAD

◆ **What's lurking in Merkinstead? Enter the BB beyond the limits of your ordinary sysops imagination.**

Something of a mixed bag this time. Some feedback, some good news, and a look at two very good BBs, and a brand new contender . . .

It will start with the feedback. Following my *MicroLink* article last time, Roy Levin E-Mailed me with this comment: "Regarding your article in *Popular* . . . Please mention next time how nearly impossible it is to keep track of telexes and faxes. Fax acknowledgements disappear from the Bulletin board after about 2 hours, Telex analysis reports are incomplete and selection 10 (Status) is useless. I complained several times to MAG999 (the Micro-Link help mailbox), but was ignored. Regards Roy Levin."

After submitting my copy, I had wondered if I might have been a bit hard on MicroLink. However, it seems many users are still not convinced that the new MicroLink genuinely has their interest at heart. CAUCUS (their BB system) recently went through a phase of dropping users back to the main menu in the middle of writing messages; and other reports of the system seeming to loop back on itself have been left on the MicroLink Forum section of CAUCUS. Hiccups such as these, plus the slow arrival of features which should have been available from day one, have created some feelings of dissatisfaction that MicroLink should now work actively to overcome. The situation is analagous to purchasing a new car, and being told on delivery that everything works fine — except that the wheels will be delivered separately in a few weeks. After the novelty of the shiny new livery, one would soon get fed up with sitting in the driver's seat in one's driveway, listening to the superb stereo. Especially if one was paying full price for the privilege . . .

Heartbeat (0734 352032 — Viewdata/V21/23 Scrolling), the bulletin board for the disabled, which was wrongly accused of being an "erotic BB", has received its apology. In the November issue of *BBC Acorn User* (in response to a letter from Susan Wearing — Heartbeat's sysop), it says: "BAU, of course, supports every effort to help the disabled and we are indeed sorry for any damage to your cause resulting from this story being published." Heartbeat informs me that it has received official thanks from local police for relaying information from a user which led to the arrest of an alleged drug dealer. Wearing is keen to stress that all information passed on from the BB's disabled users is strictly confidential. This facility is extremely useful. Think about it — how else, except through a keyboard, could a deaf person call the police? She would also like any deaf Comms user to get in touch. The BB is now helping the Royal National Institute for the Deaf (RNID) look into the benefits of Comms for deaf people.

Got a pen? Good. Write this down! *Merkinstead* (061-434 7059 — V21/22/22bis/23 — 24 hours) is probably the most imaginatively presented bulletin board I have seen to date. Merkinstead is a MUST. Log on tonight, or better still, now. I do not care if it IS peak rate!

Malcolm Arnold's still got that modem plugged in . . .

From the darkest magic of his wildest imaginings, sysop Philip Crookes has constructed a rambling, mysterious mansion — inhabited by strange, quirky individuals — and put it online as a BB.

At log on, you are presented with the following introduction: "Merkinstead . . . There's nothing like it anywhere in the world. The Gatekeeper gives you an ESCAPE key to open the Gate. The Gate shudders, fizzes a bit, and falls over. In you go . . . Your footsteps crunch on the gravel of the driveway leading to a long, low, complicated yet curiously ramshackle house . . . You ring imperiously on the bell. . . Which comes away in your hand . . ."

The main menu — or Hallway — lists fourteen different locations within the house, but this is deceptive. Many of these locations (if not ALL of them) are merely starting points or sub-menus, from which you can lose yourself in winding corridors containing yet more doors. Some of the rooms are useful: file areas, message areas, bulletins. Others are just Merkin (the house's mysterious owner) expressing his strange sense of humour. On one menu you encounter a graphic of a red button, complete with a sign telling you NOT to push it. Of course you select <P>ush — and find yourself returned to the previous menu!

Among the inhabitants of the house are an inebriated butler, and an AI (or conversation generator) called the Grovelling Master, who pretends to engage you in conversation about your complaints about the system . . . The list of Echoes and message areas is simply huge, and the Merkinstead Trough, or file area, is similarly well-stocked. There are no time or download restrictions whatsoever.

A smaller BB, but with a healthy growing user base and reputation, is ARKHAM (01-952 5128 — V21/22/22bis/23 MBP 5 — 24 hours). Arkham's sysop Nigel Hardy is working hard to establish a board which presently specialises quite strongly in multi-user games, and particularly *Shades*. It is an indication of the value of the board's contribution in this area that Nigel can number Hazell the Coder, the originator of Shades, among his regular callers. There are fourteen message areas, including such diverse subjects as Psychology and Music & Culture. Definitely worth a visit, especially if you are a MUGger.

● **Network 23: Bradford BB-ers support your local board.**

Finally, a quick mention for a new board setting started in Bradford. NETWORK 23 (0274 546374 — Viewdata — 9pm-8am) is a Q-View BB, like the excellent ATAVACHRON (0480 412884 — Viewdata — 24 hours RINGBACK), and Chris Dalby, the sysop, needs local support to set it on its way.

Contact me on THE OWL SERVICE (0532 605876 — V21/22/23 — 24 hours) or via Prestel (MBX 01-111 2661, or MicroLink MAG-33225). ☐

◆ **Keeping Bad Company: taking the floor at a Leicester Square hotspot . . .**

BAD COMPANY

If you enjoy a good bug hunt then there's a real treat in store when you play Logotron's *Bad Company*. There's no subtlety, no meandering and meaningless plot, just good old violence. Shoot, kill, shoot some more, kill some more, die.
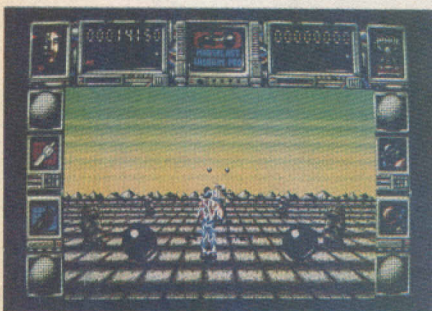
● **Don't dilly Dali with weird spherical objects.**

The framework for this joystick thrash is Space Harrier style 3-D, with extra weapons, power-ups, four different planets, and of course, hundreds of bugs to blow away.

Steve Bak, the master of the scroll, has produced quite easily the best, fastest, 3-D scrolling ever seen on an ST, but then compared with producing a sprite based 3-D game like *Power Drift*, the achievement is reduced to one that is small, if not inconsequential. The landscape is flat you see, and is dotted with the odd obstruction which you can hide behind, which is very necessary when a particularly large alien is encountered.

