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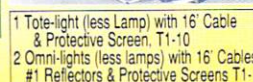
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# C o n t e n t s

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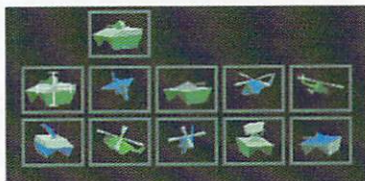
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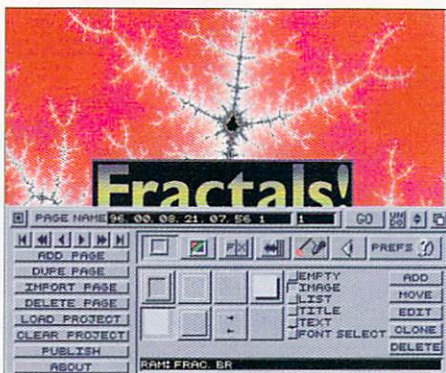
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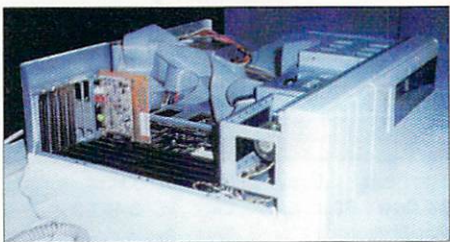
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# THE COVERDISKS

## NEMAC IV DEMO

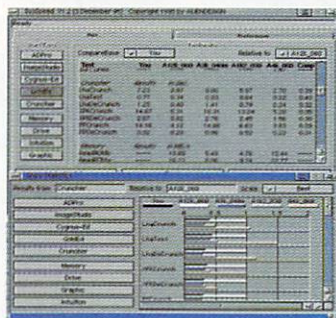
Get ready for a blasting frenzy with this exclusive Amiga Computing cover disk demo of the latest Doom clone. Take control of a walking armoury and blast those evil robots to hell



## UTILITIES UNLIMITED

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SysSpeed, XPKantana, MonEd, Lha-Gui, MultiCX 2.41, MUI MCX Prefs, ETrashcan, Screen Keys, Iconify Gadget, UrouHack, XPK Datatype, Move, Eyes, BioDay and Loves

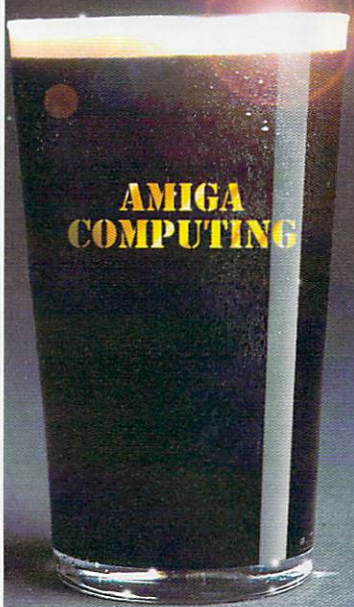


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Paul Austin runs through how to get the best from Metaform

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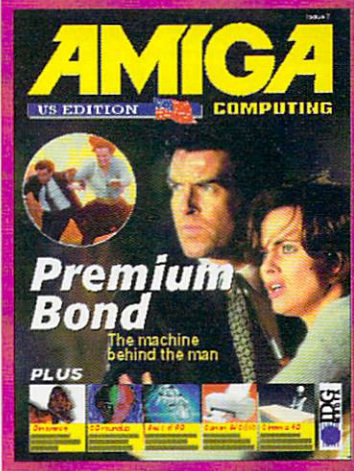


Gary Whiteley looks at standards in TV and how they affect production

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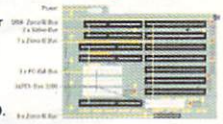
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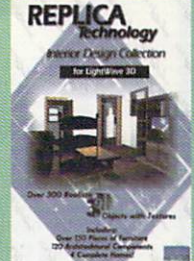
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**P**iracy! The mere mention of this word leaves Amiga owners groaning with despair. The piracy debate is almost as old as the Amiga itself and practically every stance has been argued to the death with the result that very little has actually been done.

The warring factions can be split into two distinct groups – the computer games industry and the Amiga user. The industry blames casual and organised piracy for the diminishing of Amiga software and lack of future development, while the user blames the computer games industry for charging extortionate prices per unit. While both theories can be considered correct to some extent, there is another slice to the pie that both sides, and especially the computer games industry, have failed to recognise, and that is the actual quality of Amiga software.

It would seem that the success the Amiga has brought has, in the end, been partly responsible for its downfall – as the industry has become more wealthy so they have distanced themselves from the end user. There has been very little after-sales support for Amiga owners and before the demise of Commodore it seemed our machine was being used as a testing ground for PC conversions and PC future development.

### INCOMPATIBILITY

A classic example was B17 from MicroProse. This game crashed left, right and centre on the Amiga while the PC version played like a dream. When questioned about the incompatibility problems, MicroProse told me that they didn't support Amiga third-party hardware such as accelerators and FastRAM. What! The PC has more third-party hardware than any other computer in existence yet there were no visible problems with this version of B17.

The obvious conclusion to be drawn from this example is that MicroProse rushed the Amiga version through, resulting in faulty goods being released to the public so they could spend more time on the PC version. However, MicroProse aren't the only ones to blame. There are other big name companies who have done exactly the same.

Another good example of rushed software was Reach for the Skies from Virgin. I

# The money men

amiga  
comment



**Steve White** airs his views on piracy and the way of the Amiga

actually participated in the bug testing of this product (for free) and on average found ten times as many bugs as the actual quality control department at Virgin! When the game was finally released most of the bugs remained and I completed it in one day at the hardest level. What annoyed me most was that I paid £35 for this game – money I may as well have thrown down the drain. If I had known about this I certainly would not have bought it.

As mentioned before, these companies are simply two examples from a catalogue too vast to include here but the problem is

spread throughout the computer games industry. And this is really my point. What is the incentive in buying software that is faulty when you can get a copy of it for a fraction of the cost? Had someone offered me a copy of Reach for the Skies I would have found it very difficult to say no.

Obviously, testing a game so that it is entirely bug-free is not always possible. However, if you've ever perused the contents of a cover-mounted PC CD you will have noticed the myriad of bug patches for PC software. Why has the Amiga never been supported like this? Because the industry couldn't give a fig about Amiga owners, that's why.

When Doom was released on the PC the computer games industry said it couldn't be done on the Amiga, yet now they have all but abandoned our machine we see new developers springing up all the time with Doom clones galore that are just as good as their PC rivals.

In my opinion the problem really boils down to ignorance and greed. The computer games industry as a whole has become so obsessed with advertising, deadlines and profits that the end-user has become merely a statistic – especially if you own an Amiga!

AS

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Tel: 01625 878888, Fax: 01625 850652

E-mail contacts:  
Editorial edit@acomp.demon.co.uk  
Advertising ads@acomp.demon.co.uk

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# EXCLUSIVE NEW PRODUCTS

## JUST RELEASED FROM COMMODORE

### A500+ (REVISION 8A) POPULATED MOTHERBOARD

This is your last chance to get this factory new, latest revision, high powered motherboard. Use it as a spare, an upgrade or just for parts.

The revision 8A A500+ is an enhanced ECS version WITH 1MB MEMORY on board. Expandable (via trap door) to 2MB just like the DKB MegaChip at a fraction of the cost.

On this latest revision board is a real time clock, (RTC) with battery and includes the newest chips: 1- 2MB Agnus, 2- 8520 CIA, 1 Paula, 1 Gary, 1 Denise, latest 2.04 O/S ROM, 1 68000-8 CPU, 8 - 256 x 4 DRAM. If you purchased these chips alone they would cost you \$191, plus the cost of the motherboard.

**NOTE:** These same chips are original replacements for the A2000 series. Comes with a 90 day warranty, the Final Test system and PAL/NTSC diskette. (Runs both NTSC or PAL)

### Accessories for Above

- 3.1 O/S ROM (Installed) in above board.....add \$44.95
- ICD AdRam 510+ is a 1MB expansion board. When plugged into the trap door gives you 2MB of memory, equivalent to the DKB MegaChip.....\$59.95
- Amiga A500+ complete service manual (normally sells for \$17).....\$7.95

**\$69<sup>95</sup>**

## ADVANCED AMIGA ANALYZER™

AN INEXPENSIVE DIAGNOSTIC ANALYZER THAT WORKS ON ALL AMIGAS

A complete diagnostic hardware and software analyzer (uses point and click software interface.) The analyzer cable plugs into all Amiga ports simultaneously and through sophisticated software, displays 8 screens to work from. Shows status of data ports, memory (buffer) checker, system configuration and auto test. Reads diagnostic status of any read/write errors from track 0 to track 79. Software automatically tells what errors are found and the chips/components responsible. 85 to 90% of the problems presented to service centers are found with this analyzer. Saves you lots of money on repairs and no end user or repair shop can afford to be without one. Don't be fooled by its low cost. Simply plug in cables from the analyzer box. This diagnostic tool is used by end users and Amiga repair centers worldwide and is the only one of its kind.

**\$69<sup>95</sup>**

•• New 2.0 Version ••

## JUST RELEASED FROM COMMODORE

### AMIGA CD<sup>32</sup>



CD32 is a powerful 32 bit console with dual speed CD ROM drive - 16.8 million colors - plays audio and CD plus graphics CD - eleven button controller. Comes with **Global Conquest & Defender of the Crown** plus a list of other heavily discounted programs. Includes a 90 day warranty. Also includes new special "switching-type" high amperage output power supply. Runs cool and is ideal for adding on SX-1 Expansion module. (PAL units also available.)

New Low Price

**\$195<sup>85</sup>**

### SX-1 EXPANSION MODULE

Transforms your CD32 into a high powered multimedia computer system. Effectively turns the CD32 into a fully functional A1200 computer with up to 8 MB of RAM. Optional accessories: Black keyboard, internal IDE hard drive and floppy (uses all A1200 software).

New Low Price

**\$199<sup>00</sup>**

## COMING SOON - ORIGINAL (LOW COST) AMIGA A1200 COMPUTER

### ★ HOT NEWS ITEM ★

Commodore GmbH Germany has liquidated its entire Amiga inventory. A large amount of that stock was purchased directly by Paxtron U.S. Until our shipment arrives by sea freight, we have flown in some hot items:

- A501 512KB Memory Expansion Card with clock, calendar/battery for A500 computers. Includes instructions and warranty.....\$19.95
- A520 Video Modulator Adapter Kit with cables and instructions (NTSC). Run any Amiga on your television.....\$13.95
- C64 (NTSC) Motherboard with all chips and 90 day warranty.....\$29.95

**Paxtron**  
CORPORATION

28 Grove Street, Spring Valley, NY 10977  
914-578-6522 • 800-815-3241 800-595-5534 • FAX 914-624-3239  
Hours: 9-5 pm EST • Add \$5.00 UPS Charges • MC/VISA • Prices subject to change





# NEWS

By Tina Hackett

## CHRISTMAS SALES DISAPPOINT

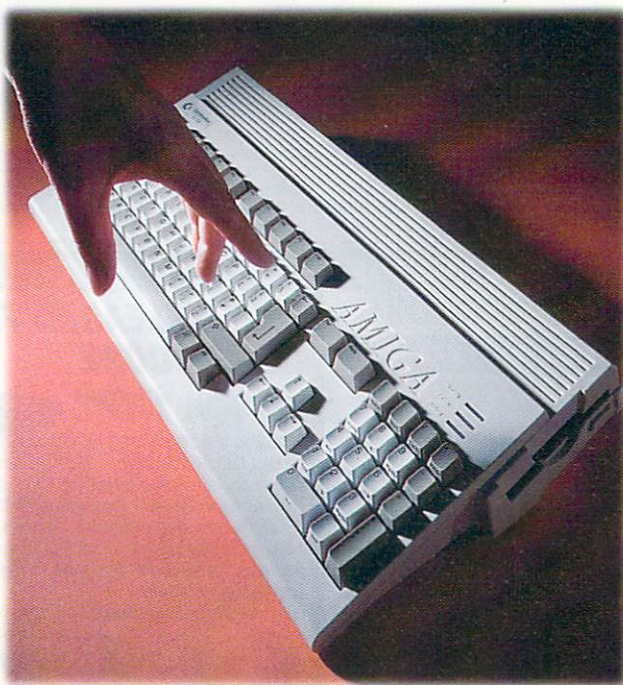
**R**eports from retail point to a slow reaction from consumers over what was hoped would be a bumper time for Amiga sales. After the many positive announcements we've had lately from Amiga Technologies, it comes as a blow for the hopes of a full scale Amiga comeback just yet.

Compatibility problems, SDL's troubles and absence of marketing have all been blamed for the lack of enthusiasm from consumers.

Amiga Computing talked to Dale Bradford, General Secretary of the National Association of Specialist Computer Retailers. He remarked: "The Amiga didn't have a good a Christmas as perhaps a lot of us had hoped. It's just so unfortunate that they got hit by the incompatibility problems. I think this scared retailers off because although traditionally they sold a lot of Amigas, what they don't want is to have problems after Christmas with people bringing back machines saying they want refunds."

We asked him what Amiga Technologies should do to get the Amiga back on its feet. "They must get the retailers stocking them with confidence again and part of that would be sorting out the incompatibility problem, but also a bit of marketing would not go amiss either."

However, another problem is that the Amiga is only available from multiples like Tandy and Escom. Bradford agrees; "If they could get the independents to stock it and support it again then that would help a great deal. That's where they [the Amigas]



Christmas sales proved disappointing for the Amiga

came from originally because none of the multiples would touch them back in 1986 or 1987. It was the independents who helped to push them onto the market place."

The fact that the Amiga was bought by Escom is also seen as an obstacle by some retailers. Bradford said: "One of the biggest problems now is that they're owned by

Escom and it may be small-minded but there are people out there who are saying 'I'm not going to help increase the profits of someone who is cutting the arse out of the PC market'."

John Smith, General Manager of Amiga Technologies offered: "At the end of the day, if the Amiga had to survive somebody had to purchase it. We are a totally separate entity in the way we run. We have to make our own profits. The Amiga is a great product and we've brought it back, hence, now, the move into the surfer pack and I would hope more independents would take the view that we all love the Amiga so much - let's get on and sell it. They will make profit out of it."

Smith admitted SDL's problems did have an adverse effect on Christmas sales: "It definitely did effect our sales which was inevitable as they were our largest distributor." He continued: "There's no doubt about it - SDL's demise hurt us, in the same way that when Commodore went down we hurt SDL."

Although the actual Amiga didn't sell as well as hoped, the software on the other hand did nicely out of the existing Amiga users who have shown that they are still there to buy good games when they are released.

Bradford pointed to the success of some Amiga publishers and distributors: "Those who are still supporting the Amiga are doing very well, such as Guildhall. I was also talking to Active Distribution and they're still shipping a lot of Amiga software."

## VISCORP TO USE AMIGA TECHNOLOGY

**J**anuary 17 marked the official agreement between VISCORP and Escom AG for the license for VISCORP to use 'Amiga' technologies within their set-top TV appliance.

VISCORP's chairman of the board, Jerome Greenberg commented: "By employing a sophisticated chip set, such as the Amiga technology, VISCORP will have the ability to provide a complex set-top appliance with multitasking functions to integrate

affordably the TV set, phone line and network service providers.

This ability has not yet been offered or available through existing systems."

The set-top box will allow the use of the Internet with access to on-line services like Compuserve or AOL, bulletin boards, chat programs and Web sites. This, they intend, can be controlled by a TV remote, keyboard, microphone or touch sensitive pen. Other

plans afoot include enabling users to play games, carry out home shopping, or access electronic banking. Greenberg said: "by utilising our unique set-top appliance and incorporating the Amiga technology, VISCORP is able to provide a complete practical solution for interactive TV services, and now the ability to access the Internet through a standard TV set with pricing that makes sense for the average TV viewer."



## REDUNDANCIES AT AMIGA TECHNOLOGIES

**A** miga Technologies revealed this month that they were relocating from their offices in Maidenhead to the Escom offices in Stanstead. Whilst there was nothing unexpected in this announcement, the fact that only General Manager, John Smith and one of the technical staff were actually relocating was.

Smith talked to *Amiga Computing* about the redundancies: "Two of us are relocating to Stanstead but we have over 40 people in Germany and the problem is that we have quite a lot of duplication of tasks."

For example, there are two technical guys back here, apart from the ones there." He continued: "when you look at product development that also is mainly done in Germany."

He pointed to the advantages of the move and

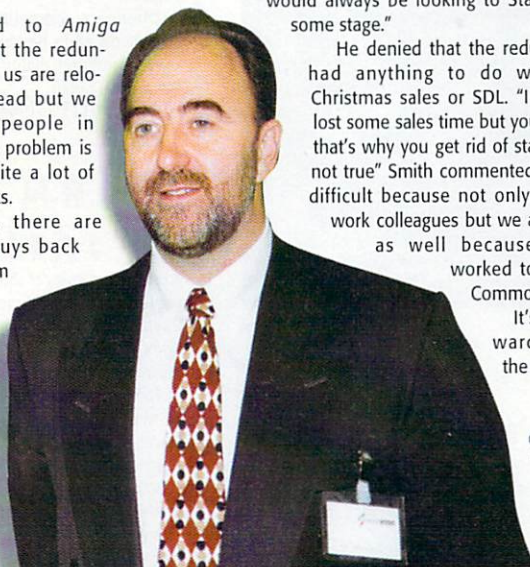
that it was always in the pipelines. "By moving to Stanstead I have use of the Escom personnel."

The offices are larger and more prestigious, with access to more facilities. We always maintained that we were just using these premises to get up and running and we would always be looking to Stanstead at some stage."

He denied that the redundancies had anything to do with poor Christmas sales or SDL. "I definitely lost some sales time but you can't say that's why you get rid of staff - that's not true" Smith commented. "It's very difficult because not only were we work colleagues but we are friends as well because we all worked together at Commodore."

It's an awkward time at the moment."

**C** "It's very difficult because not only were we work colleagues but we are friends as well because we all worked together at Commodore." John Smith commenting on the recent redundancies at AT



## A WHOLE NEW WORLD

**M**ore details are now available on the World of Amiga Show which is set to take place at London's Hammersmith Novotel between 13 - 14 April. The event marks the first major hardware and software launch for two years. Featured at the show will be a Presentation Theatre, Games Arcade and retail area. Peter Brameld, show organiser commented: "I am confident that this is the dawning of a new age in Amiga computing. The interest generated by Amiga Technologies' involvement is electric and I predict that this will be the best Amiga show ever."

Admission for the show costs £7 for adults and £5.50 for children. You can book now through their credit card hotline on 01369 706346 or by cheque or postal order made payable to The World of Amiga which can be sent to PO Box 9, Dunoon, Argyll PA23 8QQ.

## HISOFT OOPS

We got it wrong last month. In our review of Hisoft Cinema4D, we categorically stated that it had no shortcuts for the move, scale and rotate functions. Well, stupid us, of course it has. Sorry Hisoft.

## SIAMESE SOLUTION

**H**iQ have developed a system which combines the qualities of the Amiga with state-of-the-art PCs.

Called the Siamese System it has been put together to 'supplement the Amiga's already impressive features and enhance those areas where it has been left to stagnate in this fast moving world.'



**H**iQ offers a solution which offers the benefits of both a PC and Amiga

With the Amiga as the main system it allows the use of Amiga, PC and Macintosh software to run from the same platform via relevant emulators.

There are four possibilities and because of the way the packages have been thought out, the user will be allowed to set up gradually according to their needs and pocket. Access their Web site for more details: [www.hiq.co.uk](http://www.hiq.co.uk)

## QUEST GETS BIGGER

SyQuest Technology are set to launch their new removable cartridge hard drive, a 3.5 inch, 1.3 gigabyte drive they are calling 'SyJET'. Offering a sustained transfer rate of 4Mb per second and an average seek time of 11ms, it will be available in internal enhanced IDE and SCSI configurations.

The retail price is likely to be £349 for a drive and one cartridge, and two removable cartridge options will also be available - a 650Mb cartridge priced at £39.99 and a 1.3 gigabyte cartridge at £59.99. It will be available in the second quarter of 1996.

## news snippets

### NUMBER ONE FOR WACOM

A report from an independent market research consultancy, Pacific Technology Associates, has shown that Wacom is the largest manufacturer in the worldwide digitiser market.

Apparently, the fastest growing sectors in Europe are the A5 and A6 (ArtPad) sized tablets and Wacom lead the market in number of units shipped and in revenue.

### NEW ART SERVICE

Artworks are offering a new studio service which was previously only available to publishers and companies. In-house artists will now design custom-made illustrations on computer and can be supplied as bitmapped or fully scalable 'no jaggies' vector images in full colour or black and white. The artwork can be produced in a number of formats for either Amiga, Acorn or PC.

Artworks can be contacted at: 3 Pond Side, Wootton, Ulceby, South Humberside DN39 6SF. Telephone: 01469 588138.

### FREE PD

Members of the Independent Commodore Products Users group can snap up some free PD courtesy of the group. From a vast library covering absolutely everything, all members have to do is send in a floppy disk and return postage. The group also distribute a journal and provide help lines for Technical support. Contact 0181-651 5436 for more details.

### OOPS!

Euroscene 2, which was reviewed in last month's *Laser Guidance*, should be credited to Almathera and not Weird Science.

The price is £14.99 not £9.99 as stated. Amiga Computing apologises for any inconvenience caused. Almathera can be contacted on 0181-687 0040.

### LOGICAL SOLUTIONS

ARK (Applied Research Kernel) have come up with a solution to all your problems when it comes to compiling day-to-day information. Called Counting House, it is a user-friendly package which makes life easier with seven virtual rooms with filing cabinets in each.

Timetables, for example, are created in the Agenda room and transactions made with customers and suppliers in the Traders room.

Two versions are available - 'Cash' and 'Cash and Credit' versions.

Features include an Accounts routine generating a Trial Balance, Advertising Generator and Tax analysis and returns. Both versions require an Amiga with 3Mb of RAM, Kickstart 2 or later, and a hard disk with 6Mb of free space. The Cash version costs £59.95 whereas the Cash and Credit version is £99.95.



## SPoon BENDERS

**A**nother novel way of using the Internet has been set up to find out if psychic powers can be sent over the internet. World-renowned psychic, Uri Geller has issued a challenge to see if anyone can bend a spoon over the Net – there's \$1 million up for grabs if anyone can do it. In Geller's home is a see-through safe with the spoon locked inside and anyone who can bend the spoon while watching it over the Internet will be invited to be tested further over the telephone.

*Participate in an on-line experiment in psychokinesis and win \$1,000,000.*

A further challenge will then be issued at Geller's home when any contenders will get to try it out in person. If successful they will receive a generous \$1 million for their efforts which will be shared if there's more than one triumphant psychic! Even if more than one person is accessing the site, the organisers reckon further tests will be possible to trace anyone successful. Apparently, the hardest part will be to produce a visible bend in front of the judges but Geller is confident that someone, somewhere will be able to do it.

## PRO-SOFT PLEDGE SUPPORT

**P**ro-Soft have announced the launch of their new User Group which claims to be a 'cut-down BBS on a disk'. For all levels of Amiga user, the group will operate via a free bi-monthly disk-mag. Members will be able to find hints and tips from other users as well as buying and selling Amiga goods.

Interested parties should send a blank disk and SAE with their name and address to: Pro-Soft, PO Box CR53, Leeds

LS7 1XJ. Pro-Soft have also revealed their decision to scrap plans for software on the PC and continue to develop for the Amiga due to the 'rapid re-growth' of the Amiga market.

They will continue with their range of gambling programs as well as releasing six completely new programs for this year.

This will include a range of lifestyle and business applications.

## LET'S GO SURFING NOW.....

**F**ollowing last months revelations on the new Amiga Surfer pack, Amiga Computing can now reveal some more details. The package will now comprise of an Amiga 1200 with 2Mb RAM, a 260Mb Hard Drive, a 14,400 Baud modem and all relevant software needed to access the Internet. The package also includes all the software from the

Amiga Magic Pack. A country-specific telephone cable will be provided with the modem. As an added bonus, if the user registers himself at IBM prior to accessing the Internet before 31 March they will receive 100 free access hours.

The complete package will be available for DM 1198 which means it will hit the shops here for around £600.

## OCTAMED EVOLUTION

**A** last minute addition to our news pages arrived this morning with the announcement of the Octamed Web site. The site is replete with information on the new SoundStudio package being written by Teijo Kinnunen, and has contact points both for him and Ray Burt Frost, Octamed's distributor in the UK. You can download patches to the latest version and find out all about the history of Octamed. Also useful are the links to other related sites with hundreds of mod and med files.

For anyone interested in SoundStudio here are the details:

- Support for up to 64 channels of sound
- Completely new and revised notation editor
- MIX editing
- You can record sound samples directly to hard drive to

avoid RAM problems, so no limits to sample size like previous versions of Octamed

- Extra MIDI commands
- Full support for MacroSystem's Toccata 16-bit sampling card
- Clear and precise 200 page manual explaining everything in easy to understand detail.
- Special upgrade pricing for existing Octamed users.

SoundStudio is a direct replacement for Octamed. Version 1 and should be available sometime in February this year, so watch out for a review. For more information contact RBF Software on 01703 785680 or visit the web site at:

<http://www.compulink.co.uk/~octamed/>

## STARTERS ORDERS

Amiga Computing have been told of a new Internet Starter Kit which is in development. Aimed at the Net novice, the package will come on four disks and will include the TCP/IP software, a mail/news reader, ftp access and a Web browser. At the moment, it is pre-configured for Dynamic IP Addressing which would mean it would not work on Demon, but the developer, Kevin Kitching, is trying to change this. Working on any Amiga with Kickstart 2 or above, it requires only two files to be modified by the end-user which is the dial-up number and serial port speed. He also hopes to finalise a package deal with a service provider.

## NEWS FROM THE NET

### NET FIRSTS

A venture backed by First Computer Centre and Prima Technologies has just been launched. Called Firstnet, its objective is to become a 'blue ribbon' Internet service and World Wide Web provider in the North of England.

Offering a competitive modem to user ration and wide bandwidth service, it will provide internet dialup access accounts to the general public.

Contact 0113 2319444

### PORN PERV JAILED

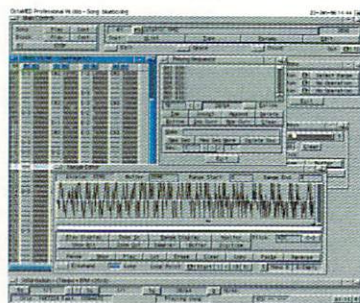
A man found guilty of receiving child pornography through the Internet was sentenced to three months imprisonment – the first time anyone in Britain has ever been jailed for using the Internet for this purpose.

Forty-four-year old Martin Crumpton, father of two, was caught as part of Operation Starburst, an International inquiry which also caught out Christopher Sharp who was fined £9000 for possession of indecent photographs of children downloaded from the Internet. Crumpton, a West Midlands computer consultant, admitted to six charges of being in possession of indecent pictures of children after his home had been raided on a tip off and the pictures found on his computer.

### BISHOP'S ON THE 'BAHN

A bishop who was banned from his See for his controversial views is back – but this time he's on the Internet. A year after his expulsion he has set up a 'virtual bishopric' for his many followers.

As bishops cannot actually be dismissed, 'virtual bishoprics' have been used before as a way of sending troublesome bishops to obsolete Sees. Gaillot has been moved to Partenia, an obsolete See in the Sahara and he has called his new site accordingly.



The current and last version of Octamed



# MainActor Broadcast

MainActor Broadcast is a completely new animation-program. It works on all Amigas with at least 512KB RAM und Amiga OS2.04 or higher.

## Features:

- More than 20 load- and save-modules for animations and pictures (AVI, BMP, DL, FLI, FLC, IFF, IFF-Anim3/5/7/8/1, JPEG, PCX, Quicktime...)
- Complete AVI, Quicktime and JPEG Support up to 24 bit
- Index-file for quicker reloading of animations
- Support of any graphics card with up to 16.7 million colors as well as standard Amiga-display
- Effect modules for generating effects directly into the animation (Text, Scroll, Scale, Rotate, ...)
- 19 sound modules for sound- and music-playback incl. compressing (i.e. OctaMed, S3M, etc. with 8 and 16 voices)
- Allows joining, converting, splitting and creating animations
- Easy-to-use intuitive graphical user-interface
- Programmable AREXX-Port
- Supports the multipic. lib. of Mac OS

**\$ 320**

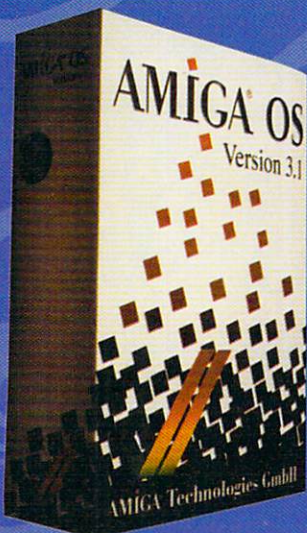
# Picasso-II-RTG

Picasso II RTG, the mostly sold graphics board for all Amigas with Zorro-Bus



2 MB

**\$ 550**



# OS 3.1

AS 306/320

**\$ 130**

AS 312/330/340

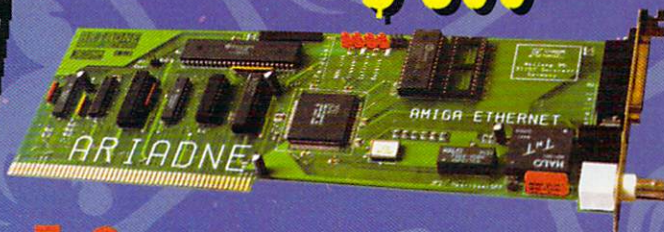
**\$ 145**

# Ariadne

Don't get overwhelmed with the complexity of setting up a network, use our Ariadne Ethernet card that is compatible with all Amigas that have an available Zorro Slot. This card is not only easy to network - it also equipped with 2 additional parallel ports offering multiple network solutions.

- 10Base-2 (Thin Ethernet, coax-cable) and 10Base-T (Twisted pair, western jacket)
- Socket for Boot-ROM
- SANA-II compatible driver for ethernet and parallel port
- Hook up to two additional Amigas to the parallel ports with Liana
- 32KByte cache to support CPU
- Includes Commodore's Envoy networking software
- Supports Oxxi's Amiga Client Software (ACS)
- English manual

**\$ 300**



# Liana

Are you in need of a fast and easy connection between two Amiga's? Liana, the low-cost network solution, is exactly what you want! Just plug it in, install the software, and it runs! Nothing could be easier than that. Liana is the network solution for those with a small budget and big needs. You can even share your hard drives and printers.

- For every (!) Amiga from WB 2.0 on with a free parallel port
- Includes cable
- Includes Commodore's Envoy networking software
- English manual
- automatically reconnection after (re-)booting without new startup
- Every machine usable as server and client

**\$ 100**

# AmiTCP/IP

The most popular TCP/IP-implementation for the Amiga.

- connect your AMIGA to heterogeneous networks and the InterNet
- supports Network-File-System (NFS) as a client
- uses SANA-II interface
- optimized version for 68020 CPU included
- printed german or english manual
- additional applications: ftp, telnet, rsh etc.

**\$ 120**

## System requirements:

AMIGA with at least Workbench and Kickstart 2.0, 1 MB RAM and ca. 2 MB free space on harddisk.



Wellweg 95 D-31157 Sarstedt - Germany  
Tel: +49 (0)5066 7018-10 techn. Hotline (support@village.de)  
Tel: +49 (0)5066 7018-11 Bestellungen (orders@village.de)  
Tel: +49 (0)5066 7018-40 Mailbox  
Tel: +49 (0)5066 7018-49 FAX

Software Hut  
Falcraff East Buisness Park  
313 Henderson Dr  
Sharon Hill, PA 19079  
Phone: 610-586-5701  
Fax: 610-596-5706

Select Solutions  
109 South Duncan Road  
Champaign, IL 61826-6512  
Phone: 800-322-1261  
Fax: 217-356-0097

SMG  
10400 Little Patuxent Parkway  
Suite 440  
Columbia, MD 21044, USA  
Phone: 800-206-4033  
Fax: 410-715-6850

Wander Computers Inc.  
1827 Woodward Drive  
Ottawa, Ontario H2C 0P9  
Phone: 613-226-0000  
Fax: 613-226-9990



## EXTRACTING COVERDISK FILES

To extract the programs off the second disk you must make sure you have booted your computer with the first cover disk, otherwise your Amiga will not be able to find the c:Installer program, and frustration will soon set in. Hard drive users should double click on the SetUp-HD icon before extracting any of the files.

To extract any single archive, simply double-click its icon and follow the on-screen instructions. If you want to quickly extract the program to RAM, select the NOVICE level on the welcome screen and press proceed once on the current screen, and then again on the next. The program can then be found in your RAM disk.

You also have the option of using a floppy disk. If you pick this option, make sure you have a blank formatted disk at the ready, and if you only have one drive get ready for lots of disk swapping and a long wait.



It's not all **Doom** and **Gloom**.

Have no **Fears** as this month's

coverdisks will leave you **Breathless**

## INSTALLING NEMAC IV

The Nematic IV disk has been compressed to allow us to fit more programs onto the cover disks, so you will need to extract the Nematic IV program on to a blank floppy disk. Floppy users need to boot up their machine with our coverdisk, while hard drive users can boot up with their hard drives. To create the Nematic IV game disk, double-click on the AC97 icon and then double-click the

Nematic IV icon. Follow the on-screen instructions and after a minute or so you will be able to reset your machine and play Nematic IV.

When the game first loads, before hitting continue you need to select the screen mode you want the game to run in. For ECS machines you are restricted to only two modes, while AGA and graphics card owners will be able

to pick many different resolutions in full 256 colours. If you have a Picasso screen, resolutions up to 1280x1024 will be available, but do not expect it to be too speedy.

Hard drive users can install the game by dragging the Nematic IV disk icon to where they want the game drawer creating. You can then run the game straight off your hard drive.

## NEMAC IV DEMO

Author: Martin Schlott

Requires: Workbench 2, 2Mb Ram 68020

Typical isn't it? The one time humans build the ultimate computer intelligence and give it control over all of Earth's defences it goes haywire, classifies all humans as potential threats, and brings Earth to the edge of Armageddon. And who is the person that has to sort the mess out? You are.

If you have told them once, you have told them a million times. If you are going to build the ultimate computer and give it control over all Earth's nuclear weapons, fit an off switch and whatever you do, don't put it in an impenetrable fortress.

Apparently, the builders of Nematic IV did



Now where were the toilets again?



Another evil swine bites the dust



not listen, and guess what? Earth's on the brink of a nuclear holocaust and you've got to save the day. Well, every game has got to have a storyline. It might be a little tired but it is a good excuse to blow lots of things up.

Nematic IV puts you in the role of controlling a large multi-gunned robot in a

desperate attempt to save the world from total destruction. You have to wander around each level searching for the exit, but normally barring your way are various baddies to kill, switches to throw and access codes to be found. Employing the old Doom-style, first-person perspective, you





Kill kill kill

## FAULTY DISKS

If you should find your Amiga Computing CoverDisk damaged or faulty, please return it to:

**TIB Plc, TIB House, 11 Edward Street, Bradford, W. Yorks BD4 7BH.**

**Please allow 28 days for delivery**

switch the chunky screen from a 1x1 aspect to a 2x1 or 2x2. Having a lower chunky resolution really gives a massive speed increase, but reduces the quality of the screen, so it is also possible to size the Nemac screen to whatever size you want.

One feature I really like in Nemac IV is the map. So far, no Amiga Doom clone has fully copied how the map works properly. I always liked the way you could flick up the map, zoom in and out, and still walk around when you were lost, making it much easier to find your way around.

Nemac's map goes even further than this. If you hit the help key a head display map will appear, and by using the + and - keys you can zoom in and out. You can now walk around with the map automatically updating as you explore new parts of the level, and it even displays baddies which it picks up as little crosses. If you now hit help again you can view the map on its own.

wander around the maze-like levels dispatching evil baddies. On your side you have a double chain gun, a double plasma gun, a grenade launcher and a selection of bombs at your disposal, and if you find yourself in a particularly nasty spot you can fire all four at once.

When the game first loads you can skip the story line intro by hitting escape. Once you start a game you can move around in

the normal Doom manner and kill things, and there are a number of handy in-game options regarding the screen display. While actually playing the game, pressing G will increase the gamma value making the screen brighter, and return will turn off the floor and ceiling textures, giving the screen update a speed boost.

Pressing escape gives you access to the main screen preferences, and here you can

## A500 AND A2000

I bet many of you non-AGA owners must be getting a little ticked off by the complete lack of support for your machine, particularly if you own an accelerator, which used to be in abundance a few years ago. Well, for a change, Nemac IV does support accelerated OCS and ECS machines, as long as you have 2Mb of RAM and Workbench 2. The only difference between the AGA and OCS versions is that you have to run Nemac IV on a Lo-res 64 colour screen, instead of the 256 colour option available to AGA owners.

## SHAREWARE

Many of the programs on the two cover disks are what are commonly known as Shareware. Such well written programs take many hours to write and a lot of hard work and dedication on the part of the programmer. When a program is called shareware it means the programmer has generously allowed you to try out their program, a lot of the time with no restrictions, and if you then decide you like it you are obliged to send the author the shareware fee.

Normally this is no more than ten pounds and in return the author will usually keep you supplied with the latest version of that program, along with their undying gratitude of course.

## ORDERING NEMAC IV

- The full version of Nemac IV costs £20, 50 DM, \$35 US or the corresponding amount in any other currency.
- The shipping costs are:
  - inside the European Community - £5 or 10DM
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- If you order more than one copy the shipping costs are charged just once.
- To order, send money and your details to:
 

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To use the following program you need to have the Magic User Interface installed on your system. Without it you will not be able to run any MUI programs. MUI is available from any good PD house.

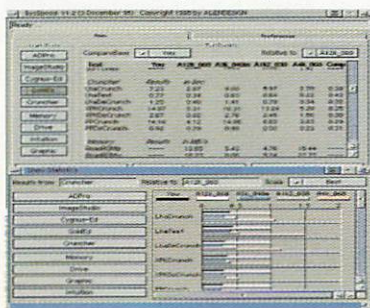
## SYSSPEED

Author: AlienDesign  
Workbench 2.04

Benchmarking has always been a thorny business, with some people even doubting the use of them to compare computers, and I would be inclined to agree. Even though a program like SysInfo may be used by almost every Amiga user, the MIPS figure it gives back is not exactly a true figure of a machine's speed, particularly if you have one with a maths co-processor.

SysSpeed is a 'real world' benchmarking program, and uses actual Amiga programs to produce its benchmark results. This means the figures it returns reflect how fast your machine is when performing proper operations, so is a better reflection of how fast your machine really is.

Standard system tests such as memory speed, Intuition window speeds and Intuition graphic operations can be used by everyone and will show how fast your ROM and graphic systems are. SysSpeed also employs a number of other Amiga programs via AREXX. By getting these programs to do certain tasks you can get a good indication of how fast your machine is when using these programs.



Possibly the only Benchmark program to return useful results

## ETRASHCAN

Author: Andrew Cook  
Workbench 3

Finally we have a real Mac-style trash can, or should that be rubbish bin? Another program for your WBStartup, ETrashCan allows you to delete any of your files by dropping them on a trashcan icon that lives on the Workbench and then selecting empty trash.

The problem with all previous Amiga trashcans is that they were either permanent ones that instantly deleted the file, or were like the original Amiga ones in that you could move files into a TrashCan directory and then select to empty the trash. However, you could only do this for files on the same partition as the TrashCan directory, and the icon could not be left out on the Workbench. ETrashcan can handle files from any partition and still allow you to undelete the files afterwards.

## DISK 2



## Jargon box

**OCS** - Original ChipSet, the first custom chip set found in the old Amiga A1000 and A500

**ECS** - enhanced chipset, the slightly improved custom chipset found in the A3000, A500+ and A600. Just increases the amount of ChipRAM

**AGA** - Advanced Graphic Architecture found in the A1200 and A4000. Gave the Amiga a true 24-bit palette and 8-bit display modes. Also known as the AA chipset.

**MIPS** - Millions of Instructions Per Second. A measure of processor speed. Many people consider it a poor way of comparing processor speed as it is far too simplistic

**BIPS** - Billions of Instructions Per Second, coming into use for your old super computer. Amiga users may need to wait a little while before you can use this

**Hot Keys** - these are a special combination of key presses, usually including the ALT, Amiga or control keys, that will initiate some special action

**GadTool** - the name given to the library that creates the normal Workbench program gadgets

**XPk** - a modular compression library that allows the users to add new compressor at a later date

## EYES

Author: Massimiliano Hofer  
Workbench 2.04

The eyes have it, ho ho. This is a fairly pointless program but its small and fun. Just double-click on either the plain version or if you have a co-processor the other, and a small window with two eyes in will appear that will track your mouse wherever it may go.

You can run as many copies as you like, size them by clicking on the bottom right of the window, and if you insert a disk or click in the middle of the eyes window, the eyes will spin around.

## BIO DAY

Author: Mariusz Muszalaski  
Workbench 2.04

Biorhythms. It's all a load of stuff and nonsense shouts our production editor. Enter her date of birth - it does let you go back that far - and it says mood swings are common. No surprise there then.

Bioday is a really good biorhythms program, if you believe in that sort of thing. Normally, biorhythms programs just give you a fairly useless sine wave display and leave you to work out what all those lines mean. However, Bioday will give you a descriptive account of what the biorhythm values actually mean, how physically fit you feel, or if you are going to be intellectually creative.

## LOVES

Author: Circle Soft  
Workbench 2.04

This has got to be the most bizarre program we have put on a coverdisk for a long time. Those decisions about love are always tricky and can lead to many sleepless nights. Well worry no more, Loves will sort out all your troubles. By typing in the names of the two people involved, Loves will tell you how the two people feel about each other and the chances of them forming a meaningful relationship.



The latest Workbench hack just about manages to change the way everything looks

## UROU HACK

Author: Tinic Urou  
Workbench 2.04

You may have noticed recently that there have been a number of system patches popping up, all trying to rectify the aesthetic problems with the way normal Workbench gadgets look - the standard window gadgets and the proportional and gadtool gadgets.

UrouHack is probably the first to patch every part of the interface. All the gadtool gadgets get transformed into the MUI-style Xen buttons, and if you are running on a 1x1 aspect screen then the gadgets get the proper looking thin sides and tops, whilst the normal window gadgets get a new sysihack-style 3D look. To install UrouHack you need to copy it over to your C directory, then add:

Run >NIL: <NIL: C:Urouhack  
to your startup sequence just after the SetPatch command.

## LHAGUI

Author: Brian King  
Workbench 2.04

Lha has always been a little tricky to use - being shell only and having a huge number of options it can be very confusing for the novice user. LhaGUI is another in the long line of Lha front-ends that make using Lha a much more pleasant affair.

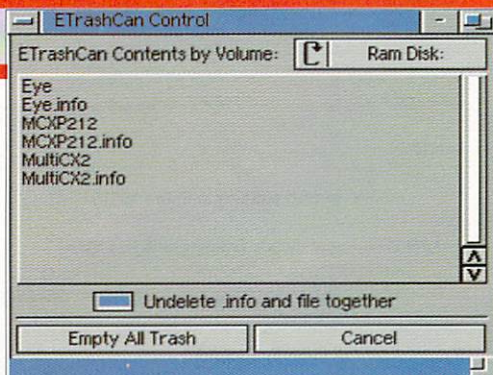
With a resizable, font sensitive AppWindow, LhaGUI provides you with a very good looking front-end, and by dropping Lha archives into the window you can view and extract its contents to wherever you wish.

## MULTICX 2.41

Author: Martin Bernede  
Workbench: 2.04

Good things do come in small packages, and MultiCX proves it too. This is a tiny utility that manages to pack loads of invaluable features into a tiny program. Window and screen manipulation, mouse acceleration, screen blanking, no drive click, new look menus and sliders, assign wedge, and new edit are just a few of the many functions MultiCX does.

Just drop the icon in your WBStartup drawer and read the document to get the low down on what every function does. All the functions of MultiCX have to be adjusted via the icon's tools types which you get to by clicking once on the MultiCX icon and then pressing the right Amiga key and i.



You can rest easy, anything thrown into the trashcan can be rescued later





To use the following program you need to have the Magic User Interface installed on your system. Without it you will not be able to run any MUI programs. MUI is available from any good PD house.

## MUI MULTICX PREFS

Author: Jurgen Kempkes  
Workbench 2.04

The real problem with MultiCX is that there are so many functions that you can alter, and it takes absolutely ages to go through every tooltip in the information requester and adjust them to your own taste.

This preference program gives you a lovely MUI front-end to fiddle with, and is right up to date with the latest version of MultiCX, also on this month's disk. Consequently, you can now access every feature of MultiCX without worrying about having to go through the horrible information requester.

## MONED

Author: Raul Sobon  
Workbench 2.1

Trying to get the best out of your monitor is never that easy. If the standard supplied monitor drivers do not give you a decent picture then you have to put up with a poor display.

MonEd gives you a way around this by allowing you to adjust various technical aspects of the AGA chipset that will adjust the output to your monitor. With a little playing around this can lead to a better display, or at the very least a properly centred display. You should be warned that doing this could permanently damage your monitor, especially if you start using silly figures.

## XPKatana

Author: Eric Sauvageau  
Workbench 2.04

For anyone who uses XPK you are still probably using the xDrop program that came with the XPK library, or possible xpkNight, to compress your programs. Both are perfectly fine, but have their own problems. xDrop is quick and easy to use but is very basic, while xpkNight is very powerful, but a little overly complex if you just need to compress one file.

XPKatana takes the best features of both and wraps them up in a tiny front-end. With all the powerful batch processing of xpkNight and with the option to run it iconised, you have the simplicity of xDrop.

## XPK DATATYPE

Author: Michal Letowski  
Workbench 3

The XPK compression library has been around for a good few years now, and has firmly established itself as the main form of compression on the Amiga along with Lha and DMS. There are many programs that have direct support for it and the various programs that allow you to add decompression patches mean many people are using it.

This Datatype adds XPK decompression to the growing list of supported Datatypes. Now if you drop an XPK'ed file into MultiView, instead of just being ignored, the files will be decompressed and MultiView will be able to handle it as normal.

## MOVE

Author: Jim McDaniel  
Workbench 2.04

One thing that has always been a really annoying omission from the AmigaDOS command set is the lack of any move command – you always had to manually copy and delete files. It might seem a little picky but if you do this sort of thing regularly it does get quite annoying. Just copy the move command over to your C directory and away you go. This command can take multiple destinations if need be.

## SCREENKEYS

Author: Magnus Holmgren  
Workbench 2.04

One feature of Intuition that makes the Amiga such a good machine to work on is its ability to have multiple screens open at the same time. It helps to keep the screens uncluttered and greatly increases the speed of window and screen updates as there is less to redraw. Screen keys lets you assign



individual hot keys to specific screens. Therefore, if you want to jump to a screen you can hit the appropriate keys and the screen will magically appear, without the hassle of having to skip through loads of other screens.