Even Space Harrier had loads of scenery, and the perspective changed as you moved up and down.

In this game, one or two players select from a range of characters, and set foot on the minimalist landscape. It is possible to retreat a certain distance backwards, but the aim is to stomp forwards, blasting away with the weapons available. As soon as you start though, a problem becomes obvious. Because the characters are reasonably large, their heads cover the horizon, thus obscuring anything that is appearing dead ahead. This is something of a bummer since you can only fire straight ahead. It becomes necessary to continually move around so that you can see the results of firing blind.

So there you have it – a fast-scrolling, very plain landscape, some endless half obscured shooting, extra weapons and power ups – and large aliens every now and again. The graphics themselves are distinctly mediocre, and the aliens usually get wasted when they are indistinguishable lumps. If they get so close you can actually see some detail, then you're in trouble.

For Space Harrier fans, *Bad Company* will provide endless hours of mindless entertainment, but to be honest, the talents of Steve Bak have been wasted yet again, on a fairly uninteresting game.

R A T I N G

Program: Bad Company
Version: ST/Amiga
Price: £24.95
Supplier: Logotron
Reviewer: Duncan Evans

Grafix:	**75%**
Sonics:	**73%**
Gameplay:	**70%**
Overall:	**72%**

ESKIMO GAMES

It seems ages since Gremlin launched anything substantial and the current crop of games out are only there courtesy of a licensing deal with West Germany's Magic Bytes.

Eskimo Games, provides a variation on the games theme by having the noseless ones wandering around nicely drawn icy landscapes, battling with sea-lions, snowballs, gulls and other denizens of the arctic. But is it all too late? Have the great unwashed masses finally had enough of half a dozen pokey games tied together under the umbrella of a meaningless tournament. Well they might not, but I certainly have.

From the title page you can dive straight into the competition or practice any of the five events, all the while a bouncy version of the Blue Peter theme music rattles out of the speakers. A
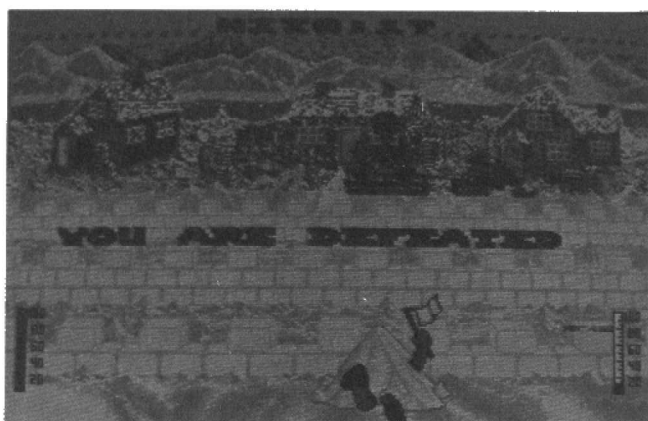

■ **Bikini weather hits eskimo town.**

strange choice, but the plagiarism does not stop there. Other well known tunes are lovingly recreated for you by Magic Bytes, as well as the odd original one.

The events themselves include Operation Snowball, the staggeringly easy collect-the-eggs-from-a-cliff-face, build-

■ If only I had used Head and Shoulders.

an-igloo which has the best graphics of any section, a serve-the-customer section in an ice-cream parlour which is a direct rip-off of a US Gold game from years ago called Tapper, and a very unfair punching match with an ice bear.

The first event uses the mouse, while all the others use the joystick, and involves chucking snowballs at your friends who are trying to build a snowball catapult. They move left and right with the equipment and, using a target sight, you must stop them before they get off screen. Very disappointingly you do not actually see your snowballs unless they hit the target in the face.

The events vary quite a lot in difficulty, but the overall aim is simply to collect points, not qualify for finals or win anything. After half a dozen plays of the game, is there any real motivation to continue? No, not really. None of the games are interesting enough to be worth playing the whole collection for, and only two-player competition can possibly breathe any life into a format which stagnated years ago.

RATING

Program: Eskimo Games
Version: Amiga
Price: £19.95
Supplier: Gremlin Graphics
Reviewer: Duncan Evans

Grafix:	84%
Sonics:	85%
Gameplay:	65%
Overall:	**74%**

SIM CITY

Just when you thought you'd given full reign to your megalomania in *Populous*, here is your chance to go one step further and ruin the lives of thousands of people living in real cities in *Sim City*. Yes, it's your chance to play Margaret Thatcher.

There is a choice of existing cities, all at different times, for you to run, or you can create and run/ruin your own. If you choose to play god with an existing city, such as *San Francisco* in 1906, then either a natural disaster will wreak havoc, or a serious deterioration in services and the infrastructure of the city will be happening or about to happen. You then have five years and dwindling resources to turn the tide, and save the city. Should you tax the poor citizens to the hilt and then deprive them of vital services then they are likely to come knocking at your door demanding resignation.

While this is very enjoyable, the biggest kick comes from designing and running a city of your very own. Apart from being a town planner, this is the closest you are going to get to creating a community of your own. There are various depart-

◆ Sim City: Quaking with excitement as you control San Francisco.

ments, police, fire, etc., to deal with. In order to ensure that the city is covered for all eventualities.

You might save money in the short run by having very few fire stations, but when an explosion or earthquake strikes, half the city is likely to go up in flames, along with your chance to serve another five years.

Airports, seaports, coal or nuclear power stations, parks and even stadiums can be built, all while juggling the fiscal budget. Strangely enough the maximum tax rate you can set is 20%, with a rate of 5-7% required for fast growth, and 8-9% for slow growth. You'll soon be wishing that you were living in your fictional city. At least until disaster strikes anyway.

Like the *Game of Life*, Sim City involves and develops, you simply fit the pieces in place, the inhabitants decide the picture that covers the jigsaw. In a week of soul-destroying mediocrity, a program with some originality. While not a game for the wham-bam-thank-you-hideous-alien crowd. Sim City delivers a long-lasting and intense gaming experience, where the only limit to playability is your lifespan.

● Make me Mayor.