## ICONIFY GADGET

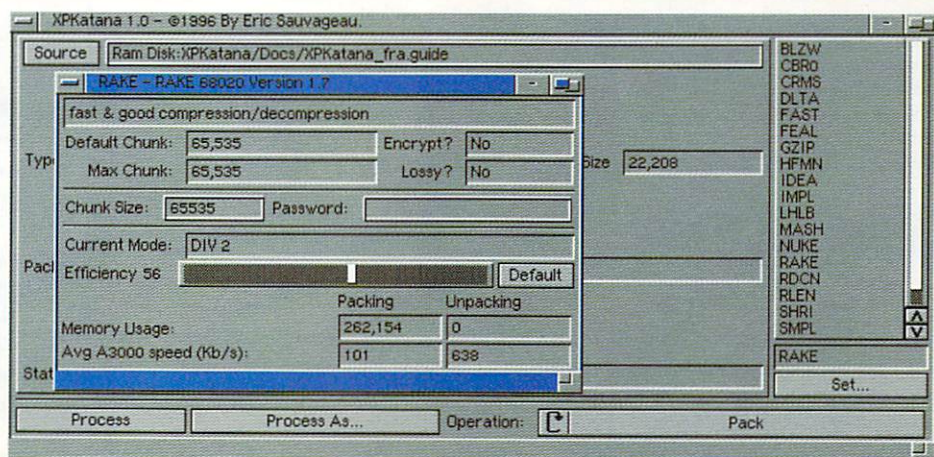
Author: Hakon Enger  
Workbench 2.04

You may have noticed on all MUI programs that there is a third icon on the title bar of the program. This allows you turn the program into an icon on the Workbench, so uncluttering the screen and letting you access other programs easily.

This program does the same, but for every other Workbench program. A third gadget will appear that looks the same as the MUI one, but there is an option to give it a sysihack 3D look. This is a commodity, so can be removed and restarted at any time.

## DISCLAIMER

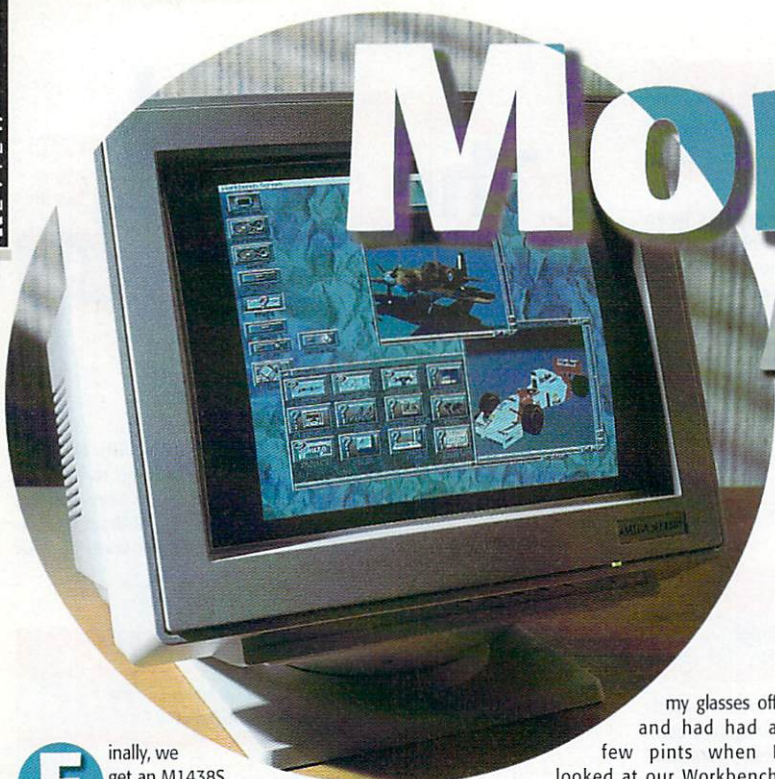
*Amiga Computing cannot be held responsible for any damage caused directly or indirectly by the use of these programs*



*Just what you have been waiting for. A really good replacement for xDrop*



# Monitor madness



**F**inally, we get an M1438S for review. We unwrap the box, remove the plastic wrapping and have a look. Quite a nice looking monitor, colour matched to our A4000, the male IEC plug on the end of the power lead is a nice touch (so that you can plug it into the A4000's power out socket), and you do get a normal power lead to plug into it, so no problem there. The screen is pretty standard looking, with anti-glare etching, but is not FST. But looking at the front of the monitor is a bad idea because it is then that you notice the distinct lack of control over the picture presented on-screen. This monitor's complete controls list comprises: The On/Off switch, volume, horizontal hold, vertical size, brightness and contrast. There are no pots to adjust on the back of the monitor and even the leads are moulded, but more on that later.

## PICTURE PERFECT?

So what's the picture like? This is obviously the most important question on anybody's lips when they are looking for a monitor, and I have to say that it doesn't look good. Here at the office we run on an old 1942 monitor for which the M1438S is a direct replacement, and we thought the quality of the 1942 was pretty poor. Unfortunately, it shines compared to the new monitor. The M1438S gives an image on a 4000 that looks as though it is coming through a modulator, with blurry text and misconverged colours. I thought I had taken

my glasses off and had had a few pints when I looked at our Workbench screen. Now convergence is a problem that can be caused by the monitor being bashed or in extremes of temperature or humidity, and since it came delivered by a courier I'm sure that it probably experienced all those things, so your best bet, if you are going to buy one, is to make sure you see it in action in the shop you're going to buy it in if at all possible.

The M1438S doesn't come with a disk with optimised DBLPal drivers designed to fill the screen as much as possible like the 1942 did, so it is left up to the end user to decide whether he or she wants to mess with hardcore utilities like MonEd or just suffer enormous black borders down the left and right-hand sides of the screen. Although the M1438S is billed as being a 14" monitor, these black borders mean you only really get about 11 1/2 inches of viewable area. These problems only occur if you are using the monitor in a DBLPal or DBLNTSC screenmode, of course, and don't afflict the monitor running in standard PAL or NTSC modes, but what did you buy a multiscan monitor for if not to run the Amiga's higher resolutions on a flicker free screen?

So by now you will probably have worked out that while the monitor is shoddy for productivity, it might be OK for games players. To a certain extent this is true, but if you do both on a regular basis you will find yourself constantly fiddling with the horizontal hold functions to centre the screen when switching

A replacement for the 1942? They must have learnt from their **mistakes...**

between PAL and DBLPal screenmodes. But there's more trouble afoot. While the picture for Lo-res (the screenmode most often used for games) is actually quite nice and sharp, the sound that emanates from the monitor's speakers is nothing short of rubbish. As a test, we tried Worms and Nemac IV on the M1438S and the sound for both games was tinny and quiet, even on the monitor's highest volume setting. Even the much maligned 1942 achieved better results, as did a cheap pair of personal stereo speakers we had lying around.

## PURCHASERS

So who is supposed to buy this monitor? The only people I can think of who would actually go out and get one of these things is someone who is sad enough to value kit with matching company names on each piece as opposed to the best possible choice for each item. As such these are the only people I can recommend Amiga Technologies' M1438S monitor to. Caveat emptor.

## Bottom line

### REQUIREMENTS

**RED essential** **BLACK recommended**



### PRODUCT DETAILS

<b>Product</b>	M1438S
<b>Supplier</b>	Amiga Technologies
<b>Price</b>	£299.99

Available from most Amiga dealers

### SCORES

Ease of use	100%
Implementation	35%
Value For Money	35%
Overall	57%

## PLUG PROBLEMS

Although it might seem nice at first that Amiga Technologies have put a moulded 23-pin plug on the M1438S, if you need to use it on an Amiga other than a bog standard A1200 or A4000, or even a different machine, then you will come in for problems. If Amiga Technologies had fitted a plug to the back of the monitor and provided a 15-pin VGA-type lead with a 23-pin plug on the end, then at least Amiga 3000 owners or graphics card users could have bought a replacement VGA-type lead to plug into the monitor.





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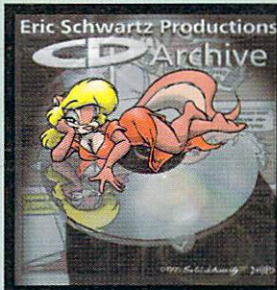
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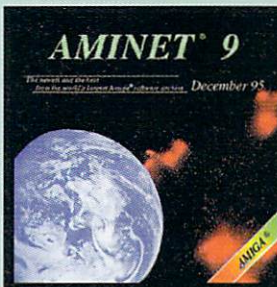
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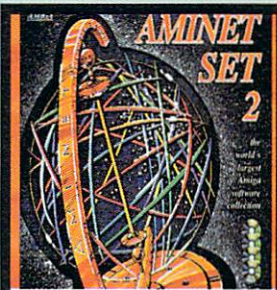
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**FANTASEAS**

Retail Price is  
**\$39.95**

This portfolio PHOTO CD brings you the beauty and diversity of the oceanic world! Photo sites range from the walls of Grand Cayman to the Blue Corner of Palau. This two CD set contains macro shots of colorful ocean life as well as detailed photos of World War II wrecks plus much more. There are almost 300 24-bit images, each one presented in five different resolutions ranging from 192x128 up to 3072 x 2048 pixels. As a bonus, FANTASEAS includes Portfolio Photo CD software for Mac and PC users.



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**GOLDFISH**

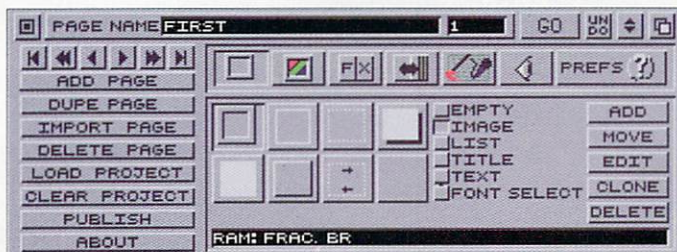
GREAT VALUE FOR ONLY  
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GoldFish represents an effective method for users to maintain their "fish library" in a periodic manner. Volume 3 marks a change in the series to an unarchived single CD format with a "user friendly" access system allowing most programs to be reviewed and executed from a centralized system.



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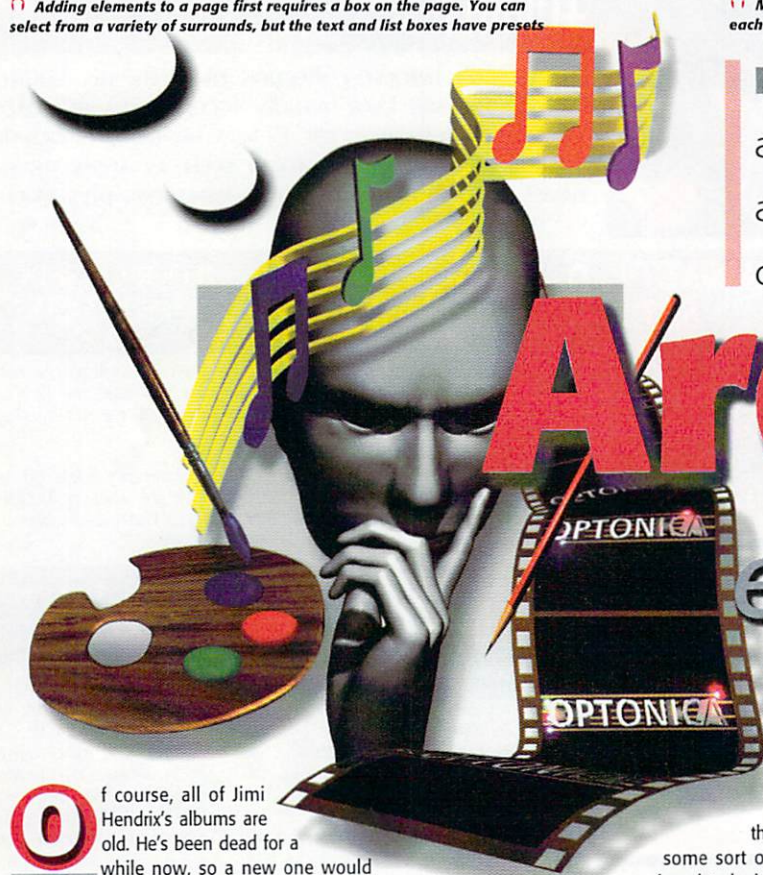


Adding elements to a page first requires a box on the page. You can select from a variety of surrounds, but the text and list boxes have presets



MME's unique effect line is very clever, if a bit long-winded. You can assign effects to each of your elements including page effects, sample playback or animation spooling

**Not** a review of an old Jimi Hendrix album, but the latest multimedia authoring package. **Frank Nord** checks out MMEExperience



Of course, all of Jimi Hendrix's albums are old. He's been dead for a while now, so a new one would come as something of a shock. Still, that hasn't stopped John Lennon or Freddy Mercury, so maybe I should just shut up on that front and get on with reviewing MME Experience. OK, I hear you, alright?

Sooo, MMEExperience, eh? Well, first impressions with Optonica's program are 'Hmm... yecch... tum-ti-tum... bugger'. Let's go through that, shall we? The first expectation was for the look of the box, manual and disks; the second ejaculation was for the look of the software interface; the third was the wait I had when I loaded a picture and waited for the picture to remap, even though I hadn't set up a palette (besides which, all the images I used to test MME with use the same palette, it's just that MME insists on using the bottom four colours of any palette); and the last was the trouble I had trying to get MME to do something fairly basic – a slideshow.

It's not a good start is it? Firstly, why do people insist on creating their own custom gadgets and interfaces when a) they are really ugly and b) the Amiga's own GUI is fine for any application. MME uses the same dark bluey-greys used by all Optonica's programs with square buttons everywhere and great fat borders around them. I'm sorry, but the whole thing

makes the program look less professional and certainly detracts from its ease of use.

And then, the fact that you have to name pages in upper case only reinforces the idea that you are playing with some sort of PD demo-maker. Before I'm inundated with letters of righteous indignation from all and sundry, I would like to say that, in my opinion, programs that don't look nice on the screen don't help the Amiga's public image as anything other than a cheap, low-class games machine. This is a great shame because

MME has some definite good points. I probably shouldn't concentrate on appearances in a review, but this sort of kiddie block interface really gets on my wick.

Unfortunately, the feel of the software proceeds to get more annoying, with new projects requiring the user to input a name which is then made into a directory in which everything is stored. Not a problem in itself? No, but then you can't use anything at a lower directory level in your production, so you have to make sure you create your productions at the root of whatever device you are running from – even more of a pain if you spread your elements

## PROBLEMS?

Here are some of the problems I encountered when running MME:

■ Firstly, it was awkward to set the screen to Hi-res Laced. MME always wants to run in Lo-res which means everything looks incredibly blocky.

■ The next problem I encountered was with the Add Font button in the fonts requester. It took me to Fonts: but then didn't do anything further. This meant I couldn't add any fonts to the three supplied with MME – two sizes of a blocky helvetica and one bolder BaselCB, all at a low size. I finally figured out that it must be because of the CacheFont program that I run, but that must mean that MME grabs a fontlist in a way not thought of by CacheFont's author, odd since no other program I have ever used has had a problem with it.

■ My third problem was with the F/X button. I set up the

random effect for the pages in my project, which worked fine for the first run through. But I discovered that when the project has run through once and is then cycling through again, the F/X selected reverts to the default of Fade In. It doesn't make any difference how often you click on the bloody random button, it still reverts back to fade in.

■ Another problem I encountered was that the tutorial in the manual referred to files I didn't have included when I installed the software.

■ But by contrast, one of MME's really superb features is its runtime player which is free, small (it's only 167724 bytes and crunched with PowerPacker that goes down to just 98756 bytes) and it runs on any machine. This is incredibly important because it means that no matter whether you are creating a presentation for your own use, or creating a CD that you will sell thousands of copies of, you won't have to pay Optonica a license fee or royalties





The FX page allows you to choose your desired transition from sixty choices



The trickiest thing when you have an enormous script is to be able to quickly go to the right page, but MME's page finder makes this easy

## BIG BROTHER IS WATCHING YOU...

I may seem to have been somewhat hard on MME, but it does have a good pedigree, coming as it does from the stable that produced Interplay, the Amiga's only dedicated CD authoring system. When you consider that Interplay cost over £700, MME certainly seems better value for money. Optonica are also launching the successor to Interplay – called MMEExperience Pro – shortly and it will build on MME's base but include far more facilities, admittedly at a higher price.

Even so, MME Pro will be just the product the Amiga needs if it is to get any sort of Encarta-type product. With its database features and indexing ability, MME Pro will

hopefully push the Amiga's multimedia capabilities to the fore. MME Pro will also come with ISO build software so that it can be used by software houses as a one-stop solution for creating, much needed, new CD products for the Amiga.

MMEPro also provides the following features:

- Touch screen support
- Automatic file substitution to take account of PAL/NTSC and ECS/AGA configurations
- Project management so that your target machine won't run out of RAM
- CDDA support and much more...

over more than one device. This makes even less sense when you consider that MME actually checks what you've created to make sure it's all in the right place when you 'publish' your production. By contrast, if you create a script in Scala and then you want to distribute it on floppy, Scala will happily move all the files you used to the floppy for you. I don't want to get into a slangingmatch with Scala as MME is very obviously aimed at a different audience, but I wonder if Optonica shouldn't have taken a leaf or two more out of Scala's book.

I feel all scratchy after that and I really want to point out MME's better features. If you ever owned a CDTV, you'll probably remember the World Vista Atlas which had a nice database feature where you could look up things like the GDP of Ghana and what passes for a folk song in Alsace. You can create such things easily (if at length) in MME.

### EASY ACCESS

It's also possible to create an index which refers to all the pages you've built so far, allowing to easy access to information. The Index page which is preset doesn't allow the user much control over the way it looks – always a muted grey affair – but it can be used as a file requester of sorts and also act as a glossary for which the user needs to build a text file. This is the essence of MME. It doesn't do anything you couldn't do quicker, it concentrates solely on doing stuff that you wouldn't be able to do.

This is the reason why one of the buttons on the main panel will allow you to access a user-defined list of programs and run them. So now you will be able to run your paint package, text editor and module editing package from within MME without having to return to the Workbench first, so that you can generate the images, clipart, buttons and text you want to use in your production. All the same, it would have been nice if there was some clip art

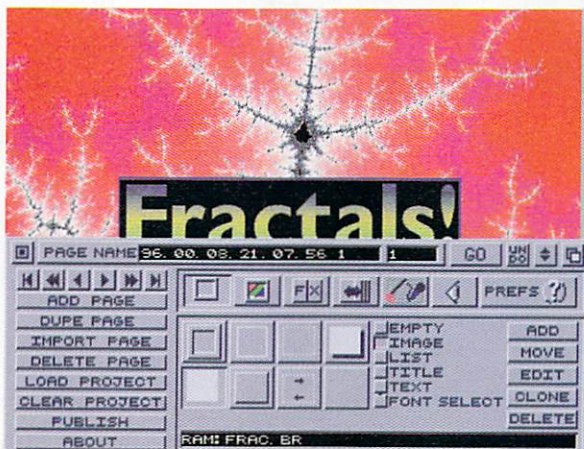


MME's prefs, including screenmode, etc., can be set here, but seemingly not saved.

provided with MME, or at least, some fonts.

Although MME doesn't support datatypes (it really ought to, they've been around for over two years now and are very useful for a multimedia package. Obviously, the problem with this is that it would make the package Workbench 3 compatible only, which is probably why they are not supported), it does recognise any sort of IFF ILBM graphic format including, surprisingly, 24-bit. Like 24-bit files it renders down HAM and Ham8 files to ExtraHalfBrite or 256 colours where possible, but you should render these sorts of files down yourself using ADPro or something similar if at all possible, as the results from using an image processing program are far superior to MME's output.

MME doesn't give you the facility to type text directly on screen necessitating the use of a paint package for text like this



"I don't want to get into a slangingmatch with Scala as MME is very obviously aimed at a different audience, but I wonder if Optonica shouldn't have taken a leaf or two more out of Scala's book"

## FINAL WORD

MME isn't a bad package, it's just a little odd. If only Optonica would drop the silly interface that plagues all their software I would be much happier with it. MME doesn't provide the user with the snazzy text effects that Scala boasts, you can't scroll text with it and the page effects have no parameters. However, MME will almost certainly replace Gold Disk's ageing Hyperbook as the product of choice for people creating mini-encyclopaedias about their favourite topics, whether they be World War II planes, or Tutankhamun, because it is ideally suited to such tasks.

## Bottom line

### REQUIREMENTS

RED essential	BLACK recommended
4 Mb RAM	Hard drive
68030/40	8 Mb RAM or above

### PRODUCT DETAILS

Product	M.M.Experience
Supplier	Optonica
Price	£39.95
Tel	01455 5582 82

### SCORES

Ease of use	60%
Implementation	60%
Value For Money	99%
Overall	75%



**T**here are many good things that have come out of the North West - Lowry, Boddington's Bitter, Chips and Gravy, Pea Wet (ask our Deputy Ed) and *Amiga Computing*. But what most will associate with the area is a TV studio that has created some of the most popular dramas, soap operas and quiz shows we know today. Called Granada, it produces such hits as *Cracker*, *Coronation Street* and the *Krypton Factor*.

But these programmes also have another factor in common, and it may come as a surprise to learn that this is the Amiga. Okay, it would be an exaggeration to suggest that the Amiga has a starring role in these first two, but it does have a significant walk-on part. Watch *Cracker*, for example, and you will see Fitz (Robbie Coltrane) tapping away on none other than an Amiga. Or *Coronation Street* where the BettaBuys store computer, played by an Amiga. *Prime Suspect's* police station sets have also benefited from the Amiga.

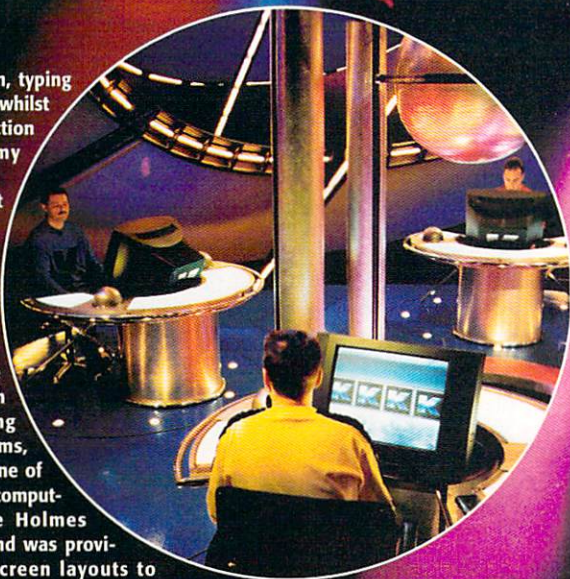
However, in some cases the Amiga, unfortunately, has to undergo a dramatic costume change in the wardrobe department and appear as a PC. A PC box sits on the desk whilst the Amiga sits on the floor feeding the PC's monitor (thanks to the 31 KHz flicker-fixed output from the A3000). Eagle-eyed viewers will spot the give-away clue of a PC with an Amiga keyboard!

The Amiga's success in this specialised field is due to its native 50Hz video frame rate (exactly twice the speed of a TV film camera) coupled with its genlock ability which allows multiple computers to be synchronised together. This eliminates the moving 'roll bar' which normally results when computer screens are filmed.

But the Amiga's user-friendliness appealed to Martin Kay who programmed many of the on-screen computer systems at Granada. "The Amiga provides a very versatile programming environment. It is ideal for something like this." He explains how sometimes the actors don't like having to type and act at the same time. "I

often end up off-screen, typing on the Amiga keyboard whilst the actor mimes the action in vision on a dummy keyboard."

Realism is important in dramas like *Cracker* and *Prime Suspect*, so the Amiga programs which Martin writes have to appear like those on other machines (e.g. the dreaded PCs). With much of the action involving police computer systems, Martin was invited to one of the Manchester Police computer rooms to see the Holmes Investigation system and was provided with authentic screen layouts to recreate on the Amiga.



The contestants answered questions at the touchscreens

## SCREEN TEST

The BBC's *Sunday Show* is also aided by an Amiga which plays the *Sharkfish* animation used as a transition throughout the show. The Amiga runs the animation off a PAR system, started by a GPI trigger via the joystick port, with an AREXX script providing automatic re-cueing at the end of each run. As a result, one press of a button on the main vision mixing console triggers the animation, fires off a sound effect, and changes shot - a combination which would otherwise require a dedicated Betacam player and operator.

But what perhaps is the most interesting use of the Amiga at Granada is in the quiz show, *The Krypton Factor*. The Amiga proved invaluable in providing the scoring and control system used for some of the rounds. Martin was, again, the man behind it all. For the *Mental Agility* and *Observation* rounds, the contestants sat at touchscreen terminals whilst they answered multiple-choice questions as quickly as possible.

In control of all this was an Amiga 3000 fitted with an A2232 multiserial card to handle the touchscreen inputs, with a PAR

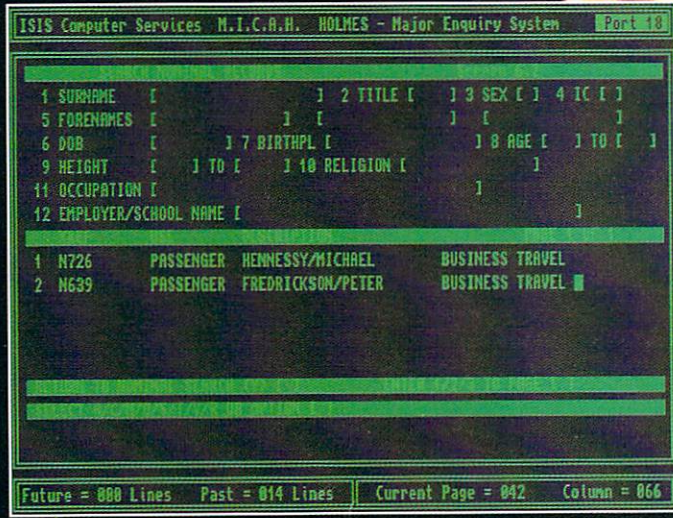
system acting as a still-store with all the displays which the contestants saw on their touchscreen monitors. A custom control program, written in SASC, displayed the contestants' scores and a reference copy of questions to ensure that the computer stayed in sync with Gordon Burns asking the questions. This Amiga display was overlaid onto the PAR output via a G2VC3 genlock to provide a composite question/answer/score display for the rest of the production team.

On top of this the Amiga was controlling lights on the contestants' desks which briefly illuminated the first to correctly answer each question, plus generating a sound effect to cue the question master to ask the next question. This made for quite a complicated system in which the Amiga's multi-tasking abilities were exploited to the full.

The touchscreens work more on the principle of a touch 'platform'. As Martin explained: "The Touchmate system looks like a set of bathroom scales, but with a set of precision sensors at each corner."



The Amiga proved invaluable for the Mental Agility Round



Martin looked at real Police databases before designing one for television



# LOG-IN

# Acting the part

On the trail of how the **Amiga** has found its niche in many different corporate sectors, **Tina Hackett** investigates its latest role in the North West's **top** television studio

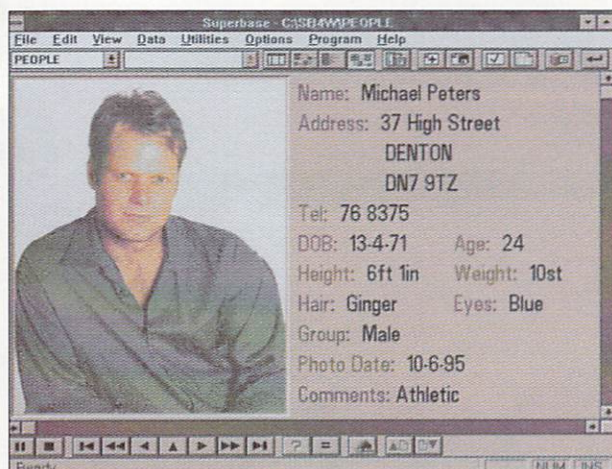


*Line 1	JILL JOHNSON	SALFORD
*Line 2	ALF	EGGLES
*Line 3	RICHARD LUHAN	WORSLEY
*Line 4	ROBERT DAVIES	OLDHAM
*Line 5	NORMAN HARDWAY	ALTRINCHAM
On Air	Line 6	CHARLIE DEAN STOCKPORT

JOHN ROBINSON	395 9375	3 HERTON DRIVE	STOCKPORT	SK4 2LZ
TERRY ROUNCE	927 3963	23 PICKICK STREET	MANCHESTER	
NORM	739 3547		STOCKPORT	
FRANK SMITH	739 8287	21 WENTWORTH WALK	PENDLETON	M18 2AP
JOE WHITEHOUSE	739 8387	19 BLACKHURST TERRACE	SHRINTON	M27 4YH
SALLY HURST	937 4832	6 DALE STREET	BOUGHTON	
EILEEN DUNCAN	773 4975	19 SILVER BIRCH ROAD	PRESTWICH	M26 6PB
ALAN PEARSON	839 4862	164 BARTON ROAD	EGGLES	M26 3AD
ERIC	739 2954	67 GRIMBY STREET	HEWLE	

It's a Cracker! Remember the scene where Fitz is answering calls on his radio station? This again was on the Amiga





For 'A Touch of Frost' a screengrab was made of a PC running Superbase

works by detecting the minute pressure differences which occur between the various sensors when the screen is touched." This has the advantage that any unmodified TV or monitor can be used, provided it is firmly located onto the platform. After a calibration routine, which involves rocking the screen and pressing on the four corners, the system can send out a stream of ASCII codes giving precise co-ordinates whenever the screen is pressed.

## LASER TESTING

The Amiga was also used in the Krypton Super-Round as part of the Laser Matrix. Four Amiga 1200s were placed on stands for a round which would test the players' mental agility to its limits – and prove very decisive in the final! What Martin was asked to do was create a program in which the keyboard was remapped.


The contestants had to solve four word clues using the altered keyboard before proceeding to negotiate their way through the laser beams. With a sensor connected to the joystick port, the Amiga would signal a time penalty if the beam was broken by controlling

**"When the series was being recorded, the Amigas were out of production. Commodore UK kindly lent us the four A1200s"**

the studio lighting system, and playing a sound effect. What the contestant had to do was find the code to spell out each word. Say, for example, they typed the letter S. It would come out as a T because the keyboard had been altered to make the letter change to the following letter in the alphabet. The contestant would have to work this out and break the pattern.

Martin hoped that showing the Amiga onscreen would get some positive publicity for the machine: "When the series was being recorded, the Amigas were out of production. Commodore UK kindly lent us the four A1200s. I was hoping by the time the series was transmitted, the Amiga would be back on the shelves, which is more or less what happened."

Martin uses a number of Amigas (from A1000s to A3000s) and has a collection of plug-in Zorro boards. He remarked: "There are too many to fit in any one machine at a time, so I'm frequently swapping boards." These include ethernet cards, XSync VITC/LTC timecode readers, genlocks, Harlequins and the PAR playback/capture cards. Other useful peripherals include a DAT for backups, with Diavolo s/w, an HP Scanner, and a Wacom tablet for use with TV Paint.

"The combination of TV Paint and the Harlequin card is unbeatable at the price" explained Martin. "It's the only system that gives you a genlockable broadcast quality 2-bit RGB display with a linear key output as well. Together with the ZCG32 caption generator, all the question/answer graphics and text for the Krypton Factor were produced using this system. This is work which otherwise would have been done on Quantel Paintbox and Aston Caggens. Together with PAR, it opens doors for the Amiga to do broadcast work which is not usually associated with the machine." 



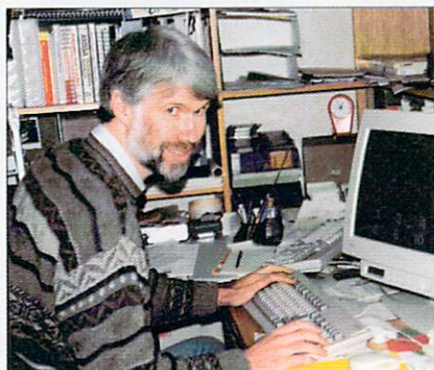
Robbie Coltrane played Fitz in the hit drama, Cracker. The Amiga was used for scenes which showed a computer screen

## NOW AND ZEN

Martin Kay has now set up his own company called Zen Computer Services. They specialise in video work and Martin's experience with television and computers gives him an advantage in this field. His other projects include a teleprompting system which he has sold all over the world: "I'd seen similar things on the PC and they're very expensive. I realised there was a market for a cheaper version and that this could be done on the Amiga. Most go to America where they are used by cable TV stations or college media courses where there is a need for a cost-effective solution." He has also produced a French and Arabic version.

His work has also proved invaluable in the world of televised sports. Thanks to his snooker scoring system, he has made the life of graphics operators a lot easier in a game where it can be difficult to keep up with a fast potting player making a big break. The Amiga provides a friendly front-end to control the caption generator, and the operator has only to click on the ball which has just been potted and the computer keeps track of the score and break totals.

The Amiga has also been used for Rugby, Ice Hockey, Darts and Football where it generates the small



Martin Kay explains how the Amiga was used at Granada. His company, Zen Computer Services, has also developed many other innovative uses for the Amiga in television

clock and score displays seen at the top of the screen throughout matches. This sounds trivial, but life would be so much more complicated if you came in from getting another beer from the fridge and you couldn't keep

track of the score! Martin has found the Amiga ideal for subtitling on programmes such as Disappearing World and Great Railway Journeys. With a timecode reader providing exact synchronisation to tape, the Amiga can be used in both off-line and on-line environments. Off-line, the regular Amiga output can be genlocked to provide subtitled VHS preview copies, and on-line it can give broadcast quality output via the Harlequin, or control an Aston Caggens.

Zen Computers have also provided computer software for Yorkshire television's detective series, A Touch of Frost. A recent scene involved an investigation into a suspect Escort Agency where Frost was looking through a database of pictures. However, the Amiga had to look like a PC running Windows so a screengrab was made of a PC running Superbase, and the rest programmed on the Amiga. Amiga veterans will appreciate that Superbase started life as an Amiga program before ever becoming a Windows product.

**ZEN Computer Services** can be contacted on:  
Telephone: 0161-793 1931  
Email: 100046,3675@compuserve.com



# TOTAL! AMIGA WORKBENCH

Having owned an Amiga for six years now, it is sometimes easy to forget the problems that beginners can have with using a new machine. I started using Workbench 1.3 which seems light years away from the relative luxury that Workbench 3 users now have. Even so, learning to use Workbench can be difficult so a book on the subject could be useful, if it covers the right areas.

The main thrust of this book is to go through every aspect of the Amiga's Workbench, no matter how small, and explain what use it is to the user. This goes from the basic roots of a WIMP system, explaining what icons are for, how you use each of the menu functions, and windows, to explaining the use for every utility and program you get with the Workbench 3 disks.

If this all sounds strangely familiar, then it might have

something to do with the fact that all these things are outlined in the original Workbench manuals that come with the Amiga, in a very familiar fashion, along with the same sort of screen grabs of the various preference programs and utilities. This is the main problem with the book – it does not do anything really different from the original Workbench manuals.

Towards the end of the book there are a few worthwhile chapters. An explanation of CrossDos along with another on CD-ROMs and Viruses are helpful, but I think what is covered is a little brief and a general DOSdriver chapter would have been more useful. Overall, this is firmly aimed at the absolute beginner and even then I cannot see any real advantage over the standard Amiga manuals.

## Bottom line

### PRODUCT DETAILS

<b>Product</b>	total! Amiga workbench
<b>Publisher</b>	Bruce Smith Books
<b>Tel</b>	01923 894355
<b>ISBN</b>	1-873308-55-8
<b>Price</b>	£19.99

**OVERALL: 59%**

# TOTAL! AMIGA AMIGADOS

The other side to using the Amiga is AmigaDOS. Normally used through the shell, AmigaDOS is a much more difficult beast to master than the Workbench, but potentially far more powerful and quick to boot. The down side is that with an A1200 there is absolutely no documentation describing how to use AmigaDOS. So a good learning reference would be an extremely good idea.

total! Amiga amigados is just that, taking you from the basic reasons for using AmigaDOS over Workbench, how to enter commands, through to the beginnings of script writing and a brief description of ARexx.

The book starts with describing basic disk, file and drawer operations, giving good clear instructions of how and why you would want to use each function and shell command. There is also an explanation of the pros and cons of using the Amiga's very handy RAM Disk.

That other constant pain in the rear for Amiga users, the Assign, is covered along with the path assignment, and chapters detailing the startup sequence and user startup are always going to be of use for the beginner.

Even though this is a book aimed at people learning about AmigaDOS, there were a good number of things in there that I found useful to know. A full list of the shell's keyboard commands highlighted a number of useful functions I did not know about, along with a good explanation of all the AmigaDOS wildcards you can use.

I could not say this book is essential, but anyone planning on using their Amiga for anything more than playing games will gain out of having a copy.

## Bottom line

### PRODUCT DETAILS

<b>Product</b>	total! Amiga amigados
<b>Publisher</b>	Bruce Smith Books
<b>Tel</b>	01923 894355
<b>ISBN</b>	1-873308-56-6
<b>Price</b>	£21.99

**OVERALL: 91%**



# Books for beginners

Three books from Bruce Smith's new 'total Amiga' range get the Amiga Computing treatment. Neil Mohr gets his reading glasses on

# TOTAL! AMIGA ASSEMBLER

From Paul Overaa, possibly the guru of Amiga programming, we have the complete beginners guide to Assembler programming on the Amiga, of which there are two distinctive sides. One is involved with getting the absolute performance out of the machine by discarding the OS and 'hitting the hardware', while the other takes the 'proper' programming route via using the operating system functions.

This book goes for the last option, which some demo coders may scoff at. However, with games like Breathless and Nemac IV, both very good Doom clones, using Intuition screens and multitasking with the rest of the operating system shows what the Amiga's operating system can achieve, and there is no real need to simply discard it.

As you may expect from Paul Overaa, this book is excellent. It covers the basics of explaining about the 68000's status, address and data registers right through to a full description of all the 68000's instructions, starting off by giving the reasons you would want to use Assembler over high level languages. On the surface it may seem mad to use Assembler at the OS level, over C or AmigaE, but there are good reasons.

The all-important subjects of addressing modes, data movement, assembler subroutines, and the usually

ignored subject of program design are all well covered, before moving onto the trickier subject of the actual Amiga OS programming.

Almost 300 pages are taken up with describing every aspect of Amiga assembler programming. It is quite interesting to see a quick overview of C is given in the appendix. This is important as all the autodoc examples from Amiga Tech are written in C, so it is actually a handy inclusion. I just wish I had had this book when I was learning assembler.

## Bottom line

### PRODUCT DETAILS

<b>Product</b>	total! Amiga assembler
<b>Publisher</b>	Bruce Smith Books
<b>Tel</b>	01923 894355
<b>ISBN</b>	1-873308-57-4
<b>Price</b>	\$24.99

**OVERALL: 95%**



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 -By Kit Felice. Amazing multi-level arcade game. REQ: Hard drive, 2 MB RAM, ECS or AGA. LHA decompressor, any Amiga OS. 3D tunnel scenes are featured in this excellent arcade adventure game. Hours of fun!

**TOMCAT \$19**  
 -By John B. Graham. Experience Amiga's first software based Full Motion Video arcade game that runs on any Amiga with 1 MB of Chip RAM and hard drive can play this thrilling arcade F-14 fighter game. Over 11 megs of hard hitting all video action!

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 -By Shane R. Monroe. So easy, you'll learn it in 5 minutes; so addictive you'll play it for 5 hours! This strategy game features EHB graphics, digital speech, original music, two player mode and much more! Complete with many awesome background graphics!

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GIRLS OF PARADISE	SPICY PICS!
HOT PIX 5	TIGHT PANTIES
HOT PICS: VOL. SEX	TOP HEAVY
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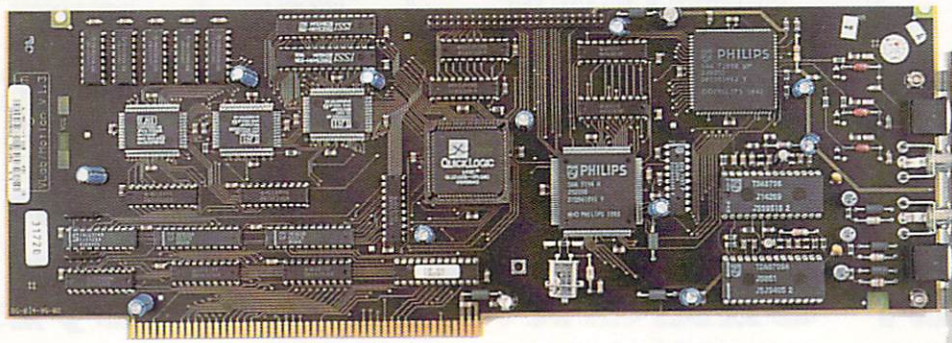
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# A living legend

Paul Austin delivers an exclusive full review of **MacroSystem's** AV masterpiece



Digital video at your fingertips with VLab Motion

**I**t's not often a milestone appears on the scene, something which simply redefines your thinking regarding what's possible with a particular platform. Products like the Video Toaster, Scala LightWave and the PAR animation recorder have, in turn, marked the Amiga as a unique machine in the eyes of creative media professionals everywhere.

Needless to say, the Draco fits, if not breaks, this mould by adding a completely new level of power to the traditional equation of Amiga-based desktop video. However, as you're probably well aware, the Draco isn't actually an Amiga at all. In fact, it's a completely new machine which takes the Amiga basics and expands upon them, exploiting the talents of the Amiga OS whilst adding a unique blend of CD quality sound, digital off-line encoding, editing and playback with state-of-the-art DVEs and a true 24-bit display.

Thanks to their efforts as the Amiga's most prolific third-party supporter, MacroSystem Germany have built all the principle elements of a standalone machine, the keys to this being the Retina 24-bit display board, which in the Draco ships with 4Mb of RAM and CyberVision drivers, the Toccata sound card, offering stereo 16-bit audio direct to disk recording and lastly, the all-important digital video skills of a VLab Motion digital video recorder/player.

## MANAGEMENT

With sound, vision and system management all taken care of, there is, of course, still the small matter of the CPU, not to mention the all-important I/O connections that make up any modern machine. The solution to this is a 'Draco direct' plug-in motherboard with all the necessary I/O connections – such as HD floppy drives, parallel and serial ports – combined with an 040 or 060 CPU, on-board SCSI II controller and space for up to 128Mb of RAM – via standard 72-pin SIMMS. Throw in a few QuickLogic chips for Kickstart and other OS essentials and... Robert's your mother's brother – an Amiga on a card!

Fire-up the new machine and on the face of it the Draco looks every inch an Amiga – but with one major difference. The Draco does not have AGA, or in fact any part of the Amiga's custom chipset, even though a whopping 4Mb of chip memory does appear on the menu bar courtesy of the Retina's on-board memory.

Obviously, the lack of AGA does preclude

## LOOK AND

*During the evolution of the system it must be said reliability and crash resistance has been an issue regarding the VLM and MovieShop compendium on normal Amigas. But thanks to version 3.0 of the MovieShop software, the system is now rock solid, even at the highest possible image quality.*

*In the case of the VLM card tested, this translated to an attained, and more importantly maintained, 90 per cent Jpeg compression, which in real terms means virtually identical image quality between the encoded and original material.*

*This evolution of the MovieShop software is a testament to MacroSystems' growing awareness of what the market demands. In*



## DRACO DEMOGRAPHIC

The basic DV system consists of the following: the VLab Motion, Toccata, Retina and the 060 CPU and I/O combo, a HD floppy and lastly, a quad-speed CD-ROM. The latter contains all the necessary system software in the form of Workbench 3.1, MovieShop, Toccata, Draco and Retina control and utility software, Samplitude, ADPro 2.5, MorphPlus and XiPaint.

Unfortunately, the plan to incorporate Shape Shifter – the Mac emulation software – as a standard part of the Draco

software suite hasn't come to fruition. Apple, as yet, have not confirmed a license agreement regarding the Mac ROM file due to concerns regarding their traditional support policy.

Undaunted, and with the aid of a System 7.5 installation CD, I set-up a Pseudo Mac on a drive connected to the external SCSI port which, with the combination of 060 and Retina's blisteringly fast screen update, easily out performed my Quadra 700 at work. Big raspberry to those grumpy guys at Apple!

certain applications from the Draco, notables including Dpaint AGA, Brilliance and, worst of all, Scala. Basically, any software that requires the AGA by default, or in Scala's case relies heavily on Amiga specific RAM calls won't run. However, this isn't as catastrophic as it sounds – check out the big picture for more info.

Okay, you've got all the elements for a world-beating DV machine, but even at the basic asking price a Draco is still a big investment for the enthusiast – especially if you've already invested in some of the key elements

in the form of plug-ins for your existing kit.

Fortunately the Draco does offer another unique feature in a new machine, namely backwards compatibility. Admittedly, this is a weird concept regarding a new computer, but when it comes to existing MacroSystems' hardware, compatibility ain't a problem. Existing Toccatas, VLab Motion cards and Retinas all work perfectly well in the Draco, and as a consequence, MacroSystem are offering a mix and match option to complete the Draco equation.



## DV DELIGHTS

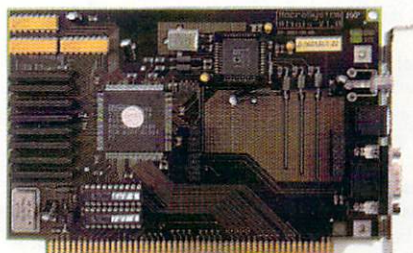
The real essence of the Draco's appeal is its ability to operate as a true off-line editor/digital video effects generator. In that domain it stands head and shoulders above the opposition with around 50 DVEs already available and more coming on-line all the time. Almost inevitably, the PAR card gets a mention when you're talking about Amiga-based digital video. However, the only common ground between the two is the fact that both can encode and playback video. That's where the similarity ends... The Par is an animation recorder, whereas the Draco can do that, and an awful lot more besides...

Unlike the combination of the PAR and SunRize AD516 direct to disk recorder, the Draco offers a seamless combination of audio and video with the ability to act as a truly digital AV editing system. The audio and video elements, by default, are hard-wired together so, as a result, when you cut, copy and paste within MovieShop, exactly the same edits apply to the accompanying stereo or mono sound.

If the need arises, you're still free to record or import additional sound and then edit, mix, and export sound tracks, or even mix live via the Toccata's multiple inputs to generate a perfect combination of sound track, backing music and voice-over. Even when the audio has been recorded, you're still free to adjust its length, copy it, reposition it as a separate

element on the Timeline, or transfer it between video clips and scenes. Better still, you also have complete control over the sound envelopes of the samples you're working with. As part of MovieShop's Timeline control, you're provided with an envelope requester which enables you to insert multiple edit points and adjust sound levels appropriately. Consequently, you can introduce frame accurate volume changes and even cross-fades between different audio tracks in different video clips. In short, complete control over the sound dynamics within the production.

As a finishing touch, there's even a built-in SMPTE time-code generator with which to strip a tape – assuming your creation is to be passed on to a third-party production house.



Draco's graphical power resides in this card

## Jargon box

**VLM** – VLab Motion, Macros System's superb non-linear video card

**DVE** – Digital video effects. Things like wipes, dissolves and fades can be considered DVEs, but most people relate more to the kind of whizzy things that happen on Top of the Pops

**OS** – the Operating System is the software that sits in between the hardware and the application software, and allows the two to work together

**DV** – Digital Video, something that is becoming more and more possible with advances in technology

**RPN** – Reverse Polish Notation. A bizarre way of representing calculations that seems reversed. In this system adding two to seven would look like + 2 7.