RATING

Program: Sim City
Version: Amiga/ST/PC
Price: £24.95
Supplier: Infogrames
Reviewer: Duncan Evans

Grafix:	72%
Sonics:	65%
Gameplay:	93%
Overall:	**90%**

TAKE A DIP IN THE OASIS

Sandra Vogel works at the Centre for Communication and Information Studies at the Polytechnic of Central London. She is a researcher engaged on a three-year project looking at the UK online database industry. She has a degree in Sociology from Goldsmiths College and then worked for about a year on a London-based advertising magazine called *Loot*. She then completed a postgraduate Diploma in Librarianship before taking up her present position.

Sandra is also the prime mover behind a national group called OASIS – the Organisation Against Sexism in Software.

When did she first become concerned about this issue? "I was probably always aware of sexism. It's like racism. If you are aware of it, you will notice it. So I suppose I was always on the lookout, as it were, whenever I was loading a new piece of software, or walking around WH Smiths, or going to the shows." But if pressed to put a date on when she began to realise how dissatisfied she was with the software industry's treatment of women, it would be around 1983. She then owned a Spectrum: "I think I was more annoyed at that time by the magazines I bought – more the advertising than the content."

◆ Inspiration

The spark which has kindled OASIS itself was a review of a game called *Strip Poker Two Plus*. "I'm afraid to say that it was in *Popular Computing Weekly*! I sat down immediately and wrote a letter, and it was printed as 'Comment' in the back," – the section we now call *Feedback*.

It is a measure of the raising of the games-buying public's threshold for what is considered acceptable that Sandra is now able to comment: "Because of the way things progress, it doesn't seem quite so bad now as it did at the time. I think things have come quite a long way since then." Part of the reason for this may be the growing availability to a wider public of 16-bit machines and software.

Certainly Sandra sees a correlation between the growth in the availability of Public Domain soft porn for these machines, and the raising of this acceptability-threshold in commercial software.

It was after writing to Popular Computing Weekly that Sandra decided that she must form a group, to do some lobbying – get things moving a bit. "If nothing else, to actually generate some discussion within the magazines, which I saw as the key way to actually start making some changes," says Sandra. "At the time

Is it possible to rid leisure software of sexism? Malcolm Arnold meets a woman who aims to do just that . . .

◆ **Sandra Vogel: bringing software houses to order.**

there wasn't very much going on letters pages at all. It was 'My machine's better than your machine', or complaining about getting bad deals from mail order companies – the same kind of thing that goes on now, but not many people were talking about *issues* around software." Now things are much more broadly based: "There's quite a lot of talk about racism, there's been some anti-Nazi talk quite recently, and the sexism debate is going on."

The first OASIS newsletter was published in December 1988. How had she begun to pull together a membership? "I spoke to one or two other people – other women games players who were supportive. The general feeling was 'why not form a group?' And then the hard thing became how to get publicity for it, and

how to actually organise things. I can't take all the credit for forming the group. There was a lot of support in the beginning – and it's still there."

Sandra reckons that around 95 per cent of people who enquire about OASIS actually send in a cheque and join. Coming up to its first anniversary, OASIS has recently attracted members and interest from all over the world, and the membership now totals around two hundred.

OASIS is still young, and Sandra is keen that it should be as democratic as possible. True, to date she has had to be the catalyst and guiding light, but she would like this to change. "I don't want to impose what I think we should be doing upon the group. I want the membership to say 'Well I think we should be like this – I think we should be doing this' and that takes time." It also takes time for the members to grow enough in confidence to feel that their efforts can actually have any effect on instances of blatantly-sexist exploitation.

The April 1989 OASIS newsletter carried the story of the infamous *Psycho Pigs UXB* advertisement. Software house US Gold had withdrawn the advertisement (which depicted two boys ogling a poster of a woman advertising a game) after a ruling by the Advertising Standards Authority. According to Sandra's information, the ASA had acted after only ▶

● **Maria Whittaker dons her bejewelled thong to sell *Barbarian*. One game-player's fantasy becomes another's nightmare.**

◀ *eight* letters of protest. "The reason for printing that in OASIS is to say 'Okay, if eight of you actually feel strongly enough to write to the ASA, then you can do something.' It doesn't take that many people to actually achieve something."

● *Protests*

But Sandra admits that protest over such instances – though necessary – is a limited role for OASIS. "It's like closing the stable door after the horse has bolted. I think one of the important things we can do is liaise with the software houses. In fact, I've had some discussions with people at Audiogenic which were reasonably fruitful. And I'd like to see more of that." The recent move to form a European Leisure Software Publishers Association has provided what could with any luck be a forum in which Oasis could usefully participate.

■ *On target*

The industry needs to start to see the positive benefits of targetting software

much more broadly than it does at present. From the industry's point of view this makes sense, because excluding any potential market loses them sales. However, it also has a much wider implication, for it reinforces the stereotyping which works against women getting more involved in the 'boys' world' of computers. Advertising does not only respond to social trends, it helps to reinforce and preserve their longevity. It is part of the unconscious educative process which forms our attitudes – and our prejudices.

However, Sandra does not think that the software houses would necessarily have to change most of the games themselves in order to broaden their appeal. "I like shoot-em-ups, and the Barbarian type, and I don't think there's anything innately different about men and women that makes them like different kinds of software. I think there's a lot of social moulding going on – forcing gender roles on people and making them behave in a certain way. Software can get above that. At the moment it's not – it's playing to it."

What kind of people make up OASIS's growing membership? Alongside those who use computers for pleasure, there are writers, editors of magazines and software programmers, presumably willing to carry their commitment to OASIS's principles into their workplace – people who can make a difference from within the industry.

Future plans for the group include the possibility of backing a product. I suggested that some kind of logo could be used to promote such products in a similar way to the 'Cruelty Free' standard presently being used in the cosmetics industry. "That's an idea that's been thought of. Again, I think we need to become established first. It's not much good giving a seal of approval if that seal of approval hasn't got any level of acceptance in itself."

◆ *Anniversary*

OASIS is approaching an important juncture – the end of its first year of existence. A time for taking stock: "The first year was a test bed. It has proved that there is a need for OASIS in the computer industry. We are here to stay, and our next year will see us move up a gear. We have thrown down the gauntlet, who will take it up?"

Certainly it is evident that a good deal of hard work has gone into getting this far, but I think Sandra would be the first to admit that, however auspicious, what has been achieved so far can only be the beginning . . .

If you feel this is a cause you'd like to support, you can contact Sandra Vogel at 3 Alden Court, Stanley Road, London, SW19 8RD. Please enclose a large SAE.
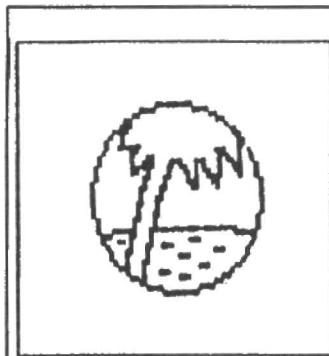
OASIS

ORGANISATION AGAINST SEXISM IN SOFTWARE

IN THE PICTURE

F or many micro users, the display they use is a mere television, and some will not have a word said against it. But there is no TV on the market that will provide a clearer picture than a dedicated computer monitor. There are various reasons for this, the most important being that a TV accepts input from an aerial which receives radio frequencies (RF). The television then has to decode these frequencies, which means that after filtering the signal, the image which is relayed to the screen is not exactly as it would be without decoding. Another reason is that good-quality computer monitors also have a better quality cathode ray tube (CRT) which is capable of displaying more lines and columns.

All home computers produced today are equipped with a monitor connection, and many others include an additional RF socket for connection to a standard television. Most computers produce an output called RGB – Red Green Blue, the three primary colours. Using different intensities of these enables the CRT to produce absolutely any colour imaginable. Plugging your computer into an RGB compatible display unit will show a marked improvement on *any* RF connection. This is because RGB is the *raw* signal, with no modification and no filtering.

Some computers, such as the Commodore 64, produce a signal called composite video. This signal has been modified and so needs to be decoded, but the modification is not as severe as RF and the picture quality is somewhere between the two.

◆ The options

Choosing a monitor can be a difficult task. Each one has something different going for it, whether it is display quality, price or adaptability. This report takes a look at those monitors which will suit Spectrum, Commodore 64/128, Amiga and ST and excludes those for PC systems, on the grounds that

An overview of all the major monitors available for your home micro by Andrew Banner.

there are many hundreds of different monitors and the article would have to occupy the majority of the magazine!

Today, many portable and larger television sets are equipped with a SCART connector. This is supposed to be a pan-European standard connector for monitors – somewhat like the connections for Centronics printer ports. However, each company has its own idea of what the standard is, and consequently each one is slightly different. The SCART plug has 21 pins, including Red, Green, Blue, audio and sync connections. The SCART device also has inputs for composite video. However, what is not standard are the voltages which are expected by the equipment, so some units require electrical resistors in the circuit to avoid damage to the equipment.

If you are looking for a television with a SCART socket, the Sony portables are a very good buy. These all use flat square tube (FST) technology and carry the Trinitron trademark. There are currently three portables – all looking the same. The first is a push-button set at about £229, the second is a remote control model at about £259, and the last is a remote control teletext unit at about £279.

Other televisions currently available in the High Street chain stores include the Mitsubishi 1525TX. This typically costs £299 and is a 15in. FST teletext unit with remote control. It provides a very good picture, although it is no real match for the Sony models.

Philips also produces two portables which include a SCART input. The 1500 is a remote-controlled teletext television with a standard rounded 14in. tube which is darkened to increase contrast. This model is typically £229 while an FST model with slightly upgraded features costs about £279.

▲ **Above: Commodore monitors with SCART connector are compatible with the C64, PC ranges and the Amiga.**

▼ **Below: Philips is known as the world leader in computer monitors, but only the CM8833 remains.**

The prices of the television sets are based on what you would expect to pay in a typical High Street store, such as Dixons, Comet or Argos. There are many other SCART televisions on the market, although most of these are larger sets.

Philips is also the world leader in the production of high-quality computer monitors. Until recently, Philips had a fair number of monitors for home computers, but today only one remains, the CM8833. This unit uses the SCART connector and so can be connected to any machine listed above. In addition, it can also be used with a CGA PC. It retails at £249.

The Commodore offering is a neat-looking colour monitor whose controls are hidden behind a front swivel panel. The 1084 is a 14 in. colour monitor which is very versatile, and includes a SCART connector for convenience. The 1084 is compatible with the C64 (with a Composite Video input) and the PC range, and is especially good for the Amiga as it includes a stereo sound output. It will set you back £299.

Atari also produces monitors, although only for the ST. The SC1224 colour monitor uses a 12 in. tube and has controls mounted on the

● The Atari SM124 monochrome monitors complements the ST's high resolution in mode.

■ The Atari SC1224 colour monitor displays its crystal-clear definition.

side for on/off/volume, brightness and contrast. From the back comes a cable terminated by the dreaded 13-pin DIN to plug it straight into the ST. The picture quality is very good, with crystal clear definition. However, the display distorts very slightly because of the bowing of the tube. Nothing to worry about though. The SC1224 costs £299.

The second monitor from Atari is the ST-dedicated SM124 monochrome monitor to complement the ST's high resolution mode. This is a paper white phosphor 12 in. screen which has anti-glare properties. For £149, the serious ST owner gets a superb monitor. The SM124 is ideal for word processing and DTP applications, in fact just about anything except games.

So if you are going to treat yourself (or a relative) this Christmas, and you intend to buy a TV monitor, do make sure that you can use it with the intended computer, as there are many different RGB systems. All the sets mentioned in this report will work with the computers named above. □

◆ Philips produce two high quality portable TVs with SCART inputs.

Table 1. Comparison of a number of major offerings.

Make/ Model	TV/ Monitor	Price	Scart	Colour/ Size	Mono	Resolution
Sony	TV	£229–£299	Y	14″ FST	Colour	N/A
Mitsubishi 1525TX	TV	£299	Y	14″ FST	Colour	N/A
Philips 1500	TV	£229	Y	14″	Colour	N/A
Philips 1550	TV	£279	Y	14″ FST	Colour	N/A
Philips CM8833	Monitor	£249	Y	14″	Colour	640X285
Commodore 1084	Monitor	£299	Y	14″	Colour	640X512
Atari SC1224	Monitor	£299	N	12″	Colour	640X200
Atari SM124	Monitor	£149	N	12″	Mono	640X400
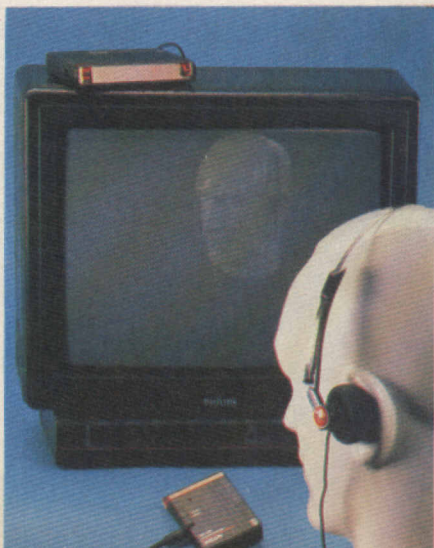
YOUR COMPUTER

ST

Music software writers are an incurably optimistic lot. Even though the market for the Atari ST is saturated, they continue to produce new sequencers for it.