**CPU** – Central Processing Unit. The part of your computer that does most of the work

**AB-Roll** – real-time mixing of two video sources for a seamless fade or wipe between the two

## POST PRODUCTION

Assuming all the real-time grabbing and importing is complete, and the various clips are trimmed, edited, and appended, the next step is to drop them into the Timeline and add the all-important special effects and additional audio.

Building the actual Movie is entirely non-destructive. In reality, the process simply offers a means of layering and combining the audio and video into a new sequence, and the end result of this is a user-defined sequence of all the existing scenes, aided by assorted visual and audio effects.

This ability to mix and process multiple sequences points to another unique feature of VLM, namely its ability to operate as a digital A/B roll environment with a built-in DVE generator. Needless to say, this is by no means a real-time process, because once the scenes are arranged and the operators positioned, MovieShop still has to set about processing the video and audio transitions and effects specified in the timeline using ADPro-style batch processing. Luckily, this is all done automatically, but it does take time even with the aid of the 060.

Although the DVE process may sound daunting, after a little practise it becomes second nature. Beginners are catered for via an easy mode but in addition there's a more complex RPN approach – which can process an almost unlimited number of sequences along with multiple layers special effects.

Obviously, doing all the DVEs in software means there are, inevitably, opportunities for the odd coffee break, if not light lunch. However, thanks to the new preview option, wasted efforts can be kept to a minimum at least, and in reality, most DVE productions take seconds and minutes, rather than hours to generate. Given the complexity of what the machine is being asked to do, this is pretty remarkable...

## FEEL

the past, much of their software could quite rightly be described as over-engineered, with seemingly endless user options clouding the overall picture.

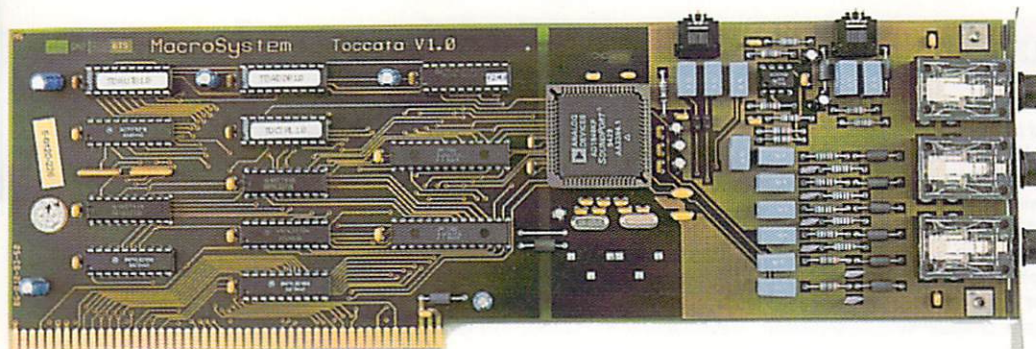
Fortunately, a more Mac-like approach to design is beginning to prevail. This doesn't mean MovieShop is exactly a no-brainer for the user, but it does mean the learning curve is flattening out dramatically. You're still free to adjust with just about everything, but the inclusion of assorted presets and one click operations is becoming much more the norm.

Classic examples of this are simple things like preset window arrangements, which go a long way towards simplifying the sea of requesters that control the system. Another is

the excellent new preview window which can generate a mini preview of all your edits and DVEs in a video sequence, thereby offering a means of quickly testing things before you commit to generating the full frame effects – a process which can be a lengthy procedure on a complex production. This is a seemingly obvious addition perhaps, but one that can save lots in wasted processing time.

One stop solutions such as slow motion and fast motion, either with or without accompanying sound, is another example. These are now built into software on a simple point and click basis which, again, is something which in the past was a real nightmare and involved a lot of manual labour.





Ⓜ Aural delights are provided by Draco's Toccata card

## THE BIG PICTURE

One of the biggest concerns of a non-standard chipset and its affect on compatibility regards access to the Amiga blitter. However, thanks to some clever coding, a direct and transparent replacement has been made via the Retina's on-board blitter.

The Retina was, in fact, the first card in the collection to go 'Draco direct' – pumping through 35Mb per second, making it one of the fastest graphics cards around – and one of the only ones which can run Workbench in full 24-bit, 64K or 256 colours in a variety of resolutions ranging from 320 x 240 up to 1600 x 992.

The Retina's natural affinity with Workbench emulation combined with the ever-growing range of software which supports RTG boards is a key factor in the development of the Draco. LightWave, ADPro, ImageFX, Wordworth, and PageStream all support RTGs, and the list just keeps growing. As a consequence, even without the Custom Chipset, the Draco remains compatible with the majority of Amiga applications.

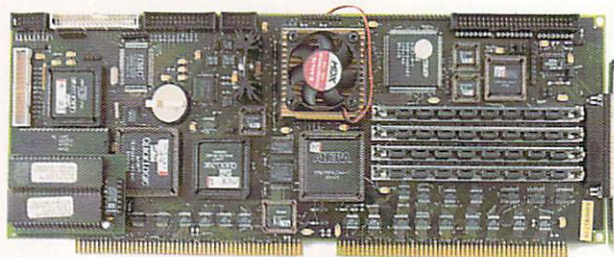
*It's not often a milestone appears on the scene, something which simply redefines your thinking regarding what's possible with a particular platform*

## WHAT HAPPENED TO...

During our original Draco preview a whole host of new add-ons got a mention, namely a Draco friendly TVPaint, a Draco direct VLM, a planned Dec Alpha co-processor, and a new 64-bit Retina.

The good news regarding TVPaint is the release of version 3.6 which, at long last, doesn't require a dongle, and therefore will work perfectly with the Draco. The Draco Direct VLM is now complete and its associated software is in beta, so the all new VLM, with a full D2 quality digital data bus and the ability to mix projects with different data rates will be available mid April and will debut at NAB. The same applies to the Dec Alpha co-processor which, like the Draco direct VLM, will launch at the NAB and promises to deliver real-time DVEs and much more besides....

The rumoured 64-bit replacement of the Retina looks likely to be appearing with the others at NAB and promises full on-screen video preview as well as generating a genlockable output. MacroSystem are also working on a minor revision to the Draco Motherboard which will allow a plug-in 133 MHz PC to become part of the Draco repertoire. Assuming you add a Mac via ShapeShifter, that makes three machines in a single box....



Ⓜ The beating heart of the Draco – the big chip covered by a fan is a 50MHz 68060

## OUR SURVEY SAID...

Add up the system performance and price tag and the Draco is bound to attract many a serious Amiga fan, with the basic machine retailing cheaper than the almost mythical Amiga 4000T running an identical 50MHz 060 accelerator.

Impressive figures for a fully-featured digital video box with full off-line editing, CD quality audio, broadcast quality digital video effects, 24-bit graphics, and much more besides. Look for opposition with this kind of spec at a similar price point and you simply won't find any.

The only other question, especially in relation to newcomers, is ease of use and system stability. As mentioned earlier, MacroSystems' software is synonymous with endless requesters and user-definable options, but having said that, ease of use is improving all the time. And after a day or two with the manual, most people would find the Draco second nature – especially if they'd used Amigas in the past.

On the system side, there's virtually no difference between the Draco and the Amiga, so there's nothing to complain about on that score.

## ARMOUR

If there's a slight chink in the dragon's armour it's probably on the display config side. As the old guard may recall, the Retina was originally launched as a twin monitor system – at least during the set-up of certain applications with Retina screens. Needless to say, the Draco doesn't have an Amiga RGB monitor port, and therefore, on occasion, setting-up new or RTG unfriendly software can be a tricky business.

Leaving this minor point aside, perhaps the most important point scorer for the Draco is the excellent stability of the system. In the Amiga days, VLM and Toccata combos were a quirky combination, but the Draco is a much more solid proposition which will run all day long without incident – and for media professionals, that alone is perhaps the strongest selling point of all.

However, before you rush hot-foot to the bank, it's worth bearing in mind that although the Draco looks every inch like a high-end Amiga, it isn't. In fact to pigeon hole the Draco as just another Amiga would do it a disservice. The Draco is, in fact, a fully fledged machine in its own right. Of course, if you're looking for a high spec machine that can take over the reins of ageing Amiga kit, it's still a valid choice. However, the Draco is primarily a dedicated DV engine capable of Broadcast quality work.

In short, if you're not planning to use the machine in its intended environment you'll be wasting an awful lot of its potential. Although a rather tired excuse, it's impossible to appreciate this machine unless you see it for yourself. Believe me, if my lottery balls dropped next Saturday a Draco would definitely be one of the first things on the shopping list.

## Bottom line

### REQUIREMENTS

RED essential

BLACK recommended

Hi-res monitor

VGA 31KHz +

16 Mb

RAM or above

### PRODUCT DETAILS

Product	Draco
Supplier	MacroSystem Germany
Price	£2750 (Approx) – with 060, 4Mb video, 4Mb system RAM, quad-speed CD-ROM £3670 (Approx) – with all of the above plus Toccata and VLab Motion 040 version also available – ask distributor for further details Hard drives sold separately

Contacts	UK distribution phone Whiteknight Technologies on: 01920 822321 US distribution phone Draco Systems Inc. on: 303 499 1975
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### SCORES

Ease of use	90%
Implementation	90%
Value For Money	100%
Overall	100%



**W**hen Amos came out for the Amiga back in 1990 it redefined the way people looked at Basics. Until then they were normally considered simply as learning tools, with no real world application because finished programs would run too slowly to be of use, and the notion of writing a graphic intense game would have been ridiculed. Amos proved this to be wrong, providing a command set that could perform amazing graphical feats on a stock A500.

Blitz is the same style of high performance Basic. A simple command set hides very powerful functions with which you can unleash the graphical power of your Amiga, while not having to go through several years of learning how to use it.

The Blitz programming language works around a sensible system of objects. An object can refer to almost any part of the Amiga's system, being screens, files, Fonts, Sounds or Gadgets. All objects can be created and removed in the same way, with the Blitz language handling all the memory allocation and other structures associated with each type of object.

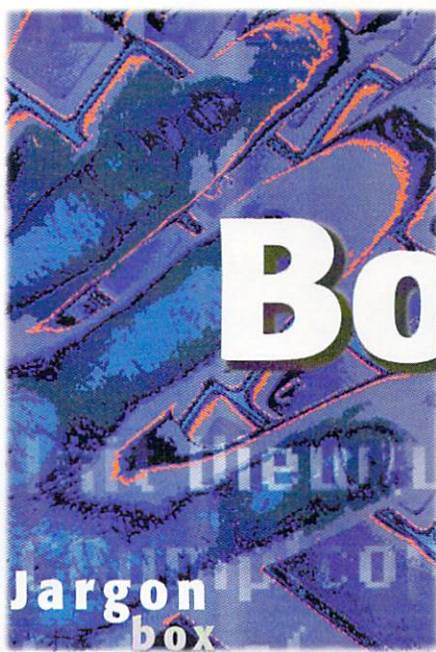
## COMMAND CONTROL

This object system makes understanding how commands work a lot simpler and is very straightforward. If you create a new screen object, any graphical functions you now perform will all act upon this screen object. If you then want to use a different screen you just select the screen object you want.

To make your life even simpler, Blitz has direct support for the Amiga standard IFF files. This means you can load IFF pictures, samples, animations and anim brushes directly into your programs. These can then be used with any relevant Blitz objects, such as screen and window backdrops, game sprites and even as menu and gadget images.

The major addition for Blitz 2.1 is full AGA support. This comes in the form of a new display library to replace the old screen slice system. The new system takes the form of each screen being given a copper list. The Copper is the custom chip that controls how the screen display will look. The basic form of the commands simply allows you to set the resolution and how many colours a screen should have, but more advanced programmers can access the more complex copper functions.

These new AGA functions will allow you to use the higher screen resolutions – up to 1280x512 pixels – and the greater screen



**Jargon box**

**Debugger** – an essential tool for any programming language that makes the job of tracking down program errors a much simpler task

**BASIC** – Beginners All purpose Symbolic Instruction Code, a high level programming language aimed at beginners to make it simpler to learn

**Amos** – Blitz basic direct competitor. Started off as STOS on the Atari and was ported over to the Amiga back in 1990

**Custom Chips** – gave the Amiga graphical and audio capabilities that took PC and Macs seven years to catch up. Unfortunately, 10 years of neglect have left them outdated

**Enforcer** – a debugging only available to people with MMUs. Enforcer is used to check that any multitasking programs are not going to crash the machine

**MMU** – Memory Management Unit, found in the full 030/040/060 processors. Allows advanced memory functions to be performed

depths – 256 colours or 262,000 in Ham mode – that AGA allows. Along with this are the 64 pixel wide sprites that can also be high res.

Another feature of the AGA chipset is its ability to fetch graphic's data in larger amounts. This allows 32 or 64-bits of screen data to be fetched in the same amount of time it took the old chip set to fetch 16-bits. These higher fetch speeds mean it takes less time to display a screen, so on chipRAM-only systems, the processor has more time available to it.

The only drawback with the new fetch modes is that due to how the Amiga's DMA works, using high fetch modes and screen depths will restrict the number of sprites you can have on screen. The only way around this is to work on a screen with reduced width – this gives the Amiga more DMA time to sort the sprites out.

**Neil Mohr** finds out what makes Blitz a superior Basic

# Bomber command

The only other major addition to this version of Blitz is the improved text editor, TED, and its on-line help. The editor is now available in a Workbench 2 version that looks and works a lot better than the old.

Using the new on-line help, if you want to find out more about any command, just press the right Amiga and help keys and a window will pop up with a short description of the command's syntax and what it does.

I suppose the main question is whether you should buy Blitz or Amos? I would not hesitate in recommending Blitz Basic over Amos with its system-friendly editor and debugger, full AGA support, and a more straight forward command set. There is direct support for intuition programming, including specific Blitz commands for creating gadgets and menus, so Workbench 2 users can use the Gadtools commands for better looking programs. Also, the ability to have in-line Assembler is a great feature, which not only makes Blitz perfect for learning Assembler, but anyone creating a game will be able to optimise parts of their Blitz code with it.

## Bottom line

### REQUIREMENTS

**RED essential** **BLACK recommended**

**1 Mb**

RAM

**1.3**

Workbench

**2 Mb**

RAM

**2.0**

Workbench

3 Mb hard disk space

### PRODUCT DETAILS

<b>Product</b>	Blitz Basic 2.1
<b>Supplier</b>	Guildhall Leisure
<b>Price</b>	£34.99
<b>Tel</b>	01302 890000

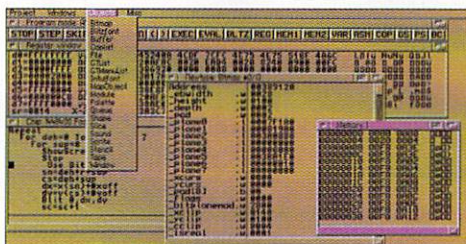
### SCORES

Ease of use	<b>85%</b>
Implementation	<b>85%</b>
Value For Money	<b>95%</b>
Overall	<b>94%</b>

## DE-BUGGER ME

The new version goes for the full MonAm treatment and allows you to view every aspect of your Blitz program. Along with the usual debugger functions, such as skip, step, run and viewing, the processor registers and status registers. You can add stop commands in your program which will automatically invoke the debugger, allowing you to view the program status, change registers, custom chip requesters and program variable and arrays.

All the various Blitz objects that your program may have created can also be examined, making it a simple task to find out what all your screen bitmaps, sprites and palettes are up to.



The new debugger is bristling with useful functions, and allows you to peek at every aspect of your blitz program



## 1. Your machine

What Amiga do you own? (tick every box that applies)

- |                                |                                      |                               |
|--------------------------------|--------------------------------------|-------------------------------|
| <input type="checkbox"/> A1000 | <input type="checkbox"/> A2000/A1500 | <input type="checkbox"/> CDTV |
| <input type="checkbox"/> A500  | <input type="checkbox"/> A3000       | <input type="checkbox"/> CD32 |
| <input type="checkbox"/> A500+ | <input type="checkbox"/> A3000T      |                               |
| <input type="checkbox"/> A600  | <input type="checkbox"/> A4000       |                               |
| <input type="checkbox"/> A1200 | <input type="checkbox"/> A4000T      |                               |

## HARDWARE

Do you have a hard drive?

If yes, what size is it (give the combined size if you have more than one drive)? \_\_\_\_\_

Do you have a CD-ROM drive?

How much memory do you have (give details of Chip and Fast RAM)?  
Chip \_\_\_\_\_ Fast \_\_\_\_\_

What processor do you have in your Amiga?

- ☐ 68000 ☐ 68020 ☐ 68030 ☐ 68040 ☐ 68060

Do you have a maths co-processor (FPU)?

Do you have a modem?

- ☐ No ☐ 2400 ☐ 9600 ☐ 14.4k ☐ 28.8k

Do you have an Internet connection?

- ☐ No ☐ Yes

Do you have a printer?

- ☐ No ☐ Dot-Matrix ☐ Ink/BubbleJet ☐ Laser

Do you have a graphics card?

- ☐ No ☐ Opalvision ☐ Picasso ☐ Retina ☐ EGS ☐ CyberGraphics

Do you have a monitor?

- ☐ No ☐ TV/Monitor ☐ PAL-type (1084S)  
☐ Low-end Multiscan ☐ High-end Multiscan

What's your favourite piece of hardware?

What piece of hardware would you like the most?

## SOFTWARE

What revision of Workbench are you running?

- ☐ 1.3 ☐ 2.04 ☐ 2.1 ☐ 3.0 ☐ 3.1

Estimate the total value of serious software on your machine \_\_\_\_\_

Estimate the total value of the games on your machine \_\_\_\_\_

Rate your usage of the following:

### Often

- |                                |  |  |  |
|--------------------------------|--|--|--|
| <input type="checkbox"/> CAD   | <input type="checkbox"/> Programming   | <input type="checkbox"/> Video titling   | <input type="checkbox"/> Business software |
| <input type="checkbox"/> Comms | <input type="checkbox"/> Graphics - 2D | <input type="checkbox"/> Animation       | <input type="checkbox"/> Music - MIDI      |
| <input type="checkbox"/> Games | <input type="checkbox"/> Graphics - 3D | <input type="checkbox"/> Database        | <input type="checkbox"/> Music - MOD       |
| <input type="checkbox"/> DTP   | <input type="checkbox"/> Multimedia    | <input type="checkbox"/> Spreadsheet     | <input type="checkbox"/> Video editing     |
|                                |  | <input type="checkbox"/> Word processing |  |

### Occasionally

- |                                |  |  |  |
|--------------------------------|--|--|--|
| <input type="checkbox"/> CAD   | <input type="checkbox"/> Programming   | <input type="checkbox"/> Video titling   | <input type="checkbox"/> Business software |
| <input type="checkbox"/> Comms | <input type="checkbox"/> Graphics - 2D | <input type="checkbox"/> Animation       | <input type="checkbox"/> Music - MIDI      |
| <input type="checkbox"/> Games | <input type="checkbox"/> Graphics - 3D | <input type="checkbox"/> Database        | <input type="checkbox"/> Music - MOD       |
| <input type="checkbox"/> DTP   | <input type="checkbox"/> Multimedia    | <input type="checkbox"/> Spreadsheet     | <input type="checkbox"/> Video editing     |
|                                |  | <input type="checkbox"/> Word processing |  |

### Never

- |                                |  |  |  |
|--------------------------------|--|--|--|
| <input type="checkbox"/> CAD   | <input type="checkbox"/> Programming   | <input type="checkbox"/> Video titling   | <input type="checkbox"/> Business software |
| <input type="checkbox"/> Comms | <input type="checkbox"/> Graphics - 2D | <input type="checkbox"/> Animation       | <input type="checkbox"/> Music - MIDI      |
| <input type="checkbox"/> Games | <input type="checkbox"/> Graphics - 3D | <input type="checkbox"/> Database        | <input type="checkbox"/> Music - MOD       |
| <input type="checkbox"/> DTP   | <input type="checkbox"/> Multimedia    | <input type="checkbox"/> Spreadsheet     | <input type="checkbox"/> Video editing     |
|                                |  | <input type="checkbox"/> Word processing |  |

What's your favourite piece of software?

What piece of software would you like the most?

# Rea



# der Survey

Since Amiga Computing US edition took over from Amiga World, we have strived to provide you with a better product.

Now it's your turn to tell us what you really think. Please fill out this questionnaire to the best of your abilities and to encourage you to send it into us, there will be a prize worth at least \$300!

**You'd better give us your name and address so that we know where to send your prize:**

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 Postcode \_\_\_\_\_  
 Daytime Tel: \_\_\_\_\_  
 Fax: \_\_\_\_\_  
 E-mail: \_\_\_\_\_

## 2. The magazine

What do you think of the following magazine sections:

### Poor

- ☐ News ☐ ESP ☐ ACAS ☐ Coverdisk  
☐ Features ☐ Reviews ☐ AmigaGuide section

### System

- ☐ News ☐ Features ☐ Previews ☐ Reviews

### Average

- ☐ News ☐ ESP ☐ ACAS ☐ Coverdisk  
☐ Features ☐ Reviews ☐ AmigaGuide section

### System

- ☐ News ☐ Features ☐ Previews ☐ Reviews

### Good

- ☐ News ☐ ESP ☐ ACAS ☐ Coverdisk  
☐ Features ☐ Reviews ☐ AmigaGuide section

### System

- ☐ News ☐ Features ☐ Previews ☐ Reviews

### Excellent

- ☐ News ☐ ESP ☐ ACAS ☐ Coverdisk  
☐ Features ☐ Reviews ☐ AmigaGuide section

### System

- ☐ News ☐ Features ☐ Previews ☐ Reviews

What do you think of our distribution? Is the magazine:

- ☐ Easy to find ☐ About average ☐ Difficult to find ☐ Almost impossible

Do you subscribe? \_\_\_\_\_

If yes, how long have you been a subscriber for? \_\_\_\_\_

What made you subscribe? \_\_\_\_\_

If no, what would make you subscribe? \_\_\_\_\_

## 3. Comments and suggestions

## 4. You

Are you:

- ☐ Male ☐ Female

How old are you?

- ☐ -15 ☐ 16-25 ☐ 26-35 ☐ 36-50 ☐ 51+

Which of the following best describes your household income?

- ☐ under £9,999 ☐ 10,000-14,999 ☐ 15,000 -19,999  
☐ 20,000-29,999 ☐ 30,000-39,999 ☐ over 40,000

Which of the following Amiga magazines do you read?

- ☐ Amiga Format ☐ CU Amiga  
☐ Amiga User International ☐ Amiga Shopper

Do you have children? If so, how many and how old are they?

How much do you intend to spend on your machine during the next year?

- ☐ £0-50 ☐ £50-100 ☐ £100-200 ☐ £200+

Your occupation \_\_\_\_\_

Do you use your Amiga professionally? If so, what kind of work are you involved in?

- ☐ If you do not wish to receive promotional literature from other companies please tick here



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(comp.sys.amiga.reviews)

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## Benchmarks

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Test	FFS	AFS	Units
Dirscan	409	1780	Files/Sec
CreateFile	227	1073	k/sec
ReadFile	244	1363	k/sec
Seek and write 4bytes (start & end)			
x100	53.6 Sec	4.4 Sec	

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"Tried with Mail Manager again. My \*GOD\* it was amazing! Tossing sped up from around 500 messages/min up to 1200 or so!"



**B**elfast, a name to conjure up images of murals with red hands, soldiers looking nervous, armoured cars and helicopters patrolling restlessly around, but these would be wrong unless you were to venture right into the heart of disputed territory, and even there the peace accord and cease-fire has meant a slackening off of military presence. But I wasn't in Belfast to report on the troubles, or their possible conclusion, but to visit two, quite disparate, professional Amiga users.

My visit, coincidentally, happened to fall on the weekend when the first Belfast Computer Show was being held, and the first people I was in Belfast to see were exhibiting their talents at the said show. It wasn't a good show for Amigas overall, with Arcom Multimedia being the sole proponents of the machine we spend so

much time writing about there, demonstrating and comparing Amiga-based multimedia with PC equivalents.

Most of the other stands were either highly technical, with Siemens Nixdorf having a large stand devoted to LAN/WAN networking products, or went to the other extreme with companies like Game showing off the Playstation on an enormous TV and selling loads of copies of Rebel Assault II for the PC (By the way, I had a look at this supposed pinnacle of PC gaming and was distinctly unimpressed. Yes, the graphics were lovely and, matched with the accompanying soundtrack, very atmospheric, but the gameplay seemed to consist solely of clicking the mouse at a particular point on the screen).

As such, the mix was an uncomfortable one and the show was more successful for the serious companies during the week-

days it was open and vice versa for the gamers. Even so, Arcom managed to get leads from teachers visiting the show with their children, and from a couple of small businesses who had an interest in games visiting the show at the weekend. The teacher was interested in setting up an interactive kiosk and the small businesses were after corporate videos to demonstrate their facilities to prospective customers.

Arcom are a fairly new company to the scene, having evolved from a money-making hobby to the point where expansion into a full-time business was inevitable. Russell Moore, the hobbyist turned professional, is in partnership with his friend and erstwhile Vince Clarke lookalike, Chris Astles. As Chris said to me: "I hadn't even

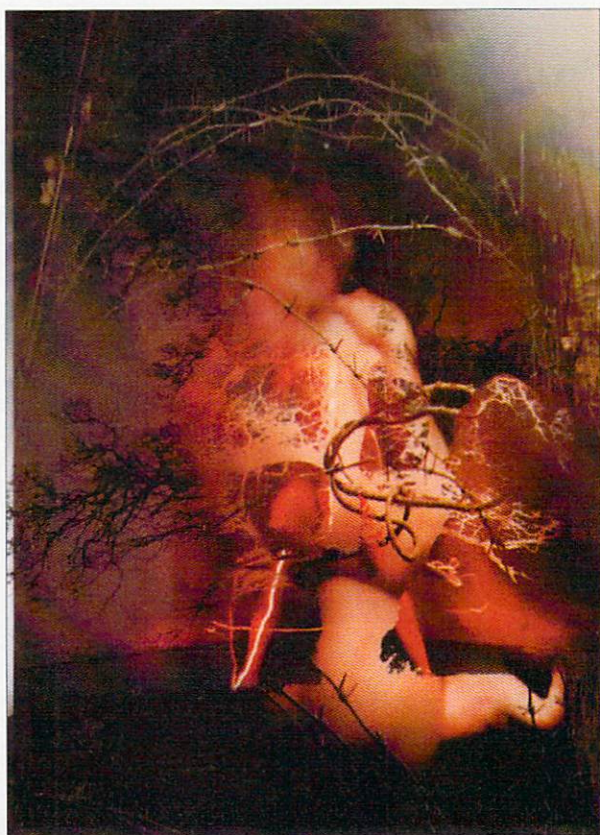
**Northern Ireland** is a hotbed for good music, Guinness and also **Amigas**, it would seem. **Ben Vost** goes beyond the pale to investigate

# The Amiga

## pure genius







**DigitalWinter** – one of Tony's recent images was a proposed cover image for Amiga Computing

## HARDWARE GALORE

Arcom Multimedia have a hardware inventory that would be the envy of many an Amiga enthusiast, but also contains one of the devil's machines – a PC. Unfortunately, the PC was a necessary purchase because of its Mpeg encoding and CD mastering facilities, which weren't available at the time on the Amiga, but has also now got a spot doing interactive CD authoring using products like Macromedia Director for PCs, a growing part of Arcom's business.

This machine is called 'The Beast' and joins a menagerie of Amigas, all named to avoid confusion. First up is Walter, also known as Walter the Warp Engine for the 33MHz Warp Engine that powers him (her? it?). Walter is an extremely stacked machine. In addition to the processing power it can muster, it also houses the Digital Broadcaster card and its accompanying AD516 16-bit sampling card, and is the main LightWave rendering station.

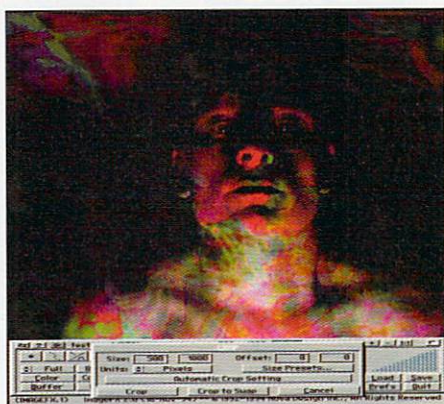
Next up is Peggy, an A4000/030 with one of Scala's Mpeg cards, closely followed by Peggy II, a similar machine. Lastly, Runty is the smallest member of the pack. Being only a moderately accelerated A1200, Runty's main use these days is recreational, but it used to be Arcom's mainstay. The four machines are surrounded by CD-ROM recorders, video equipment, scanners, genlocks and DAT drives, and there's barely enough room in the office to breathe let alone take photographs!

used a computer before two years ago, but I saw what Russell was doing and wanted to be involved." Chris gave up his job as a boat builder to work full-time on the project and learned how to use Arcom's two main programs – LightWave and Applied Magic's Digital Broadcaster.

The Digital Broadcaster is a product that doesn't get much coverage in Amiga magazines, but it is the only broadcast quality, non-linear, video editing system in the world that is available at such a low price. Even so, the Digital Broadcaster is not the kind of

thing you pop down to your local shop to buy with 50p in your pocket. The main cost for the system isn't even the card itself, but the hard drives required to store broadcast quality video on. Arcom have 8.4Gb of storage space devoted to the Broadcaster, and a further gigabyte for accompanying 16-bit sound which is provided by the legendary AD516 board (which is no longer being made). This board is at the centre of Arcom's business and since the job that provided the money to buy it (and all its attendant hard drives), it has been in constant use for

## ANATOMY OF AN IMAGE



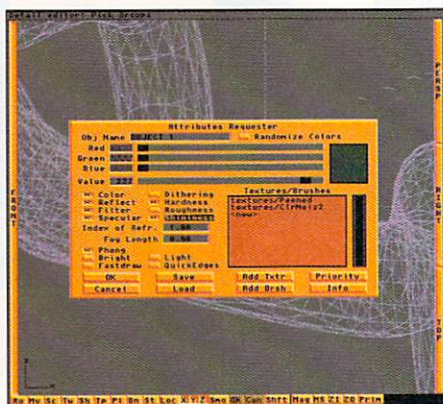
Tony Patrickson tells us in his own words about the creation of the Stimuloss image on this page...

Here, The image started off as a vague idea about creating a design that merged computer-generated imagery with material scanned in from the 'real world'. The original background image of a human figure was one of a series digitized several months previously using the VidiAmiga (24) RT with live input from a Betacam, which I'd played around with for a while using various colour-mapping routines in Photoshop to produce this rather lurid 'chameleon' effect. Having imported it into ImageFX this was then cropped and resized to the correct resolution and aspect ratio for the task in hand. Because the image was enlarged to such a degree, it was necessary to use Gaussian and antialiasing routines within



ImageFX to smooth out pixel differences – which would have been necessary anyway as I wanted the background de-focussed to reproduce the photographic effects of depth-of-field.

The next stage was to get down to designing foreground elements: there's really no substitute on the Amiga for LightWave when it comes to working quickly through ideas in three dimensions. I'd already made preparatory drawings on paper – pre-planning is a must if you don't want to get 'lost in the interface' at a later stage – so adapted these ideas to create forms similar to blood-vessels in the human body. Again, with the modeller in LightWave it was a relatively straightforward process of creating a disc of the required diameter and using the 'rail extrusion' feature from the Multiply menu to extrude the disc along a curve sketched in the background layer. Both the



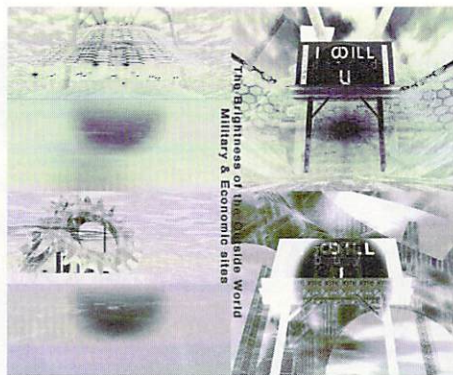
'oriented' and 'segments=automatic' functions were selected in this so as to give a smooth extrusion in three dimensions

Having created a number of these objects in LightWave I then loaded them into Pixel3D and saved them out in TDDD format for use in Imagine3. Why Imagine and not LightWave? Well, in this case I wanted to make use of certain procedural textures available only in Imagine (in this case 'peened' and 'ColourNoiz2'), plus, although being abysmal as an animation tool it does produce good quality high-resolution stills (I basically only use it as a rendering engine for detailed textures nowadays). Also, I found out early on in the project that my 10 megs of RAM wasn't enough to render all the scene-elements in LightWave (even with the 'Segment memory' feature shut way down) at the resolution I needed for output





☛ Russell Moore explaining just how epic Arcom's services are to a bemused pair from the Chamber of Commerce



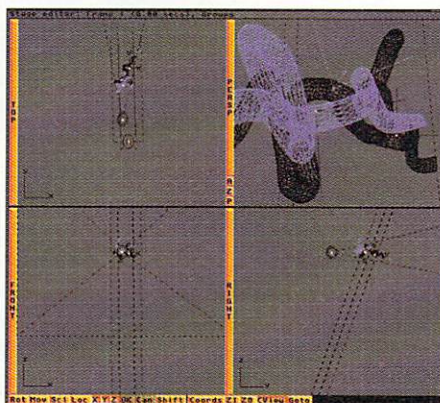
☛ Some frames from one of Tony's animations for Poland. These have been greyscaled and inverted



☛ Tony Patrickson hard at work on Stimuloss, the image shown in the work in progress below



☛ The final version of Stimuloss – an image created specifically for Amiga Computing



to print. Once I'd carried out a series of test renders to get the texture parameters right it was a case of designing the lighting within the stage editor. As it is in film, theatre or photography, probably the biggest reason why so many bad computer graphics look terrible is in poor lighting design – it doesn't matter if it's 3D Studio, LightWave, or any higher-end application like SoftImage, if the lighting is bad it doesn't matter how good the other elements are. The temptation is to whack the ambient-fill levels up to try and show every detail (which gives many computer-graphics on TV that flashy 'sameness' for example), but as with cinematography, much of the most effective work is done with shadow as much as light itself.

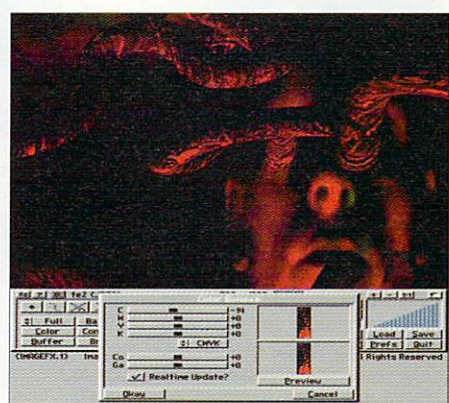
In this case, the lighting requirements were quite precise because the light in the background image had been from a single low-angle spot, so a single



spot was placed in the stage editor to illuminate the objects from beneath in a similar fashion. As well as accurate placement, the light colour was tweaked to mimic the effects of the tungsten/artificial lightsource in the background image, with 'diminishing intensity' selected.

## RENDERING

After further tests, all the image components were finally rendered at print rather than screen resolution. The final render was then imported into ImageFX for post-production and checking. Although the lighting of the back and foreground elements seemed consistent enough, I wasn't happy with some aspects – the compositing looked too sharp in places, like that in the circled area. This is a common problem when compos-



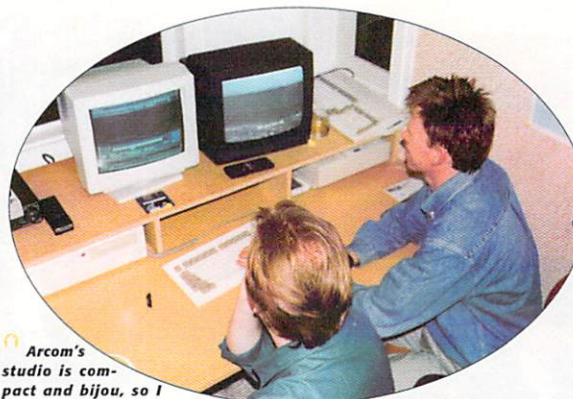
ing several elements from different sources, in that things can look too clean and artificial – our own eyes are used to a world that has dirt and shadow in it. The offending areas in the image were selected using the 'freehand' tool in ImageFX, with pixel and shading differences then softened using Gaussian, blur, and darkening routines.

Whilst the lighting and tonal ranges now looked okay, there were slight colour variations that needed tweaking to harmonize the image as a whole. After small adjustments to the CMYK values, I played around with the 'antique' filter from the Colour effects menu. Usually this just turns everything into a 'cliché in sepia'. But I found that re-applying it several times gave the right hue to bring the image together. Finally, the file was saved-out of ImageFX and archived for transmission to the magazine.



projects both large and small. Russell Moore doesn't really care about all the doom and gloom currently enveloping the Amiga market, in fact he almost approves of it. He likes the idea that the Amiga is a 'punk' machine, as he terms it. And he sees the Amiga going on long past its sell-by date, with people in the know buying up second-hand machines and scavenging parts from broken Amigas – sort of a Mad Max scenario, if you like. He thinks it's great that there will be people abandoning the machine in their droves and putting their old Amigas up for sale so that he can buy them and make them into interactive point of information kiosks at a fraction that it would cost for a similar set-up using a PC.

Russell also believes that the Amiga will continue to be a creative machine with a hard core of dedicated users providing the software




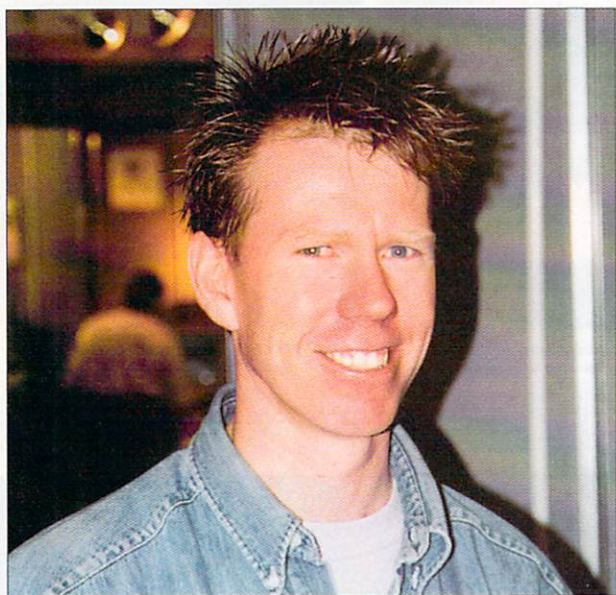
Arcom's studio is compact and bijoux, so I had to stand on a chair to get this shot of them both

that is needed for the work the Amiga is best at, like multimedia, video titling, non-linear video editing and so on. Like most people intimately concerned with the Amiga for their

business, he is despondent about its prospects over the next year, but hopes its sorry situation can be turned around. "It's not a machine that can be sold in shops like Dixons, or even the Escom shops." I suggested that an approach more like the old Apple dealerships would be more appropriate, but Russell wondered if there was even the market for that.

Even so, Arcom aren't averse to publicising the Amiga in magazines like Ireland's influential trade magazine, Irish Film & Video, with a full page article on just how good LightWave is. The only problem with doing this is the worry that people will actually believe the article and go out and buy Amigas and compete with the services Arcom provides.

"The Amiga is the world's best-kept secret, and we'd rather keep it that way," says Russell. 



Chris Astles – No he doesn't play keyboards for Erasure



Russell Moore – The man who made the word epic into an Irish household sensation

## THE MAIN MAN

Tony Patrickson is an ad hoc lecturer at the University of Ulster in Belfast where he takes up the thankless task of showing the students (and even some of the teachers) there how to get to grips with electronic media. Most universities have computer equipment these days and Belfast is particularly well catered for with a nice mix of PCs, Macs and even a Silicon Graphics machine, but there is something of a generation gap between the administration, the lecturers and the students, where the administrators and lecturers are aware of the new media, but are more interested in the fields they learnt at university, like painting and sculpture.

It's a similar problem that was faced by people wanting to study photography as an art form earlier this century, and it will probably take longer to overcome owing to the prejudice against computer art, which Tony Patrickson thinks he has an explanation for. "There are still a lot of people out there who view art as a visible expression of their wealth

and computer art confounds them because they can never possess it. I can make dozens of copies, each exactly the same as the first, and that bugs them because they can't hoard my art."

Tony took a roundabout trip into the world of Amiga. He originally trained in sculpture and comes from an orthodox fine art background. But he wanted to get involved in the emerging computer arts field and, through speaking to a friend working at a production facility in Belfast, came into contact with the Amiga. Tony's main problem as an artist is one of funding, so the Amiga's low-cost and high quality combination made for a particularly attractive proposition.

He first got an A1500 about four years ago and worked with Deluxe Paint and Imagine, pretty standard Amiga tools that everyone has access to. But two years ago, the ageing A1500 was definitely starting to lag behind the current state of the art (to be very kind to it) and Tony replaced it with an A4000/030.

He continued using a mixture of video grabs from his Vidi Amiga frame grabber and an evolving mixture of Imagine, DPaint and ImageF/X.

When LightWave became available as a standalone package, Tony got the necessary money together in order to purchase what was universally acclaimed as a brilliant 'new' tool for 3D animators. Six months ago, he gave LightWave the kick in the pants it needed by adding a Cyberstorm 060 board to his setup, thanks to a grant from the Arts Council, but he has his eye on plenty of other additions to his setup that he will make when he gets further money – items like a VLab Motion come pretty high on his list. As you'll see from the pictures on the page, Tony uses stark imagery to make his point. He feels that colour can sometimes be a distraction, and that computer art in particular seems always to be oversaturated with bright tones that can get in the way of the point of the image.



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# ESCOM KILL THE AMIGA?

This next letter was addressed to our erstwhile deputy editor Ben Vost

As a subscriber, I always read my *Amiga Computing* pretty comprehensively, but this month's issue (January 1996) was particularly apt.

From your sombre coloured cover with the rather sinister 'Escom' figure, to the well-written and well-reasoned articles, I think you have captured the mood exactly and I would like to make a few comments of my own.

I came to the Amiga rather later than most. I was forced by an industrial injury to take early retirement, and my younger son, bless him, knowing I was in a lot of pain and unable to sleep at nights, gave me his trusty Amiga 500. I quickly became hooked and sold the 500 to buy an almost new A1200, just after Commodore went into liquidation. I set about upgrading the basic 1200 and now have a 1200 working through a HiQ Workstation, with a trapdoor expansion card to give me 6Mb RAM, a 170Mb IDE drive, a Sanyo CD-ROM drive and a ZIP drive, together with a new Citizen ProJet Colour printer – as you can imagine, I spend a lot of time and get a lot of enjoyment from my now lovely 1200 and this is increasing as I gain in competence!

But I live in an idyllic setting miles from anywhere with far more sheep than people. When I first got the Amiga, there were quite a few shops at not too great a distance from where I live that supported it – certainly most

of them also sold mainly PCs, but usually there was someone with whom you could at least talk sensibly about Amigas.

Since Escom bought out what was left of Commodore it is quite noticeable how the Amiga presence has totally evaporated – certainly, as in your article, there are a few boxes with Amiga on them in both Tandy and

Escom shops, but my experience in both was far more pronounced than yours. This was particularly so in the nearest Escom shop, where I was told by one assistant, when I commented on the 'Commodore' badge on an Escom PC "Yes, Escom are marketing Commodore now." Yes, says I, I know that, but what about the Amiga? "Separate company", says he. "Amiga Technologies have been set up to do the software, but the Amiga is defunct and nobody is supporting it any more."

I will not tell you what I actually said to him, but I will leave it to your imagination. Suffice to say, the next time I went into the shop I demanded to talk to the manager, whom I knew had previously had an Amiga, and asked him to explain company policy about the machine. He looked really disco fited and more or less



Will **Amiga Technologies** ever get it right? It doesn't seem like it according to our **£50** prize winner

## GRIMSBY WRINKLIES

I write on behalf of the 'wrinklies' in our Video Camera Users Club, who try to enjoy the fascinating hobby of video linked with the Amiga computer.

About eight of our members have Amigas, mainly the A1200, and we have an extra monthly get-together to exchange our knowledge regarding computer and video programs.

Our complaint is not aimed At *Amiga Computing*, or the other Amiga magazines, but at the instructions given with coverdisks to get some of these very useful programs working. For instance, the installation instructions for MainActor on the December 1995 coverdisk include the following: 'Double-click on the MainActor.lha – to use this you must also have the installer program in your C: directory.', and also; 'You will have to add a line to your user-startup, that being Assign MainActor: . This allows MainActor to locate all the extra files it uses.'

This must look straightforward to you 'Young 'uns' using computers, but to us retired 'wrinklies', well, we haven't a clue where C: is, where the user-startup is, or even how to assign anything!

This type of thing happens to us continuously and we end up playing a stupid game that is easier to load most of the time. We think it would be a good idea for you to run a simple, basic instructions page for us 'wrinklies' at regular intervals, which leads us simply and step-by-step through these small problems that stop us from enjoying these programs.

We do have one or two young members who come along to the meetings, their fingers working

faster than our brains, to get some of the programs working. They are like your contributors – they know their stuff, but cannot translate simply the various processes needed to get things working.

When we do get these video/computer programs working we really enjoy the processes of titling animations and all the other video-related programs you include, so perhaps you could recommend a booklet for 'wrinklies' on the most simple basics of getting things running.

Finally, if there is anyone in the Grimsby district interested in video and the Amiga who wants to know more about our club, give me a ring on 01472 877428. The instructions will be very simple, come and join us to help each other in our hobby.

Phil Borman, Grimsby

First off, I would like to say sorry for how long it has taken me to print your letter (it arrived here at the end of last October), but in answer to your question, do you regularly get *Amiga Computing*? If so, you will know that there is a regular page at the back written by one of our contributors, Frank Nord, on how to keep your Amiga in tip-top condition. There are always a lot of hints and tips for the whole range of Amiga users, from beginners through to advanced in an easy-to-read style. In addition, this issue contains the third instalment of Steve White's beginners guide to the Amiga, which should also help you.

There are plenty of books around to help Amiga

users, such as those from Bruce Smith, but the real solution to your problem is to experiment. Make a backup of your machine before you do anything too drastic and press ahead trying to solve your problems. At least you'll be safe in the knowledge that you can always restore your backup and all you will have lost would be some time.

Get yourself some sort of file manager program like Optonica's InfoNexus which will help you explore Workbench's hidden depths, but experiment, experiment, experiment. Finally, we will be running a video feature at some point this year, so stay tuned and we should have a bumper set of video-related tools on our disks to accompany it



Keep those letters coming! If you can't be bothered to find a bit of paper and a stamp, why not e-mail us? Simply point your mailer to: [ESP@acomp.demon.co.uk](mailto:ESP@acomp.demon.co.uk) There's a £50 pound prize for the best letter printed as an incentive



implied that they were only selling them while stocks lasted and that he expected not to get any more, and yes, he was the only one who knew anything about Amigas in the shop. He then excused himself and went into his office shutting the door behind him.

Even the big people who also wholeheartedly supported the Amiga in every way are starting to lose heart in the face of the lack of support they are receiving from Amiga Technologies, and I am afraid it is Escom's intention to kill the Amiga in its present form and certainly not to support existing Amiga owners in any meaningful way.

I suppose that, in a way, I am lucky – although I really like my Amiga 1200 and think that it can do virtually everything I could do on a PC, but far more easily and at far less cost and certainly in a more user-friendly way, if all else fails, ultimately, I could throw the A1200 away and convert my workstation to a PC using the CD, hard drive and Zip drive as peripherals in what will then become a PC, after a few additions such as a PC motherboard.