If these are to succeed, they must either contain interesting new ideas, or offer extremely good value for money – and preferably both.

■ **Sequencer One from Gajits with 32 tracks.**

The latest contender is a package from a new British software house called Gajits. With *Sequencer One* they have chosen to emphasise good value rather than originality.

For £79 you get a well-specified and easy-to-use GEM sequencer with 32 tracks and a respectable 192 divisions per crotchet resolution.

Two of the program's three main screens – step and bar edit – will look familiar to anyone who knows Passport's *Master Tracks* sequencers, while Steinberg own-

ers will recognise the "bouncing bargraph" display (which shows activity by MIDI channel rather than by track). Sequencer One is controlled by using the almost obligatory tape-deck buttons (but has no pause button). You can record either in an open-ended mode or by looping around a specified section. Step-time entry is offered on the step-edit screen and allows you to input single notes using the mouse, or chords via a MIDI instrument.

The step-edit screen depicts all the notes in one track as a series of lines which march past a vertical piano keyboard as the sequence plays. The length of a note-line indicates the note's duration and its vertical position shows the note's pitch. Individual notes can be edited by clicking on a note-line. This opens up a box indicating the note's pitch, velocity and timing, all of which can be altered. You can also edit tracks globally to perform operations such as quantisation, transposition, time-shifting, velocity scaling and data-thinning.

On the bar screen, ten tracks at a time are depicted as bar-sized blocks, which can be cut, copied, pasted and deleted to arrange a song. It is a tried-and-tested technique that works well.

In addition to the expected filtering functions, Sequencer One also allows you to convert one type of MIDI information to another. So, for example, you could use a modulation wheel to control panning.

Most of Sequencer One's competition comes from cut-down versions of up-market synthesizers. Compared to them, Gajits' program has the attraction of having few significant omissions. One irritation is that there is no events list or graphics screen for studying or editing MIDI data other than note events. Another is that a lot of numeric data has to be entered via the QWERTY keyboard rather than by using the mouse.

On the credit side, the program supports standard MIDI files so that files can be ported to other sequencers and to score-writing programs. Another plus is that

● **The obligatory tape-deck controls are used.**

Gajits is planning a range of synthesizer voice-editors, which will operate as desk accessories with Sequencer One.

Commendably, the company is running a MIDI helpline for its customers.

Sequencer One may not break new ground but it is unusually well specified for its price.

It deserves to find a niche in the market.

● Gajits, 28 Dennison Avenue, Withington, Manchester M20 8AF. Tel: 061 434 2768.

Tony Sacks

PCW

It is bargain time for PCWers. Who would ever have thought you could pick up a brand new Amstrad PCW 9512 for £350 plus VAT. Morgan Computer Company in London are offering the 9512 at this discount price, but note, the price does not include a sheet feeder. They assure me that they have plenty of PCWs, but it is probably best to call Morgan first on 01 255 2115 or 01 636 1138. Are Morgan offering the cheapest 9512 in the country?

Locomotive will be having a special New Year offer. Their best-selling LocoFile and LocoMail are

being put together in a special bundling offer of £49.95, a saving of £20. Call 0306 740606.

SCA Systems has released the *RamPac*. The RamPac will boost your PCW with an extra half megabyte to play around with, and plugs onto the PCW's expansion port. SCA Systems has tested the RamPac with a number of software packages including Loco-Script and has passed the Loco-Script's RAM test with no problems. More details from SCA on 0903 700288.

Looking for A level educational software for the PCW? Check out Akadimias Software who do over 20 titles, covering History, Social Science and English Literature. These multiple-choice revision aids would make an ideal treat for any A level student who owns, or has access to a PCW. Telephone

Akadamias on 0248 351151.

A new low-cost copy holder aimed at PCW owners has been launched by Major Products. The Handy Holder costs £5.95 and is a free-standing black plastic product which has non-slip feet, so you can attach it anywhere. Ring 0727 36373 for more information.

Just had a look at the new PCW Challenge games compilation from Artronic. Four games for only £14.95 is not too bad, but why did Artronic decide to include *Strip Poker*. The other three games are Flight Simulator-like *Ace*, Space Invaderish *Skywar* and the car racing *Formula 1* are quite good fun to play, Ace being the pick of the bunch. This would have been ideal for all the family, but Strip Poker marrs what could have been a recommended buy.

Lesley Bunder

AMIGA

What's wild, zany and completely zar jaz and comes from a certain company who's named after a furry camel-like creature? No, it's not Jeff Minter, but his creation – *Trip-A-Tron*, now available on the Amiga and released at the recent Commodore Show.

But what is this 'ere Trip-A-Tron thingimejig? Don't sound much to me! But it is. In the same way a musician produces synthesized sounds on a keyboard, a computer-user can produce light trails on an Amiga (or ST).

Trip-A-Tron produces light on VDU screens. It does this by lighting certain pixels with certain colours which eventually form a shape. The colours can be rotated to give a fleeting effect and the whole shape can be moved with the mouse to produce trails. That's the easy bit. More in-depth, the software provides many functions including two laser effects which can be edited using what Minter calls the "Sillyscope". Other more advanced functions are colour editing in the aptly named Colour Cooker, pattern editing and KML.

KML is Trip-A-Tron's built-in language. Using it allows programs to be written which can be assigned to certain keys. Once the key is pressed, the program is activated. KML gives access to all functions and can be used for regular shows or just for personal pleasure.

Trip-A-Tron is, indeed, a fantastic program. It is operated from a front panel which gives access to all functions. However, the video sequencer and starfield generating options are not available to users with half megabyte Amigas. If you take it seriously, you could become quite adept, otherwise it is a great soothing tool. Try it to some of your favourite music, Val Doonican is great.

● Contact: Trip-A-Tron £34,95, telephone: 07356 4478.