But isn't it a shame? There are literally thousands of enthusiastic owners who like and want to continue using the Amiga, despite its many limitations, all over the world. I think Escom ignore and treat us like dirt at their peril, and I, for one, would certainly not buy anything PC from an Escom shop, if it came to it, even if it did say Commodore on it in exactly the same way

as my 1200 does. Many thanks for all your interesting articles and may I wish you and your team a happy Christmas and a prosperous and healthy 1996.

*Ian Aisbitt, Bedale, North Yorks*

**Ben replies:** – Thanks very much for your kind words of support. I understand from Ezra that you are a bit of a regular letter-writer to the postbag, so I'm glad that he has seen fit to award you the £50 prize for letter of the month. As far as the Escom shops thing goes, since the magazine came out, I have had several people ring me up and give me their tale of woe with regard to friends and family attempting to buy Amigas. I really think that the whole affair is pretty shabby and that Amiga Technologies should have only allowed Amigas into Escom shops with some degree of Amiga experience.

As for Andy, I spoke to the guy in their shop for perhaps the longest time and he was very sincere in his desire to sell me a PC, but when it came to it, none of the shops I visited was interested in taking £500 of my money for an Amiga (apart from Silica, after some prompting). They all wanted me to go and get more cash or buy a more expensive machine on the never never.

This makes me wonder how many sales of any sort of computer are being lost because of this perceived lower budget limit of about £650, which a lot of people

just can't meet. When it comes to your suggestion that Escom want to kill the Amiga, I have to demur. I don't think they would have spent the money they did (somewhere in the region of \$50 million so far) if all they were going to do is dump the machine. However, their policies regarding the sales and marketing of the Amiga do seem decidedly odd, but as I know very little about big business advertising budgets or sponsorship deals, I can only assume that AT are doing what they can with the money they have.

On the other hand, the lack of support we seem to be receiving from Amiga Technologies is upsetting and curious, especially since the Amiga magazines are the only outlet for publicising the Amiga that AT currently have.

When all's said and done, the Amiga will probably never regain the sort of stature it had five years ago in the home market because of the rise of the console kids and people willing to spend the money on a PC – after all, if you want music, graphics, education, the Internet and business and your only source of information is the television and the Sunday papers, the only machine you're going to know about is the PC, unless Amiga Technologies gets very creative in the marketing department, which is looking about as likely as it ever did with Commodore.

## TRASHY NEW YEAR

I have a handy tip to do with the trashcan on the Workbench. When I got your Christmas issue (94), I looked at the AppTrashcan program you gave away, but you don't really need all these programs to replace Workbench's trashcan because you can have one out on the Workbench screen without using any of them. It goes like this:

1. Create a normal drawer on the boot partition of your hard drive and call it what you like, like WBTrashcan, for instance.
2. Make sure the icon is selected.
3. Select 'Leave out' from the Icon menu on Workbench. This will place the icon directly onto the Workbench screen.
4. Next, use an icon editing program like the excellent one you gave away in issue 94 and change the drawer's icon type from a drawer to a trashcan. (You could also just use SwazInfo to do the same, we gave it away the following month on issue 95 – ES)

5. Snapshot the icon to wherever you want it to be and hey hey hey, you now have a Trashcan on Workbench.

One last thing before I go to bed (it's 4:37am as I write this). I live in north Wales and I am saddened to see that the towns around here no longer have anything to do with the Amiga – you can't get a single thing: no Amigas, no hardware, I can only find one shop that sells games

(and they're all out of date), plus, if you ask the shop attendants anything about the Amiga they go all cocky and selfish.

I find all this very distressing, I have been a proud owner of an Amiga for ten years and while there is a lot I want to say, I feel I am only repeating what other people have said already. Anyway, it's a sad situation even though you guys at *Amiga Computing* are doing a great job – if it wasn't for your magazine I would have no way of knowing what was happening in the world.

*Michael J Owen, Caernarfon*

**Nice bit of lateral thinking there, Michael. We tried it out in the office, just to check you weren't pulling our legs, and lo and behold it worked! The only problem with your method that we could discern was if you have (as we do) more than one hard drive or partition. If that's the case, you will have to have a separate trashcan for each drive you have on Workbench, as only having one follows the Workbench rule of 'If it isn't on the same drive copy it rather than moving it.'**

What this means is that if you drag a file from one place on a hard drive to another place on the same hard drive, Workbench moves the file (i.e. copies the file to the new location and deletes the original). If, however, you drag a file to a different partition or hard drive, then Workbench just copies the file, leaving the original copy where it is. The same principle applies to the trashcan. Other than that, nice one!

## FINALLY...

I just thought I would write in to say how much I like the new look of the magazine for 1996 and say that I thought that it was the best issue of any Amiga magazine I have read for the two years I have owned an Amiga. Although I am now past the beginners stage (I hope), the Beginners guide section was well-written and informative and the set of features about the future of the Amiga really set me thinking about the machine I would like to own in 12 to 18 months time.

The coverdisks you supplied this month were also very handy. Although there was stuff on them previously available on yours and other coverdisks, it was nice to have them all collected together and to get the latest versions of things like MultiCX, which is a bit hard to find if you don't own a modem.

Anyway, that's it. I just thought someone ought to thank you for the great work you guys do for the Amiga community and I'm feeling very mellow because it's Christmas and I've had a drink or two.

*Owen Jones, Canterbury*

Well, Owen, there's nothing we like more than a bit of unadulterated massaging so now we're all glowing with pride and feeling mellow too.



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## BELGIAN CD-ROMS

I decided to spend some money on my Amiga so bought myself a Power Quad-speed CD-ROM to use with my A1200, along with the GVP A1230 I already own. I would like to know if it is possible to use a CD32 joy pad on the A1200, as certain games do not support keyboard or a normal joystick?

As I live in Belgium, I am experiencing a lot of difficulties trying to find a shop that sells Amiga-related products – why is that, and will this change with Escom? Maybe other Belgium readers could contact me so that we could get in touch, or are there any Belgium Amiga-related clubs that I could get help from?

Recently I went to London and while there bought myself a copy of the CD32 version of Myth. When I got home I found the game did not work with my CD-ROM. Will it work if I buy the program CDBoot? Is it wise to buy this simulation software, or is it just another name for something that does exactly the same as the software that came with the CD-ROM drive?

Also, when are Lost Eden and Megarace coming out for the Amiga? They are already advertised as being on sale, but I have not received the copies that I have ordered?

*Blonrock Stijn, Oostende Belgium*

It is possible to use CD32 joy pads on your A1200, and they will even function as a normal joystick when used with standard Amiga games. The only possible drawback is that some CD32 games may not recognise you have the joy pad because the CD32 has a little more

circuitry than the A1200 which allows it to automatically detect that a joy pad is being used, rather than a normal joystick. However, I cannot see this being a problem as I would think most programmers should be aware of this.

I cannot tell you if there are any shops or user groups in Belgium, but there is a recently formed international user group called A.M.I.G.A. based in London that may be able to help you out. Contact: AMIGA, 190 Falloden Way, London NW11 6JE, Tel: +44 181 455 1626. If any Belgium readers want to get in contact with you we will be happy to forward their letters.

As for the Escom situation, they really only have enough resources to concentrate on getting distribution to the Amiga's main selling points, such as England, Germany and America. Even if Amigas do make it into Belgium Escom shops, I doubt they will be of much help to you. As they only stock the basic Amiga packs and little else in the way of Amiga peripherals, there would be very little of interest for you. Overall, the CD32 emulation software



Helping you to sleep easier at night, ACAS will soothe all your troubles away

you get with the Squirrel interface is about as good as it gets and, unfortunately, if this cannot get a CD32 game to run then you are going to need an actual CD32. The main reason for CD32 software not working is that it may be directly using the Akiko chip. However, I cannot see why Myth would need to do this. Another is due to the CD32 having Workbench 3.1, so certain graphic routines are not available on a standard A1200 and this will also stop the game from loading.

Apparently, Megarace has been scrapped while Lost Eden is still due to come out, even though its release date keeps being pushed back.

## OS GAMES

I was wondering if ACAS could shed some light on a recent phenomena that seems to be occurring more and more. I'm talking about the ever increasing number of OS friendly games that seem to be hitting the market, particularly all these DOOM clones that multi-task along with other programs you have running. This never used to be the case, so why the sudden turn around?

*Martin Collier, Swindon*

You are right. A few years ago it used to be the case that you were lucky if a game worked on an accelerated machine. If a game came out today that refused to work on an 020 processor it could not go on sale as every A1200 would be unable to run it. I remember when I first saw SubWar 2050 – I was quite amazed when I found it was running on an Intuition screen. You could pull the screen down and voilà, Workbench appears still up and running.

The same applied when we first saw Breathless. Hit the right Amiga and 'n' keys, and Workbench will pop to the front. This change of approach from the old has come about due to a couple of reasons. When the Amiga first came out it had a much slower processor and a quarter of the memory which necessitated that the programmer grab every byte of memory and every CPU cycle to get the very best out of



Anyone running Breathless off a hard drive will be able to see it multi-tasking away

the machine. However, with modern Amigas having faster processors and much more memory, the need, and the excuses, for killing the system off are not applicable, and when a Power Amiga arrives these excuses will be non-existent.

The reason for not killing the OS off is that by actually talking to the OS a program can find out all sorts of useful information about what type of system it is running on. This means a game such as SubWar 2050 will actually run on a mode-promoted

VGA screen – something that is impossible for a game that kills off the OS.

Commodore always said that programs that do not use the OS will not run on future machines. This happened when the A1200 first came out, and more recently with the floppy drive problem in the current A1200s – games using their own track loading routines could not cope with the new drives. It will also be interesting to see if such OS 'friendly' games will run on the future Power Amigas.



# INTERNET BEGINNINGS

I would like to know more about the Internet as in my country the local communication system has recently installed a server to the Internet, but I cannot find any Amiga Internet software on the market.

I would like to know what software is available and how I can get hold of it for an Amiga 1200 with 250Mb hard drive. Besides this I would like to know if modems used in PC machines are suitable for the Amiga or should I buy a special kind. If this is the case, where can I get it?

Martin Balestra, Montevideo Uruguay

I am sure you will take great delight in knowing that all the software you need is available on the Internet, which is not going to be of much use to you now, is it? Generally, the Amiga software you need to use all aspects of the Internet is freely available, but the problem with this is that the only ready source for Comms software is Aminet. So to get Amiga Comms software you either have to have Internet access already, or a CD-ROM and the Aminet CD set, which would then allow you to get the right software.

On our April issue we did a special Comms coverdisk which supplied you with all the necessary Internet software to get you linked up and accessing e-mail, newsgroups and FTP sites. There was also the chance for British readers to have ten

hours trial Internet access with Demon. There are still April issues available so you could get onto the Internet this way.

As the whole package is based around AmigaDOS, an older TCP/IP software package, the installation is very simple as the installer was especially written for the included packages, but you will still need to know your IP address, your e-mail address, and the sub net mask. Do not start worrying too much, as your Internet provider will tell you what you need to type in.

The only downside is that AmigaDOS is not supported by any recently written Internet programs, with just about every program supporting AmiTCP. So in the long run, getting hold of and switching to AmiTCP would be the best move. Unfortunately, AmiTCP is very very difficult to set up, even for someone that knows quite a lot about the Amiga already.

This is because for every program that you want to work with AmiTCP, you have to configure AmiTCP separately for each one, and this can get to be very confusing. If AmiTCP came with all the necessary Internet tools to allow you to Web browse, e-mail, use newsgroups and FTP, things would be far more straightforward. All you would have to know is your IP number and e-mail address which would be provided for you by your Internet server.

Amiga Technologies have announced that they will be producing an Internet package, based around their AS225r2 TCP



**Do you have a problem? Do you sometimes find yourself poised over your Amiga with axe in hand, spouting profanity at the stubborn refusal of your software or hardware to behave properly?**

**Well, calm down and swap the axe for pen and paper, jot down your problems, along with a description of your Amiga setup, and send it off to Amiga Computing Advice Service, IDG Media, Media House, Adlington Park, Macclesfield SK10 4NP. Alternatively, e-mail us at ACAS@acom.demon.co.uk**

stack, and with all the necessary tools you need. The full details have not been confirmed yet, but it will initially be bundled with the A1200, and will probably be available separately. So for any would be Internet-ers this is the perfect solution.

As for PC modems, you can use any external modem with your Amiga. You cannot use the ones that are internal to PCs as the interface for these are not compatible with the Amiga. Also, you cannot use PCMCIA modems as no Amiga device drivers have been written to take advantage of them.

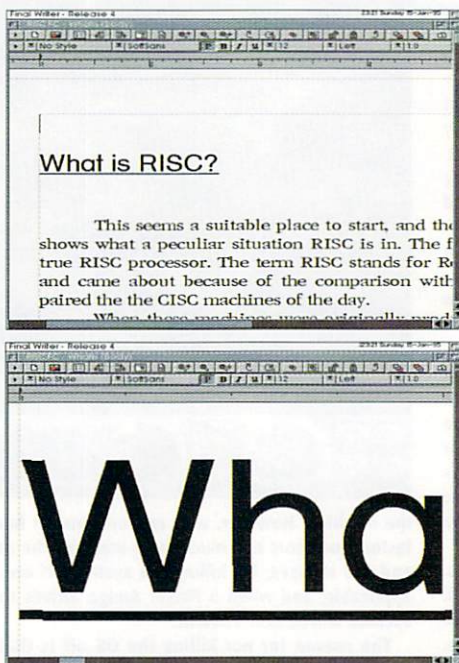
## FINAL ZOOM

Having owned Final Writer for a while now I have got to grips with its graphic tools and am using them more to produce diagrams for my college essays. The problem I have is when trying to precisely position lines so that they fit together. At the moment, I have resorted to entering the co-ordinates directly into the line requester, but as you can imagine this is quite time consuming when dealing with any more than just a few lines. Have you got any suggestions?

Simon Jones, Manchester

Having used Final Writer to produce essays and reports myself, I know how frustrating and time consuming it can be trying to set up diagrams by hand. Luckily, there are a few tricks that you can use to help you get along.

In the display preferences there are two DPI settings, and the primary use for these is to create an aspect correct document display. This simply means the printed document will look like it does on the screen. The DPI value can range from 40 up to 310, and a side effect of this is that you can get a more detailed view of your document by using higher DPI values. Consequently, if you double the DPI you will zoom in twice as much. The downside is that because the computer has more data to process, the screen update will slow, but having this closer 'look' at your document will allow you to be more precise with positioning graphics.



Changing the screen DPI from 40 to 310 zooms you in almost eight times as much, but your screen refresh will suffer

## Jargon box

**AmiTCP** - currently the most widely used TCP/IP stack for the Amiga. Was originally freely available up to version 3, from version 4 it is only available as a commercial product

**TCP/IP** - the software that allows you to connect to the Internet and other networks

**AS225r2** - the TCP/IP stack written by Commodore, apparently better than AmiTCP. Unfortunately it never received a public release, only being available to developers. It will make an appearance with the soon-to-appear Amiga Tech Internet package

**PCMCIA** - that thin slot on the side of an A1200 and A600, known to be known as a PC slot, as everyone got really ticked of having to say PCMCIA slot all the time

**DPI** - Dots Per Inch, a way of measuring the quality of a display or print out. The higher the DPI the greater the quality, as there are more dots for each inch. A monitor has about 75 DPI, a half decent printer is at least 300 DPI, and magazines are around 1200 DPI

**Mb** - Stands for a megabyte or a million bytes. A standard A1200 has a 2Mb memory so has 2 million bytes

**Gb** - a Gigabyte or a 1000 million bytes

**Bytes** - one byte is made up of 8-bits, a bit is either 1 or 0. A single byte can hold any value from 0 to 255

**Mode promotion** - when the AGA chip set came out Amiga owners suddenly had access to high resolution VGA monitor modes. Unfortunately no programs supported these, so mode promotion was invented to force these programs to use the best VGA monitor mode available, which you select it from your IControl preferences



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**W**hile checking the recent uploads on Aminet the other day, I noticed an intriguing little 12k archive called RSIbreak.lha which I felt deserved a mention because it's become a permanent fixture on my hard drive already. RSI Break, by a chap called James Allen, is a small commodity that is designed to remind the user to take regular breaks when typing, so as to avoid possible RSI problems. Repetitive Strain Injury is, of course, now a recognised condition which causes considerable pain to sufferers. It can affect anyone who performs repetitive movements regularly, such as piano or guitar players, and, of course, computer users.

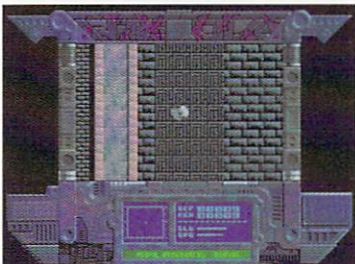
RSI Break flashes the screen every three or four minutes to remind you to shake your hands, and every half an hour or so an alert appears telling you to get up and walk around a little. The frequency of these reminders is totally configurable via the icon tooltypes.

RSI Break is an excellent idea, and is highly recommended. Now let's take a look at the best of the rest from this month's PD and shareware mailbag...

## WIPEOUT 1.3

Programmed by: Tero Lehtonen  
Available from: Your Choice  
Disk No: GA600

Wipeout is an unassuming blast-'em-up, written in assembly language for the maximum possible speed. Your task is to control a small spaceship which flies around



**C** The Lovely Rita from Surrey: "I'll go for Sean Connery, please Paul." Buzzer thing: "Be-doo-doo-doo." Audience: "Ahh...." It's Wipeout

# public sector

Dave Cusick's back with another bumper-sized bag of budget stuff

trying to destroy every other moving thing. Each level has its own graphical style, and the visuals throughout are impressive, with parallax scrolling and well defined sprites. The sound effects are more than adequate too.

Gameplay is fairly tough, mainly because getting used to the incredibly sensitive controls takes some time. Fractional joystick movements can result in massive changes of direction for your little ship, so a steady hand and a fair bit of patience is required to be successful.

Because the portion of a level visible at any one time is relatively small, using the scanner to pinpoint enemy ships is a necessity. On the early levels you can afford to toddle around picking off the enemy one by one, but on higher levels the baddies don't react kindly to your



...and it's also available in green

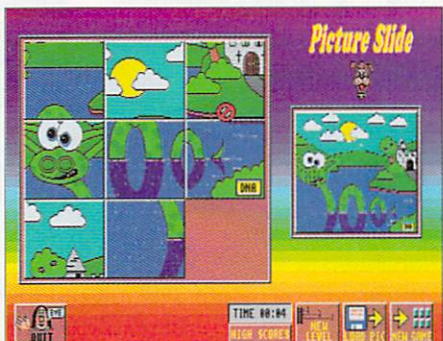
presence and will actively seek you out and fire at you. Whilst it's scarcely going to win any awards for originality, Wipeout is nevertheless a pretty playable game, and is an excellent way to relieve frustration once you've cracked the control method.

## KIDS ONLY

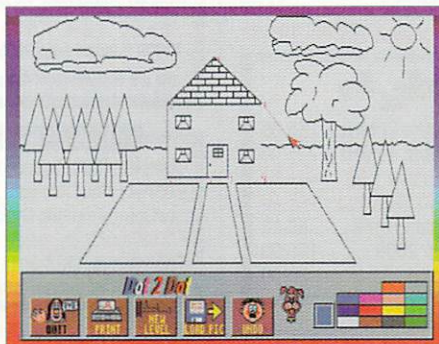
Programmed by: Mark Meaney  
Available from: Seasoft

Kids Only is a collection of seven linked programs aimed squarely at youngsters. It was originally intended for commercial release but the three disks are now available for a tenner.

Big kid that I am, I had great fun playing with the on-screen musical keyboard in the Music Maker



**K**ids, eh? One of Lennon's nippers apparently drew a picture and called it 'Lucy In The Sky With Diamonds', inspiring John to write the song. Do we believe him boys and girls?



Can you see what it is yet?  
It's Getting Better all the time

program. Six different instruments are available and there are some accompaniments too, and whilst it's not quite on a par with the Fun School build-a-band thingy for sheer entertainment value, it's nevertheless extremely good.

Dot 2 Dot is also well implemented, with a selection of pictures for completion which can then be coloured in. Unfortunately, some of the numbers next to the dots can run into one another on the more complex patterns, but since the program won't let you draw a line that's out of place, this isn't a big problem.

There's a computerised version of I-Spy, which uses

## BEING FOR THE BENEFIT OF MR KITE!

Steve Bye, the nice chap at F1 Licenceware who created the Absolute Beginner's Guide to Workbench (of which volume 3 is now available) has just written a little booklet called First Steps With The Amiga A1200. It contains sections on caring for floppy disks, loading software, formatting and copying disks, deleting and recovering files, creating bootable disks and detecting and dealing with viruses. The 20-page booklet is available free to anyone who wants one; just send an A5 SAE.

colourful pictures absolutely jam-packed with objects and beasts of all kinds. The object is to guess a certain number of them in as little time as possible.

There is one of those fiendishly difficult picture slide puzzles too, as well as a colouring pad, a word search, and a pairs game.

Virtually all the programs have multiple difficulty levels, and the visual appeal of the entire production is immense. It is practically guaranteed to hold the attention of even the most restless of kiddies for some time. It kept me busy anyway.



# ARENA

Programmed by: Craig Taylor  
Available from:  
The Development Foundation



Disney may have had a box-office flop on their hands when they came up with cult sci-fi classic Tron, but they were unwittingly inspiring hordes of programmers when they dreamt up the infamous light cycles game.

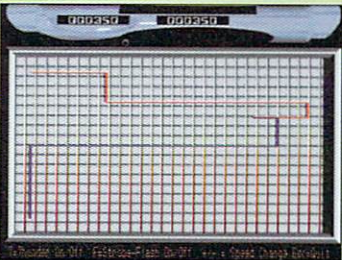
If you experienced a strange sense of déjà vu reading that paragraph, then you've either got an incredibly good memory or you've recently been looking through your back issues of *Amiga Computing*. That's the exact same sentence that began my review of *Wired Chaos* back in AC79. So why would anyone bother writing yet another light cycles game? Well, as it says on the accompanying letter, they do tend to be 'cheap and cheerful, addictive, and relatively quick to code.'

Arena is not PD or shareware, but a commercial release. It's the first game from The Development Foundation, who have other products in the pipeline which they promise are "graphically and sonically far superior to Arena, have far more complex gameplay, and rely quite heavily on LightWave rendered graphics." But Arena is pretty good.

Excellent presentation, a good range of options and a screen editor are what sets it apart from the pack. The gameplay itself is, well, light cycles really, but in addition to the 'classic' game there is an updated 'arcade' version with colourful backdrops, optional strobe effects, walls and so on.

Up to four cyclists can participate, although three of these can be controlled by the computer if you don't happen to have any like-minded chums handy. It's all good clean fun, and it's a quarter of the price of most commercial games.

Incidentally, The Development Foundation say they are on the look out for graphic artists, game designers and programmers, so if you think you're what they are looking for...



A good quality and, most importantly, cheap light cycles game

# MIDICRAFT MAGAZINES #8

Produced by: The Craft Brothers  
Available from: Seasoft

A readable music magazine which, as the title suggests is aimed at MIDI users. Articles cover subjects such as the benefits of MIDI, equalizers, ten top tips from the Craft Brothers, and for some reason, a discography for Nick Cave And The Bad Seeds. Readers' letters are also included, containing opinions and questions for the writers. There is a review of the public domain Eagleplayer 1.54, and an Octamed module and a Protracker module are thrown in too.

There are also some General MIDI format tunes on the disk; five in standard MIDI format (two original compositions, plus Scarlat's 'Independent Love Song', Tina Turner's 'River Deep Mountain High' and M People's 'Sight For Sore Eyes') and two in Octamed6 MIDI format (Take That's 'Back For Good' and Janet Jackson's 'Whoops Now'). The standard of these is excellent. Some MIDI utilities are also thrown in for good measure, such as General MIDI emulators for the Roland D-5, D10 and D110 synths and a Music-X to MIDI 2.1 format file converter.

Whilst there are not a vast amount of things to read, the producers are boldly attempting to produce an issue each month so it's unreasonable to expect too much. The range of tunes and utilities help to ensure that this is a worthwhile addition to any musician's disk box.

At the same time as each issue is produced, the makers release a separate samples disk. MIDICraft Samples #8 contains a decent selection of high quality instrument samples for use in tracker programs and samplers, and is recommended for Amiga musicians after some new sounds.

# TEENY WEENYS

Programmed by: Malcolm Lavery  
Available from: Malcolm Lavery

Top platform-puzzling frolics, vaguely reminiscent of a certain classic game starring small suicidal rodents. Your task is to guide the cute little Teeny Weeny things across some treacherous screens using a variety of objects scattered around. One wrong move can result in one of our heroes meeting their maker in some unpleasant way. Swift thinking is required too, because you are up against a strict time limit.

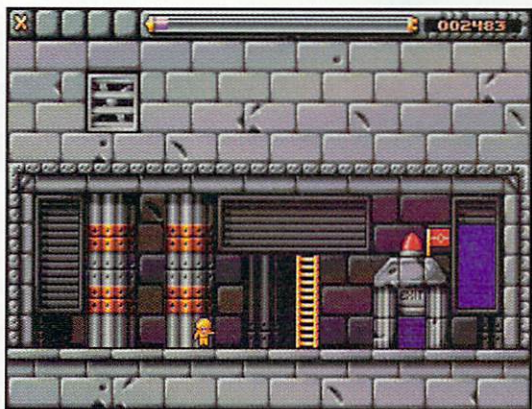
The graphics are lovely and colourful, and the loveable littl'uns move smoothly around the strange landscapes. To accompany the action you can select one of 15 little ditties, of which the cheesy 'New York, New York' tune is my personal favourite. If the music starts to get irritating after a while, you can choose to have the excellent sound effects instead. As with Lemmings, there's a password system so you won't have to replay the earlier levels once you've completed them.

It's all very well having a blast on something like

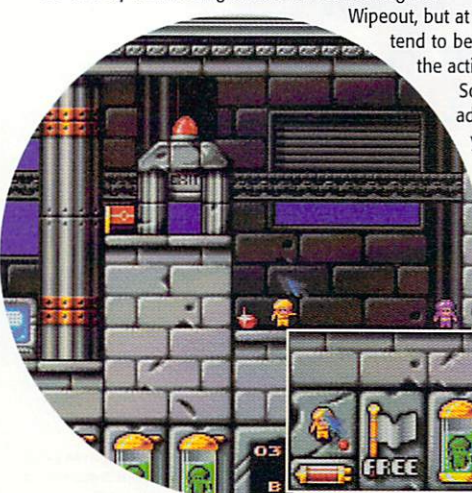
Wipeout, but at the end of the day the most entertaining games in the long term tend to be those that tax the brain in some way, and offer a little variety in the action. Teeny Weenys certainly meets these criteria.

So just to recap: top tunes, silly sound effects, excellent graphics, addictive gameplay. It's hard drive installable too. What more could you want? Well, an AGA Amiga, because it only works on those. But if your machine is up to it, this game has got the lot - and for six quid it's a bargain.

Teeny Weeny water/hill dilemma



Teeny Weenys: Lemmings with bigger graphics and, erm, different gameplay





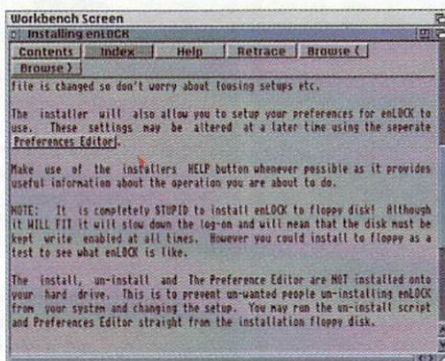
# ENLOCK 2.1

Programmed by: Mike Carter  
Available from: Roberta Smith DTP Disk No: UT362

If you suspect unwanted eyes are taking a peek at some of the more sensitive files on your hard drive, what can be done? Well, you could lock your Amiga away when not in use, but that would be a little drastic. A password protection program would be a better bet.

And what if you reckon one of the offspring is using the computer after their bedtime? Periodically checking they're not at the computer would become a bit tedious. Better to have a program which only lets them use the machine at certain times of day.

Enlock can do all this and more. After installation using the supplied script, the program can be configured to suit your particular needs without much hassle at all. An unlimited number of users can be created, each with their own user name and password. Each user can have their own section of a hard drive which only they can access, where they can keep whatever they choose, and because this directory is always assigned as USER: regardless of who is currently using the machine, word processors and suchlike can be set



Protect your hard drive from inquisitive kiddies like Andy Maddock with Enlock

to save files into USER: and files will automatically be placed in the individual user's private section.

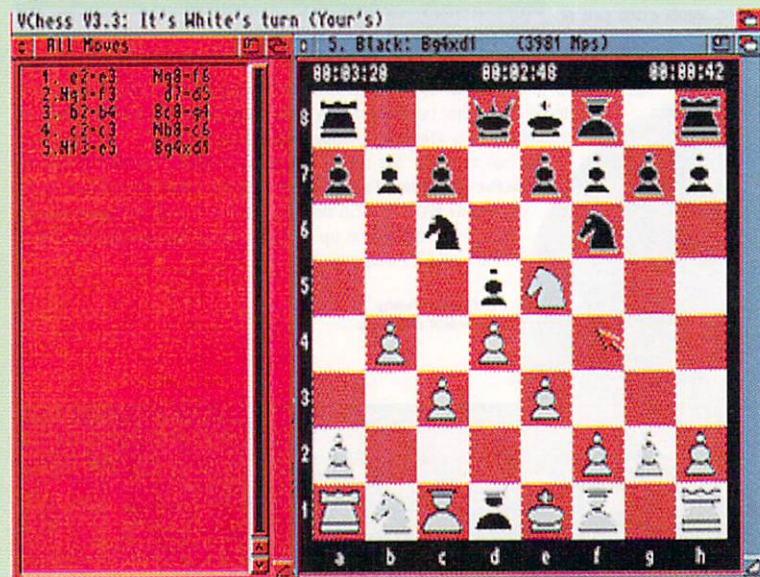
On booting up the machine, every user can have their own startup-sequences, which can include sampled speech and sound effects to add an extra sparkle. Enlock can also check memory vectors, acting as a very basic virus checker. And as well as restricting each

whilst said sad individuals pondered their next move.

Of course, playing against a computer doesn't present the same comedy opportunities as the real game. You can't deliberately lose to the four move checkmate if it's a sunny Friday and the football is tied at 2-2 for the week, and you can't laugh hysterically when you accidentally beat a bloke four years older than you who devotes his whole life to the game. But it does have some advantages; you can limit the computer to ten seconds thinking time per move, for instance.

VChess is about as good a shareware chess game as I've seen. It doesn't go for flashy presentation (in fact, it's pretty horrific to look at) but it plays a fine game (or a crap one, if you so choose). It also has lots of nice features, like a totally resizable board which can be rotated in 90 degree stages. Games can be loaded and saved at any point, and the computer can be set the challenge of reaching Checkmate within a couple of moves.

This version of VChess is not restricted in any way whatsoever. If you use it, however, don't take advantage of the author's generosity – send him the 20DM registration fee, because it's clear that a lot of work has gone into this offering.



Chess: if a pawn goes all the way it becomes a Queen, allegedly

# UTILITY of the month

user's access to specified times, Enlock keeps track of every attempt to log on, whether successful or not.

On the down side, the time restricted accessing feature doesn't like it if the 'stop' time is after midnight and the 'start' time is before – you couldn't, for instance, specify a time band from 23:00 to 01:00. The author points this current limitation out in the accompanying AmigaGuide file, but it's not a major irritation, and it will probably be fixed soon anyway.

This is by far the best hard drive protection program I've come across, boasting plenty of features and appearing very reliable and stable. Definitely a worthwhile investment for security conscious family members.

# REVISION MASTER

Programmed by: Richard Thompson  
Available from: Richard Thompson

This sort of thing has been done before, but it's either been done badly or done expensively. It's nice to see that Revision Master is neither bad nor expensive, costing a mere fiver for a full registered version – rather more affordable for students than the astronomical registration fee for Student Aid 2 (reviewed in issue 82). There's even a save-disabled demonstration version available from the author for £1.50.

The main purpose of the program is to allow the student to create question and answer quizzes, and then use them to test his or her knowledge and gauge their progress from the results.

The simple interface makes designing a quiz a straightforward task, although it will





# DELUXE PACMAN AGA

Programmed by: Edgar M Vigdal  
Available from: Your Choice  
Disk No: 603

It's interesting that a lot of the most playable PD and shareware games are updated versions of classics. Featuring tasty AGA graphics and smaller mazes than the original, this version of Pacman has lost none of the playability. Under this new lick of paint, it's the same old Pacman, as enjoyable as ever.

New gameplay features include extra bonuses for Pacman to pick up, such as guns with which to shoot the ghosts, glue with which to slow them down, shields, and overdrive pills. These only last until the current screen is cleared, however, and rather than making the game easier they simply add a bit of variety to the proceedings. If you're really pathetic, the best bet is to alter the difficulty level, as one of the three levels is bound to suit.

The mazes also change subtly as you



**A Day In The Life of Pacman:**  
munch munch munch...

progress, and before starting a new screen it's wise to have a quick check, because otherwise you can find yourself fleeing down a corridor that doesn't actually lead to where you thought it did...

There are some decent sound effects to accompany the action, and if these prove irritating, hitting E will start a tune - at least that's the idea, although my copy didn't want



**...munch munch**  
munch. Hurrah!

to oblige. Still, to my mind, the old munching sound is a vital part of Pacman anyway.

This extremely addictive and superbly presented game is shareware, and Mr Vigdal most certainly deserves the ten US dollars registration fee.

## WITH A LITTLE HELP FROM MY FRIENDS

### The Development Foundation

9 Kelly Street, Greenock,  
Scotland PA16 8NF

Tel: 01475 725264

(Arena costs £6, or £11 with source code)

### F1 Licenceware

31 Wellington Road, Exeter,  
Devon EX2 9DU

Tel: 01392 493580

### Malcolm Lavery

20 Shakespeare Avenue, Orgill,  
Egremont, Cumbria CA22 2HF

(Teeny Weenys costs £6)

### Roberta Smith DTP

190 Falloden Way, Hampstead Garden  
Suburb, London NW11 6JE

Tel: 0181 455 1626

(Disks 90p each plus 50p P&P)

### Seasoft Computing

Unit 3, Martello Enterprise Centre,  
Courtwick Lane, Littlehampton, West  
Sussex BN17 7PA

Tel: 01903 850378

(Midicraft disks: £2.50 each plus 50p

P&P, Kids Only: £10)

### Richard Thompson

50 Chesterfield Road, Shirlton, Alfreton,  
Derbyshire DE55 6BN

(Revision Master demo £1.50,

full version £5)

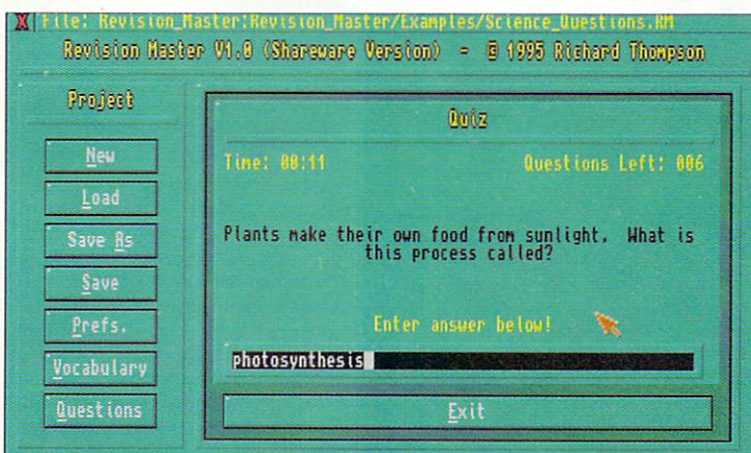
### Your Choice

39 Lambton Road, Chorlton, Manchester  
M21 0ZJ

Tel: 0161-881 8994

(Disks 99p each)

Even Andy Maddock  
got this one right (but he  
had to consult the  
Junior Illustrated Book  
of Science first)

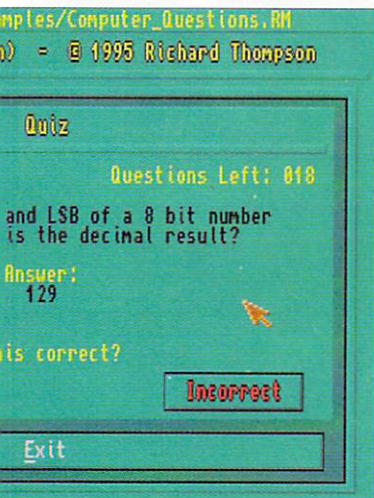


obviously be a time consuming process. Still, the very act of creating a quiz based around course notes will probably help to

jog the memory. Revision Master also offers another extremely helpful function. The first is the Vocabulary section, ideal for those studying a foreign language, or perhaps science students with plenty of technical terms to learn. This can be presented in the form of a quiz, or more entertainingly as anagrams, or a word search, or as a memory testing game.

The mildly humorous sound effects and attractive presentation make Revision Master more interesting than most of its predecessors too. If exams are just around the corner, this could be an excellent investment.

The same questions  
might come up several  
times in any one game,  
but Revision Master still  
ain't half bad





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KLO19 Erika Eleniak	KLO15 FITCHIX
3840 Beavis & Butthead "This one kicks ass!"	

## F1 LICENSEWARE

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F1-107: Greenies 3D game, run around, kill	
Greenies, play vs computer or vs friend .....	\$7.00
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F1-101: Inter. to WB v2 Great for beg! .....	\$12.00
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magazine with hints, helps, and tons of source code	
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# SHOW business

Following a year of **uncertainty** in the Amiga community, **Jason Compton** reports on the new enthusiasm shown at the **World of Amiga** show in Toronto

**I**t was a bad sign when WOA New York 1994 was cancelled, but not overly surprising as it was to take place in April, the month of Commodore's collapse. As it never happened, North America had to wait two whole years for a follow up to WOAs in Pasadena and Toronto, and thanks to the efforts of dozens, if not hundreds, of people, WOA Toronto December '95 ended the long drought.

By the end of July's Calgary AmiJAM show, Wonder Computers' CEO, Mark Habinski, was convinced that a full-blown, big-budget Amiga show would be a good thing for the North American Amiga market. Something that would gun for attendance in the

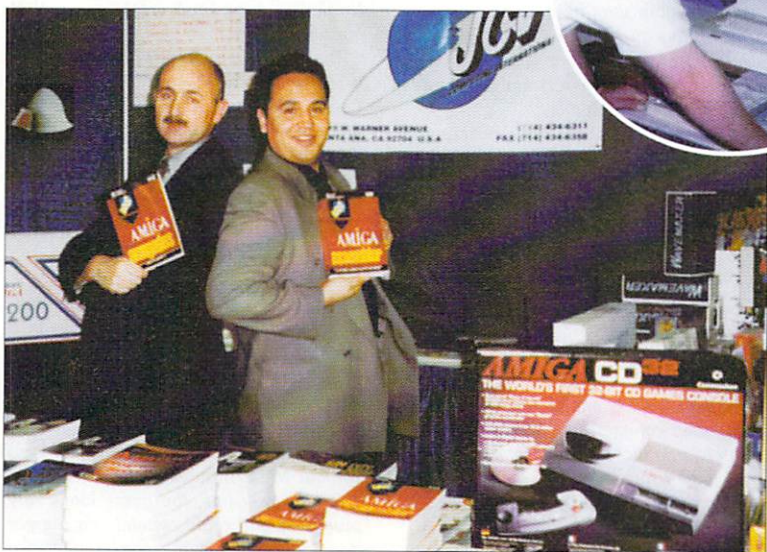
thousands, if not tens of thousands, with a large hall and big-name appeal to the masses. Something worthy to be stamped a 'World of Amiga'. So the right people (Wonder's InfoTech division) were put on the job, North American distributors SMG were brought onboard to show off the new Amigas, and even Petro Tyschtschenko, top exec at Amiga Technologies, was convinced to come for a day and a half of the festivities,

and to launch the show with a keynote.

The speech was virtually the same content delivered at November's Computer '95 show in Cologne, with references to the new Amiga slogan, 'Back For the Future', the upcoming but still slightly nebulous Amiga 1200+, and the move to PowerPC. It lasted some 40 minutes, but that left over 21 hours of show time to fill. People managed to fill the time gaps by checking out various demonstrations ranging from 3D animation to emulation, and by wandering through the two aisles of the show floor, with Amiga merchandise and exhibitors all around them, not to mention the hordes of fellow Amiga fans. Official counts were not available but the show seems to have attracted over 3,000 Amiga users out to Toronto, a number that eclipses the draw of both the Calgary and Montreal shows of the summer.



**Silent Paw Productions' PAWS Amiga portable kit. Shown here is the A1200 version, which really worked**



**Bruce Smith, Amiga publisher, and associate at the JCV booth, showing off Smith's new Amiga creations.**

## THE DEALERS

This isn't the Consumer Electronics Show, where industry pundits gather to "ooh" and "ahh" over new products and make meeting-room orders for 50,000 units for delivery in six months. Amiga users get whipped up into a frenzy around all of this great stuff and want a chance to walk out with some. Since Wonder organised the event, they, of course, took up a good deal of space in the centre of the show floor with a retail zone that also housed the giant-screen TV announcing the upcoming events of the day and the major exhibitors at the show.

Other dealers didn't quite feel the need to bring a huge TV, but drew customers all the same. Companies from the US and Canada such as Zipperware, National Amiga, and Valleysoft, showed off their wares, and even user groups got in on the action, such as the Toronto Pet User Group. The tables were rarely quiet and the proprietors rarely lost their smiles - two definite plusses if you're looking for signs of retail success.



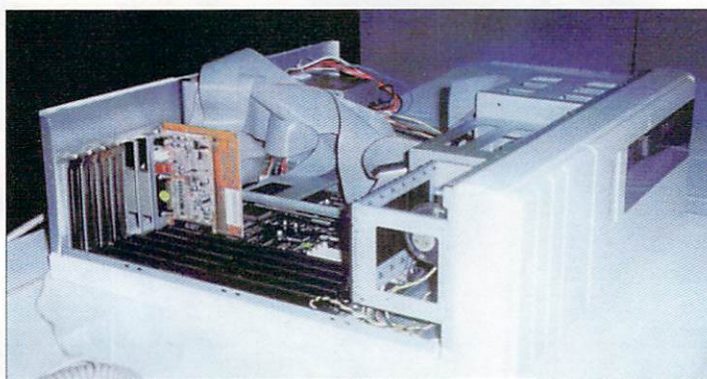
## NEW HARDWARE

It would be a shame to overlook the Amiga Technologies 4000T, 1200, and 1438S. While none are 'new' products in the strictest sense, they're new enough, and were the items everyone wanted to see as soon as they got in the building. Wisely, SMG left an A4000T open to show people the guts, and to prove that they were truly real.

It was certainly a crowded house for non-linear editing solutions for the Amiga, with four packages represented – NewTek's Toaster/Flyer combination, the Broadcaster Elite system, and MacroSystem's VLab Motion for the Amiga and Draco non-linear editing computer.

The Toaster/Flyer setup largely consisted of rolling videotapes showing actual professional animations and special effects done with the combination, but machines were set up to show off the work as well. The polish of a large, proud Video Toaster sign anchored the area and grabbed people's attention. Say what you will, NewTek has serious name recognition in these parts.

Considerably less name recognition belongs to CineReal Pro-Video Productions, Canadian distributors for the Broadcaster Elite non-linear package. Unlike NewTek's system, Broadcaster Elite is NTSC and PAL



**C** The guts of the new Amiga Technologies Amiga 4000T exposed

compatible. The manufacturers have also taken it upon themselves to produce a custom 16-bit sound editing card for specific use with the card in the wake of Sunrize's demise. CineReal's approach to building systems was interesting. They quite literally want to install a complete system, including workstation desk. A different sort of concept, but one very viable in professional markets

where time is money and you'd rather someone take care of the details for you.

The final entries in the non-linear sweepstakes came from German company MacroSystem, represented by their North American distributors Noahli's and their Canadian representative RSVP. Their breakthrough non-linear card, the VLab Motion, was being shown, but

## NEW SOFTWARE

Oregon Research was on hand with their new distribution products, including HiSoft's Disk Tools for the ZIP Drive and one of the show-stoppers, Cinema4D. The company has quite wisely opted to publish their own version in the States, allowing them to fill their increasing order backlog more efficiently. Old favourites including Terminus and On the Ball were also on display.

Lazarus Engineering unveiled their first totally revamped product from Wonder Computer's buyout of New Horizons' software. DesignWorks 2.0, redesigned from 1.0 and Lazarus' 1.1, was shown on a souped-up A4000. DW 2.0 is intended to be a low-cost solution to common structured drawing and design tasks.

Intangible Assets Manufacturing, in addition to pushing the very popular Deathbed Vigil documentary, also brought a couple of new goodies to the table in the form of the AFS file system from FLD of the UK, and MegaBall 4. For years, MegaBall was sold by the Mackey brothers (Ed and Al) as shareware, but Dale Larson, IAM's el

**U** Hal and Steve man the Intangible Assets Manufacturing booth, having made up their own mind

**"Now sporting more bricks than you can shake a stick at, MegaBall is an Amiga success story in a shocking red box"**

Presidente, was always very fond of the game. After registering the software years ago and, more recently, employing Al for a summer internship, he decided to go the whole hog and publish the work. Now sporting more bricks than you can shake a stick at, MegaBall is an Amiga success story in a shocking red box.

Their white T-shirts are unassuming (they do look good in suits though), but the team of John Basile and Chris Aldi at Phantom Development are one of the most exciting – and eclectic – software designers and publishers in North America, and perhaps the world at this point. While their initial offerings have not been chartbusting, they have been promising.

### INNOVATION

Digital Quill is one of the few actively supported commercial text editors on the market, and ClassAct is an innovative gadget toolkit for developers unhappy with present GUI-building options. The ClassAct package realises a number of GUI enhancements for programmers that were promised in Commodore's CATS representation of the future (and never completed)

AmigaOS 4.0. Hell Pigs, a Croatian-developed graphical adventure game, is still slated for publication through Phantom, but has not yet been completed.

Robokeet! CD32 educational software was there that may just catch on – it's easy to use and catchy. You control Robokeet, who needs to spell words correctly in order to have enough energy to survive in arcade action sequences against cats and their henchmen. Neat stuff.

Soft-Logik had a large area set up near the entrance both to promote the latest revision of PageStream 3.0, and to spread the word about Digita's products, which they now distribute on this continent (except for TurboCalc). The very large monitor set up was interesting – I don't think I've ever seen a DTP page that imposing before.

One of the biggest attractions didn't sell a single copy because it's not done yet. Capital Punishment (see preview in this month's System) a new beat-'em-up from clickBOOM software, was in its third beta for the show. Despite only pitting identical warriors against each other, it still brought in a constant flow of players (on the several demo A1200s set up for duels) and viewers. Alex Petrovic and his assistant, Sofia, kept order and promoted their software, which looks very impressive on a stock A1200, with AGA graphics, shading effects and, of course, lots of violence and blood. Ironically, the game was written in PAL, which is hard to argue with given the large market outside North America. Even without NTSC support, which would certainly be welcome, the game looks very promising and could certainly do a great deal towards reviving confidence in a North American game market for both developers and players.





mainly in its capacity as a companion to their Draco 060-based Amiga-compatible non-linear editing computer. Aside from being a computer with a lot of hyphenated terms, the Draco is nothing if not very fast and very good at what it's intended to do – quickly, and cheaply, and digitally, edit video.

For pure amazement value, visitors didn't have to look beyond the Microscribe booth. Microscribe is a clever desk-mounted pen on a rotating arm that is used to digitise 3D objects in LightWave. It doesn't come cheap, but for the LightWave professional with a difficult task ahead of them, say, "Create 3 different types of nozzles by tomorrow for a presentation", the device looks to be a lifesaver.

## LINE-UP

DKB showed up with a jeweller's case full of their product line, from A1200 accelerators to the new Wildfire 060 card for the A2000, a new SCSI hardcard, and a serial/parallel addition card called the Link-UP. Their 060 line is expected to be extended to the A3000, A4000, and most likely the A1200 as well.

When all was said and done, even seeing the Amiga



MacroSystem's Draco 060-based Amiga compatible non-linear editing computer. It's a long name, but a very powerful machine

Tech 4000T was less significant than what Phase5's MD, Wolf Dietrich, brought to the party – an engineering prototype of the PowerUP card for the A4000. After all, the 4000T is at best the present and at worst the past. But the PowerPC mounted on that card is the future of the

Amiga, which is why poor Mr Dietrich was absolutely swamped from open to close each day, even though the card was a non-functioning unit in a glass case. Having an 060 Cyberstorm and 64-bit CyberVision card on display drew fans as well.

## MISCELLANEOUS AND HONOURABLE MENTIONS

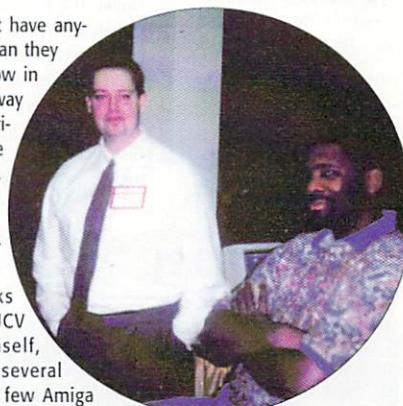
The Toronto Pet User Group caught my eye with a Commodore 65 on display. They're an exceptionally rare breed, a late-'80s/early '90's project to put a new 8-bit machine in the gap left open by the 64.

WCI Distribution had a large area set up which they parcelled out to the aforementioned Noahji's and Phantom Development. What was left over, they used to showcase their entire product line available for Canadian and North American dealer sales.

PreSpect Technics didn't have anything newer available than they did at the Montreal show in August, still plugging away at their MultiFace IV serial/parallel card. The same goes for AmiTriX, who brought Amiga Link to the party. Still, it was nice to see familiar faces.

Bruce Smith Books were represented by JCV and Bruce Smith himself, which I imagine took several users by surprise. Very few Amiga books are published and sold in the US.

Legendary Design Technologies brought a number of retail items and showcased their own line of in-house projects, including the Link-It! parallel cable between Amigas and

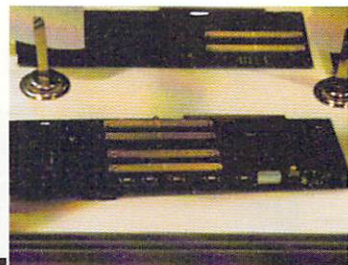


Trevor Kidd and Keynes Emeruwa man the WCI Distribution booth and have a fine time doing it.

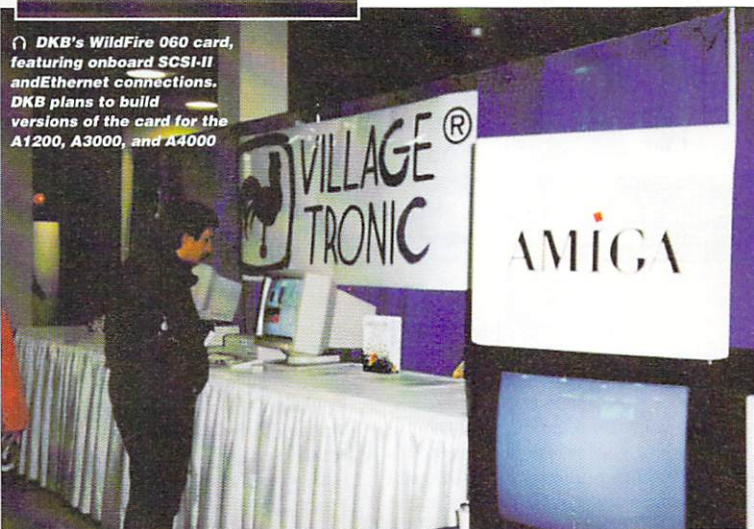
PCs, a new game (not ready for release) from their Entertainment division, and dataTAX 95 for North America.

Village Tronic didn't bring anything exceedingly new to the show, other than new boxes for Amiga OS 3.1 and AmiTCP 4, which they now publish. But they were very enthusiastic about the upcoming Picasso IV graphics card.

Eric Schwartz, infamous Amiga animator, wasn't displaying anything except his new T-shirt design. A mean A4000 setup leers over a hill with the slogan 'Amiga: We're Back, And We're Pissed.' A must-wear for any true Amiga fan.



DKB's WildFire 060 card, featuring onboard SCSI-II and Ethernet connections. DKB plans to build versions of the card for the A1200, A3000, and A4000



The Village Tronic area with their entire product line and clever German accents

## AT THE END OF THE DAY

It's been a long, hard road for North America, the market that never quite seems to give the Amiga a break. But the message from WOA Toronto was that even on long, hard roads, there are bright spots, and turning points. Developers and retailers worldwide got together to make the Toronto show the largest all-Amiga event in years, a resounding success. WOA Vancouver June '96 is on its way.

## CONTACT POINT

Jason Compton is the Editor-in-Chief of Amiga Report Magazine, Fax (708) 741-0689. You can contact him at [jcompton@xnet.com](mailto:jcompton@xnet.com); AR on Aminet – [docs/mags/ar???lha](http://docs/mags/ar???lha); AR Mailing list – Mail me; AR on WWW – <http://www.omnipresence.com/Amiga/News/AR>



# Final Wordworth

Neil Mohr takes a **Final Writer's** user view of the forthcoming **Wordworth 5** to see how it stands up

**I** think Darwin had something going with this evolution business. Survival of the fittest, only the strong survive, if something cannot adapt then it just curls up into a tiny ball and dies. The same seems to be happening in the constant war that is the Amiga word processing market, but in this case programs have to be constantly updated otherwise they fall behind and another program will be more than glad to jump in and take the top spot.

It should be obvious that I am talking about the pitched battle between Wordworth and Final Writer which has been raging for the last few years. At the start Final Writer seemed to be ahead of Wordworth – it had AGA support first, was faster and had an ARexx port. That was until version 4 of Wordworth came along, having Digita's text effects and the ability to produce tables, something Final Writer users are still waiting for, and with all of its speed problems addressed, round two went to Wordworth. Of course, version four of Final Writer was recently released with a completely

## Jargon box

**Bitmap fonts** – the old font system used by the Amiga. Only specific sizes of any one font are stored, and trying to use other sizes results in a blocky looking typeface

**True Type** – the standard outline font format used by PCs

**Picasso** – a fairly widespread Amiga graphics board, overshadowed recently by the Cybergraphics system

revamped interface and grammar checker, but overall it may have been that the last Final Writer was more aesthetic than practical.

All of a sudden Wordworth 5 can be seen thundering over the horizon with the cavalry, packing a good selection of new features, all ready to bolster its already fairly good defences and redress any advantage Final Writer 4 may have gained.

## INTERFACE

Unlike the last Final Writer update, current Wordworth users will not be seeing any major changes on the interface side of things, apart from the addition of a few new buttons which allow access to some of the new features added to this forthcoming release. The first of these are found along the ribbon bar at the top of every Wordworth window.

*"I think SoftWood are going to have to pull their proverbial finger out, as Digita have done themselves proud"*

These new buttons add some handy formatting commands that can make your documents look a good deal better.

The first three – bullet, indent left and indent right – have been in Final Writer for a

## FEATURE COMPARISON

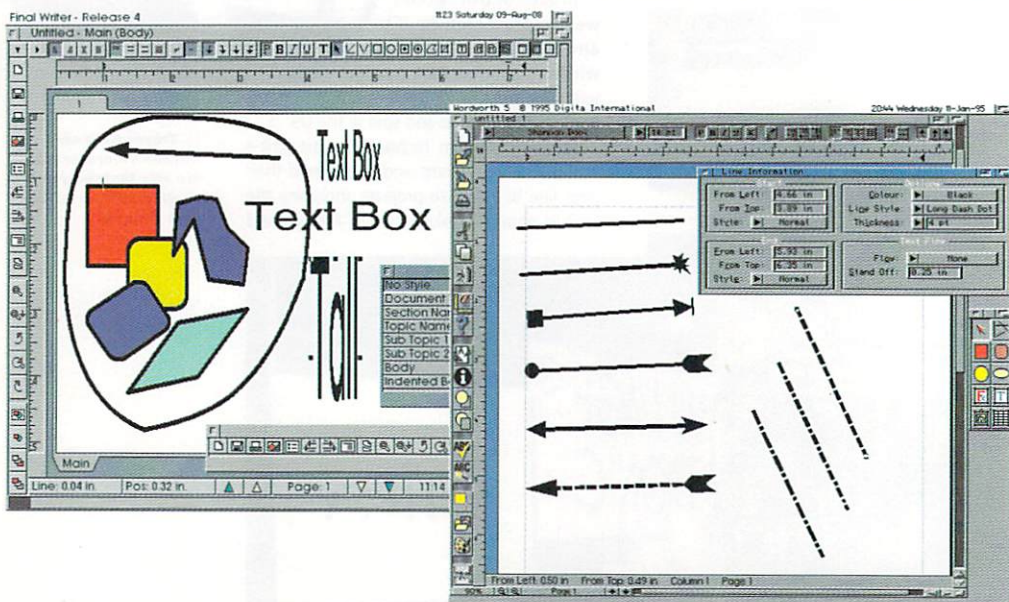
Seeing the main competition for Wordworth 5, when it is released, will be Final Writer 4, it may be a good idea to see how each of these programs main features stand up when compared together.

### DRAWING TOOLS

When it comes to simple drawing tools, both Wordworth and Final Writer have their own advantages. The main advantage that Wordworth has is its much superior line drawing. For all of Wordworth's shapes, the requester that controls how they look is modelless. This means it works separately from the main program, and when you adjust a setting this is immediately reflected in your document, allowing you see how the change looks. In Final Writer you have to get rid of the requester before you can see what your changes have done.

Final Writer only has three different types of lines – plain, arrowed or curved – and this pales in comparison to the options available to Wordworth users. From the line information requester you can add various shapes to the beginning and ends of lines as well as apply dash effects and the text flow.

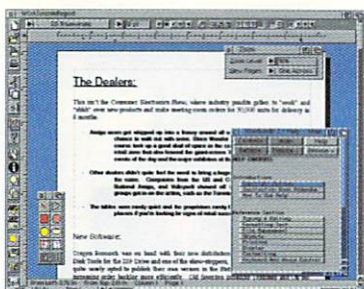
With either program you can create a basic number of re-sizeable shapes, and for



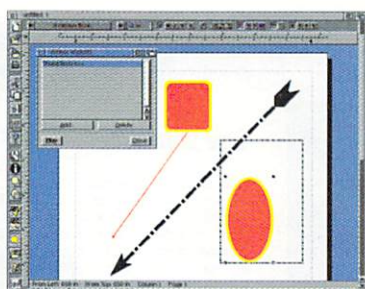
any of the shapes you can choose the fill and outline colours, or leave them as transparent. Final Writer really wins here because a number of new shapes were added for version four which allowed you to independently adjust the position of any of the

shape's handles, giving you much greater flexibility. Also, a glaring omission from Wordworth for me is any sort of graphic rotate setting – Final Writer has had this since it came out so there is no real excuse.





The on-line help facility is something Final Writer users are still waiting for



The new Wordworth Wizards will help you make complex documents

good while now, and are very useful when you want to highlight a number of points in a document by allowing you to make them stand out from the rest of the document. A fast format tool is now available that allows paragraph information to be pasted from one to another. This goes along with the major addition of style sheets, and for any Final Writer user these will be a fairly well known function. The ability to have predefined styles is an extremely helpful one because it allows you to very quickly format a document or essay to your normal styles.

## IMPORTING

For example, if you import some plain text with all the various paragraphs, headings and titles as standard text, Wordworth makes it an easy task to format the document. Using your previously defined set of Style sheets, you can just highlight the heading and then select the heading style which is then applied to your heading text. If you now select the first paragraph of the main body

text and select the corresponding body text style, the paragraph will be formatted using the correct font, tab settings and text justification.

Wordworth goes even further than Final Writer in that styles can be copied from paragraph to paragraph. You can even apply styles using user-definable hot keys, of which 20 are available.

As a Final Writer user there are some very welcome GUI features in the Wordworth interface that I would like to see in Final Writer, and these are all connected with manipulating graphics. One annoying problem in Final Writer is that text and graphics have to be manipulated with completely separate 'pointers'. Therefore, when switching from editing text to graphics you have to select the correct edit mode from the tools strip or menu item. When you are constantly doing this it becomes a little tiresome, particularly when compared to the Wordworth system, where you never have to bother with what you are editing. Wordworth

## Jargon box

**Modeless** — also known as *non-modal*, this refers to a requester that runs separately from the main program. Wordworth's zoom requester can be left out, and will effect the last selected document window

**Outline fonts** — allow you to generate any size of font you like without loss of detail, in contrast to Bitmap fonts. The Amiga outline font system is *Compu graphics*

automatically detects whether the pointer is over a graphic or text and will switch to the correct edit mode.

An offshoot of this is that depending on what part of a graphic object you are selecting, different actions are available. Place the pointer over a resize handle and the pointer changes to the resize pointer, so you know the next action will be to resize the graphic. In Final Writer there is always a little guess work involved in knowing whether you are about to select, deselect or resize a graphic's box, as there is no way of telling if the pointer is over a resize handle or not, until it is too late.

## AREXX SUPPORT

ARExx was probably the last main feature that Final Writer held over Wordworth. It was always the case that Wordworth had no ARExx port, but whether this was any major disadvantage is debatable, as I am sure many users do not even touch the function, even though ARExx can be put to very good uses. For example, Final Writer did not have any text effects, but they were introduced to it by a third-party ARExx script that allowed you to spiral and wave text. This does highlight the sort of complex manipulation that is possible through an ARExx port.

Digitra have already put this ARExx port to good use through the addition of a new feature called Wizards. These are basically going to be interactive tutorials that will guide the user through various parts of Wordworth such as mail merging, which can be quite complex and difficult to explain in a manual.

As ARExx can access every part of the

## TEXT EFFECTS

As standard, Wordworth comes with its text effects, allowing you to apply several effects to a section of text. I have never really seen the point in these because along with being fairly slow, if you use any more than a couple of words you start to have size problems, with text overlapping or taking up too much room.

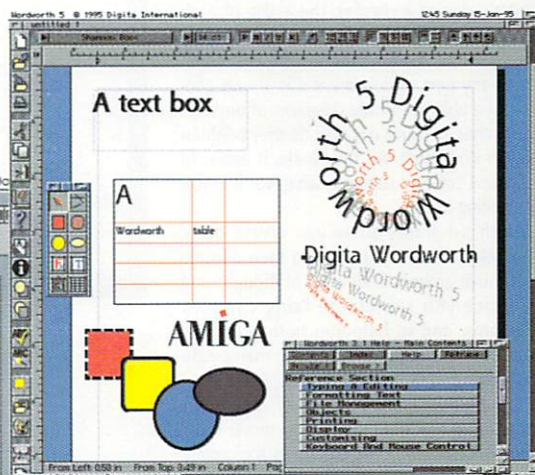
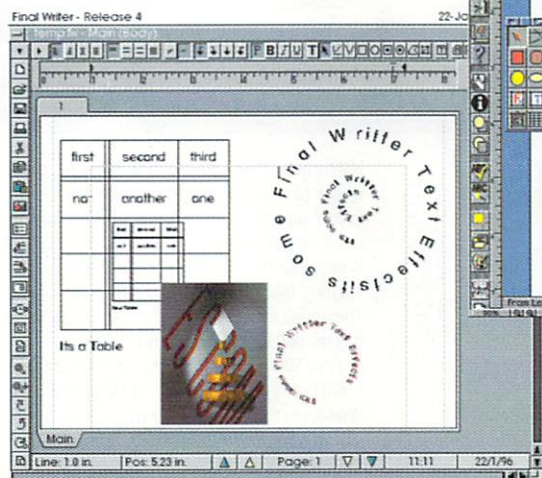
A third party did write an ARExx script called Final Wrapper that gave Final Writer the same sort of abilities. It works very well, but again it is the sort of thing you use once and never touch again.

One thing that I was hoping to see in Final Writer 4 was a table function, but it never appeared. The Wordworth table is very straightforward and simple to use. Once you have created a new table object you can adjust any of the cells to whatever size you want, and type text directly into them, applying styles as you would for normal text. You will also be able to 'hot-link' the final version of Wordworth to TurboCalc and import spreadsheets as Wordworth tables. This was not implemented on this beta version but will be available for the release version.

Wordworth text boxes show a conceptual

difference to those in Final Writer. They act like a separate movable text window that you can type directly to and apply different styles to any part of this text. In Final Writer, once a text box has been created it becomes more or less a standalone graphic object that can be moved around and resized, with the text inside automatically resizing to the shape of the box. When a Wordworth text box is resized the text stays

the same. Both styles of text boxes have their own advantages and disadvantages, and a choice to create both would be very welcome.





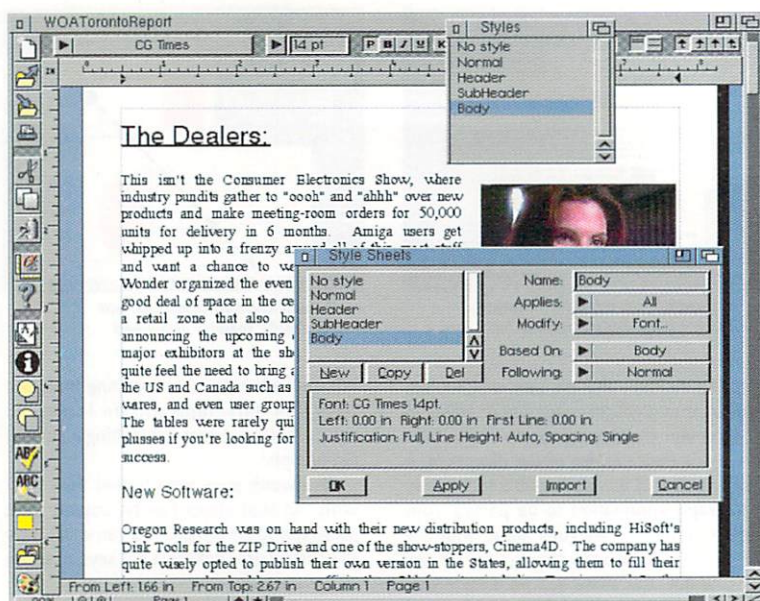
Wordworth program this makes it very simple to open up and activate parts of the program while giving the user a running commentary of what is exactly happening. This new Wizard system allows for future expansion by both Digita and third parties.

So it is all very well and good having great page layout on screen, but what about outputting it to a printer. Has this version of Wordworth got anything new? There are a couple of improvements here, one which will benefit most people while the other only owners of Hewlett Packard LaserJet printers.

## PRINTING

The one of interest to most people is the background printing, a wonderful function that lets you print your document without the wait. Once the printing has started you are free to carry on and edit your document, be it another one or the one you were just working on, and Wordworth will carry on regardless. The only possible downside to this is that printing can be quite processor intensive as there can be a lot of data involved, particularly when graphics are being used. It may be that Wordworth becomes fairly unusable when printing due to the print process hogging all the processor cycles, so negating the feature.

HP LaserJet owners will be pleased to know that Wordworth now supports downloadable printer fonts, which will speed up printing by huge amounts. This is because instead of the entire page having to be created dot by dot, which is what Wordworth use to do, the font description can now be sent to the printer and only the ASCII text needs to be downloaded, so speeding up printing no end. The version of



Wordworth's new style sheet makes it easy to apply preset styles to paragraphs or selected text

Wordworth that I have been looking at is only a beta version, made evident by the Wordworth 3.1 logos that still adorn the icons and startup screen. From using the program, and the helpful notes supplied by Digita, it is apparent that the program is almost complete, with only the interface to the new Wizards and ARexx waiting to be updated.

I have to say I am mightily impressed with this latest version of Wordworth, even in this beta form. I have always dismissed earlier versions as they seemed to be slower than Final Writer when it came to move things around

the screen, but this latest version seems to shift text and graphics around with competent speed. I think SoftWood are going to have to pull their proverbial finger out, as Digita have done themselves proud.

Even this beta copy is running fast on a A1200 with no problems. It seems while SoftWood have been twiddling with Final Writer's interface, Digita have been working on adding some constructive and useful features. It has even been updated specifically for the Picasso board, and perhaps they may add even more for the final version?

# FEATURE COMPARISON

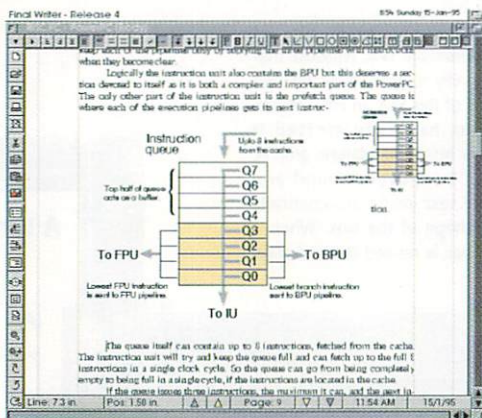
## GRAPHICS

With both programs having virtually identical text manipulation tools, apart from Final Writer's grammar checker, the ability of each program to manipulate graphics is the only area left that could differentiate them. When doing any type of document it is always useful to be able to include diagrams of one sort or another, because not only do they brighten up the document but they make it easier to read and can add clarity to whatever it is you are writing about.

Both programs allow you to create basic geometric shapes that you can then re-scale and move around. With a bit of thought and patience you can create fairly complex diagrams, and to help you both programs have similar functions available to manipulate individual or groups of graphic objects.

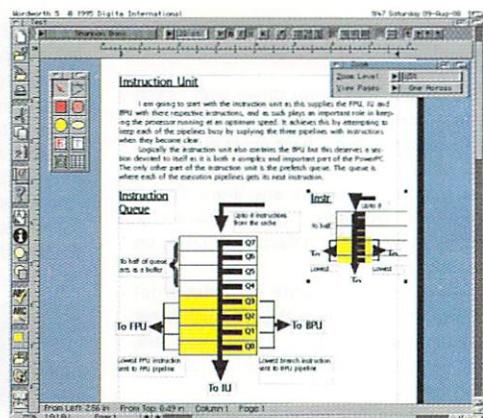
Once you have a number of shapes on screen you will have to start to move them into position and arrange them in the correct sequence. Functions available either from the tool bar or menu options let you push graphics to the front or back, lock graphics in place, and a group selection allows you to treat a number of objects as a single group.

I tried to create the same diagram in both programs to see if there were any noticeable



differences that showed one program to be easier to use than the other. The first thing I found was that Wordworth's tables can be used very nicely to create grids, but in Final Writer you have to mess around individually aligning lines which is very time consuming. The ability to leave out the scale requester, as it is modeless, is also helpful.

Final Writer does have its own advantages. I was saying that the intelligent way Wordworth's pointer works is helpful, but being able to select graphic-only editing in Final Writer has its own plusses.



Each time you clicked on a graphic in Wordworth it flicked the screen to the top left of the screen as it switched to text mode, and after a while this got to be very annoying.

A major problem for Wordworth was when I came to resize a group of objects. The results were a complete mess, especially when compared to Final Writer. The main problem would seem to be the text boxes and tables, as these cannot be scaled, but even some of the normal objects did not seem to scale correctly.



**D**atastore 2 is the latest incarnation of Digita's Amiga database. Before I start you should understand that Datastore is not a relational database, it basically allows you to store, manipulate and search through a flat list of data. The only relational database I know of for the Amiga is Twist 2, not that being a relational database is necessarily a good thing, since you really need a degree to be able to design and create a reliable relational database.

Installing Datastore is made very simple by Digita's usual Installer script, allowing you to install Datastore onto floppies or a hard drive partition. The whole Datastore package is fairly compact, taking up less than 1Mb of space.

As I was saying before, Datastore allows you to store lists of data grouped into records, each record in a database having the same fields. Fields are either textual or graphic in nature, and along with the normal user entered text and numeric data fields, there are a number of other specialised fields that can be chosen.

A date field is available along with time and boolean fields. The latter is quite interesting as it allows you to define a list of preset choices, so restricting the user, when they come to fill in that field, to whatever entries you have made.

The graphic field is very flexible due to the fact that it supports picture datatypes. Therefore, all the various picture Datatypes you have installed are the picture formats that Datastore supports. When adding a graphic to a new record, you click in the picture field and a file requester pops up allowing you to choose the picture that should go into that record's field. The image is then loaded, remapped to the screen colours, and scaled for the box.

## SECTIONS

The use of Datastore is split into two distinct sections, the first being the design side. Here you design what the form will look like and where data is entered into the database. Using a simple point and click interface you can quickly place entry fields for any of the supported Datatypes, along with captions that can be in any Amiga font. As for graphics fields, any supported datatype picture can be placed on the form and scaled to any size.

Once you are happy with your design you can then switch to the other side of Datastore and actually enter data into the database. You can have the database sorted on any of the fields and can perform searches on any field.

I'm sure current Datastore owners would like to know what is new for version 2. Well, the main addition will be quickly recognised by anyone who has used FinalData. Normally with Datastore you are only able to individually view records through the forms you design. This is fine for just flicking through records, or if you want to do a search, but if you wish to view many records at once, or

need to perform operations on many records, it is limiting.

The new list view organises all your records into rows, with each column representing a field. The width of each column can be individually changed, and you can move fields around by grabbing the field title and moving it to wherever you wish it to appear in the list. The entire list can be quickly scrolled up and down using the normal windows scroller.

By selecting individual or multiple records you can delete, cut and copy large blocks of records. Alongside this a new query mode is available. By selecting a group of records you can choose to hide these, and a switch option will switch the currently selected records with any hidden ones. Any other queries now applied will only take effect on the visible records.

Other improvements allow you to print each record graphically, so whatever form design you come up with, you can print this out with each record. At the moment, it is only possible to print either the current record or every record - there is no way just

## Jargon box

*Relational database - a complex but powerful way of arranging data in tables via special unique 'keys', allowing each data entry to be uniquely identifiable. Do a computing degree to find more out about this thrilling subject*

*Public Screen - 'New' for Workbench 2 was the concept of public screens. A public screen can be shared by any number of other programs if you want them to open on that screen. Workbench uses a public screen, surprisingly called Workbench. As standard this is the default public screen but this can be over written.*

*Jpeg - Joint Photographic Experts Group is a new-ish picture file format that allows images to be saved in a very compact file, when compared to normal 24-bit images.*

to select a number or range of records. Other minor improvements allow you to have the find requester constantly out on the screen, making editing records a little easier as the requester will always be at hand, and finally you can choose to have Datastore open its window on any public screen.



## FINAL WORD

Overall, Datastore is a good straightforward database. To some the ability to design flashy forms may seem a little pointless, but the ability to actually print out these graphic forms give then a purpose beyond just an aesthetic one. It is simple enough to learn and use and the full on line help will help you out of any difficulties.

For current users the main bonus of upgrading is the new list view mode. For anyone with a large database this is of genuine use, as it does provide the best way of viewing large amounts of data.

# Information superstorage

Neil Mohr tries to spot the additions

in **Datastore 2**

**Bottom line**

## REQUIREMENTS

**RED essential** **BLACK recommended**

**2.0**

Workbench

**1 Mb**

RAM

**4 Mb**

Hard drive

**4 Mb**

RAM or above

**020/030**

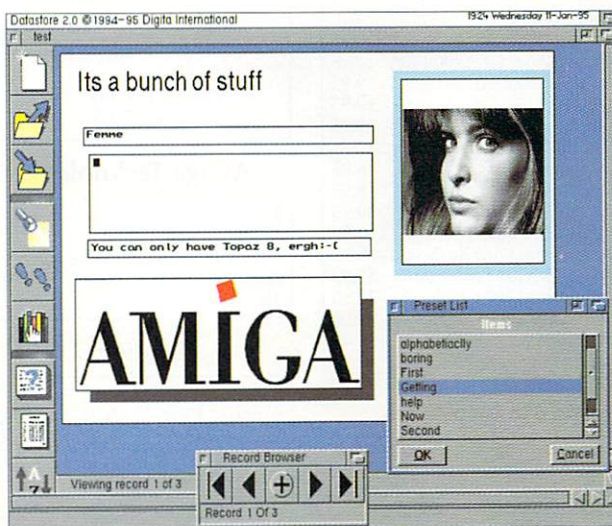
processor

## PRODUCT DETAILS

Product	Datastore
Supplier	Digita
Price	£49.95 (Upgrade £14.95)
Tel	01395 270273

## SCORES

Ease of use	90%
Implementation	80%
Value For Money	85%
Overall	85%



Datastore allows you to splash graphics and captions around, but all textual forms are still in the ugly topaz 8



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**A** new idea indeed. Rather than the usual 50 minute video tape telling you a whole range of things you already knew, in.focus's 'Layout tips and Tricks' video is a breath of fresh air. For a start it is accompanied by a CD-ROM containing all the tutorial scenes talked about on the video tape and, unusually for LightWave-related products these days, has separate directories for PC and Amiga owners along with hundreds of extra bits and bobs like motion clips, images, benchmarks scenes used by LightWave Pro to check the speed of various LightWave platforms, and loads and loads of objects from both the Syndesis and Viewpoint Datalabs catalogues.

Secondly, the video itself is about 70 minutes of very detailed information about only a few topics, namely how to composite LightWave output with live action successfully, the use of inverse kinematics (new to LightWave 4.0, but don't worry if you aren't using this version, the tape still also deals with bones and morphing targets), lighting and how to achieve realistic looking neon, amongst other things. Embedded in the detailed explanations of how to achieve all these targets are little gems of information that will come in handy for other things.

## ANIMATIONS

This tape is presented by, and based around the work of, Mark Thompson who created the benchmark LightWave animation when he designed 'One stormy night with Fred Floaty'. The animation details how Fred Floaty, a sad and lonely buoyancy aid, sitting in a travel agent's window on a cold and rainy night, fantasises about going on one of the exotic holidays he is supposed to be promoting. He slips into a reverie of floating in a swimming pool somewhere hot and sunny, whereupon he loses his glasses in the sparkling water. They sink down through the swimming pool water and in the distance a shark is seen rapidly approaching.



This impressive looking scene is part of Fusion Films logo animation



Mark Thompson in California Chic

The shark gobbles up the glasses and disappears off into the distance. But then it returns, wearing the glasses, on a collision course with Fred Floaty. The dream ends with a shot of the shark's gaping maw as it is about to devour Fred, and he comes back to reality realising that his lot isn't such a bad one after all.

Mark Thompson explains how he put the animation together and uses it as an example of how to update old animation techniques with newer versions of LightWave. Thus, with the fact that Fred Floaty originally used a set of morph targets for its animation, Mark Thompson shows how bones and finally IK make the whole process much easier - on memory, on the learning curve and on you.

Mark also lets us into some important secrets he uses to optimise his animations, but is also keen to point out any possible disadvantages, giving the viewer a balanced opinion rather than the more bombastic 'This is how you must do it' approach.



# Fully focussed

A new idea in **LightWave** tutorials hits the streets.

**Ben Vost** investigates

## OVERALL

This is a great tape, provided you are already experienced with LightWave, and one you shouldn't miss for the depth of detail that Mark Thompson goes into. The CD-ROM included with the tape makes for an added incentive as well as a very sensible way of taking the tutorials further. Like most tutorial tapes that are this advanced, the emphasis on having high-powered equipment is very obvious, so be warned that many of the scenes included require a really stacked Amiga.

## Bottom line

### REQUIREMENTS

**RED essential** **BLACK recommended**



LightWave

### PRODUCT DETAILS

<b>Product</b>	in.focus Layout Tips and Tricks
<b>Supplier</b>	Prowave
<b>Price</b>	\$59.95 + shipping (Introductory)
<b>Tel</b>	(+001) 1 205 551 7710

### SCORES

Ease of use	85%
Implementation	85%
Value For Money	85%
Overall	85%



Fred Floaty and Mark Thompson's award-winning animation

## CD OBJECTS

The objects on the CD come under three categories: in the Gifts directory there is a complete scene which should be familiar to readers of LightWave Pro - it is a very nicely detailed rendition of a Hummer (a military light assault vehicle) driving through the desert leaving tracks in the sand, but be warned, I didn't have enough RAM on my 18Mb Amiga to render the scene once it had loaded.

Next up is the Syndesis directory which contains a selection of models from their 3D-ROM CD. As on the 3D-ROM, very few of the objects have been LightWave-sized, meaning they are out of scale with one another, polygons haven't been rationalised, and the surfaces haven't been edited. The last collection of objects on the CD is a nice surprise - Viewpoint datasets other than the tired old surfboard, hammerhead shark and Al Capone figure including the Sydney opera house, a Mark3 VW Golf and Big Ben. As usual with Viewpoint objects, they haven't been surfaced and you might need to do some editing for single- and two-point polygons, but that is normal. All in all, the CD is practically worth the purchase price alone.



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## GET IT ON THE DISK

As you become more familiar with the software available for your Amiga you will notice that many programs can be installed onto a hard drive. If you are using an Amiga without a hard drive, make it your first priority to get one.

However, there are many excellent software titles out there that apparently have no installer program, making them seemingly useless for your setup. Don't be put off – most application software can be installed onto a hard drive, it's just a case of knowing where to put what.

To the beginner, the mere prospect of copying software onto a hard drive is an ominous one, but it really isn't that difficult.

First of all you need to find out exactly what is on the disk you are trying to copy to your hard drive. The best way to do this is to insert the disk into DFO, run the Shell and type in:

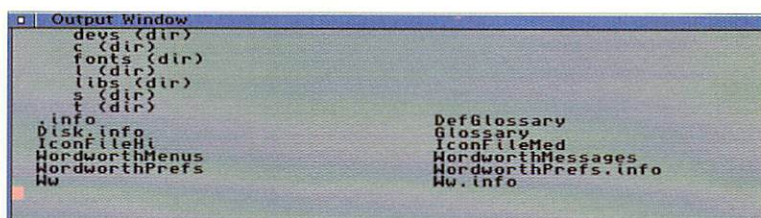
```
dir df0:
```

This will display the contents of the disk with further directories, marked by (dir). The

important directories you want are called Libs, C, S, L and Devs. These directories are present on your hard drive and you should copy the contents of the above mentioned directories into the ones on your hard drive.

Don't copy files across that are already present on your hard drive, just the ones that you haven't got. As an example, let's suppose you wanted to copy a file called ReqTools.library from the Libs drawer on DFO to the same drawer on your hard drive. To do this you

If you're new to the **Amiga** home computer or simply an old hand who still cringes at the mere mention of **Workbench** you've come to the right place



Install software by hand with ease by copying the files on the original disk to the appropriate directories on your hard drive

would type in the Shell:

```
copy DFO:Libs/reqtools.library to Workbench:Libs
```

You can then make a directory with a suitable name in a location of your choice and copy the actual program file from DFO: into this new directory. The program should then run okay.

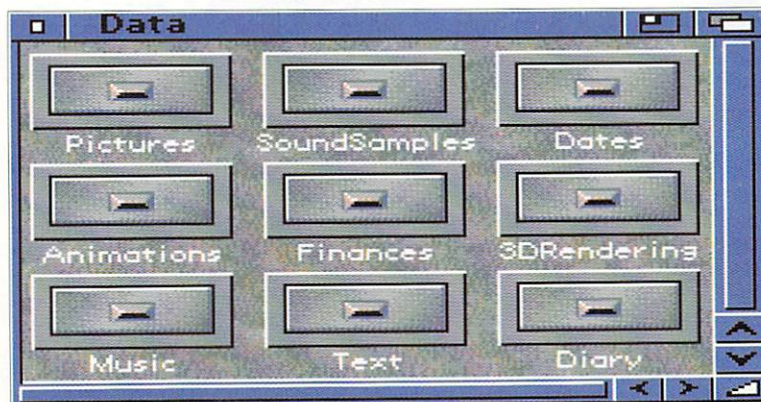
## BACKUP WITH EASE

If you own an Amiga with a hard drive you may have never spared a thought to what would happen if your hard drive became corrupted, or even worse conked out completely. If you weren't aware that this could ever happen then think again!

Over the past three years my hard drive has 'gone down' no fewer than 16 times – not bad you may think, but one was so fatal I had to purchase a new hard drive, losing all my precious work forever. And believe me, when your hard drive gives up the ghost your whole world falls apart – no joke!

The obvious solution is to back up your hard drive regularly to floppy disk. Unfortunately, backing up an entire hard drive to floppy can take hours and can take hundreds of floppy disks.

Backing up to floppy disk is something you cannot avoid but there is a better and far quicker way. Create a drawer on your hard drive, or better still a partition, called Data. Everything you create with your applications, whether it be text or graphics etc., you can now copy and save into Data. Now, all you need to do is back up this directory or partition only – you can always copy the applications back onto your hard drive from the original floppy disks.



Don't be a loser! Make sure you back up your hard drive regularly otherwise you could end up losing precious work

## Jargon box

Assign – this command allows you to assign labels to directories

BSVX – the Commodore sound sample standard which Workbench understands. Not all sound samples are in this format

IFF – see above

Partition – a partition is a specified section of a hard drive that is formatted individually so as to act as a separate device. You can have as many partitions as you like but they can only be set when you format your hard drive

PD – Public Domain companies sell, invariably, high quality Amiga software for just the price of a disk. The authors depend on donations from users or a registration fee in which registered users receive free updates

Printer-driver – the printer driver is a dedicated program that allows your Workbench to communicate with your printer. Not all printers come with a suitable printer driver

## WON'T DIE

Everything seems fine. You create new drawers, you delete old drawers. You're in perfect harmony with your machine when suddenly a particularly stubborn little drawer refuses to die. No matter how much you try to kill him he still clings on for dear life, flashing his obstinacy and constantly repeating the message 'Error while removing (202) object is in use'. Then suddenly everything grinds to all halt...

The reason why he won't go is simple. Some drawers (directories) have what is called an Assign made to them which is simply a label that directs a particular program to that directory. A drawer cannot be deleted if it has an Assign attached to it (Assigns are explained in more detail later on).

Any Assigns a program needs should be entered in the file User-Startup in the S directory. Open the Shell and type:

```
ed s:user-startup
```

You should look for a line that begins with Assign and has the name of the directory you are trying to delete at the end of it. For example:

```
Assign Hello: Workbench:Utilities
```

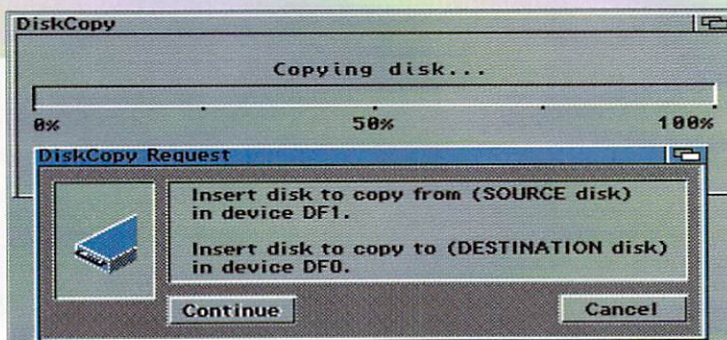
Delete this line, save the new User-Startup file, and then reboot your Amiga. Now the Assign has been removed you should be able to delete the drawer.



## DRAG AND DROP

If you are using the Workbench Icons... menu command Copy to duplicate disks you'll be pleased to know that there is a simpler method if you are lucky enough to own a second disk drive.

Put the disk you wish to copy from into DF0 and the disk you want to copy to in DF1 (your second disk drive). When the disk icon for DF0 appears on the Workbench simply click on it once and with the left mouse button held down, drag and release it over the disk icon for DF1. The copying process will now begin. Simplicity is such a beautiful thing.



**Don't bother with the menus. Utilise Workbench's unique drag and drop disk duplication**

**YOU ARE  
HERE**

I briefly mentioned Assign earlier but this command is so useful it deserves more of a mention. Assign is powerful in that it allows you to access a particular directory by a single name. Assigns are normally made by programs during installation or startup and invariably reside in the User-Startup file in the S directory.

Some Assigns are made by your Workbench and can be found in the Startup-Sequence also located in S. However, these are required by Workbench to operate properly and should not be touched.

Let's imagine a scenario in which you created a drawer in the Workbench Utilities directory called Pictures which, strangely enough, contained all your graphics. To save and load pictures to and from this drawer you would need to select Workbench, then Utilities, and finally Pictures from your paint package's file requester. Using an Assign such as:

☺ I could tell you a funny story about desktop sound effects, but I won't. They can be great fun and highly annoying to others. Use your imagination

Assign Pictures: Workbench:Utilities/Pictures

you would be able to select Pictures: instead, and you would automatically go straight into the Workbench:Utilities/Pictures drawer. You would put an Assign like this in your User-Startup file using Ed.

Some programs look for an Assign which may not be enabled. If a program kicks up a requester stating 'Please insert volume <name>' you can make an Assign called <name> to point to the directory you think the program is trying to locate.

Assign is flexible in that you can remove it without having to actually delete it from the User-Startup file. To remove an Assign open the Shell and enter:

Assign &lt;name&gt;: remove

[illegible]

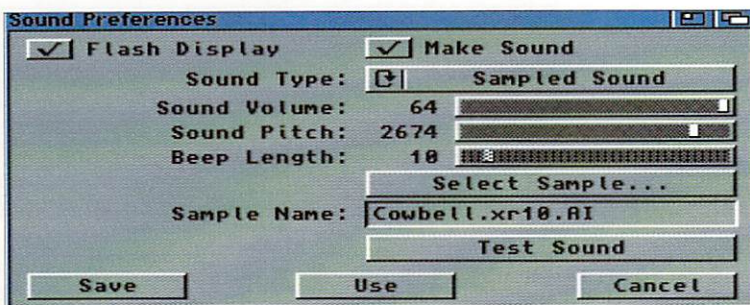
 **Using Assign** you can access directories by simply selecting the appropriate label

## SOUNDS FAMILIAR

Using Amiga Workbench can be a lot of fun and there are many different ways you can alter Workbench to suit your own requirements. Apart from the usual graphic changes you can make, you can also alter the way in which your Workbench informs you of errors.

Located in the Prefs drawer is the program Sound. This program allows you to change the alert settings which can either flash the screen or play a sound effect, or even a combination of both.

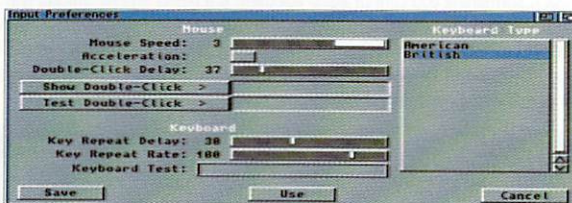
The Sound Type: button can be switched between the standard Workbench beep or a sound effect of your own choice which you can select with the Select Sample... button. The samples you load must be of the 8SVX or IFF form. You can get sound samples in this form from magazine coverdiscs and PD (Public Domain) houses.



**\$ \* ( ^ ) \* \$ :**

If you find that your E signs look awfully like a \$ sign, or vice-versa, you probably have the wrong key map selected. Run the Input program in the Prefs directory and you should see a list of your current keymaps on the right-hand side. Provided

you have installed the correct keymaps you should see the one for your nationality. Simply click on it so that it is selected and then select Save. Open the Shell and you should now find that your Amiga is printing the correct keys.



**C** If you don't feel ready to learn another language, make sure you select the correct keymap for your nationality

## MISSING DRIVER

Although a printer is a fine addition to any home computer, many users shy away from them due to their apparent complexity. One of the biggest printer-related problems is that of the stranded printer driver. A suitable printer driver is required in order for your Workbench to be able to communicate successfully with your printer.

When you purchase a new printer you may be fortunate enough to get a dedicated Amiga printer driver, but in most cases you must send off to the retailer, most of whom are very obliging.

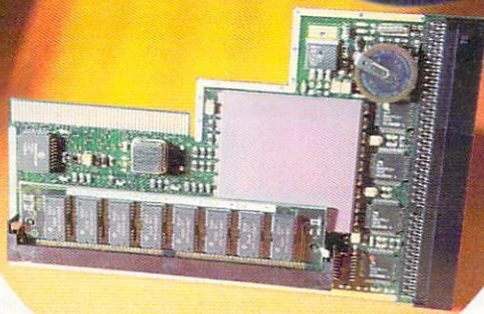
The real problem comes when installing the printer driver onto your Workbench. Where do you put it? Once again, the solution is very simple. Located in the Workbench Devs directory is a drawer called Printers. It is here you should copy your printer driver to. You can then select your printer driver from the Printer program in the Prefs directory.



**P**ower were the first company out with a 060 compatible board, but Gordon Harwood are first to place one on our desk for a thorough good seeing to. Well this is what all you A1200 speed freaks have really been waiting for – an 060 board. The first thing that strikes you about this board is just how sparse it is, the 060 chip taking up the majority of the space, but with only five others chips being visible. I would assume this is a good thing as it means less to go wrong in the future. The shape of the board is identical to that of the Blizzard 1230 accelerator, with an edge connector along the side of it allowing a SCSI module to be added at a later date.

Fitting the board is very straightforward due to the extra space provided by the edge connector, and once in place there is a good centimetre of room at the end, allowing the board to be removed easily. As the 060 is only a 3.3v device a fan is not needed, and I had no over heating problems even after the computer was on all day.

The board will accept any 70ns or faster, single sided 72 pin, 32 or 36-bit Simm. This restricts the largest Simm the board can take to



a 64Mb Simm – if that is your idea of a restriction – but apparently the latest Mark IV SCSI connector being produced by Phase 5 has the additional feature of allowing a second Simm to be fitted, which can be up to 128Mb. So in theory the 1260 can have a total of 192Mb fitted to it, 64Mb on the main board and 128Mb via the SCSI expansion.



### COMPATIBILITY

I have also been informed by Gordon Harwood that the Mark IV SCSI module works with the Blizzard 1230 accelerator, so any 1230 owners with the mark IV SCSI modules could upgrade to the 1260 and keep their current SCSI module.

So how does it perform? Well what did you expect me to say. If you want the fastest Amiga in the world get this board. SysInfo shows it to be running around twice the speed of a A4000, but this does not do the 060 justice. Even 'real world' tests such as Lha and XPK

**Neil Mohr** has been running around the offices saying zoom a lot. The **Blizzard 1260** might just be the reason

crunch times show the 060 to average three to four times the speed of an A4000, and AIBB shows that the 1260 board does almost three times as many MFlops as an A4000.