STOP PRESS . . .

If you purchased Trip-A-Tron on the Amiga at the Commodore Show, please phone Llamasoft as a bug has been discovered. They will supply free upgrades.

Andrew Banner

SCREEN FX – C64 *by Carlton Davis*

The following little Machine Code program will fill the whole screen (including the border) with raster-type bars. It then rapidly moves them about. Although this program has no technical use, with it you can produce some stunning effects. Just enter the program as below where:

A=any number between 0-255
B=any number between 1-254
C=any number between 0-255
D=any number between 0-255

Some combinations of numbers, however, produce just a blank screen. It's best to experiment. As I said above, with some numbers you can produce amazing effects. Some numbers produce such an effect that it makes you think you're looking at over 100 colours!

Also pressing keys like RUN/STOP or SPACE will also change the effect.

Pressing RUN/STOP-RESTORE will terminate the program. To restart it just type RUN.

A good effect I found is if you enter the values as:
A=002
B=201
C=101
D=255

```
0 REM SCREEN FX BY CARLTON DAVIS
1 REM (C) 1989
2 FORN=49152 TO 49175:READA:POKEN,A
3 NEXT:SYS49152
4 DATA 169,011,141,017,208,169,000,141
5 DATA  A ,208,105, B , C , D ,240,245
6 DATA 141,032,208,076,007,192,000,000
```

PUZZLE

Jamie had been calculating some of the powers of the number 7:

Seven to the power of 1 = 7
Seven to the power of 2 = 49
Seven to the power of 3 = 343
Seven to the power of 4 = 2401
Seven to the power of 5 = 16807
Seven to the power of 6 = 117649
Seven to the power of 7 = 823543
Seven to the power of 8 = 5764801
Seven to the power of 9 = 40353607
Seven to the power of 10 = 282475249
Seven to the power of 11 = 1977326743

He was particularly interested in the pair of sevens appeared as adjacent digits in the value of 7 to the power of 11. Further calculations revealed a group of *three* consecutive sevens in 7 to the power 31:
15777538203484580661504 2743

This fired Jamie into making a more thorough investigation into larger groups of consecutive sevens.

"The possibility of seven or more sevens must be pretty remote," thought Jamie, "but I should imagine that a run of six consecutive sevens should be fairly easy to find!"

Can you help him in his search? That is, can you find a power of seven in which, somewhere along its length, there are a group of six neighbouring sevens?

LAST WEEK'S SOLUTION

Across
2) 394
5) 598
6) 9726
7) 301

Down
1) 1293
2) 3570
3) 992
4) 4863

From the number of digits in the grid we can see that the first purchase (4 down) is a four-digit sum (in pence). As this was *half* of the amount initially obtained from the bank, the initial sum must be in the range of 2000 to 9998 pence and, as it has to be split exactly in half, the number must be even.

This is set in loop A (line 100). The last digit of the sum must also be the same as the third digit of the cost of the coat since these two values interlock on the grid. This is tested at line 120. Once a possible pair of values has been found the third value (the cost of the trousers) is introduced using loop C. This also interlocks with one of the values already in the grid and so is checked in line 140. From this the remaining cash can be calculated together with the possibility of fitting this amount into the grid (lines 150 to 170).

Each new value is introduced in turn either by using a FOR/NEXT loop or by "building" the missing number around any digits already in place on the grid – for example, in line 180. By continuing in this way all possible grids are built up until one is found in which all interlocking values fit.

```
The full value of 7 to the power 175 is:

78011207912208158102404641279111
80777777718818200693263611118396985
71603885844026671779915606471699
89331265664440734763224855471649
493995391258643 7943

100 P$="":N$="1":P=0
110 CARRY=0:FOR F=LEN(N$) TO 1 STEP-1
120 V=VAL(MID$(N$,F,1))*7+CARRY
130 CARRY=INT(V/10):V=V-CARRY*10
140 P$=STR$(V)+P$:NEXT F
150 IF CARRY<>0 THEN P$=STR$(CARRY)+P$
160 P=P+1:N$=P$:P$="":PRINT P;" ";N$
170 Z=INSTR(N$,"777777")
180 IF Z<>0 THEN END
190 GOTO 110
```

```
100 FOR A=2000 TO 9998 STEP 2:A$=STR$(A)
110 B=A/2:B$=STR$(B)
120 IF MID$(A$,4,1)<>MID$(B$,3,1) THEN 290
130 FOR C=1000 TO B:C$=STR$(C)
140 IF MID$(A$,2,1)<>MID$(C$,3,1) THEN 280
150 D=B-C:D$=STR$(D)
160 IF LEN(D$)<>4 THEN 280
170 IF MID$(A$,1,1)<>MID$(D$,3,1) THEN 280
180 FOR E=0 TO 9:E$=MID$(D$,4,1)+MID$(C$,4,1)+STR$(E)
190 F=D-VAL(E$):F$=STR$(F)
200 IF LEN(F$)<>3 THEN 270
210 IF MID$(A$,3,1)<>MID$(F$,3,1) THEN 270
220 G$=MID$(C$,2,1)+MID$(F$,2,1)+MID$(B$,2,1)
230 H$=MID$(C$,1,1)+MID$(F$,1,1)+MID$(B$,1,1)
240 IF F-VAL(G$)<>VAL(H$) THEN 270
250 H=VAL(H$):IF H/2<>INT(H/2)THEN 270
260 PRINT A$;" ";B$;" ";C$;" ";D$;" ";E$;" ";F$;" ";G$;" ";H$
270 NEXT E
280 NEXT C
290 NEXT A
```

TECHNOLOGY

ACSII CONTROLS

K Menzies of Southampton writes:

Q I have noticed in the ASCII code characters that those numbered less than 32 are control codes. Some of these, such as CR, LF etc., are pretty obvious in their function. What I would like to know is what the others such as SOH, ETX, ENQ etc., mean?

A Many of these codes are not used for their standard purposes in most computers. For example, SOH – Start Of Header – or ASCII 1 is not used to signify the start of an information header very often. It can mean many things depending on the system.

The ASCII character set was originally developed specifically for communications purposes and many of the control codes relate to this – their use in computers is relatively recent and was simply the most convenient way of representing characters as numbers. A full list of control codes is given in the table.