Viewing and saving Jpegs becomes as fast as normal ILBMs. You must also remember that programs can be compiled especially for the 060 chip, and these programs can take advantage of the 060's new superscalar architecture and gain a further speed increase. However, whether companies will produce such a version remains to be seen. At the end of the day, fit a Blizzard 1260, and suddenly an A1200 becomes the perfect rendering machine, and for half the price of an A4000.

## Bottom line

### REQUIREMENTS

**RED essential** **BLACK recommended**



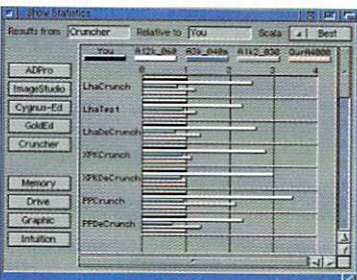
**SIMM**  
4/8Mb

### PRODUCT DETAILS

Product	Blizzard 1260
Supplier	Gordon Harwood
Price	Board – £599.95 4Mb – 134.95 8Mb – 274.95 SCSI Kit £99.95
Tel	01773 836781

### SCORES

Ease of use	80%
Implementation	80%
Value For Money	90%
Overall	83%



The new SysSpeed benchmark program provides realistic figures by using actual Amiga programs to produce speed comparisons

## DOOM AND GLOOM

One interesting side effect of the 060 is that certain maths-intensive programs can actually cause all manner of problems. The problem with several Amiga applications on the 68040 and 68060 is that they are compiled for the 6888x maths co-processor.

This co-processor has more FPU instructions than the 68040 and 68060, mainly complex transcendental functions such as sine, cosine and logarithmic, and these instructions have to be emulated on the more advanced 680x0 processors. Unknown instructions cause a trap and during the trap the emulation has to find the right emulation routine and run this function. In a trap the processor is in the Supervisor mode and no other tasks can run. This effect is visible by the mouse jerking around. The system will become more unusable the more unimplemented instructions are used by a program.

Obviously this is going to effect the people who will benefit most from owning an 060 machine – raytracers. To get around these problems, Phase 5 have provided a number of programs. CyberPatcher, the main one to use, tries to patch the most used instructions that have to be emulated. The speed up depends on the program but the main job is to pro-

vide a smooth system where you can work with no annoying blocked system. At the moment CyberPatcher supports the following programs:

- Mand2000d (large speed up)
- SceneryAnimator (large speed up)
- Imagine (large speed up)
- Vista Pro
- LightWave
- Real 3d
- Maxon Cinema4D

The difference is very noticeable when using Mand2000, from rendering no faster than a normal A1200 before hand, to rendering at least 30 times faster after CyberPatcher has been run.

One disappointment is that this problem also seems to be effecting most of the current Doom clones for the Amiga. I was looking forward to trying Breathless out on a full screen, but the actual redraw speed ends up being worse than a normal A1200. I have been told by Gordon Harwood that CyberPatcher will be updated, and they are currently collating a list of programs that needed to be 'fixed'.





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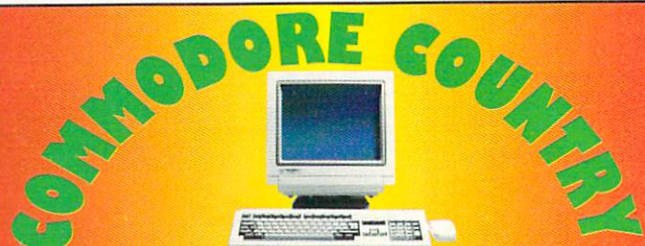


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# Contents

## System News

Andy Maddock takes you on a trip to Amiga games heaven. Well, gives you the lowdown on Uropa 2 and Trapped anyway



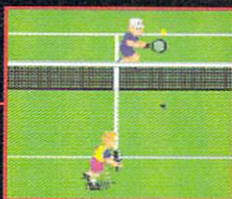
## Xtreme Racing

Hang up your fluffy dice and get your motor running courtesy of Guildhall



## Super Tennis Champs

Anyone for tennis? Grab your rackets for this latest offering



## Zeewolf 2

Binary Asylum release their eagerly-anticipated sequel to their hit game



## Soccer Stars '96

Andy Maddock checks out this bargain football compilation from Empire



## Capital Punishment

Tina Hackett turns green at the sight of this rather gory beat-'em-up



## Gloom Deluxe

Just as you thought it was safe....yes, another addition to the family has appeared



## Exile

Audiogenic's souped-up version of the old classic. System take a look



## Pinball Prelude

It's a month for pinball it seems. We have two for you to take a look at



## Penguins

We've not seen many puzzlers around for a while so stop here for the latest brain teaser



## Slamtilt

We take a sneak preview of 21st Century's forthcoming pinball sim





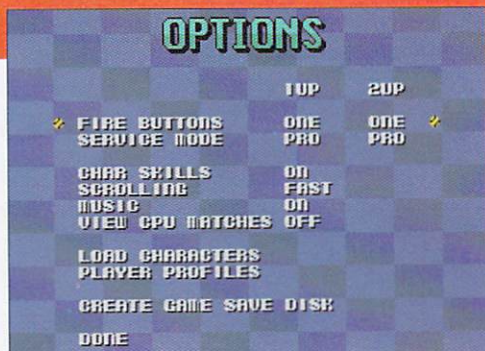
By Andy Maddock

## Anyone for tennis?

**I**n this very issue you will be able to read a review of Audiogenic's latest tennis simulation and once you've done that, this little bit of news may interest you.

There are some Super Tennis Champs data disks on the way and the first will contain all the lady competitors. Also, if you use it with the original, you will be able to set up mixed doubles competitions, etc.

It will be available soon priced at £7.99 and for more information you can contact Audiogenic Customer Services on 0181-424 2244.



*Super Tennis Champs is fast becoming one of the finest tennis games on the Amiga*

## Punishment on-line



*Capital Punishment could take fighting games into the next millennium. We hope so*

Also in this issue we have reviewed Capital Punishment by Click Boom, so if you want to play the latest version you can FTP to your favourite Aminet site - for Great Britain it will be located at Imperial College at [src.doc.ic.ac.uk](mailto:src.doc.ic.ac.uk) and you will then find it located in the Game/Demo directory.

## Free games and stuff

Recently we've received a couple of letters regarding games and some cheats. If you have any queries about the Amiga games market then don't hesitate to put pen to paper or finger to keyboard and either post or e-mail your problems to us, and we'll do our best to provide some answers. We may even hand out some free games in exchange for some decent letters or cheats.

So get writing - but don't bother calling by phone. Believe it or not we are pretty busy and if we had to stop every five minutes to write down a cheat, we wouldn't have time to write the magazine! Send your cheats to the address printed on the comment page of this issue.

## The Wizards of Oz



Austex Software are a new game developers from way down under in Australia who have arrived on the Amiga games scene with a game which has been in development for quite some time - only they won't tell us how long!

The title has been confirmed as Uropa2 - The Uterior Colony and from what I've seen, it's looking surprisingly good. The concept behind the whole idea is basically space. The idea is based on the moon called Europa which orbits the planet Jupiter. Taking control of a Tekite Warrior means you have the

responsibility for completing some important missions. They include rescuing colonists, destroying communication rooms of the main network, guiding stranded hover vehicles and rescuing hostages.

To help you along the way you will be able to access and log on to computer terminals to access new weaponry and repair facilities, as well as becoming a net surfer, downloading information to sell giving you some cash to play around with.

Not only is the game an arcade/



*The title screen looks particularly marvellous. You know all those lights and things. Brilliant*



*This screenshot reminds of an old Spectrum game entitled Nomad... although graphically Uropa is far superior*

adventure-like romp, it will also turn into a shoot-'em-up when you need to travel somewhere else. There are also a couple of submissions thrown in to make this slightly more interesting. The game is viewed isometrically in a 3D fashion, accompanied by some excellent light-sourced vector 3D graphics.

Uropa2 will feature multitasking, an AGA enhanced version, will be hard drive installable, and the developers are still considering if they will they do an ECS version with a CD32 version to follow. If the gameplay can match the graphics then we may well see Uropa2 very soon.

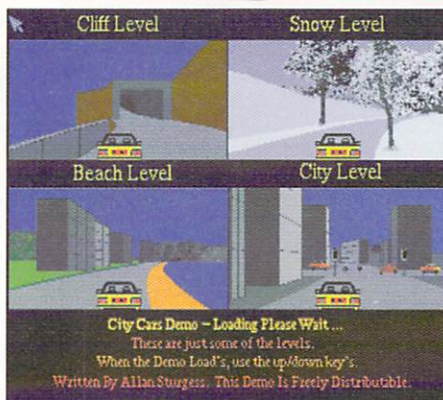


## Shopping on a Saturday afternoon

Throughout these past four or five months we have always been slightly unsure about the amount of games System would feature. But thanks to all those great loyal software houses out there we've been brimming with better quality games than ever before. So when City Cars arrived in the office our hearts slumped to our feet. Just when we thought there was hope of being another excellent month full of marvellous entertainment for you to spend your cash on... minutes before deadline City Cars arrives. What timing!

If you can cast your minds back to the early Spectrum days of games like OutRun and Chase HQ then maybe you'll have an idea of what City Cars plays like. Although this effort is actually in colour, the gameplay is fairly non-existent.

It features two city cars which you'd



**Games of this quality should be banned. I'm sorry if I'm being so harsh but it really is utterly unplayable**

expect your grandparents to drive when they're off shopping, and what's ironic is the fact that when you pick up the joystick you do feel as though you are a rather slightly impaired pensioner because you can't even keep it in a straight line. Also, when you put your foot down it seems to go about 300 mph or something ridiculous - and that's where the similarities between pensioners and City Cars tails off, as they usually prefer to go at 3mph... on a motorway.

I do feel sorry for Allan Sturgess, the programmer, because he's probably spent a long time on it. But I'm sorry, it just cannot compete with the quality of games out there already. Anyway, here are some screenshots just to prove it. Although I've judged it from first looks, we may give it a full review if we've got enough space.

## Trapped inside my cyberpants



**We only received this minutes before deadline so we'll try and expand on this rather poor effort of an article next month, OK?**

Trapped is a new game by German developers Oxyron Software and is a Doom/Dungeon Master like game. It captures all the thrills of dungeon exploring as well as all the graphical capabilities of Doom.

The full title of the game is Trapped: The Bicycle of Death, otherwise known as a Raleigh Chopper. Nah, we're only kidding.

We downloaded this preview from Aminet and

with its possibilities of being a brand new Doom clone we decided to let you know about it.

Going back to the dodgy translation of the title before, it was actually Das Rad von Telmar. So from my GCSE exam I remembered that 'Rad' meant bicycle and we assumed 'Telmar' must've meant something negative such as... death! But, er it doesn't, so, er... we thought it was funny!



**Here's what it won't look like as the programmer is intending on changing the graphics completely**

## A cheap Obsession

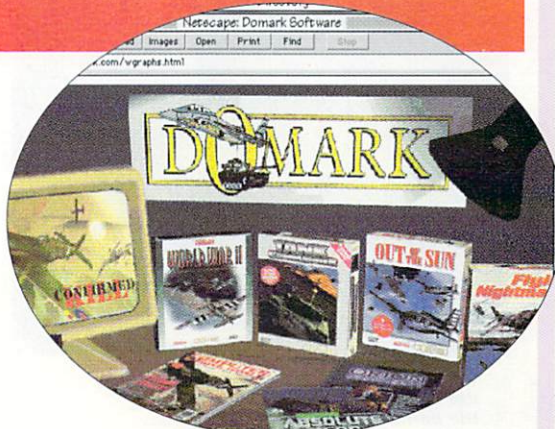
Hurrah! Thanks to the January sales Obsession has now been reduced by a tenner. It used to be £29.95 and is now priced at £19.95. Yep that's it.

## Doh!

Our friends at Domark are now on-line, joining the so very few Amiga publishers such as Team 17, Ocean and MicroProse.

You will now be able to find more information about Domark's latest offerings including the most eagerly awaited football management game ever - Championship Manager 2.

The site provides links to many different pages for players and non-players of Championship Manager as well as an IRC channel for you to discuss various footballing and Championship Manager issues. It's well worth checking out even though it's still in development. The address is <http://domark.com/>



**If you've got an Amiga homepage with some new game news/demos/screenshots, let us know**



RACE RESULTS GRASSLANDS 1			
POS	NAME	PTS	CASH BEST LAP
1ST	KURZON	2000	00:17:84
2ND	BOWE	1500	00:18:02
3RD	BRAD	1000	00:19:26
4TH	BERZEL	750	00:19:56
5TH	ALKARU	500	00:19:56
6TH	DAVINA	250	00:19:56
7TH	ROZZA	250	00:19:56
8TH	DENTAKU	100	00:21:84

Here are the league tables from the first round on the Grasslands track. As you can see, I'm not doing too well

Last month we brought you a preview and mentioned that this game was looking particularly good. If you've ever played Super Mario Kart on the SNES then you'll undoubtedly have an idea of what to expect. Considering Mario Kart was, and probably still is, one of the finest games Nintendo have ever produced, to describe this as an Amiga version wouldn't be straying from the truth.

Over the last few months the games side of the Amiga has all been pretty similar. For instance, the games have all tried to be quick – especially the Doom clones. To enable the best speed, detail levels, resolutions and screen sizes have all been made completely configurable, leaving it up to the user to play how they prefer.

Extreme Racing, or rather Xtreme Racing as it has now decided to call itself, comes complete with a menu containing a feast of options which let you change more or less everything. You can change the controls, weapons, car settings and laps, as well as the in-game options which allow you to tinker with the more technical aspects, namely frames per second, pixel sizes, dithering, and switching between the blitter and C2P screen modes.

The actual game features three modes of play – a single race mode, a cup race or a complete season. The first is basically a practice session and it won't really matter if you happen to finish in last place; the cup mode is split up into three – the Tortoise Cup, Custard Cup and Xtreme Cup – the latter being the most difficult, containing awkward computer drivers and



The title screen looks speedy, dynamic, er, alright so it's not a particularly interesting screenshot! I'm doin' me best chief!

## Lowering the tone

The only point that may lower the tone is that even though it may look brilliant and play like a dream, some people may argue that there is a certain cheapness. I am, of course, referring to the sheep, lemmings, and men by the side of the road. I suppose the sheep would have been okay because it is very funny to see a high speed sheep flying on your tail ready to explode at any moment. Although there are lemmings walking up and down trying to stop you, a more original idea would probably have been better, or not at all. Younger players may find it instantly hilarious and bask in its warm summer glow that is humour, but older players may be a little disappointed with the cheap jokes. It would have been better to stick some trees in the way rather than a badly drawn lemming.

tough tracks with many obstacles. The Season mode is a complete tour throughout the game, and in the Silltunna Grand Prix, depending on where you actually finish will result in how many points you will receive.

There are eight other drivers to compete against and they all have varied attributes which you must look out for during a race. Each character also has its own particular car.

Super Mario Kart boasted an excellent mode whereby your kart had three balloons surrounding it and the first to pop all three would win.



You can preview the tracks by pressing the corresponding keys to see where the corners and obstacles are



Pressing escape during a race will bring up the many hundreds of option screens – you can change everything!

### GRAPHICS

90%

### SOUND

88%

### GAMEPLAY

91%

### OVERALL

90%

### PUBLISHER

Guildhall

### DEVELOPER

Silltunna Software

### PRICE

£29.99

### DISKS

3

### HD INSTALL

Yes

### SUPPORTS

A1200/A4000





This is actually a two-player split screen with a tracker camera showing the action from a different angle



You see this caption here. I can't remember what the picture looks like, so... er, here's a picture of Xtreme Racing - phew!

Reviewed by Andy Maddock

# Xtreme Racing

These could be popped by missiles and carefully positioned banana skins. Xtreme Racing contains exactly the same as this, although the banana skins have been replaced with sheep.

There are three levels of difficulty so the game will last for months. The computer-controlled cars are extremely tough on the easier



Here's the overview of the entire track showing you where the obstacles and corners are. Hang on, I've already said this



This is the smallest screen you can play Xtreme Racing on - it's faster than a bullet but about as interesting as our Coverdisk Editor

levels so I can't imagine how much practice you'd have to put in to get up to a winning standard.

There are also around 10 different courses, each with two different tracks. The second is usually littered with tight bends and annoying obstacles which will undoubtedly frustrate you beyond belief.

The best thing about Xtreme Racing has to be the 3D texture mapped graphics which are truly superb - they even look better than Mario Kart! The cars are well drawn and there is an infinite amount of angles you can view your car from. This all adds up to being nothing short of perfect in the presentation department. As mentioned before, there are options galore and the graphical presentation screens are of a highly professional standard.

I will point out that you will need either an A1200 or A4000 with at least 2Mb of RAM, and an accelerator is strongly recommended if you want the best speeds.



Selecting your character reflects on your personality. I chose the big hairy ape! Hoo! How funny is that? Not very?

‘The best thing about Xtreme Racing has to be the 3D texture mapped graphics which are truly superb ,

## Final word

If you have loads of friends gagging for a bit of multi-simultaneous action then there's nothing better than to link two Amigas together via a null modem cable so all eight people can take part (four on each screen). Even with the screen divided into quarters it still doesn't restrict your view of the action which is quite a surprise.

There is no better multi-player game available to satisfy the needs of eight people. The graphics are excellent, the sounds are good and it plays like a dream. What more could you possibly ask for from a game?



# preview

What are going to make this different from the last are almost certainly the options, options,



**There will always be people who complain about the blood. I think it's great!**



**Unlike the first Gloom, the deluxe version features proper puzzles to solve**



**The same old soldiers still appear with their same old screams and yelps**



**This is a sight that usually greets me on a Saturday night in the pub**

Previewed by Andy Maddock

# Gloom Deluxe

**H**ey, have you noticed anything different? Look a little harder. Yes, that's right, there's only one Doom clone this month. 'So what!' you're probably thinking, well if you read the last four or five copies of *Amiga Computing* then you'll notice we've been reviewing two or three every month.

I still don't know what the attraction is, what makes Doom so much better than a couple of seasons on a football management game. Don't get me wrong, I'll happily play all these Doom-like games, it's just that I can't see the attraction in copying the original Doom. Why should we bother nicking their ideas. I'm sure many Amiga developers have original ideas somewhere, so let's see a game they'll want to copy.

After Gloom received 81 per cent three or four months back, Guildhall Leisure finally come home for tea with their first pseudo-data disk. And surely not the last.

What are going to make this different from the last are almost certainly the options. They've managed to squeeze more and more playing options into the game to enable you to chop and change the features you don't like. For instance, as the Amiga's technology is slowly improving, more and more machines are being upgraded to faster, efficient and generally better machines. The games are beginning to move with the times.

Although there are many people out there with a standard A1200 with say, Sensible Soccer, there are many with either an upgraded A1200 or A4000 who aren't really getting good gaming value for the price of their machine.

Guildhall Leisure are leading this campaign for games players to get the most out of their system set-up because last month we saw them release a racing game entitled Extreme Racing which



could be completely configured depending on your own set-up.

For example, if you bought a graphics card solely for use with an art package, why should it stop there. If you can buy games that will manipulate and take advantage of it then why not. Although these people may be in a minority, they are growing very slowly by upgrading their A500 to either an A1200 with an accelerator or even an A4000. It may cost quite a bit, but people are still doing it - moving with the times that is.

The good thing is, you can still manage to play these games such as Gloom and Extreme Racing on a standard A1200, although on an accelerated machine they are far more superior.

## Change of scenery

The options in Gloom Deluxe include being able to change the game to classic, enhanced or OS friendly so you can play it as it used to be, graphically enhanced or in a workbench window. There will also be support for various graphic cards, as well as the new and rather expensive Virtual i glasses.

The whole Doom level system will be completely re-vamped with new levels, and new places and stages. All the resolutions and screen modes will be completely configurable, allowing you to play Gloom in super Hi-res for example, so the graphics will instantly escape that original pixel look and have a look similar to that of Breathless.

## Insight

From what I have noticed from the preview version, the mazes are slightly harder - instead of opening a door for bare chested madmen to run out, you can flick switches which will open doors elsewhere, making it more puzzling.

All this could add up to being one of the finest Doom clones we are yet to see. All I can say is, if you've got a good machine, expect a very good Doom clone soon.

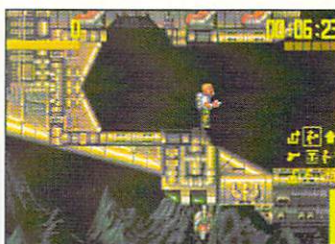




The graphics are slightly enhanced over the previous version



Dropping grenades and picking up cannons are pretty much the name of the game



The symbols on the right will allow you to perform various actions and movements

**B**efore you say a word, I know and so does everybody else in the world that Exile has already been released. In fact a long time ago – it appeared as a demo on a coverdisk and I can remember playing it for absolutely ages and then I never recalled seeing the game in the shops. I don't know why.

You can imagine my surprise when it arrived in the office just a few weeks ago. I was delighted at the fact I could now play the game I had wanted to play years ago.

I promptly loaded up the two disks and while I waited I had a quick look at the manual, which wasn't really a good idea as it was packed full of keyboard shortcuts and in-depth paragraphs about each weapon, monster, etc. I didn't really want to read it as I'd already played a demo thousands of times so I went straight into the game.

I won't explain the plot completely because a) I don't want to spoil it for you and b) It's far too long to print here. If I tell you some bad guy has nicked a special device needed to transport your ship from galaxy to galaxy and you need it back, then I think you'll get the gist.

When I started moving my little sprite about the screen I have to admit to being slightly disappointed as the sprites had been revamped completely and instead of the top little spaceman in his little space suit as before, there was, in fact, a blonde-haired geezer who looked completely out of place. Never mind, I thought, at least the actual game still looks similar. What I

# Exile

Reviewed by Andy Maddock

completely forgot after playing the demo years ago is that it was so hard I couldn't even get off the first level. I ended up going back to the manual to follow the walkthrough to save me ploughing through the other pages, and still it didn't give me any clues as to what to do. I managed to pick up some stuff and chuck it about a bit and I even blew things up.

I think what lets it down is the control system. It's all a bit difficult you see. You're a spaceman and you have a jetpack strapped to your back and pushing up and down on the joystick will 'thrust' you in that particular direction. Simple? Not when you're trying carefully to plant grenades using left and right on the joystick. In most cases you will end up banging your head severely against the side of the spaceship.

I suppose after a while you will get the hang of the control method, but it is very tricky to begin with. The worse thing I can say about Exile is that it's very very frustrating. If you should have a high stress level, I suggest you stick to something like Tetris or, better still, sleeping. There are so many little baddies who will take delight in annoying you, and to top it off – they don't even kill you! They'll happily knock you all over the shop without even having a purpose in life.

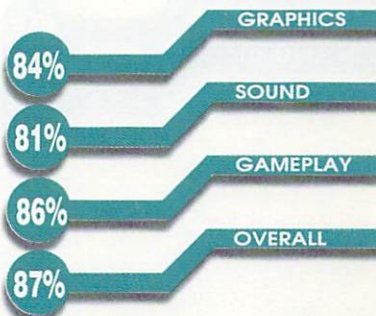
## Final word

I'm not saying Exile is a bad game, it's just that the frustration factor is far too high. The puzzles are excellent, testing your puzzle-solving ability as well as your actions, and it manages to sustain a high interest level. Most people will see the game as it is, but there are a select few who will find it more trouble than it's worth.

Although this is the A1200 version and it boasts enhanced AGA graphics, I still think it's lost some of its character, and although technically it's far superior, I still prefer the other one.



Although the gameplay still remains the same, you can see here that the graphics have been enhanced.



‘There are so many little baddies who will take delight in annoying you, and to top it off – they don't even kill you!’

PUBLISHER
Audiogenic
DEVELOPER
In-house
PRICE
£29.99
DISKS
2
HD INSTALL
No
SUPPORTS
A1200



GRAPHICS

91%

SOUND

88%

GAMEPLAY

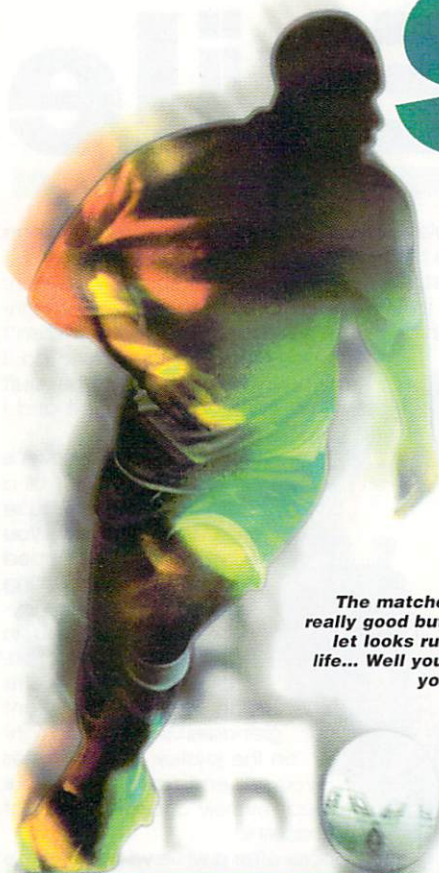
91%

OVERALL

90%

# Soccer Stars '96

Reviewed by Andy Maddock



The matches look really good but never let looks rule your life... Well you can if you want

**PUBLISHER**  
Empire Interactive

**DEVELOPER**  
Various

**PRICE**  
£34.99

**DISKS**  
13

**HD INSTALL**  
Yes

**SUPPORTS**  
All Amigas

## Kick Off 3

In my mind the Kick Off series was always the best football game ever until Sensible Soccer kindly knocked it into second place.

Kick Off 3 inevitably followed, as sequels do, and to everybody's astonishment it was no longer the top viewed quick game – it had turned into a side-viewed, 'more realistic'



angle. When I loaded it up I was eager to see the changes made from Kick Off 3 to Kick Off 3 – European Challenge. Am I confusing you? You see, the Kick Off 3 that was released was fairly bug ridden and featured some awkward options. However, Kick Off 3 – European Challenge was released without them. Okay?

As the game loads up you will notice how many options it has which is a considerable advance from the first two games. Instead of sticking with Steve Screech's Crystal Palace, you now have an extensive selection from the European leagues to the International front, with the likes of England and Brazil. There is also an option to play with a two-buttoned joystick or control pad, making those shots and passes easily distinguishable.

The actual game does look quite good, but something is very wrong and I just can't seem to put my finger on it. It could be the fact that



Just look at those names. How ridiculous can you possibly get? Not much more than this I'm sure!



whomever you play just seems to whack the ball down the centre of the pitch all the time, and in turn you will too. The passing system is very wrong - if you tend to give it a good smash upfield it will usually arrive at your striker's feet and you can whack it into the net, and a short pass is unbelievably inaccurate as it will almost always be intercepted by the opposition.

It's also pretty difficult to score as your star striker, whether it's Mark Hughes or Romario, will usually 'donkey it' right over the bar from a couple of yards out - most unrealistic, well maybe not for Mark Hughes.

If you do play this game for a long time you will get used to it, and believe me, it does get better. If you stick at it, it gets pretty involving. It's not that it's a bad game, it just lacks thought.

## Premier Manager 3

Premier Manager has had much the same run of success as the Kick Off series. Premier Manager 1 was absolutely superb, containing all the football management areas and generally being one of the best in the market. Then followed Premier Manager 2 which, in my mind, was slightly better featuring updated teams, better graphics, and an even easier-to-use control method. Now there is Premier Manager 3 which is slightly disappointing, although it features some new options for you to make things easier and avoid those more menial tasks of the football world.

The main difference is the match sequences. Instead of featuring a scoreboard showing the action you actually get a mock-up of a ground shown isometrically, and all 22 players will run about or 'flicker' as much as they can - a good idea on paper, although in practice it didn't really work.

All the teams have been updated to the 1994/95 standard, which is now out of date, although there is an editor you can purchase if you're really that bothered.

You can now add an assistant



Here's another isometric match screen, only so much happens it's too hard to see

manager to take care of all the time consuming, less exciting jobs such as treating players, sponsorship boards, and training schedules which were especially boring after a few seasons. The whole game is topped off with some nicer presentation screens for building your stadium, match reports and, of course, the match sequences.

One big problem I experienced was that on non-AGA machines the matches were

incredibly slow, even when the speed was at its fastest. The 'ultra' speed option has disappeared so there's no chance of instant results. I'm sure most people like to play slowly so they can watch their team's performance, but not me.

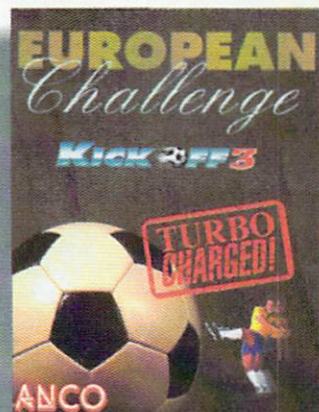
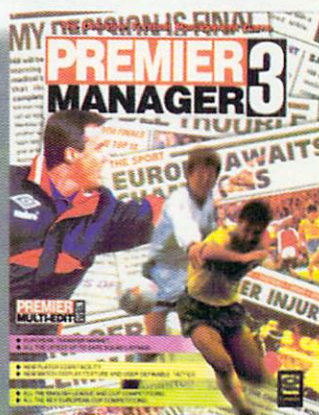
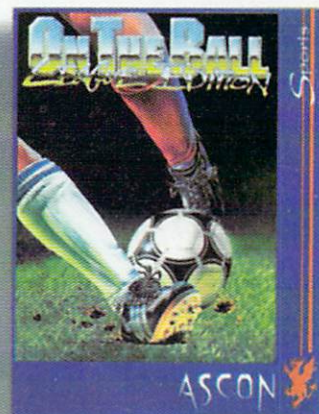
Overall, apart from the matches, Premier Manager 3 is incredibly detailed and realistic and for this to appear on a compilation is unbeatable.



The team select has been made easier by just selecting with the left mouse button and swapping with the right



Even the title logo has been redrawn in all its 3D glory making it, er... really good





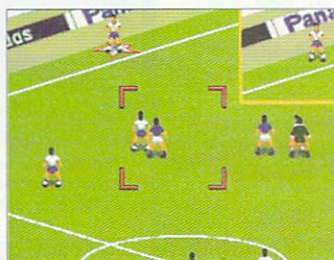
## review

‘Soccer Stars ’96 is probably one of the best football compilations and at £34.99 it is excellent value for money,

## FIFA International Soccer



**Fifa boasts an extensive range of options, although you'll probably never even use most of them**



**The match screen is played isometrically allowing those screamers in the top corners to look even better**



**Before the start you get to toss the coin to win either kick off or the best direction**

Of all the many hundreds of football games I've played across a wide variety of formats, I never really had any wish to play this on the Amiga - I haven't really got a reason apart from it just didn't appeal to me. From what I saw and heard, though, it did sound very slow and slightly unplayable.

I can remember playing this game on various console formats and it was very good - the isometric view worked pretty well, the only let-down being the speed which was a real disappointment. However, apart from that FIFA was a lot of fun to play.

You can only select from the International teams and unfortunately, they all have fake names so you can't recreate any famous moments.

There is an extensive amount of options, as in

Kick Off 3, and the presentation was nothing short of perfect. The game, however, is a different story.

If you're after a realistic game where you can think about your attack and pass it out to the wing, or have a nice steady build up, then you may as well forget the whole thing. This suffers the same symptoms as Kick Off 3 - you inevitably kick it right down the middle of the park until your striker breaks away and scores. One plus point, though, is that nearly every goal you score (if you can) looks absolutely brilliant because of the isometric angle. Unfortunately, all the players run about as fast as hungover hedgehogs and the scrolling jerks terribly.

As far as football games go, FIFA is a sure relegation candidate and is the white elephant of the compilation.

## On The Ball - League Edition



**It's amazing that out of the entire game I've managed to capture a screen with two players who still play!**



**Look at that. Just look at that. I can't believe the quality of that stadium. I think it may be Doncaster's ground...**



**The final whistle has gone, and so has the player's spirits quite obviously! Where's your morale?**

## Final word

Soccer Stars '96 is probably one of the best football compilations and at £34.99 it is excellent value for money and should be added to any football fan's list of games. The entertainment factor is beyond belief and as I mentioned before, this'll keep you out of everybody's way for forever and a day.

The first version to come from developers Ascon was the World Cup Edition which, in my mind, was the only game which managed to incorporate all the madness of the international stage. This featured a diary-like game whereby attending meetings and press conferences all had an effect on the outcome of your popularity, so it was up to you whether to train your team everyday, give them afternoons off, have one-to-one talks, send people home, or laze around the swimming pool everyday and go

to the pub every night - it was all possible.

Now comes the League Edition featuring all the English teams and their respective cup competitions. Here is a warning, however - if you want the realism to be high, you'll have to edit all the teams to get them back up-to-date because there will be players at your club that have probably retired!

By far the best thing about On The Ball is the fact that it gives you an insight into the world of football from a manager's

position, and you get to be involved in scandals, just like the real thing. Not only do the press watch your team, they also keep a keen eye on yours and your players' private lives. Then, if you are successful enough at the end of your domestic career, the International jobs will be made available.

On The Ball is by far the best game on the compilation and it'll keep you going for months and months. Also, when you've finished you've got three more games to play! It's not all bad!



# Slamtilt

Previewed by Tina Hackett

**P**inball games and 21st Century – they go together like fish 'n' chips, syrup pudding and custard, and Frinton coach holidays and old people. That was until their last effort, Pinball Mania, which went together more like Bernard Manning and Kate Moss. Well, this time 21st Century want to set the

infested sea. Yes, sounds nice doesn't it? However, it promises to get a lot gorier (violence in a pinball game? – makes you wonder what the world is coming to). We're talking monsters that tear your face off, monkeys that hook the top of your head off, and stabbings or something – all with appropriate squelchy sound effects.

Multi-ball has also been included and instead of having to mess around yourself changing the screen from Hi- to Lo-res and back, it automatically does it for you. Missions look to be that bit more interesting from the norm, too, which will provide a real challenge for even the most skilled players.

## Insight

Slamtilt is going to be for the A1200 and looks set to be a real hit. I don't know if it will need a ratings certificate because of the violence included – it's cartoon in nature and not particularly graphic so it will be interesting to see what happens on this point. It certainly looks to be that bit different because of this and the many sub-games will add variety to an old formula. The graphics look good and the music moves along nicely with the pace of the game – with enough different tunes to keep even the most diverse musical tastes happy. We look forward to seeing the final version.

‘violence in a pinball game? – makes you wonder what the world is coming to,’



Graphics look of a high standard with plenty of detail



Different missions will provide a challenge



The four tables are all completely different and a theme runs through each

record straight with a new pinballer for the Amiga which looks set to shine.

Called Liquid Dezin (yes, correct spelling – they are Swedish!) they are a completely new development team who took the game to 21st Century as a very brave first attempt. 21st Century were impressed to say the least and well, here it is. Well, nearly. It was almost complete when we saw the preview version and a release date has been set for April.

Okay, it's yet another pinballer, so what does it have that is going to make it stand out from the countless others we've seen? Firstly, the graphics look of a pretty good standard but what immediately strikes is the use of the display panel. This has been used before for animations and the score, but in this case it forms an integral part of the game as well.

From each of the four tables you can access sub-games which are stacked full of different animations. For example on the Pirate table, if you hit one of the lights you are made to walk the plank, and each time you fail to light a ramp, a rope snaps and you will fall into a shark



## Super

Reviewed by Tina Hackett

## Tennis

## Champs



GRAPHICS

77%

SOUND

79%

GAMEPLAY

80%

OVERALL

80%

NEXT TOURNAMENT:-

## RANKING



\*PLAY SAVE

CARLOS	0 PTS
AVATON	0 PTS
CHUCK	0 PTS
BUZZ	0 PTS
KRAS	0 PTS
SYNEX	0 PTS
JAKE	0 PTS
ROGER	0 PTS
DOOGIE	0 PTS
HENRI	0 PTS
THARA	0 PTS
MAC	0 PTS
DANIEL	0 PTS
STAN	0 PTS
OREG	0 PTS
JULIUS	0 PTS

Travel around the world in  
the many tournaments

**G**ood old tennis. It conjures nice, cheery images of Wimbledon, strawberries and cream and, best of all, summer. So you can imagine that getting a tennis game in the middle of dreary winter on a drizzly Monday morning was a real tonic. Immediately my spirits soared and I let my mind wander to hot, summer days playing tennis in the fresh air – and then I remembered, I'm crap at tennis. Ahh, well, it was a nice image for a while. But this wasn't going to be a problem in Audiogenic's latest simulation as I later found out, and after a brief flip through the manual, the game can be immediately dived into.

What is instantly apparent is the style the developers have plumped for, and instead of a stats-laden, realistic simulation, the cartoon characters suggest that this game is going to be fun. Before getting straight into a match you have a range of options to select to set the game up to your liking, so everyone is catered for – from the poor novice (like moi!) to budding

Agassi's. Once you've got to grips with the basic skills there are a number of different tournaments you can take part in, from an Exhibition mode to Grandslam, Tournament or League. Exhibition allows you play singles or doubles with any players, on any surface, in a match of 1, 3 or 5 sets. Leagues can also be played as either singles or doubles and if you have a four-player parallel port adapter, up to four people can take part. As a budding tennis star, you also get to see the world through singles tournaments in Paris, New York, Melbourne or London.

Although it doesn't have tedious, mind-boggling stats, there is still a tactical element to it. Players have different skills and styles of playing which add variety and keep it realistic. Carlos, for example, is a young Spaniard (ohh, stereotypes eh?). Apparently he has a flashing backhand supported by speed. Chuck, on the other hand (American, if you hadn't already guessed), has an enormous serve and stunning forehand. However, as he is cumbersome he

## Don't get court out

The many courts offer a different style of gameplay (see? authentic, eh?) that will challenge your game each time.

**Hard** – for the more experienced, this court is a real challenge as it will be fast-paced and will make the ball bounce high

**Grass** – expect low balls but still high speed when you play on a grass court

**Clay** – high bounces but a slower paced game are to be found on a clay court.

PUBLISHER

Audiogenic

DEVELOPER

Mental software

PRICE

£25.99

DISKS

1

HD INSTALL

No

SUPPORTS

All Amigas, 1Mb

## PARIS OPEN

JULIUS	
AVATON	
KRAS	
SYNEX	
JAKE	
HENRI	
STAN	
BUZZ	
CARLOS	
THARA	
MAC	
DOOGIE	
DANIEL	
ROGER	
CHUCK	
OREG	

\*PLAY SAVE

As you get better, you can opt to  
take part in the many competitions

## PARIS OPEN

FIRST ROUND



JULIUS

VS



AVATON

\* CPU

CPU

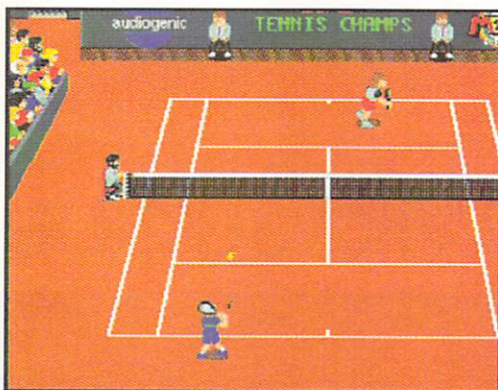
1 SET MATCH

The players all have different  
skill levels and playing styles





**Hey, check out the cool, bearded netcord judge**



**The sprites are nicely designed and well animated**

keeps his rallies short. Control is either via a one or two button joystick or a CD32 controller.

All options work well but I felt the CD32 controller was easier for a beginner like me because the controls are located on separate buttons. For example, one button is for a normal shot, another for topspin, one for lob, and another for slice, whilst the directional pad controls the direction and length of shot.

Although having sound effects in this sort of game is nothing new - expected, in fact - they are notable because they are actually rather good and definitely enhance the atmosphere. The crowd cheers for the players when they score but you also get a sampled voice of the umpire which cries "Net" or "Out" as required, which works well in adding a touch of authenticity. Graphically, the game has also been clever-



**Different playing surfaces provide a different style of game**

## Playing to win...

Your competitors all have different skills, so take a look and you'll know what you're up against:



### Buzz - Germany

He wears down his opponents with his powerful play.



### Roger - English

A tough player but lacks invention.



### Ihara - Japan

A new player, he has a weak service. But with his speed he can turn a lost cause into a winning shot.



### Greg - Australia

The former number one, he has excellent agility and a big serve.



**The control system is intuitive and allows for a smooth game**

ly thought out. The view of the court works well so that you can see all that is going on and employs a raised view as if you are looking from above the court.

The sprites are a good size, mainly because they are easy to control but also because some animations have been included which add to the fun. The player can be seen jumping up and down excitedly if he wins, but if he loses he has a McEnroe-type tantrum. Too small a character and you can't see what's going on, too large and they would look cumbersome and slow.

## Final word

Super Tennis Champs is a superb game which takes two minutes to get into but ages to master. It's instantly playable and the intuitive controls make it a dream to play. Saying that, you can either play with a joystick or CD32 joypad and as a personal preference, I found the joypad a great deal easier. The cartoon-style graphics work very nicely too and look appealing.

Although the game can be played tactically by weighing up the skills of the opposition, you can just jump

straight into the game as a novice and still get a rewarding match - until you can build up your skills to enter one of the many tournaments. The game supports a four-player adapter which suits Super Tennis Champs brilliantly (who says computer games are anti-social?), and it works especially well when you pit your skills against a friend with a similar level of ability.

All in all, if you like tennis sims you'll love this. But you'll also love this even if you don't! It's a great game and one which won't fail to impress!

**It's a great game and one which won't fail to impress,**



GRAPHICS

89%

SOUND

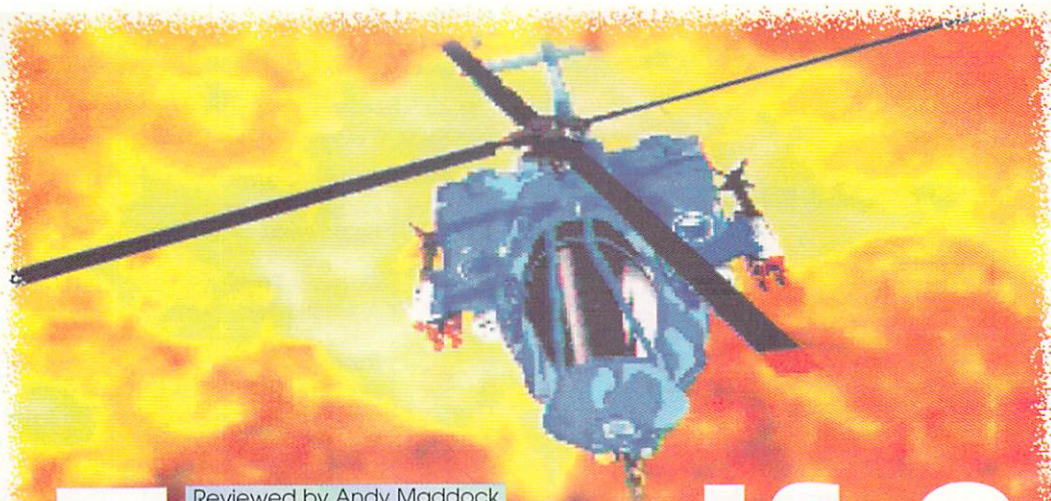
86%

GAMEPLAY

91%

OVERALL

90%



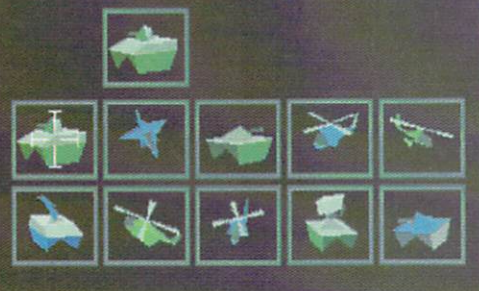
Reviewed by Andy Maddock

# Zeewolf 2

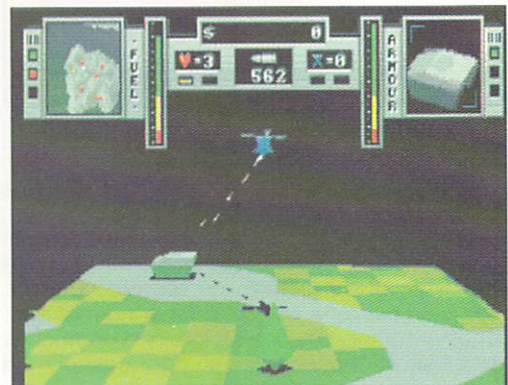
## Wild Justice

### Combat Psychology Test

Find page 5 in your Combat Handbook, and select the 3 images printed there:



*The copy protection is something that is coming into effect more than ever before. If the Amiga is to live on, piracy must be stopped*



*The status bar at the top of the screen will inform you of your ammunition, health, stocks and mission objectives*

**PUBLISHER**  
Binary Asylum

**DEVELOPER**  
In-house

**PRICE**  
£29.99

**DISKS**  
2

**HD INSTALL**  
No

**SUPPORTS**  
All Amigas

I have to admit that flight simulators or action-packed 'war in the skies' games don't really appeal to me. I can't really give you a reason why, it's just that I don't like them - at all. I never actually played the first Zeewolf because of my predicament and therefore haven't a clue about what it was like, although I am informed that it was very good, and if something can arouse our technical editor other than graphic cards and accelerators then I knew I was missing something.

Zeewolf 2 was given a full preview a month or two ago and from then on looked like it was going to be another excellent action game following on from the success of the first Zeewolf. Zeewolf is the name of a helicopter which belongs to a company called Zenith Research, and basically you are plunged straight into the action at a minute's notice because your opposition Ecliptico, who were defeated in the first Zeewolf, have decided to take revenge because first time around you didn't completely destroy them!

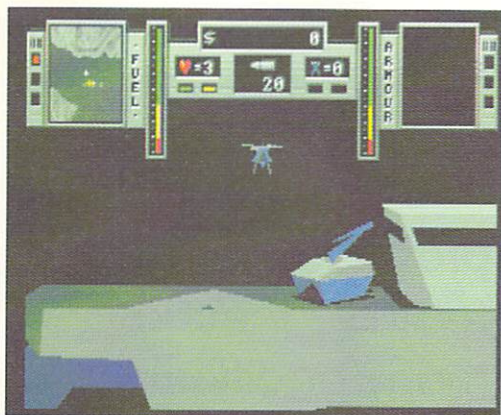
There are 32 missions in total and they are all split up into various phases which are either divided into Seek and Destroy, Airlift, Escort, Rescue,

Protect Building/Vehicle or Capture building. Most of the missions are self-explanatory and most of the time you will find yourself flying about blowing up the odd building and picking up people who come hurtling out. The missions aren't exactly tough and won't present you with a huge challenge, although having said that, they aren't so easy you'll complete them in minutes - you'll still have to become an accomplished player and manage to maintain steady and constant control over the helicopter in awkward situations.

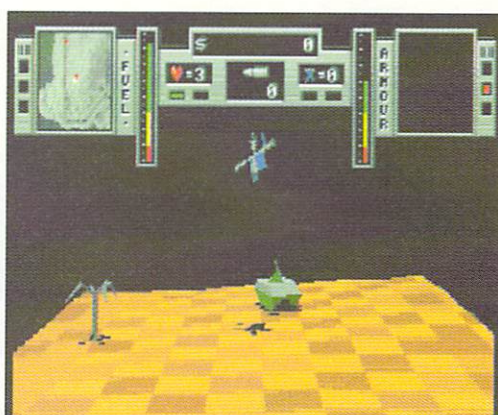
### Stocking up

Like most war/strategy games, reloading and refuelling will replenish your vehicle completely, almost as if you are given an extra life. In Zeewolf, you are given a stock number and your frigate will store a number of missiles, rockets or whatever for you, and once all your stocks are used up that's it. You're on your own to use your stocks wisely.