Code	No.	Meaning
NUL	0	NULl character used to hold lines open and fill up space in standard size blocks.
SOH	1	Start Of Header defines the start of an information header which gives info about the upcoming message.
STX	2	Start of TeXt is used to seperate the header from the message.
ETX	3	End of TeXt is the last character in a text message.
EOT	4	End Of Transmission is the last character in a message.
ENQ	5	ENQuiry requests an identification message.
ACK	6	ACKnowledge replies Yes to an enquiry.
BEL	7	BELl causes a beep or a bell to ring.
BS	8	BackSpace moves the cursor back one place usually without deleting.
HT	9	Horizontal Tab moves the cursor forward to the next tab position.
LF	10	Line Feed moves the cursor down a line, usually without moving to the start.
VT	11	Vertical Tab moves the cursor down to the next line defined as a vertical tab position.
FF	12	Form Feed moves the cursor to the start of the next page – on a printer this means the next sheet of paper and on a computer it generally clears the screen and moves the cursor to the top left (home).
CR	13	Carriage Return moves the cursor to the begining of the current (sometimes next) line.
SO	14	Shift Out causes an alternate character set to become active.
SI	15	Returns to the standard ASCII character set.
DLE	16	Data Link Escape switches to an alternate set of control characters.
DC1	17	Device Control 1 is not defined in standard ASCII but is generally used in XON/XOFF protocol communications as Go (Control+Q).
DC2	18	Device Control 2 is not defined.
DC3	19	Device Control 3 is not defined but is generally used as Stop (Control+S) in XON/XOFF protocol systems.
DC4	20	Device Control 4 is not defined.
NAK	21	Negative AcKnowledge is used as a 'no' reply to an enquiry.
SYN	22	SYNchronous idle is used to synchronise sender and reciever before messages are transmitted.
ETB	23	End of Transmission Block is used to seperate blocks of data.
CAN	24	CANcel informs the reciever that everything previously sent is to be ignored – someimes just the last line.
EM	25	End of Medium is used to denote the end of a file.
SUB	26	SUBstitute character used instead of others.
ESC	27	ESCape is usually used to define long control sequences such as character re–definitions or graphics.
FS	28	File Seperator.
GS	29	Group Seperator.
RS	30	Record Seperator.
US	31	Unit Seperator.
SPC	32	SPaCe the first 'printable' character.
DEL	127	DELete last character and move the cursor back a space.

ASCII Control Codes and their standard meanings.

CPC TO Z88

Dr. J Drozd of Sittingbourne, Kent writes:

Q I own an excellent Cambridge Computer Z88. I also own an Amstrad CPC6128. Can I transfer files between my Z88 and my CPC – especially text files and a) archive them on my 3 inch discs for my CPC? b) edit/work on them with my CPC?

What wordprocessor program should I use with my CPC if this is the case? Possibilities might be Tasword, Brunword, Mini-Office II, Protext, Protext CP/M?

Can I also do a similar transfer between a Z88 and an Atari ST such that one can work/edit the files on the ST?

A The first thing you need is some way to link the two machines. The way to do this is with an RS232 serial link which the Z88 has fitted but the 6128 does not. There is a number of interfaces available for the Amstrad, all of which are pretty similar – try the Amstrad RS232C interface. Next you need a cable but this should be reasonably easy and probably available from the dealer you buy the Amstrad interface from.

Finally, you need some software to perform the transfer. The Z88 should have this already and you should be able to get some software for the Amstrad from one of the Public Libraries – you are looking for a terminal program that can cope with file transfers. Once you have the connection up and running you should be able to transfer files quite easily.

I have not really used the Z88 and Pipedream so I cannot say for sure if it is possible to create ASCII files. These are files that contain no control codes for formatting, ruler information, and the like; they hold just the text of the file and nothing else. If you can produce these and transfer them across the link then almost any wordprocessor will be able to edit them. There are two main types of wordprocessor program on the 6128, those working from the Amstrad Basic side (not necessarily written in Basic) and those running under CP/M. If you find that it is easier to transfer files to the CP/M side of the machine then you would probably be better off getting a CP/M based wordprocessor.

With regard to the Atari ST, things are a little easier since the machine has an RS232 port built-in as standard. You will probably need some software to perform the transfer but again, this is easily obtained in the public domain.

Question Time

Question Time

TECHNOLOGY

PC DISC FIX

G W P Mason of Bainsford, Falkirk writes:

Q I write in response to A. Wilson of Northampton's letter about floppy disc problems on his Amstrad PC 1512 (*Pop* Oct 28). I have come across the same problem with my Amstrad 1640, even with discs formatted on different machines and, although I am not sure what causes it, I have found a simple solution.

All you do is very carefully hold the floppy disc by a corner so as not to squeeze the magnetic media, insert two fingers of the other hand *carefully* into the hub ring and separate them

to grip the disc hub; rotate the disc slightly (say about 15 to 45 degrees, just by feel). Put it back into the drive and set a directory listing (type DIR). If this doesn't work try it again. It worked first time for me on both occasions that I had the problem.

Once cured, it doesn't seem to appear again.

It's an odd problem when a disc goes off like this, even one in use, as happened to me. You get disc error messages such as bad sector or FAT error and neither PCtools or Norton Utilities can make anything of it, giving sector not found or similar messages and suggesting that the disc is faulty. A quick quarter or half turn

seems to fix it without any problem, as if the disc had stopped out of line somehow. I have had this happen on a disc in an Epson PC as well, which was last used in my Amstrad so it may well have been the Amstrad disc drive.

As I was using the disc to transfer programs developed at home to a machine at work I could hardly reach for a spare disc! I hope this solves the problem for Mr. Wilson.

By the way, does anyone know where I can get a decent COBOL language for my PC? I've written to several PD libraries with no joy except for UTAH COBOL at £40 and Microsoft at £500 which I can't afford.