**Landing requires extreme precision as the camel must be close for it to extend its 'cherry picker'. Your helicopter will then be replenished**



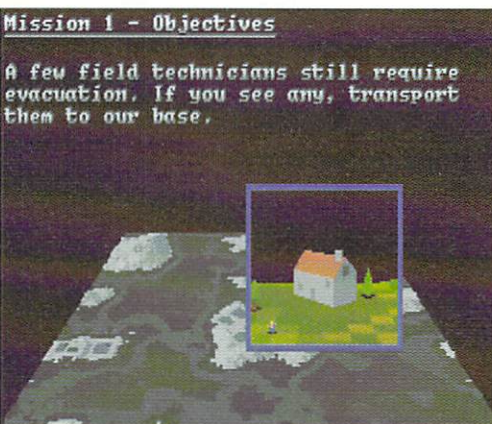
**There are many different missions contained in Zeewolf. None of them could stand accused of being overly difficult**

Although the main idea behind Zeewolf is to control a helicopter, you can link onto other vehicles via a camel. No, not the one with humps, but a remote link camel. You can link up to either a Cougar tank, Kestrel VTOL plane, Barracuda boat, or the Transport helicopter. All these are useful in various different missions and you break links between your two vehicles whenever you wish.

However, you'll have to be careful because when you run out of fuel, you will have to break the link and leave because it will self destruct, purely because Zenith Research don't want working vehicles left in the hands of the opposing side, namely Ecliptico.

You start each mission with a considerable amount of ammunition and by returning to the frigate, another camel will engage with your helicopter and you will be presented with a screen to refuel and re-load, depending on what you have in stock. There is a healthy choice of weaponry at your disposal.

Before you begin your missions you will be given all the necessary briefings so you know where to go first and why and what you must do



**Even though you can flick between your mission briefings and the action during the game, you will still receive an overview before you begin**



**Your own team will all be ready for take off once the mission begins**

when you get there. Before I began I was constantly thinking I'd completed all the objectives until I noticed there was a small but important building yet to be destroyed - which was quite annoying as my fuel gauge began to move towards the empty symbol. It really is a game that must be mastered carefully and skilfully, as well as quickly.

Throughout your mission you will be able to revert back to your mission briefings in a very clever way. For instance, in most games, when you flick from the action to a map screen, the former tends to remain paused until you switch back. Not here, though, because when you do flick to the map screen you will notice it is split into quarters.

The bottom right quarter contains all the necessary briefings and can be toggled by the press of a key, while the top left quarter will continue to show the action in a screen

much smaller. Not only does this feature allow you to plan ahead while still battling, it also speeds up the game so you don't have to keep stopping and starting.



**As you can see in the top left corner of the screen, the action will continue while you can still check out your mission objectives**

‘The missions are reasonably **challenging** and if you're into war and guns and that, then **Zeewolf** is an excellent purchase ;

## Final word

Having mentioned at the beginning of the game that these games don't really appeal to me, I'm... not changing my mind. Ha! You thought I was going to be converted into playing simulators all the time. No, how wrong can you be! It's not that Zeewolf 2 isn't any good - it's actually an excellent game if you like this sort of thing. I'll gladly try it out and review it - just don't make me take it home.

The graphics are excellent and the odd viewpoint works remarkably well. The missions are reasonably challenging and if you're into war and guns and that, then Zeewolf is an excellent purchase - one that shouldn't be missed.



GRAPHICS

91%

SOUND

90%

GAMEPLAY

89%

OVERALL

90%

PUBLISHER  
Effigy SoftwareDEVELOPER  
In-housePRICE  
£19.99DISKS  
3HD INSTALL  
NoSUPPORTS  
AGA A1200

## Final word

Overall, Pinball Prelude is a game that features outstanding graphics and superb sound effects. It's a pity there are only three tables, but with data disks coming in the near future, this could well turn out to be one of the best pinball simulators money can buy.



The size of the tables is absolutely huge. They are far bigger than anything seen before

## Pinball

Reviewed by Andy Maddock



Over the last few months I have reviewed two or three Pinball games and to be honest, none of them have managed to sustain my interest at all – although I did give Thomas the Tank Engine's Pinball a good 90% or something, mainly because a) it was for kids and b) I thought the novelty effect was good.

I'm not particularly a lover of pinball as I've mentioned countless times before. However, something different happened when I loaded Pinball Prelude – either I wasn't fully conscious from the night before or I'd actually found a pinball game which, believe it or not, I actually liked.

There are three tables – which is less than the other games – and they're all based around a certain theme, which is basically the whole concept of time. The 'Past' level features a prehistoric landscape with a huge dinosaur planted right in the middle. There are rock faces, dinosaur footprints,



You can change the screen resolution to Hi-res, laced, etc. The best is still Lo-res

Along with all these presentational features there are many additional ones which make the game more interesting,

## Prelude

skulls and all things prehistoric. Instead of the boring flippers you get on everyday pinball tables, these are actually the cro-magnon man's clubs. Not golf clubs, you know, big wooden things.

Along with all these presentational features there are many additional ones which make the game more interesting such as bonuses and extra balls, waterfall rides, rubberball, splat-the-rat, bonfires and the Dino ball gobbler. Make of them what you will.

The second table follows the 'time' theme and features the present day. Yep, all the advanced technology appears – mobile phones, computers, football. This is actually my favourite table because when you bang the ball up to the top of the screen the ball will enter a small football stadium. On the pitch are three static players, and the ball will bounce around the pitch until it ends up in one of the goals, keeping going until the final whistle. The score for your team will reflect on your points total.

There are loads of other bonuses like trying to park your car in a full car park, rolling the ball round a satellite dish, camcorder's, and dialling numbers on a mobile phone. There really are too many to mention, and they will all take a bit of finding as well – I played it for about half an hour and only found two or three.

The third and final table is, of course, the future, but it's more like a Star Wars table with graphics such as the carbonite chamber and Luke's green light saber for flippers. Instead of the ball being sprung into play from the right as usual, it sits on the spring in the middle of the screen. This table also features all the multiballs, bonus balls, targets and other strange extras, but somehow I don't feel this comes close to the Past and Present tables.



‘ This is a **good** effort which is a bargain for the price. It’s rather hard though, so will keep you occupied for **ages** – providing you don’t tear your hair out first ,

# Penguins

Reviewed by Tina Hackett

**W**hen a good puzzle game hits the shelves, it can sell by the bucket-load – look at the success of Lemmings for example. However, there are many others that just fall by the way-side, due mainly to lack of originality.

The next in the line of Amiga puzzlers is Penguins – a brave effort from a chap called Scott Hayne who is dealing with the whole release by himself, from the development to the publishing. Although a commercial release, he is selling the game at a snip of a price of £6.99, so to judge Penguins fairly, this should be kept in mind.

The concept behind it is that you play a fox or something which looks rather similar, and you’re mission is to guide some bewildered penguins safely through the levels. (Why this is a fox’s job is anyone’s guess. What do you want for £7 – realism?). You have various obstacles to overcome, from conveyor belts to flame jets, and you will need to negotiate platforms to get each penguin from one door to the exit.

But the penguins are not completely helpless. The one in blue can collect keys whilst the other one can club any baddies that stand in the way. However, this means you’ll also have to think about which penguin you want to move out first. A map function makes life easier and allows you to stay stationary and scroll around the level whilst you plan your next move – and if you find yourself in a no-win situation your only option will be to press escape. Fortunately, a code is presented after each level because if you didn’t save I’m convinced you’d be there for decades.

Both the graphics and sound work adequately for the type of game it is – you don’t need fancy effects for a puzzler to work. The backgrounds are quite detailed, though, and it’s nice to see that



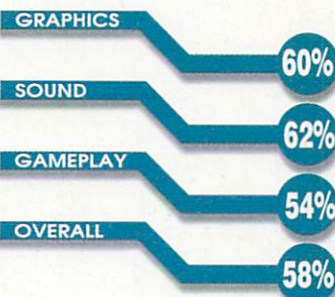
**A map function allows you to take a look around the level and plan your move**

these change every so often. The sprites also look quite nice, although I think they may have benefited from being a little larger.

## Final word

Penguins hardly scores highly in the originality stakes but it does offer 60 levels for only £7 – and entertaining levels they are too! Each provides a different challenge and they become progressively harder as you go, introducing you to each obstacle gradually. However, even the beginning levels are tricky and the game won’t be for you if you don’t have much patience.

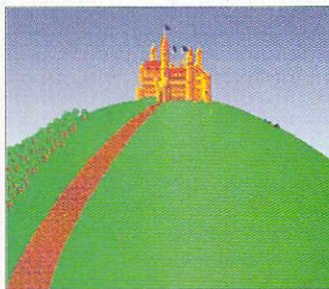
This is a good effort which is a bargain for the price. It’s rather hard though, so will keep you occupied for ages – providing you don’t tear your hair out first. Ppppick one up today! (Sorry!)



**An animation sets off the proceedings nicely**



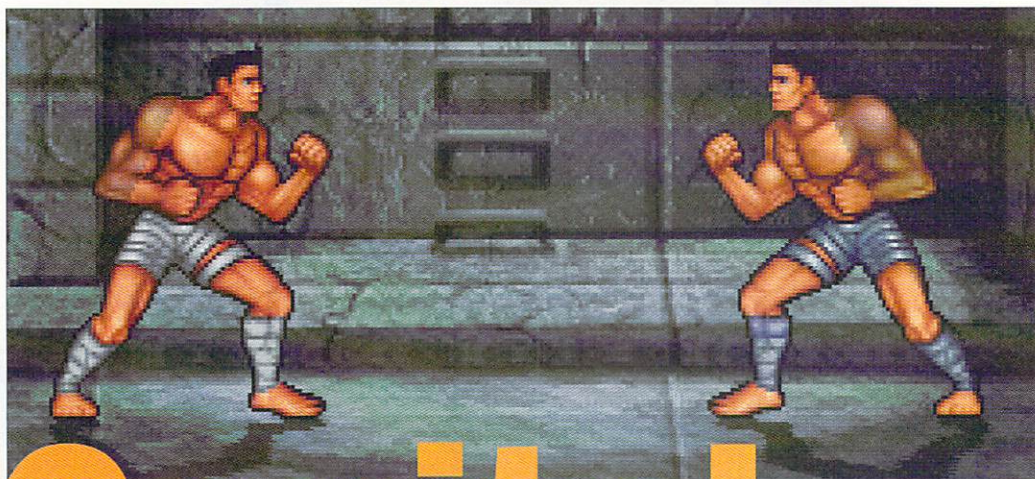
**You will need to guide your penguins through various obstacles such as flame-jets**



**The little sprites are quite well animated but needed to be larger**

<b>PUBLISHER</b>
Scott Hayne
<b>DEVELOPER</b>
Scott Hayne
<b>PRICE</b>
£6.99
<b>DISKS</b>
3
<b>HD INSTALL</b>
No
<b>SUPPORTS</b>
All Amigas





# Capital

## punishment

**The competitors prepare for action – moves are more powerful if they're launched in the air**

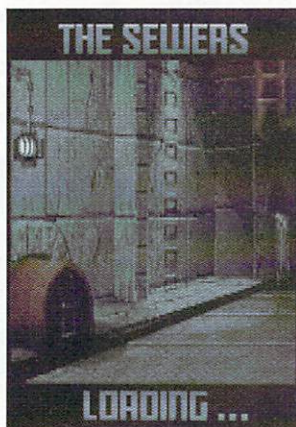
Previewed by Tina Hackett



**Click Boom are a Canadian development team hoping to make it big with this release**

**A**fter a recent absence of new fighting games for the Amiga, a Canadian team are answering the pleas of gamers with a penchant for all that is gory. Called Capital Punishment, it already looks to be a pretty impressive beat-'em-up from some developers called Click Boom, who form part of a company called Pxl Computers. It's already been on display at the World of Amiga Show in Toronto where it was warmly received by the public and VIPs alike.

Taking a rather grim and violent approach similar to that of Mortal Kombat, it certainly won't appease the Mary Whitehouses out there, but offering realistic combat and a satisfying range of moves, it will definitely appeal to fans of the genre. The preview version simply had a two-player, one-fighter choice and one



**Start off in the horrible depths of the sewers...**

environment, but the full commercial version will offer (as well as all the usual extras you'd expect) the option of fighting another player over the telephone line via a modem. The fighter's moves will also be upgraded as you progress.

And unlike some of the more basic beat-'em-ups, it has an intelligently designed scoring system which works like a 'tug-of-war'. When one player is hit his energy will go down, while the one who launched the move's bar will go up. Oh, and apparently the best bit (according to the developers) is that if you're losing dreadfully you still get a chance to come back because spikes come out of the wall, and if you're quick and catch your opponent unawares, you can chuck him onto the spikes. Blood will then ooze out from their impaled torso. Well, they do warn you at the beginning that the game is

## what's the story

You play a muscle-bound warrior who is on a mission to dethrone the evil master of a huge castle. You start in the miserable depths of the castle and need to make your way to the very top. Unfortunately, the master knows you are there and

intends to foil your plans by placing a guard on each floor.

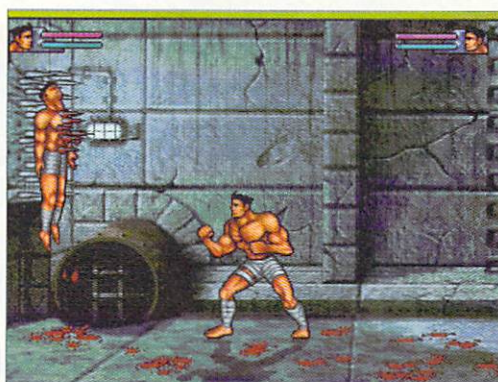
Apart from your obvious warrior skills you are helped along by the spirit of your deceased mentor. The fights will test the limits of your endurance and should you lose, a fate worse

than death awaits you – you will be destined to spend life in eternity with Bernard Manning after nine pints and a Vindaloo or something. Failing that, the master has the power to make you immortal and you will have to serve him for ever.





The fighters in action. Keep an eye on your stamina and energy bar

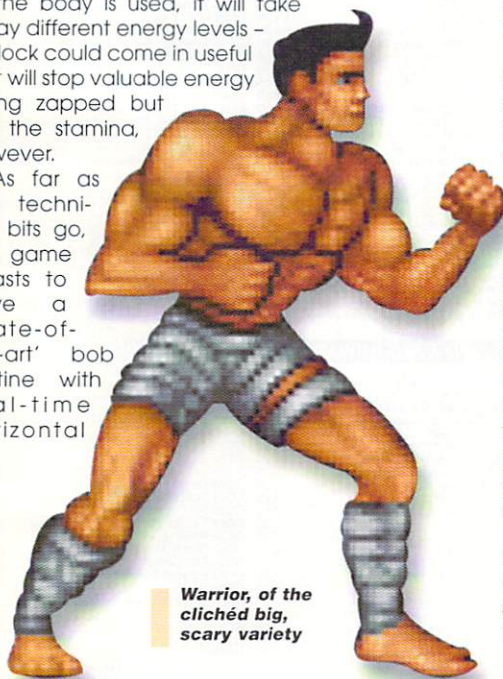


Aah, the lovely 'throw your opponent onto the spikes' move

not recommended for children or those who are sensitive - oh, that's okay then!

You have a stamina bar that you will need to keep an eye on too. A pink bar represents the head whereas blue represents the body, and according to which area gets hit, the stamina will fall on the corresponding bar. When this is depleted the warrior will fall into a state of fatigue and is left dangerously open to any move from their opponent. By quickly tapping on the joystick the player can rejuvenate himself, but the only way to get the stamina back properly is to stand still. Depending on the kind of move and which part of the body is used, it will take away different energy levels - a block could come in useful as it will stop valuable energy being zapped but not the stamina, however.

As far as the technical bits go, the game boasts to have a 'state-of-the-art' bob routine with real-time horizontal

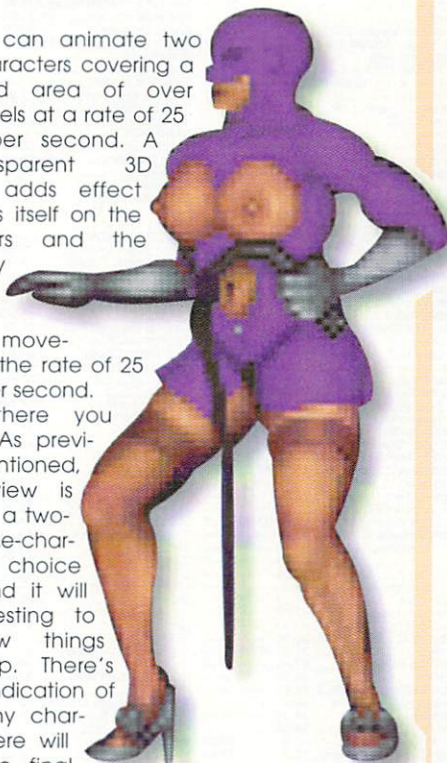


Warrior, of the clichéd big, scary variety

flip. This can animate two large characters covering a combined area of over 30,000 pixels at a rate of 25 frames per second. A semi-transparent 3D shadow adds effect and casts itself on the characters and the floors by following the characters' movements at the rate of 25 frames per second.

And there you have it. As previously mentioned, this preview is only from a two-player, one-character choice demo and it will be interesting to see how things shape up. There's also no indication of how many characters there will be in the final thing, but to match the likes of Mortal Kombat it's going to need a fair few - all with special moves!

Atmosphere is quite effective with a wide range of sound effects such as punches, screams of agony and crashes - a pumping soundtrack starts the proceedings and gets you into the fighting spirit of the game.



The bare-breasted warrior woman whose previous job involved hanging around King's Cross

‘Taking a rather grim and violent approach similar to that of **Mortal Kombat**, it certainly won't appease the **Mary Whitehouses** out there ;

## Insight

Capital Punishment looks great with impressive animated backdrops and plenty of detail. Things such as shadows and groundshakes add to the realism and the characters look good from what we can see on the introduction screen (although, the guys in the office seemed to favour the bare-breasted warrior woman). I hope a few special moves will be incorporated for the full release to add variety to the usual array

of punches, kicks and throws, and that there is sufficient difference in what each character can do.

There was also a slight problem in players disappearing off the screen which needs to be rectified as it slows things down a little. If it does deliver in these aspects then I see no reason why this won't be a brilliant beat-'em-up which will make a refreshing change after the many Doom games!



Capital Punishment comes complete with a warning that it's not for children or the sensitive



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Gloom 2	37.99						
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G Gooch-Test Match	37.99						
G Gooch-W World Cricket	22.99						
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# AMIGA

## GUIDE



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Frank Nord hits his stride with the second part of his look at Workbench's menus

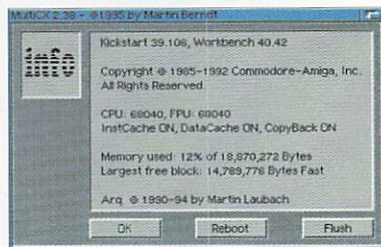
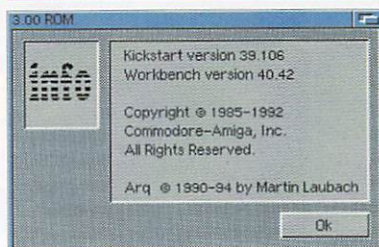


# Would you like to see the menu?

**W**elcome back to our world tour of Workbench's menus. This month we will continue our in-depth study of the Workbench menu before continuing on to the Window menu with its many and varied options. Next month we will be covering the Icons menu and Tools menu before going on to discuss how to improve the productivity of the Workbench menus.

## part 2

## THE WORKBENCH MENU CONTINUED...



**About...** – this handy menu item will bring up a window telling you what internal version of Workbench and Kickstart you are using. Basically, what this means is that instead of getting v2.04 for your Kickstart, you would end up with v37.175 and so on. This information is mainly of use when giving people the configuration of your machine.

**Quit** – this is one of the most completely pointless items in Workbench's menus. If you choose this menu item you will probably get a message saying that Workbench cannot quit because there are one or more Workbench-launched programs running (this includes commodities), and if you don't get this, then your Workbench will disappear leaving an empty menu bar. There is no way to restart your Amiga from this, so the only thing you can do is reset the machine which you could have done anyway to save yourself the trouble of closing down all your programs, etc.

## THAT ABOUT REQUESTER

Workbench's about requester can be made a lot more informative if you run a commodity like MultiCX. This changes the data shown in the window from just giving the Kickstart and Workbench versions to giving not only that information but also what CPU you have and its status, the amount of memory in your machine and how much of it is being used, and gives you buttons to flush memory or reboot the machine as well as the standard OK button.

## THE WINDOW MENU

*This menu and its items only become available if you have an active window open on the Workbench screen. If you don't then all the options here will be ghosted out so they cannot be used.*

**New Drawer**

**New drawer** – pretty self-explanatory this one. A new directory, complete with associated icon, will appear in the active window (you can't create a new drawer without an icon when using Workbench's menus). A rename requester will then pop-up asking you for a new name for the drawer (which, if we're going to be picky, means that the New Drawer menu item really ought to have an ellipsis after it as it opens a requester window). The icon used for this new drawer will depend on your default drawer icon which is stored in ENV:sys as 'def\_drawer'. You can change this default icon in two ways. The first is by copying a new drawer icon into ENV:sys and renaming it as def\_drawer, and the second is to load your desired icon into IconEdit and save it as default in the Project menu.

**Open Parent**

**Open parent** – dead easy this one. All it does is open the parent of the current drawer's window.

**Close**

**Close** – closes the current window. Even easier than the previous definition.

**Update**

**Update** – this item refreshes the contents of the active window. This can come in handy when you are using a program like DOpus to move files around or extract archives and you already have the appropriate windows open on Workbench. Because Workbench's file notification isn't all it might be, quite often you will find that although you have filled the RAM disk with items in DOpus, it's window on Workbench still appears empty. Using update will save you from having to close the window down and re-open it.

**Select Contents**

**Select contents** – selects all the files in the active drawer.

**Clean Up**

**Clean up** – one of the best additions to Workbench 3's menus is the keyboard shortcut assigned to this item. Previously you would need to

use the menus to clean up untidy windows. All the same, it would be good if Workbench was a little cleverer about how it tidies up the active window.

**Snapshot**

**Snapshot** – this is a sub-menu consisting of two items – window and all. These two options allow you to respectively snapshot the position and size of the active window and the positions of all the icons in the window and the window itself. If you use the backdrop item in the Workbench menu explained last month, then you should use the Snapshot window item to make sure that Workbench comes up in this style.

**Show**

**Show** – again, a sub-menu with two items. These deal with what the directory window on Workbench will show – either just the files that have icons with the 'only icons' option, or every single file with the 'all files' item.

**View By**

**View by** – This one determines how the icons will be displayed in a directory window, whether by icon or as

**Only Icons**  
☒ **All Files**

**Icon Name**  
**Date**  
**Size**



Paul Overaa outlines  
an unusual use for  
the DOS segment  
loading routines

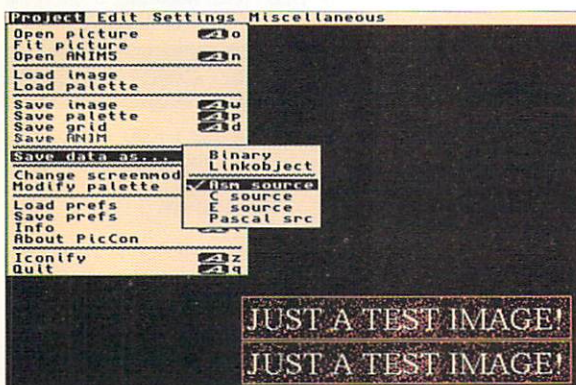


# Building blocks

I mentioned last month that one possible additional use of the LoadSeg() and UnloadSeg() DOS routines is for loading and unloading blocks of data such as graphic images. Needless to say, for this to be done the images themselves need to be provided as conventional AmigaDOS-style load files and, since most graphics start life as IFF files, this means that a certain amount of preliminary conversion work is needed in order to get the graphics into the right form.

The first step then would be to use, say, Deluxe Paint to create the required graphics object and store it as a picture file. By switching on Deluxe Paint's X/Y co-ordinate display a user can easily create objects of a given size so if, say, a graphic image 60 pixels by 80 pixels is needed then a suitable background area can be marked out, the images can be drawn, and the brush facility used to save that particular area of the display as an IFF file.

Intuition's image drawing is based on a standardised block of data known as an image



Morten Eriksen's Shareware PicCon program is one of a number of utilities that can generate assembly language image structure data statements from an IFF picture file

```
Image1:
dc.w 0,0 ;XY origin relative to container TopLeft
dc.w 253,37 ;Image width and height in pixels
dc.w 2 ;number of bitplanes in Image
dc.l ImageData1 ;pointer to ImageData
dc.b $0003,$0000 ;PlanePick and PlaneOnOff
dc.l 0 ;next Image structure

ImageData1:
dc.w $FFFF,$FFFF,$FFFF,$FFFF,$FFFF,$FFFF,$FFFF,$FFFF
dc.w $FFFF,$FFFF,$FFFF,$FFFF,$FFFF,$FFFF,$FFFF,$FFFF
dc.w $FFFF,$FFFF,$FFFF,$FFFF,$FFFF,$FFFF,$FFFF,$FFFF
dc.w $FFFF,$FFFF,$FFFF,$FFFF,$FFFF,$FFFF,$FFFF,$FFFF
dc.w $FFFF,$FFFF,$FFFF,$FFFF,$FFFF,$FFFF,$FFFF,$FFFF
dc.w $FFFF,$FFFF,$FFFF,$FFFF,$FFFF,$FFFF,$FFFF,$FFFF
dc.w $FFFF,$FFFF,$FFFF,$FFFF,$FFFF,$FFFF,$FFFF,$FFFF
dc.w $FFFF,$FFFF,$FFFF,$FFFF,$FFFF,$FFFF,$FFFF,$FFFF
.
.
etc
```

## LOADING AND DISPLAYING

Once an image is in AmigaDOS loadable form it is quite a simple matter to read into the program using LoadSeg() and display it using the Intuition DrawImage() function. Given a valid filename, a typical code fragment for doing this would look something like that shown in listing 2. As always, however, to produce a runnable example quite a lot of additional work needs to be done.

A window needs to be opened and, if we want to display a user-specified image file, rather than just use a hard coded filename, then that name has to be collected and a proper file path/name built up. I've opted for an Intuition-based Workbench runnable example that allows the user to select and display image files using the ask requester, and next month I'll be giving you the complete source and explaining how it works!

structure, and this is used primarily in conjunction with an Intuition library routine called DrawImage(). So, having produced an IFF picture file it then needs to be converted into data statements which represent the equivalent Intuition Image structure. This can be done using one of the many dedicated public domain converter programs you'll find around or, alternatively, by using a program, such as Inovatronic's Power Windows, that is able to generate assembly language-style source data statements for images loaded into gadgets (see listing 1).

When you are including graphics data in this way it must, of course, end up in chip memory otherwise the Amiga's custom chips (namely the blitter) will not be able to access it. This means at this point in the proceedings it will be necessary to edit the image structure file in order to add a chip memory section directive. There is, incidentally, a minor difference between the section syntax used by Devpac and that used by Charlie Gibb's A68k assembler. With Devpac chip

memory is specified using this sort of statement:

```
SECTION IMAGE,DATA_C
```

where DATA\_C is a keyword indicating chip memory and IMAGE just an arbitrary section name. Charlie Gibb's A68k assembler requires a slightly different section syntax and the source code line shown above, which would of course need to be placed just before the graphics data itself, must be changed to:

```
SECTION IMAGE,DATA,CHIP
```

The A68k assembler does, of course, also require that source files contain an explicit END statement, so A68k users will additionally need to include such end markers in their image files. Once these modifications have been made the image structure file can be assembled and passed through the linker to create a load module that the LoadSeg() routine will accept.

```
Function Name: DrawImage()
Description: Intuition's high-level image drawing routine
Call Format: DrawImage(rastport, image, left_offset, top_offset);
Registers: a0 a1 d0 d1
Arguments: rastport pointer to a RastPort
            image - pointer to an Image structure
            left_offset - a general left offset which will be used with all of the linked Image
            structures of a particular DrawImage() call.
            top_offset - a general top offset which will be used with all of the linked Image
            structures of a particular DrawImage() call.

Return Value: None
```

Listing 1: Typical output produced by an IFF Picture <-> Image Data converter program

```
move.l #filename,d1
CALLSYS LoadSeg,_DOSBase
move.l d0,seglist_p ;preserve for unloading
beq.s .error ;would indicate bad load
lsl.l #2,d0
addq.l #4,d0
move.l d0,a1 ;a1 points to image
move.l window_p,a0
move.l wd_RPort(a0),a0 ;window's rastport
moveq #50,d0 ;arbitrary position
moveq #50,d1 ;arbitrary position
CALLSYS DrawImage,_IntuitionBase
```

Listing 2: Code fragment for loading/ displaying an image in load file form



More handy hints  
on ARexx script  
tracing with the  
Rexx meister –  
Paul Overraa



# Without a trace?

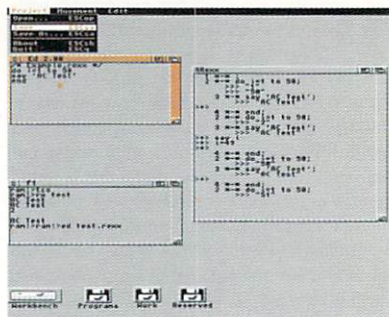
Last month I mentioned that ARexx supports an 'interactive' tracing mode which allows the programmer to step through a program, and interact with it whilst it is being traced. Depending on the trace options selected, a variety of data will be shown

*.*	trace script line
+++	command or syntax errors
>>>	expression or template parse result
>.>	value assigned to a place holder during parsing
>C>	expansion of a compound variable name
>F>	function call result
>O>	result of a dyadic (two operand) operation
>P>	result of a prefix operation
>V>	value of a variable
>L>	a label (literal constant) value

Table 1: Symbols used to identify ARexx trace items

and it is, in fact, possible to look at the contents of variables, re-execute clauses, and even enter additional instructions. Because under normal circumstances all trace output would be interleaved with normal program output, the best idea when tracing the execution of a script is to open the ARexx 'global tracing console' and this is done simply by opening a Shell window and typing TCO!

It is possible to add trace instructions directly into the script that you wish to trace, but ARexx also maintains an 'external tracing flag' that can be used to force programs into interactive tracing mode. If, in fact, you type TS at the Shell window after opening the global tracing console, the TS (Trace Set) utility will be executed and this will cause all subsequently executed scripts to enter interactive tracing mode automatically. The tracing flag, incidentally, can be cleared by typing TE (Trace End) and ARexx's global tracing console can be closed by typing TCC (Trace Console Close).



The ARexx global tracing console in action!

Interactive tracing prompts the user for input with a '>+>' code and at these points you can either press the return key to skip to the new breakpoint, press '=' to re-execute the previous clause, or type some executable ARexx statement. Table 1 shows the code symbols which ARexx uses to identify the

## A TYPICAL TRACE SESSION

There's no doubt at all that the best way to get to grips with ARexx's tracing facilities is to experiment with them using your own scripts, but to get you started, here's what happens in a typical interactive tracing session whilst examining this do-end loop:

### Example.rexx

```
do i=1 to 50
say 'AC Test'
end
```

If you execute the above program this is the sort of information that will appear at the trace console window:

```
1 *.* ;
2 *.* do i=1 to 50;
>>> "1"
>>> "50"
3 *.* say 'AC Test';
>>> "AC Test"
>+>
```

The interactive trace is displaying line positions and clause details as it executes the first iteration of the program loop. ARexx is now waiting for further instructions. Pressing return lets ARexx know that it should continue running up to the next breakpoint, and on doing this the trace display continues with:

```
4 *.* end;
2 *.* do i=1 to 50;
>>> "2"
3 *.* say 'AC Test';
>+>
```

If at this point we now try typing:

```
say i
```

in response to the >+> prompt we will see that ARexx prints 2 at the program's normal output window. Now, this of course is the current value of i being used in the program, but if we then typed i=49 and continued tracing we'd see this display appear:

```
4 *.* end;
2 *.* do i=1 to 50;
>>> "50"
3 *.* say 'AC Test';
>+>
```

ARexx would have set the i value to 49 and then duly incremented it at the end of the loop. The result? The program terminates after one more iteration because the value of i then becomes greater than the required loop exit value (ie 50).

If, instead of changing the value of i like this, we had typed another instruction, this too would have been executed and this of course can be used to set new trace display options.

To turn off the tracing and let the loop run as per normal we could use the command:

```
trace background
```

or its single letter equivalent:

```
trace b
```

Interactive Tracing and Command Inhibition Toggles:

A ? character (used on its own or in front of a TRACE option) can be used to alternately toggle the tracing mode from normal to interactive and back again. Hence the instruction... trace ? errors (or its abbreviated form trace ? e) would, if the current mode was set to normal tracing, switch to error tracing in interactive mode. If the current mode was interactive then the same instruction would switch to error tracing in non-interactive (ie normal) mode.

A ! toggle character can be used in a similar fashion to prevent ARexx from sending commands to external hosts or to re-enable the command communications facility. This is particularly useful when, say, you wish to test ADDRESS COMMAND instructions within programs that may be specifying potentially dangerous AmigaDOS commands (file deletion and so on).



Phil South  
contemplates the  
last twelve months  
on the Internet



# A year in the Web

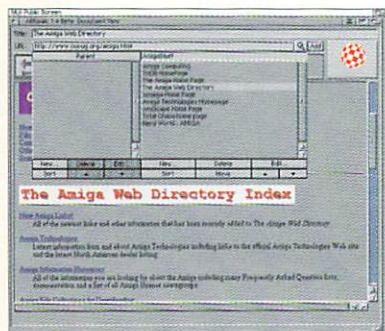
**Y**ou may recall about a year or so ago I wrote a piece in this column about the Internet saying how the Web was a good idea but it was going to be oversubscribed in a very short time? Well it's now 1996, and sure enough the World Wide Web has become, for most people, the Internet, or at least the bit of it they see.

Web browsers have all but replaced the other client software that you and I use to access the Internet, and the proliferation of Web sites is such that by the end of 1996 we can expect to see millions of sites rather than thousands or hundreds of thousands. It's confidently predicted by some that by the turn of the century there will be one Web site per 20-30 people on Earth. So what does this mean in real terms?

For a start it means that getting onto the Web and navigating around will get harder as the year goes along, and you will have to wait longer and longer for your chosen Web site to come up onto your screen as the load on the network increases. Many major sites are increasing the amount of nodes and lines and the bandwidth of those lines, but even with expansion and increases in speed the



**I3Browse - the Web browser everyone would like to be using**



**AMosaic - the Web browser everyone's using...**

load will continue to grow and the capacity to keep up will get smaller. In effect it will become unusable unless something happens.

It may be, and I offer this as one likely scenario, that the demand for the Web will fall off as the less dedicated Net spiders give up once the load goes up to unfeasible levels. This will, of course, reduce the load and therefore the usability of the Web will go up.

This is the boom and bust model, which has several recent precedents. Skateboarding in the '70s, Kung Fu, also a '70's thing, and home computing magazines are examples I can think of. In the

beginning there is a huge explosion of users and the demand for the thing grows and grows at a logarithmic rate, a parabola of users shooting up the usage graph like a little rocket, and then just like a rocket, the usage dies off as the dabblers and trendies fall by the wayside. Eventually, the magazines supporting the hobby die off as the demand falls, and then the usage of the thing, whatever it might be, falls back to usable levels.

This is what happened with skateboarding and Kung Fu 20 years ago, and possibly will happen soon with the Internet and, of course, the other two great fads of the mid '90s, those silly Pogs and all-boy groups who do synchronised dancing which looks as though they are trying to dislodge some dog mess from their shoes.

It's possible, and indeed from a hobbyist's point of view desirable, that this will happen, although it's by no means certain. What will happen if demand for the Internet grows, like that for TV (that other great thing which everyone said would never catch on), and we have an ever escalating amount of people trying to get on. If you think it's hard to get on the Internet now, wait till the load doubles. As it is, you can't access any US sites with any rapidity after about 3pm in the afternoon, so evening Web surfing is out of the question for the most part, unless you want to spend at least 30 minutes of every hour waiting while some bozo's 900k GIF file creeps/loads onto your screen. It was never a fast process and if the worst comes to the worst it will become impossible. Unless of course something can be done.

## MORE, BIGGER, FASTER

For the Internet to work in any meaningful way after this year, everything is going to have to go up an order of magnitude. Modems are going to have to get faster, phone lines are going to have to get fatter and cheaper, and the backbone of the Internet is going to have to be accessed faster and more fluidly by the ISPs, the people who are offering what it laughingly called a service these days.

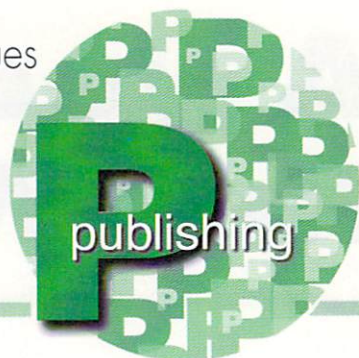
The WWW was always too slow and a rich boy's toy, and it was always under too much load and waiting for faster technology. The only kind of people who can access big graphically-oriented sites in the US are people with a direct connection, i.e. businesses, people who work for Internet

companies or magazines, people with more money than sense, and **not** the unemployed, the homeless and people on low wages, who can't do this and will possibly think that they are missing out on something very important.

I think that the WWW will become very important, but at the moment it is still about 65 per cent advertising puff, and about 5 per cent silly home pages with pictures which are too large to load. What the WWW needs is a big shot of technology in the arm, and quick, before it becomes unusable to those who like it and want it to grow sensibly into a new communications and broadcast medium which can compete on a level playing field with TV, radio, video games and movies.



Frank Nord continues his look at what makes a good layout for an advert



# The art of advertising

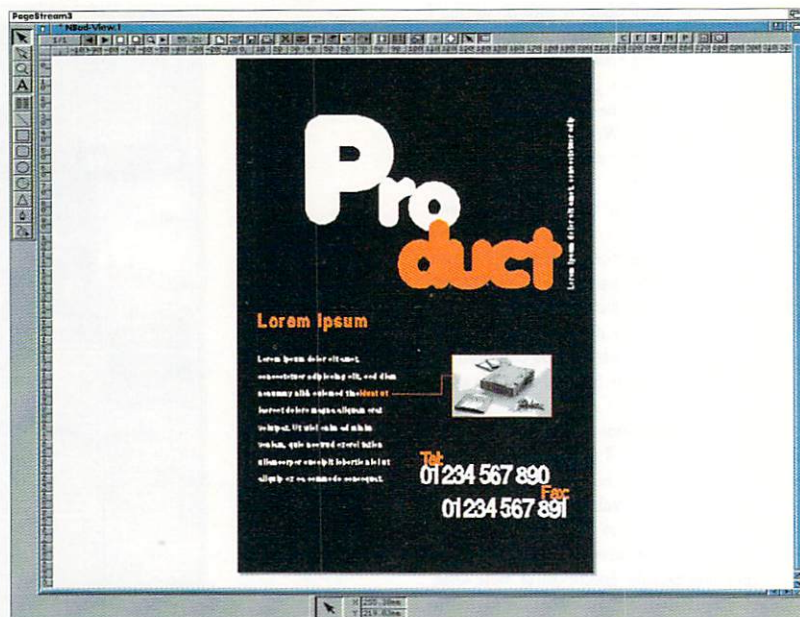
## part 2

Last month I showed the basics of laying out a single item, single page, full colour advert, but a lot of potential advertisers won't have the luxury of full colour, full page advertising. There are several ways to approach a limited budget. The first is to reduce the size of the advert, the second is to lose the colour (or at least most of it).

If you are designing your ad for a quarter page layout, rather than a full page, there are different considerations to be made. For a start you won't even be able to put the amount of text that we used in the good page design, it will need to be cut down even further. Because quarter page advertisers aren't considered as important as full page or spread advertisers, you will have to make sure your ad will still be effective whether it is placed on an outside edge, or inside edge of either a left- or right-hand page. This, unfortunately, necessitates a restricted design (unless you are feeling particularly bold) with much of your information centred in your box.

You're not simply going to be able to shrink your full page layout to fit into a quarter page either. This would almost certainly mean that your text will be too small to see and your contact numbers wouldn't stand out as well as they might either. So what are we going to do? Our best bet is not necessarily to ditch the picture and fill the box with text – unless, of course, the picture is particularly boring – but we do have to get across the most important points of our product and our sales speak has to be even more concentrated. A big price figure is all you need if your product is familiar to most people, but if it isn't then a bulleted list of USPs (unique selling points) and comments from reviewers can be very effective, as long as it's short. So pick out the most important features and work out how to explain them succinctly, but in as few words as possible.

It's very tricky for me to give you examples of how to do this as your circumstances could be



Inspired by Neville Brody? But, of course....

completely different from what I am suggesting, but there are always easy rules to follow with regard to contracting text. Things like flowery adjectives and adverbs, stuff in brackets and introductions can always go. What can't go are your product's advantages, ordering information and price.

If all that sounds too much like hard work, you might want to reduce the amount of colour in your ad. This is a lot easier for those adverts that have more than 50 products mentioned in them, as we discussed last month, because you are pretty much restricted to a list format without pictures anyway, but single colour or spot colour advertising a single product is a lot harder since it gives the impression that you are being cheap. If at all possible, try to make the fact that you have a restricted colour palette work for you with greyscale dropshadows and WOBs (reversed text – White On Black) helping to give the impression that a single spot colour was a design decision on your part rather than a financial one.

For inspiration, try to find some of the work of Neville Brody, the UK's most fashionable designer best-known for his work on iD, Arena and The Face. If you look at the screenshot on this page, you'll recognise the style instantly from various poster campaigns and film logos. This is a lot harder to achieve than simply reducing the size of your advert, but if you have the flair for it, the results can often look more expensive than a full colour ad with a boring design.

## EVERYONE'S A WINNER...

At long last we've decided to do the draw on the competition we ran last year to win a copy of one of EMComputergraphic's excellent CDs dedicated to DTP. The lucky five winners are as follows:  
Barry Cutler from Beckenham, Kent  
RF Baird from Edinburgh  
B Robertson from Middlesbrough  
Steve Taylor from East Dereham, Norfolk  
M Clarke from Flixton, Manchester

You should all contact EM Computergraphic on (01255) 431389 to tell them whether you want Phase 1, 2 or 3.

## How much?

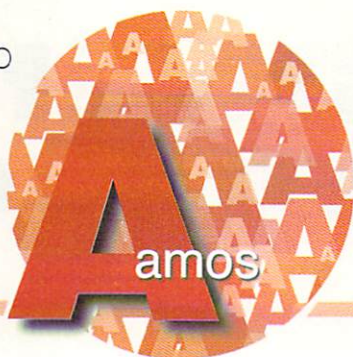
If you are interested in advertising in an Amiga magazine you will need to get in contact with the advertising department of whatever magazine you choose and ask them to send you a media pack which include details like the target readership of the magazine and the rates for advertising in the mag. Amiga Computing's target readership are mainly over 18 (so they should have some money) and indeed, more than 60 per cent of them earn more than 10k a year. The rates to advertise in a magazine like Amiga Computing range from £105 all the way up to £2100, but vary according to how many ads you will commit yourself to and at what size.

## PAGESTREAM PROGRESS

Still nothing concrete this month, but SoftLogik have sent us a press release stating that version 3.0i will work with CyberGraphics-equipped graphics cards becoming the Amiga's first, non-graphics oriented (well, you know what I mean), application to work in 24-bit colour.



Phil South looks into the options for creating interesting multimedia with Amos



# Using the buzzword

part 1

**M**ultimedia is a bit of a buzzword with most people at the moment, and has been for some time. Unfortunately for Amiga users, most of the programs which create the multimedia applications we consume are based on PC and Mac platforms. This is for several good reasons, or at least good reasons if you are a PC or Mac user. The Amiga is a smaller market than the PC, so developers are leaning back from the format and creating less if not no multimedia applications. Scala is a perfect platform for creating lively presentations, and so is Director, but you can do these kinds of things with Amos, and here's how.

If you have an IFF animation you can use the added functionality of AMOS PRO to give you animations in your programs. These are, of course, mostly for use as game intros, but it is possible to make multimedia programs which use this facility. Imagine an Amos program which has been compiled and is mastered onto a CD. Imagine clicking onto a picture and suddenly it bursts into life as an animation like, for example, an animation from LightWave or something similar to that.

Making Amos use IFFs is easy. In case you've never done it, here's how it's done. Having first made your IFF file, using Dpaint or LightWave, Real3D or whatever, you can play it straight to a specified screen number, like so:

```
Iff Anim "big.anim" To 0
```

This plays an animation called "big.anim" to screen 0. This is the most direct method of playing an

## OTHER IDEAS

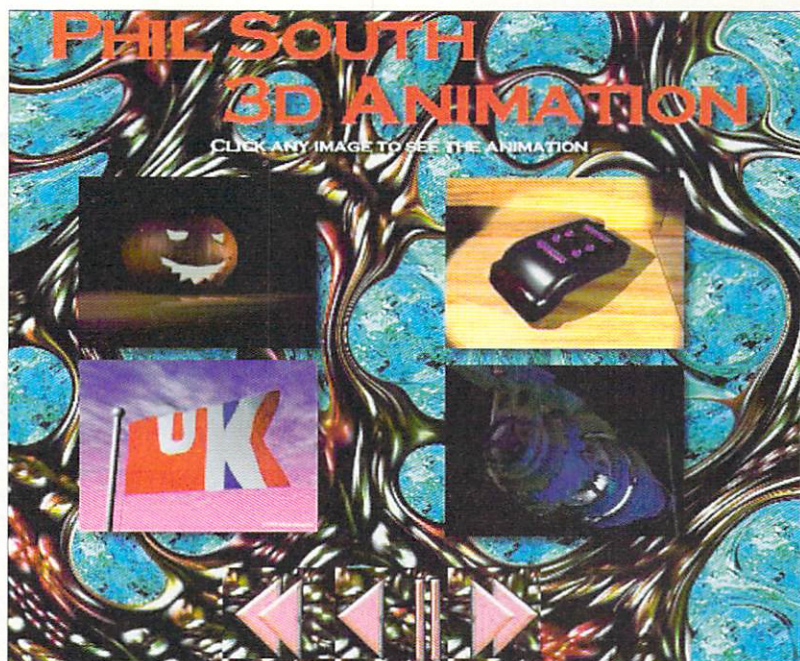
Once you've mastered playing back animations you could try to sort out how to play back a narration in sync with the animation, or if not precisely in sync then at least at the same time. This could be a narration or perhaps a piece of music. (TIP: try sampling a snatch of music and looping it for a longer piece of music and to keep the sample size down.) To play back an IFF sample while your animation is playing, first load the sample into a bank (usually bank 5) using the sample loader supplied with Amos. Once your sample is in the bank, you play it back with SAM PLAY, like this:

```
Sam Play 1
```

which plays back the first sample in the sample bank.

As another scenario, which makes a lot more sense for multimedia, you could play a sample of a voice narration, telling everyone what a brilliant animator you are, plus have the music supplied by a MOD file played back using the Track Play command. This means you would have graphics, voice and music all moving at once. Voilà, multimedia!