A Your solution reminds me of a trick I used to use on an old Torch Pack I used in the days when I worked on *Personal Computer News* (a long dead weekly). The disc would sometimes not line up properly with the drive. The trick was to put the disc in the drive but delay closing the door until the drive started turning, achieved by typing DIR. Flipping the door quickly shut got the system to read the drive before a disc not present error could be generated.
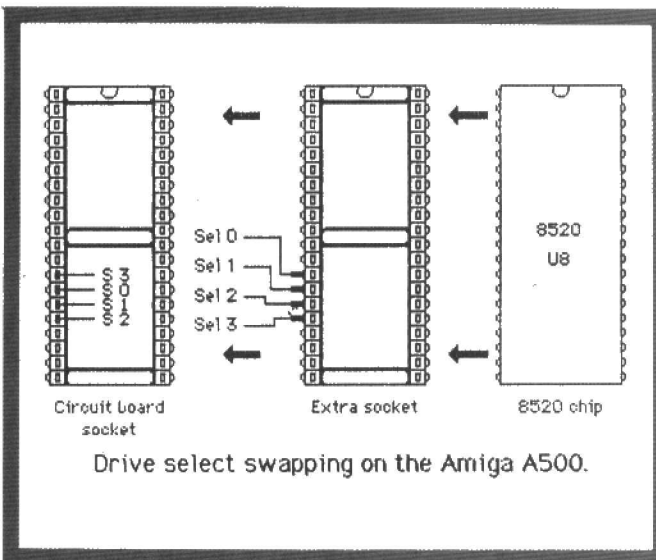
I don't know of any cheaper COBOL's than Utah but perhaps our readers know better?

A500 DISC CHANGE

Marc Francois of Manor Park, London, writes:

Q I have an Amiga 500 (V1.2) and recently I have witnessed some nasty things happening to some of my friends internal A500 disc drives.

I use disc operations frequently and I would like to take a lot of strain off my internal drive. Is it possible to connect an internal 3.5in. disc drive to the A500 but hook it up so that at the flick of a switch, the Amiga takes the external drive as DF0: and reads data off it as though it were the internal drive?

Drive select swapping on the Amiga A500.

```
A:    Device  = trackdisk.device
      Unit    = 0
      Flags   = 1
      Surfaces = 2
      BlocksPerTrack = 11
      Reserved = 2
      Interleave = 0
      LowCyl = 0 : HighCyl = 79
      Buffers = 20
      BufMemType = 3
```

Figure 1 - a device specification to make DF0: also A:

If this is possible could you please also tell me if any of the currently available 3.5in. drives can be used for this purpose and if so, which ones?

A I would have thought that any problems with the internal disc drive will also crop up with external drives so changing them over has no real advantage. The main thing to watch is that you NEVER remove a disc while the yellow light is on – this almost always messes up the disc.

If you really want to spread things around the discs, the

books that document Workbench 1.3 say that it is possible to make the Amiga swap its drives over via software. I have to admit that I cannot get it to do this and would like to know, so, if any readers have the secret I would much appreciate a letter so that I can pass it along.

It is possible to add names to the drives, eg, make DF0: also respond to A: or even DF3: – but dismounting a drive does not seem possible so changing DF0: to DF1: and vice versa does not work (as far as I can see).

If you get hold of WB 1.3 you can look in the mountlist file (in DEVS) and see that the last entry gives a device specification that can be changed and mounted. Figure 1 shows a specification that can be used to refer to drive 0 as A:. The Unit is the drive number and A: the name. These can be changed to allow the name to be used on any of the drives. Use MOUNT A: to install it and type DIR A: to see that it works. The trick now would be to dismount DF0: and then rename DF1: as DF0: – however, I cannot find a way of doing this.

FEEDBACK

HOLD ON TO
by Vincent Wong
THAT PENICILLIN

THERE have been pages and pages written in magazines in the past year about computer viruses. These articles cover theory and practice, how to get rid of one, the sort of people that write them and best of all the quite exciting and interesting things that viruses do. I must say that some of them seem quite witty.

What we do not have is any coverage of how to pick up these rather desirable little bugs. Say for instance I wished to have a little computer ping-pong ball bouncing about on my screen, or I wanted to delete my files every Friday 13th, how would I do it?

Because of this, and also with the holiday season looming (even Taoists celebrate Christmas) I have decided to act as agent for some of the less well-known viruses. All you have to do is send me a fiver through the post and I will see what I can do for you. Name the viruses you require selected from the list below.

● *Shareprice*

This one is available to Amstrad owners only. Originally propagated through machines which have been returned for repair, it should eventually become quite a hit when any of these machines are returned.

Over a period of about a year, you will notice numbers on your computer declining steadily. Shareprice is doing this. In about a year they will be half what they are now.

● *Prizedraw*

A joy for anyone who has managed to understand e-mail. This little critter generates large amounts of junk mail which is whizzed around to all your friends whether they like it or not, informing them that they have been selected for a prize draw, hurry, hurry, bring your dog, etc.

The workings are based on that well-known computer principle, the Pseudo Random Number. Random, because you never know when it will strike, and Pseudo, because you always win.

Imagine the surprise when your friends' mailboxes are packed with files beginning "Dear Mr WONG well you and your family at POPULAR COMPUTING WEEKLY must be very proud, as must your fellow COMEDY JOURNALISTS . . ."

● *Trainspotter*

The essential add-on to Prizedraw. All mailshots are subtly altered to contain a letter which informs the victim that he or she has *not* been selected for a mystery free gift. Use it with care, it can be quite upsetting to people who have the sneaking suspicion that they are nasty spotty nerds and horrible failures.

● *Cashtill*

If you ever wait at cashtill queues, then you will appreciate that there are always two people talking about how the cashtill runs out of money when they get to the front of the queue. This is a lie. They have never been in that situation and neither have most people. It is just a harmless attempt to dramatise their otherwise fairly dull life by reporting imaginary incidents.

Cashtill does the same for your computer. If you have been doing the same thing on an infected piece of technology for too long, for instance flying several hundred missions on a flight simulator without breaking off to eat or sleep, the computer reports an entirely imaginary fault. There is nothing wrong with the hardware, it just gives the computer a chance to add a bit of drama to a drab existence.

Reported errors tend to be the most obscure possible, using the word "fatal", as much jargon and as many hex addresses as the computer can handle. A riot.

● *Fruit again*

Er, still in production this one. But bananas you want and bananas you shall have. Shipping by first quarter next year.

So keep the cash coming, and get a slice of one of computing's great innovations. Catching a virus is a great conversation piece. Remember, if you use it to win friends at Christmas parties, make sure those involved know that it is the computer with the virus, not you. □

. . . a sneaking suspicion that they are nasty spotty nerds and horrible failures.

COSMO

by Jules

Panel 1: INTERESTING GAME COSMO BUT YOU'RE NOT DOING VERY WELL — HMM . . .

Panel 2: WOT'S IT CALLED?

Panel 3: "ESCAPE FROM THE KITCHEN AT PARTIES"!

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