Next month I'll be going through some more specific examples for you. See you then...



Multimedia presentations have never been easier

animation in Amos and it simply takes the animation you specify and plays it. You can do this:

```
Iff Anim "big.anim" To 0,5
```

to make it play a specified amount of times, which in this case is five times. You can, if you like, write a simple IFF Anim player routine using this command:

```
Iff Anim Fsel$("***") To 0,10
```

as the core of the code. You could put this into a nice border or even add your own play and rewind buttons, which we'll go into in a minute. Now, there are a number of ways you can manipulate a file to make it play back in certain specified ways. You must first load the anim file into a bank, using the OPEN IN command:

```
Open In 1,"big.anim"
```

then use the FRAME LOAD command to load the frames to a memory bank:

```
Z=Frame Load (1 To 1000)
```

Now you have all the frames in the animation (anything up to 1000 frames) in bank 10, and you also have a note of how many frames were loaded in the variable Z. (This is useful for knowing how

many frames to play back.) Now you can play back the frames from a memory bank, using the Frame Play command:

```
F=Frame Play (10,1,0)
Double Buffer
F=Frame Play(F,1)
```

Notice that Double Buffering is not switched on automatically and you have to activate it yourself. Now you have full control over the frames, and you can make them step forward and backwards using a mouse-controlled button. Buttons can be made from any graphic and zones can be drawn over them to make a button sensitive to a mouse click. So you must check if the mouse button has been clicked and if the mouse is in the specified zone. Then you feed the command to the FRAME PLAY part of the routine and you can move the animation back and forth like that.

**IMPORTANT:** You have to use flags in your program (as discussed in a recent edition of this column) to ensure that only the first click is read when you click on one of these control buttons. Set the flag to 1 when the button has been clicked so any subsequent presses of the button are not read. This could cause big problems in your program if you don't do this, as the frames of the animation won't be played back in sequence, and everything could go horribly wrong. Flags are a good habit to get into anyway, as I said in the previous article.



Paul Overaa provides an overview of the current Amiga Midi sequencing scene...



# Do it in sequence

**T** rue Midi sequencers, as most of you will doubtless know, are designed primarily to record, edit and play back Midi data. Although all such offerings also allow you to use Amiga internal sounds as well as the real software, emphasis is primarily on recording from, and playing back to Midi equipment. What sort of choice is there as far as real Amiga Midi sequencers go? Well four sequencer packages have stood the test of time:

**Sequencer One Plus** – Software Technology's Sequencer One Plus is one of the few UK developed sequencers that has found a safe niche for itself amidst the rather awesome heavyweight Stateside competition. Sequencer One Plus offers all the basic functions needed for Midi sequencing and it supports the use of internal sounds as well as Midi oriented output.

Two editors are available including a high-level Bar Editor which shows the arrangement of the song, graphically indicating for each track the bars which contain data. The main use of this editor is for viewing and creating arrangements and carrying out block editing operations. More detailed editing is performed using the Step Editor which provides a piano roll-type display.

For a middle range sequencer, Sequencer One Plus offers a surprising number of Midi 'goodies', although it does, of course, lack many of the refinements found with heavyweight Amiga packages. You'll find no harmony generators, score printing, or the more esoteric options like SMPTE or Midi Time Code support, but it is nevertheless suitable for most non-professional use and it is very well priced. Software Technology have essentially concentrated on creating and supporting a 'workhorse' sequencer that offers the user just the basic facilities needed for serious use.

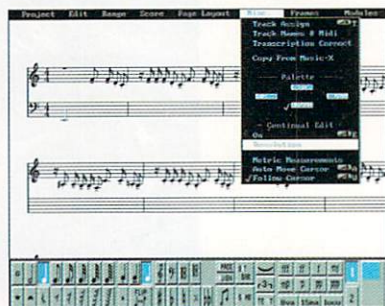


**Sequencer One Plus – a well supported entry level sequencer**

**Music-X+Notator-X** – Music X has always been a powerful sequencer but when Music-X version 2 came along, a number of facilities including AREXX control and support for multiple serial port card use were added. The most important addition, however, was the inclusion of a very useful score notation program called Notator-X which allows you to write, edit and print music scores.

Both Music-X and Notator-X, incidentally, can run as standalone programs, but if your Amiga has more than 1.5 meg of memory then you'll be able

to run both programs together and move music data between them. You can, incidentally, also use Notator-X in conjunction with any other sequencer package that supports Midi file import/export.

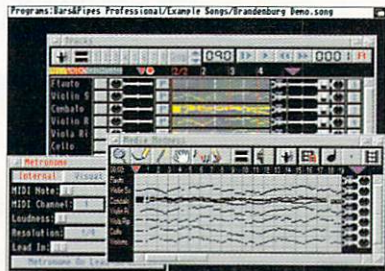


**Notator-X has helped win a lot of support for the new Music-X**

**Dr T's KCS** – the current Dr T's offering, known as the KCS level II, provides the KCS sequencer, PVG, a Master Editor, Tiger (a graphic editor), QuickScore (which provides basic score/transcription and printing facilities) and AutoMix. All of these components are integrated into Dr T's multi-program environment (MPE). The track editing facilities are quite sophisticated – there is fully implemented cut and paste editing, pitch transposition, track shifting, track splitting, note duration and velocity correction functions, track rearrangement, multiple cue points, automatic new track muting (helpful when doing multiple takes), and some interesting note and controller splitting facilities.

Other goodies include remote Midi control of start/stop/record functions, support for the Phantom SMPTE interface, controller chasing, time reversal, re-channelling, auto-correction, real-time and step-time editing, inversion and the ability to protect drum parts from transposition. In short there's little you can't do!

**Bars & Pipes Professional** – Blue Ribbon Soundwork's Bars & Pipes Professional is as much a creative tool as a conventional sequencer. There are very powerful song parameter options which let you define lyric lines, chords keys/scales, rhythm data, global dynamics and so on. There's automated mixing, all the usual stuff like Midi-file, Sysx and internal



**Bars & Pipes An established heavyweight Amiga sequencer**

sounds support, timeline scoring (for video/film work) and SMPTE facilities. In short, Bars & Pipes Pro is a brilliant piece of software which, in practice, suffers from only one real snag – the amount of memory needed to run it. A realistic set up for serious work would be a fast machine with around 2-4 megs of memory along with a hard disk.

## OVERALL

Software Technology's Sequencer One Plus is a useful, and very reasonably priced entry-level product which now has quite a large user base. Both Dr T's KCS and Blue Ribbon Soundwork's Bars & Pipes sequencers, however, are the favourites amongst most professional Amiga musicians, and both Dr T and Blue Ribbon Soundworks do, incidentally, also offer dozens of other Amiga music packages – patch editors, notation software, librarians etc.

Music-X has always been popular but of late there has been renewed interest in this package, specifically because of the Notator-X score editing facilities now provided. Of late it's also been the subject of a substantial price cut and is now very good value for money.

## Bottom Line

<b>Product:</b>	Dr T's KCS Level II sequencer
<b>Price:</b>	£99
<b>Supplier:</b>	Millenium Music
<b>Phone:</b>	Tel: 0115 955 2200
<b>Product:</b>	Music X v2 + Notator X
<b>Price:</b>	£49.95
<b>Supplier:</b>	Emerald Creative Technology
<b>Phone:</b>	0181-715 8866
<b>Product:</b>	Bars & Pipes Professional
<b>Price:</b>	£199.95
<b>Supplier:</b>	Emerald Creative Technology
<b>Phone:</b>	0181-715 8866
<b>Product:</b>	Sequencer One Plus
<b>Price:</b>	£49.95 (current offer price £39.95)
<b>Supplier:</b>	Software Technology
<b>Phone:</b>	0161-236 2515



Turn your animation into a professional movie with exciting camera angles and realistic shadow effects



# It's in the can!

In last month's article I explained in detail the principles of the X, Y and Z axis and how they can allow you to manipulate and animate brushes with ease and with spectacular results. I also touched upon how you can use Move to actually mimic camera pans and zooms.

Camera pans and zooms are important in any animation just as they are in film, and you can learn a useful techniques by studying the latter. Implementing different camera angles is an excellent way of speeding up or slowing down the action and conveying emotion in what is basically a 2D art form. However, camera angles have a more basic appeal and that is to keep the audience interested in what is actually happening.

Imagine a two hour movie with only one scene and with a single camera angle - you would be



**Try and keep your animation as visually exciting as possible by adding different camera angles to convey pace, mood and emotion**

**Don't waste time adding shadows and highlights by hand. Use your paint package's Darken and Brighten functions**



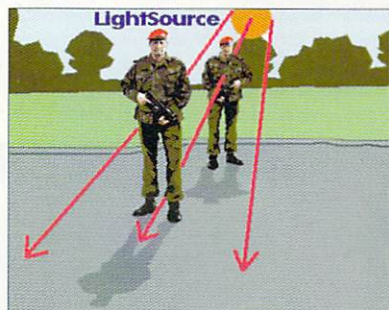
## THE RIGHT TEXTURE

*If you can understand the texture of the object you are designing, adding light sources and shadows to it shouldn't be a problem. The alien portrait shown here can be seen from its early beginnings to the finished artwork, including shadows and highlights.*

Adding so much texture detail would have been a slow and laborious task if performed by hand, but using the Brighten and Darken effects the process was made infinitely quicker. Using the filled line tool I simply drew in the shapes which were then automatically brightened or darkened as I desired. Switching on anti-aliasing also ensured that the shadows and highlights blended in with the rest of the image.

bored after the first five minutes. Obviously, your animations are not going to run to two hours which is why it is even more important to utilise different camera angles - trying to make a 30-second animation exciting to an audience is certainly the most difficult aspect of computer-generated animation.

The knowledge required to use camera angles correctly can only come from continued experimentation, so if you are just starting out in computer animation use movies as a source for inspiration. If it helps, try and make notes as to the type of scene the camera angle is linked to. Not only will you build a useful collection of camera angles but also a reference as to which one should be used when and where.



**Realistic lighting and shadow is vitally important to the realism of a scene or animation. Plan light sources and shadows at the storyboard**

## LET THERE BE LIGHT

When creating animations in a 3D program such as LightWave or Imagine the designer can simply add light by including light objects in his scene. The rendering process takes care of casting light and shadow allowing the designer more time to concentrate more on objects.

There are no such perks when creating animations in a 2D paint package and light and shadow can often make or break your creation. Fortunately, with 2D you're not required to recreate the kind of realism expected from a 3D program and therefore you can afford to make lights more stark and shadows much harder.

The first thing to do is make a note of the different things required on your storyboards. You can then sketch the general direction of each light and note where it falls in relation to the other objects in your scene. By understanding

where the light is coming from you will have a pretty good idea where the shadows will be cast. For a static light the shadow should be fairly easy to place, but if the light is animated in any way the shadow is going to change in relation to the movement of the light and any structures it passes over.

A simple way of adding light and shadow is to use the Brighten and Darken effects. For a light cast on the floor you could simply select a filled ellipse with the Brighten effect turned which you can then draw over the floor where the light falls. You could even switch antialiasing on in order to smooth out the edges of the cast light or shadow. If you need more control over the shape of your cast light or shadow you can use the filled line tool instead.

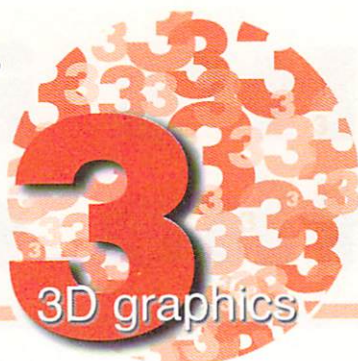
A quick way of drawing shadows is to use

the Shear tool which is normally located in the Brush section of your paint package. Using Shear you can draw near accurate shadow castings using the original object as a template. You should first grab the object which is casting the shadow as a brush and flip it in the Y axis (the direction you flip the brush is dependant on the position and direction of the lightsource - in this example behind and above).

Using the Shear X option you should shear the brush in the opposite direction from where the light is coming from. With Darken enabled from the brush effects you can then paste the brush down and you should end up with an instant, and accurate, shadow. You may also need to alter the width and height of the shadow in relation to the height of the lightsource.



Paul Austin delivers a quick guide to getting the best from LightWave's funkiest feature



3D graphics

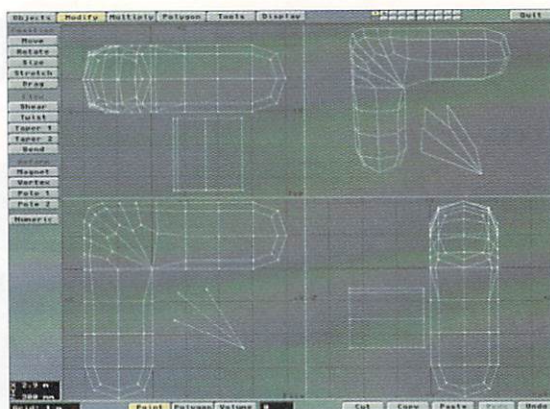
# Metaform for the masses

**B**elievable organic forms have been the holy grail of 3D design for years. Primitives with their blocky angular forms are efficient and effective for the majority of jobs, but alas, precious few things conform to such a rigid design in the real-world.

Enter Metaform, the 3D designers dream tool. With the aid of this 3D cure, all soft sculpted forms are no more than a couple of clicks away. No more struggling with spline curves, no more compromise, this is a seemingly effortless solution for a multitude of modelling nightmares. Unfortunately, like most panaceas, there's an inevitable downside.

For the power players with 060s and unlimited RAM, metaform's seemingly unavoidable side effect is hardly noticeable. However, for mere mortals the multitude of points and polygons that the process generates can be a real headache.

Fortunately, there is a ray of hope in an easy-to-swallow solution. Due to the simplicity of just hitting the metaform button to obtain instant results, it's incredibly tempting to just fire and forget. However, if you can contain your enthusiasm and think about what's required from the metaform effect before you hit the button, you could save yourself hundreds if not



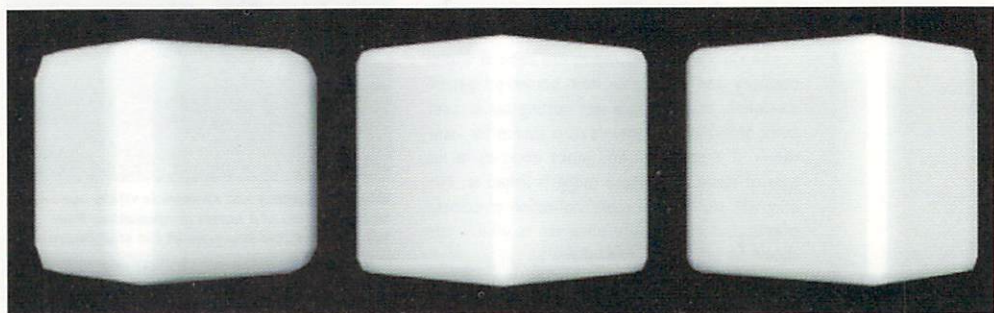
*A simple example of the smoothing benefits that adding the odd slice can have to metaformed right angles. Basic stuff, but nevertheless essential for those of us on a budget when it comes to available RAM*

thousands of RAM-hungry polygons. A classic example of this is the now ubiquitous LightWave round corner cube. Famous for its part in the textures example scene, this apparently simple object remained a 'how did they do that?' modelling mystery until the official arrival of metaform in version 3.5.

In our example image, the cube on the left boasts 386 polygons whilst its near identical twin on the

middle weighs in with just 218. However, even this seems extreme compared to the cube on the right which gets the job done with just 164. Look pretty similar, don't they? Number one started life with more polygons than the others, comprising a standard 4x4 cube which was then given a single metaform pass. Its partner in the middle, however, started life as a 3x3 cube which enjoyed 20 seconds additional editing as the internal polygon groups within it were dragged to the corners prior to a single metaform pass. The cube on the right started out the same as its counterpart in the centre, but after the metaform pass all the polygons which made up the flat faces of the cube were deleted to be replaced by a single polygon.

Obviously, this approach is much more time consuming as there's a lot of hiding, reselecting and build of the individual faces – maybe two or three minutes in total. For the additional effort you get more than a 50 per cent return in polygon efficiency – and that's a figure that can jump dramatically if you need to employ more than one metaform pass to get the desired effect. If you multiply the effect by having, let's say, ten, one hundred, or maybe even a thousand duplicates of the object in a single scene, the extra effort soon gets put into perspective.



From left to right: the traditional polygon-hungry approach to metaform, followed by a combination of fewer initial points plus some polygon repositioning. Lastly, a repeat of the central cube with unnecessary polygons removed completely

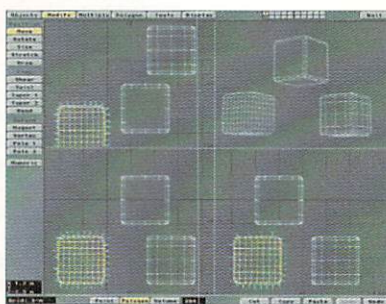
## SMOOTH ANGLES

Essentially, metaform makes its smoothing calculations based on the proximity of polygons and their relative angles – the closer the grouping the more rounded that particular part of the model becomes. As a result, it makes sense to use the minimum number of points and simply ensure that the area you want affected the most has the highest proportion of polygons.

Simply moving points and polygons isn't always an option because it could easily destroy the overall shape you require, so a more precise method is called for. The simplest solution is to select the precise area of polygons on the model that needs

smoothing and metaform these separately. Sometimes this alone will do the job reasonably efficiently.

However, simply selecting existing groups doesn't always deliver the goods because the number and shape of polygons present simply doesn't deliver the desired results. Under such conditions, a technique favoured by the pros is to use a combination of a flat plain and LightWave's slice functions to introduce more detail in the form of additional polygons into a selected area, thereby enhancing the smoothing affect of the metaform pass.



Our three examples as seen in modeller. As you can see a few seconds spent on planning, dragging and deleting unnecessary polygons can really pay off



Gary Whiteley explains the principles behind differing TV systems



# The big three

**H**ave you ever wondered why Britain and America have different TV systems, or why SVHS equipment has different connectors to VHS equipment? It's all down to standards and formats, cunning plans to squeeze more into a pint pot and, of course, the need for constant improvement and more sales.

Let's start with video standards, of which there are three predominant video ones in use around the world – PAL, NTSC and SECAM. Each is slightly different from the others and hence tapes recorded using one standard cannot be played back in another without the use of standards converters. For professional quality film and tape transfers these machines are still very expensive, but nowadays it is possible to buy a relatively cheap multi-standard VHS VCR which can play back any tape from anywhere in the world using just a single machine. Perhaps as technology advances there will be just one video standard for the whole world, though it is perhaps unlikely in the foreseeable future, given the sheer investment required to convert everyone's existing equipment over.

## STANDARDS

The first of three big standards is NTSC (National Television Standards Committee, as used in the USA, Japan, Korea, Canada, Mexico and other parts of South America, and the Philippines). NTSC runs at 30 frames of 525 lines per second and is often jokingly referred to as 'Never Twice The Same Colour', but nowadays this isn't necessarily the case. Whilst it's true that NTSC equipment also has a Hue control in addition to the regular Colour, Brightness and Contrast controls, I've always thought that NTSC looked pretty good, and because of the higher frame rate there isn't quite so much apparent flicker with certain kinds of image. In fact, many Americans find PAL TV to be disconcertingly



flickery until their eyes and brains become accustomed to PAL's lower frame rate.

NTSC evolved from an already existing monochrome system and was the first widespread standard for colour television broadcasting, coming into regular use in 1953. As an historical aside, it is said that the Nazis had both colour TV cameras and video projection in use for the 1936 Olympic games, though this is hard to verify, both for political reasons and because German companies such as Telefunken (who were at the forefront of PAL TV development) are still reluctant to admit that they might have had any links with the Nazis.

## UK IMPORTANCE

The final standard, and the most important one for us, is PAL (Phase Alternate Line) and is the one used in the UK, as well as much of Europe, ex- and current UK dependencies and colonies, including Australia, New Zealand, South Africa, Iceland, China and a number of African and Arab states. Like SECAM, PAL runs at 25 frames of 625 lines per second and, like SECAM and NTSC, this frame/line combination is derived as a division of the national domestic mains electricity frequency (50Hz for PAL and SECAM, 60Hz for NTSC).

Of course, as with all standards there are exceptions. For instance, Brazil uses the PAL system, but with only 525 lines and at 60Hz (PAL-M), whilst Cuba, Haiti and French Guyana have SECAM, but with 525 lines. There may also be minor differences between the sound carrying side of some PAL systems. So, if you have a tape of Brazilian TV and you think you can play it back on a standard PAL VCR, you'd be mistaken. I learnt this the hard way,

carrying a tape all the way back from Rio only to find out that all I could get out of it was the sound!

This is where standards converters come in, making it possible to translate from one video system to another. The trouble is, there are some fairly tricky problems to overcome. For instance, when converting from NTSC (30 frames per second, 525 lines) to PAL (25 frames per second, 625 lines) somehow five frames have to be lost and 100 lines per frame gained. Digital equipment and processing can solve most of these problems, but even so it still isn't possible to make up the extra lines from scratch.

Professional standards converters, costing many thousands of pounds, have advanced electronics which can look ahead by up to four fields (2 frames) and then interpolate the results to provide smoother viewing. They also interpolate the lines in the frame and add extra lines to make up the difference between NTSC's 525 and PAL's 625. Cheaper standards converters, for instance in the £1000 or so range, as well as the multistandard VCRs, tend to have a simpler approach and often just throw out the required five frames per second and only do limited line interpolation. The result, especially where action is moving fast, can be a noticeable staggering of the images and jagged diagonal lines where the interpolation isn't of a high enough quality to smooth the picture out sufficiently. It's the old story of you get what you pay for.

## TO COME

**Next Month** – Video Formats.  
Gary Whiteley can be e-mailed  
drgaz@cix.compulink.co.uk

## THE FRENCH OPTION

The second popular standard is SECAM (which stands for *Séquentiel Couleur A Mémoire*), which was developed by the French from 1959 onwards as an alternative to the then less stable NTSC. SECAM runs at 25 frames of 625 lines per second and is also the adopted TV standard of many French colonies (current and ex-), Saudi Arabia, Iran, Iraq, Egypt, Russia and some of the other ex-Communist bloc countries. Strangely enough, though, much SECAM material is actually sourced on PAL equipment and only converted to SECAM at the final transmission stage. Unlike most of the rest of Europe, who were trying to agree on a single TV standard, France decided that it would stick with SECAM no matter what. After 1966 France went her own way, whilst the alternative PAL system was adopted by most of her neighbouring countries.



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68882-RC-PGA-50 FPU	50.00
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68881-FN-PLCC 40 FPU	25.00
68882-FN-PLCC 40 FPU	129.00
68882-FN-PLCC 33 FPU	49.00
68881-FN-PLCC 25 FPU	35.00
68881-FN-PLCC 16 FPU	25.00
80387-255X (386BB) FPU	69.95
Crystal Oscillators	10.00
68040 Heat Sink	25.00
Intel 486 DX2 - 66	175.00
Intel 486 DX2 - 50	145.00
Intel 486 DX3	135.00
Intel 486 SX 33	99.00

### MEMORY CHIPS

1 x 8	120 - 60ns SIMMS	29
1 x 8	120 - 60ns SIMMS	35
4 x 8	120 - 60ns SIMMS	109
4 x 9	120 - 60ns SIMMS	119
1 x 4	120 - 60ns Static ZIP	19
1 x 4	120 - 60ns Page ZIP	19
1 x 4	120 - 60ns Page DIP	29
1 x 1	120 - 60ns DIP	4
256 x 4	120 - 60ns DIP	4
256 x 4	120 - 60ns ZIP	4
256 x 32	100 - 60ns (1MB Simm)	29
256 x 36	100 - 60ns (1MB Simm)	35
512 x 32	100 - 60ns (2MB Simm)	65
512 x 36	100 - 60ns (2MB Simm)	79
1 x 32	100 - 60ns Simm (4MB)	119
1 x 32	100 - 60ns Simm (4MB)	125
2 x 32	100 - 60ns Simm (8MB)	225
2 x 32	100 - 60ns Simm (8MB)	249
4 x 32	100 - 60ns Simm (16MB)	399
4 x 36	100 - 60ns Simm (16MB)	499
8 x 32	100 - 60ns Simm (32MB)	799
8 x 36	100 - 60ns Simm (32MB)	899
16x32	100 - 60ns Simm (64MB)	1999
PCMCIA Ram Card 2M		119
PCMCIA Ram Card 4M		229
GVP SIMM32 60NS 4MB		179
GVP SIMM32 60NS 16MB		699
GVP SIMM32 60NS 1MB		59

### AMIGA CUSTOM CHIPS & UPGRADES

3.1 Upgrade kit (roms, soft, mans)	125.00
3.1 Upgrade kit (pick two)	99.00
3.1 Kickstart roms (specify unit)	69.00
3.0 Kickstart roms (specify unit)	199.00
2.1 OS Upgrade Kit (complete)	79.95
2.1 OS Upgrade Kit (soft, manuals)	49.95
2.05 Kickstart Rom	27.95
2.04 Kickstart Rom	27.95
1.3 Kickstart Rom	12.95
1MB Agnus (8372A)	37.95
2MB Agnus (8372B)	49.95
Super Denise (8373)	16.95
Paula (8364) Or Denise (8362)	12.95
CIA (8520)	29.00
Western Digital Revision 08A	58.95
Ramsester (rev11) (4091)	49.95
Ramsey (rev 07)	49.95
Fat Gary (A3000)	49.95
Synergy Dmac (rev 04)	54.95
Amber (A3000 & 2320)	44.95
Janus 2.1 upgrade kit	24.95
2620/2630 upgrade kit (7.0)	24.95
2091 upgrade kit (7.0)	24.95

Amiga Analyzer	\$69.95
Diagnostic software & hardware for problems	

PERCEPTION PVR-2500	1675
CAPTURE CARD AD-2500	895
PAR (IBM) DR-2100	1645
PAR (Amiga) DR-2150	1545
w/Conner 5040MB	+199
w/Conner 1275A 1.2G	+399
w/Micropolis 2127A 1.7G	+899
Personal TBC IV	799
Personal VScope	735
Personal Componet Adapter	229

## CSA Magnum > WARP ENGINE

- Includes SCSI I & II Fastest hard drive controller available for the Amiga 2000 series  
- Up to FIVE megabytes per second with a Seagate Barracuda 2.1 gigabyte hard drive  
- Expandable to 64MB ram using 72 pin industry standard simms

68040 @ 33Mhz w/CPU & MMU & FPU (2033) 999  
68040 @ 40Mhz w/CPU & MMU & FPU (2040) 1199

Low profile, power & heat simms for maximum performance - 04 MB 60NS \$125  
08 MB 60NS \$249  
16 MB 60NS \$399  
32 MB 60NS \$799

Upgrade rebates for A2000 owners with other CPU cards!  
Trade in that old 16bit ram while your at it too!

### SYQUEST (Amiga / MAC / IBM)

5.25" HH 44MB DRIVE (SQ555) SCSI	125
5.25" LP 88MB (SQ5110C) (R&W44) SCSI	259
3.5" LP E2-135MB IDE or SCSI w/Cache	249
5.25" HH 200MB (SQ5200) (R&W 44&88) SCSI	349
3.5" LP 270MB SCSI (SQ3270S) 13MS SCSI	329
5.25" 44MB Cartridges	41
5.25" 88MB Cartridges	51
3.5" 105MB Cartridges & 270MB Cartridges	59
5.25 200MB Cartridges	79
External Versions w/Cabling Add	49

### 3.5" HARD DRIVES

Quantum					
340 ELS SCSI I & II or IDE	11MS	2 Yrs	149		
540 ELS SCSI I & II or IDE	11MS	2 Yrs	179		
730 LPS SCSI I & II or IDE	11MS	2 Yrs	199		
850 LPS SCSI I & II or IDE	14MS	3 Yrs	199		
1080 LPS SCSI I & II or IDE	12MS	3 Yrs	275		
2.1G Capella 5400RPM 512k	8MS	5 Yrs	675		
2.1G Atlas 7200RPM 1MB	8MS	5 Yrs	799		
4.3G Atlas 7200RPM 2MB	8MS	5 Yrs	999		

### SCSI CD-ROM DRIVES & DRIVERS

MODEL	ACCESS	RATE	PRICE
Hitachi External	320MS	150k/s	89
Sanyo Int / Ext	380MS	300k/s	139/189
NEC 3Xi Int / Ext	195MS	450k/s	175/225
NEC 4XP External	120MS	600k/s	249
Sanyo 4x Int / Ext	120MS	600k/s	199/249
Toshiba 4.4x Int / Ext	120MS	660k/s	299/349
Teac 6x Int/Ext	140MS	900k/s	299/349
Plexor 6x Int/Ext	145MS	900k/s	375/425
ASIM CDFS 3.4+ w/Fish CD (AMIGA)			64

CSA DERRINGER+ ACCELERATOR  
68030@25Mhz CPU w/MMU  
68881@25Mhz FPU & 1MB Ram

Only 299.00  
w/4MB 349.00 w/8MB 449.00

### CSA DERRINGER+ ACCELERATOR

68030 @ 33MHZ with MMU  
68882 @ 33MHZ (Math Co Processor)  
1Megabyte of 32bit ram (remap kickstart)  
Install up to 32MB of 72 pin industry standard ram  
Ours is the only one to come standard with the modification to work with the DKB Megachip (a \$25.00 value if purchased separately)

4MB - 399 8MB - 499 16MB - 799 32MB - 1299

68030 @ 50MHZ with MMU  
68882 @ 50MHZ (Math Co Pro add 75)  
1Megabyte 30/15 32bit ram (remap kickstart)  
Install up to 32MB of 72 pin industry standard ram  
Ours is the only one to come standard with the modification to work with the DKB Megachip (a \$25.00 value if purchased separately)

4MB - 399 8MB - 499 16MB - 799 32MB - 1299

### WORKS IN AMIGA 2000 & 500

### CONNER 1060 SCSI I & II

\*\*\* BLOWOUT SPECIAL \*\*\*

9 MS - 1060MB - 5 Year Warranty

up to 10 MB/Sec Synchronous

up to 5 MB/Sec Asynchronous

Works great with all controller cards!

\$295.00

### Micropolis

2217 A/V 1.7G SCSI I&II	10MS	5 Yrs	899
2217A 1.7G IDE	10MS	5 Yrs	899
3221S 2.1G SCSI I&II	8.9MS	5 Yrs	995
3221 A/V 2.1G SCSI I&II	8.9MS	5 Yrs	995
3243S 4.3G SCSI I&II	8.9MS	5 Yrs	1295
3243 A/V 4.3G SCSI I&II	8.9MS	5 Yrs	1395
1991 9.0G SCSI I&II	12MS	5 Yrs	2195
1991 A/V 9.0G SCSI I&II	13MS	5 Yrs	2295

### Conner

CFA 1275A IDE (w/PAR)	12MS	3 Yrs	399
CFA 850A IDE	12MS	3 Yrs	265
CFP 540A IDE	12MS	3 Yrs	199
CFA 540A IDE (w/PAR)		3 Yrs	199

### \* Video Flyer Certified Drives

### Hard Drive Controllers

Commodore A2091 w/0MB Ram	99
(For the A2000) w/2MB Ram	179
- Includes 7.0 Roms & WD rev 8 SCSI chip	
- two megs of additional ram can be added	
Trifecta 500 LX w/0MB expandable - 8mb	225
- Controls seven scsi & two ide drives.	
DKB Rapidfire (fastest SCSI controller)	139

### A1200/600/SX1 2.5" IDE HARD DRIVES

ST9096A 80MB Maxtor	75
ST9190AG 170MB Seagate	125
ST9240AG 210MB Seagate	169
ST9300AG 260MB Seagate	239
ST9500AG 455MB Seagate	339
ST9655AG 520MB Seagate	349
ST9816AG 810MB Seagate	399

### AMIGA NETWORKING

Interworks ENLAN-DFS (Five node licence)	299
CBM A2065 Ethernet board	299
CI 4066 ETHERNET PLUS	299
Three network interfaces for 2000,3000,4000	
- 10 BASE T, Thick AUI, Cheapernet (10BASE2)	
- Diagnostic LEDs & 1 Year Warranty	
- 10MB/SECOND & is SANA II compliant	



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# EXPANSION SYSTEMS

## HIGH FLYER

Standard	345
With Power Supply	395
Fan Kit	35
Cable Kit	65

Datalflyer SCSI Card 4000SX 90  
- SCSI Controller card supports up to seven devices internally, can add external port later

Datalflyer SCSI Card 4000SX-25 100  
- Includes the DB 25 external connector for external devices

Datalflyer SCSI + A4000 119  
- Converts IDE Header into SCSI support for SCSI devices w/ pass thru to work with original IDE drives you already own!

Datalflyer SCSI + A1200 99  
- Same thing for the A1200 series systems

Datalflyer XDS 1200 / 600 69  
- External case supports 3.5" IDE hard drives & allows use of original 2.5" hard drive. Connector also uses power from inside the machine.

Ramboard w/2MB Ram exp to 8MB 199  
Datalflyer 2000 SCSI 95  
- Supports up to seven scsi devices, internally mount a 3.5" hard disk drive onto controller card

Datalflyer 2000 IDE 95  
- Support two IDE devices, one can be mounted onto controller card.

Datalflyer 2000 SCSI & IDE 125  
- Two controllers in one card! Support seven SCSI and two IDE devices!

Datalflyer 500 SCSI 149  
- Supports Seven SCSI devices, one can be mounted internally and powered!

Datalflyer 500 IDE 149  
- Supports two IDE devices, one can be mounted internally and powered.

Datalflyer 500 SCSI & IDE 179  
- Supports two IDE devices, one can be mounted internally & seven scsi devices can be connected!

## VILLAGETRONIC

MainActor Professional 79  
- Full featured animation program that works with all Amigas with support for Picasso II owners.

Ariadne 279  
- Zorro II Ethernet card offering 10base-2 (cheapernet) & 10base-T (twisted pair) Features; 2 parallel ports 32k buffer; boot eeprom option; SANA-2 Compatible drivers & Envoy network software; DOS 2.04 or higher required.

Liana Network 89  
- Connects any two Amigas together via the parallel port

Pablo 179  
- A video module for your Picasso II card permitting output to your TV or VCR - Quality comparable to high performance video broadcast encoders; includes RCA - S-VHS - SCART cables & 24 bit animation program

PICASSO II w/ 2 MB RAM! 379

## Micro R&D

2000 Bigfoot Power Supply 159  
1200/600/500 Bigfoot 89  
Slingshot A500 (1A2000Slot) 39  
Slingshot Pro A500 69  
X-Calibur A4000 Ram Unit 649

## ICD

AdiIDE 130MB HD System 225  
w/2.5" Drive (500/2000)

AdiIDE 170MB HD System 249  
w/2.5" Drive (500/2000)

Flicker Free Video II 249  
ADRAM540 w/4MB (A500) 275

## Store your work on 4/8GB DAT TAPES

Conner Internal 400k/sec 899  
Conner External 400k/sec 999  
Sony Internal 500k/sec 899  
Sony External 500k/sec 999

## A2000 68060 @ 50MHZ !!!

### DKB's WILDFIRE 060 w/FAST SCSI II & 64bit ramboard \$1499

Low profile, power, heat simms for maximum performance -

Upgrade rebates available for owners of other accelerator boards & ram through De Vine.	04 MB 125
	08 MB 249
	16 MB 399
	32 MB 799

- True 68060 50Mhz Design - NOT A MODIFIED 68040 BOARD !!!

- Lightning High Speed Local 68060 Memory

- Supports Interleaved Memory

- Supports Posted Writes to Motherboard

- 32 Bit FAST SCSI II Host bus DMA Interface

- Supports 10MB/second SCSI Transfers

- Over 90% of the CPU available at full Speed SCSI DMA

- Totally Autoconfigurable

- 64 BIT Ram expandable to 128MB

- Uses Industry Standard 72 Pin Simms

- Ethernet - Twisted Pair & Thin Coax

- PCI Bus For Future Expansion supporting up to 100MB/Second

- Compatible with the Newtek Video Toaster & DKB Megachip

- Includes Manufactures TWO year full warranty

From A Company that listens to what the public wants! This is the FASTEST accelerator available for the Amiga 2000!

Committed to the Amiga marketplace since 1980 & going strong!

## MTEC FALCON 68040 @ 25MHZ

- for the Amiga 1200 series machines

- faster than an Amiga 4000T @ 25Mhz

- uses standard 72pin simms expandable to 128 MB of memory

- 33 MHZ & 40MHZ AVAILABLE! \$849.00 & \$949.00!!

- Extra SCSI Port Option Available

- Built In SCSI I & II HD Controller Card

Limited time price of \$649.00

## VIDEO TOASTER SYSTEMS

CBM Amiga 4000T Motherboard, Case, Power Supply, slotboard, 2795  
Floppy Disk Drive, Mouse, Keyboard & 6MB Memory

68040 @ 25mhz Processor, 1200MB Hard drive & Bundle of assorted software! Including - CALL!

Processor Options -

Macrosystems Warp Engine 4028 w/CPU, SCSI I&II Controller 895

Macrosystems Warp Engine 4033 w/CPU, SCSI I&II Controller 999

Macrosystems Warp Engine 4040 w/CPU, SCSI I&II Controller 1199

Memory Options - (Minimum of 8MB Fast Memory needed)

1x32 Simms 60ns 4MB 119+

2x32 Simms 60ns 8MB (warp engine or extra ramboard) 239+

4x32 Simms 60ns 16MB (warp engine or extra ramboard) 399+

8x32 Simms 60ns 32MB (warp engine or extra ramboard) 799+

Newtek Video Toaster 4.0 1975

Newtek Video Flyer 3945

- 2.1 GB Quantum Atlas Video Drive 849

- 4.3 GB Quantum Atlas Video Drive 1299

- 9.0 GB Seagate Elite Video Drive 2295

## Seagate Barracuda 2.1 GB HD

7200 RPM! - 8MS!

Five Year Warranty!

\$975

## USRobotics Modems

External Sportster 14.4kbps v.32 bis data

v.42, v.42bis, quicklink II s/w, fax \$115

External Sportster 28.8kbps v.34 data,

14.4kbps class 1 & 2 fax v.42/v.42bis

quicklink II s/w \$210

## AMIGA Lightwave 4.0

or IBM stand alone

\$765.00

## REMOVABLE MEDIA

SCSI DEVICE CLOSE OUT

Richo 50 MB Removable HD

99.00

## AMIGA RAM BOARDS

Paravision MBX1200Z w/20MHz&1MB	159
Paravision MBX1200Z w/20MHz&2MB	199
Paravision MBX1200Z w/20MHz&4MB	299
Paravision MBX1200Z w/20MHz&8MB	429
Paravision 8-Up! w/0MB	(2000) 99
Paravision 8-Up! w/2MB	(2000) 149
Paravision 8-Up! w/4MB	(2000) 229
Paravision 8-Up! w/6MB	(2000) 309
Paravision 8-Up! w/8MB	(2000) 389
DKB 2632 w/4MB	(Requires2630) 399
DKB 1202 FPU & 1MB Ram	(1200) 159
DKB 3128 w/4MB	(3000/4000) 395
Exp. Sys. Dataflyer Int. w/2MB Exp to 8MB	199
Supra External w/2MB (500)	(500) 199
CBM 2052 w/2MB	(2000) 99
CBM 2058 w/2MB Exp to 8MB	(2000) 175
CBM 501c Clone w/512K	(500) 49
Exp. Systems 601c w/1MB	(600) 69
DKB Megachip 2000/500 w/2MB Agnus	249

-accesses & adds 1MB of chip ram. The

-must have for graphics & audio users

## CSA 12 Gauge Accelerators

33Mhz w/MMU & SCSI Board

w/4MB 80-70NS Ram 549

33Mhz w/MMU & FPU & SCSI

w/4MB 80-70NS Ram 499

50Mhz w/MMU & SCSI Board

w/4MB 60NS Ram 499

50Mhz w/MMU & FPU & SCSI

w/4MB 60NS Ram 775

## Amiga 2000 Accelerators

GVP 68040 @ 33mhz w/MMU, FPU

SCSI Controller with Extra Serial,

Parallel Ports & 4 MB Ram 60ns

Expandable to 64mb using

16MB simms (799 each) 1295

CSA 68040 @ 33mhz w/MMU, FPU

SCSI II controller card w/MMB. Uses

72 pin 60ns industry standard simms

and is expandable to 64 mb using

16mb simm modules. 995

GVP 68030 @ 40mhz w/FPU &

SCSI Controller & 4MB ram at 60ns

expandable to 16MB ram 675

## DKB

Megachip 199

Allows your A500 & A2000 series computers to have

two megabytes of chip ram. A must have for people

who use video, graphics and audio applications.

Included is the Megachip daughterboard with 2MB

Agnus chips with an extra one megabyte of ram.

(Requires A500 to have A501 ram expander +49.95)

A1202 board (A1200 Only) 99.95

A multi-function board for the A1200 Computer

that provides the maximum fast ram expansion plus

a battery backed up clock-calendar. Includes two

simms sockets for combinations of 1, 2, 4, 5, or 8MB

of fast ram using industry standard 32 bit simms with

72 pins. Optional pldc math co processor can speed

up math functions as much as 100% or more.

A3128 Ram board (A3000/4000 Only) 249

Allows 32 bit ram expansion to 146 megabytes of

ram using 72pin industry standard simms. Four simms

slots accept either 4, 8, 16, or 32 megabyte simms.

A2632 Ram board (A2630) 299 w/4mb

Allows 32 Bit ram expansion onboard of 112mb

of ram using industry stanard 72pin simms. Has

four sockets allowing use of 4, 8, 16, or 32 mb

simms. Allows full burst mode support.

Kwikstart II (A1000) 54.95

A1000 owners can now add kickstart roms to their

machines with this device! Supports two different

revision roms & allows access to more system ram

Multistart II 6a (A500, 600, 2000) 29.95

You can use more than one kickstart rom chip with

this device! Switchable by resetting the machine for

a few seconds.

Cobra 28 mhz & 40 WITH MMU 159/249

Accelerator for the A1200 computer system that

allows you to speed your machine up to 600%

faster. Includes capability to add 128MB of fast ram

using industry standard 72 pin simms & battery

backed clock-calendar. Optional FPU can be added.

Optional SCSI I & II Controller can be added +89.00

Mongoose (A1200) 68030 50MHZ 275.00

Accelerator for A1200 computer with 68030@50mhz

Expandable to 128MB of fast ram using industry

standard 72 pin simms. Increase in speed up to 800%

& has battery backed clock-calendar. Optional FPU

or SCSI I & II Controller can be added +89.00



# THE WORLD'S FASTEST AMIGAS ARE ON THIS PAGE!

**THE ADVANTAGES OF OUR BOARDS ARE UNSURPASSED... Just Compare our Performance!**

	Standard A500/600/1500/2000	0.55/0.72
	Standard A1200	1.33
	Standard A1000/3050	4.43
	A1200 with 1230-IV	5.05
	A1200 with 1240-IV	9.91
	Standard A4000	19.10

Figures shown are in MIPS and taken from comparative performance tests using SysInfo standards (1230-IV uses 60 Nanosecond SIMM).

**BLIZZARD 1220-4**

28MHz 68EC020 A1200 TURBO 4Mb, 32-Bit RAM Expandable to 8Mb

## Multi award-winning BLIZZARD 1220/4 4Mb TURBO

Offering by far the best price-performance ratio of any A1200 32-Bit RAM expansion on the market, the 1220/4 incorporates everything a good memory expansion should - such as a Real Time Clock, RAM expandability, optional FPU etc. And, with its Motorola Processor running the 32-Bit FAST RAM at an amazing 28MHz, the 1220/4 has broken all the barriers! Check the facts for yourself and fit the BEST Amiga A1200 68EC020 Turbo Memory board available. Remember with this unique expansion, you get 4Mb, 32-Bit RAM already fitted, tested and ready to use - included in the price!

- Integrated 28MHz 68EC020 Clock Speed Doubler for up to 300% overall performance increase
- Factory Installed & Tested 4Mb 32-Bit FAST RAM
- Expandable to 8Mb with Blizzard Add-4 Board
- Integrated Battery Backed Real Time Clock
- Easy Trapdoor Installation
- Can be disabled for full games compatibility - even badly programmed, older software!

1220/4 Turbo 28MHz 68EC020 4Mb 32-Bit Fast RAM, expandable to 8Mb	<b>\$299.95</b>
Add-4 Board - extra 4Mb for 1220/4 4Mb 32-Bit Fast RAM add-on	<b>\$Call</b>
Motorola Maths Co-processors 68882 PLCC type FPU, 14/28/40MHz	<b>\$Call</b>

**THE AWARD WINNING A1200 RAM EXPANSION!**

**BLIZZARD 1230-IV**

50MHz 68030 A1200 TURBO ACCELERATOR - 0Mb Expandable to 128Mb

## THE highest performing A1200 68030 Accelerator!

Not only has there been an INCREASE in specification but, at the same time, a DECREASE IN PRICE! With its 50MHz 68030 and MMU, it offers EVEN MORE for LESS! With a SysInfo rating of 9.91 (using a 60 Nanosecond SIMM), up to 500% performance gain is achieved. Options via its Fast Expansion Bus include Modules such as a SCSI-2 Controller. An industry standard SIMM socket provides for up to 128Mb auto-configuring 32-Bit FAST RAM (or 256Mb with SCSI-2 option with an extra SIMM socket).

- Easy Trapdoor Installation
- Battery Backed Self Recharge RT Clock
- High performance DMA expansion with full 32-bit wide DMA
- 68030 may be disabled with simple keystroke on boot up allowing full games compatibility... even badly programmed, older software!
- PGA FPU Socket allowing optional 50MHz, 68882 FPU

1230-IV Turbo 50MHz 68030 & MMU 0Mb 32-Bit Fast RAM, expandable to 128Mb	<b>\$269.95</b>
SCSI-2 Module for 1230-IV Turbo (with additional 128Mb SIMM socket)	<b>\$129.95</b>
Motorola Maths Co-processors 68882 PGA type FPU, 33/50MHz	<b>\$Call</b>
4Mb SIMM RAM Exp. (Fast 60 Nanosecond) 32-Bit, 72 pin (Call for Larger SIMM prices)	<b>\$Call</b>

**THE WORLD'S FASTEST A1200 '030 ACCELERATOR!**

# CYBERVISION 64

## 64-BIT ENGINE A3000/4000 24-BIT COLOR ACCELERATED GRAPHICS CARD.

For all Zorro-3 Amigas, this 64-Bit high speed graphics engine/blitter offers up to 1600 x 1200 pixels in 8-Bit color or 1024 x 768 pixels in True 24-Bit Color, with 2Mb of display memory (4Mb user upgradeable).

Cybervision 64...	2Mb	<b>\$469.95</b>
Cybervision 64...	4Mb	<b>\$599.95</b>

**LIMITED OFFER PHOTOGENICS LITE SOFTWARE... WITH EVERY CYBERVISION 64 - FREE FOR A LIMITED TIME ONLY!**

**FREE PhotoGenics LITE...** Powerful software for image manipulation - the ULTIMATE 24-bit graphics package for A3000 or A4000! Includes 27 effects for processing photos/images such as Emboss, Solarize, Texturize, Add Noise etc. as well as Paint Tools inc. Chalk Pastels, Crayon, Felt Tips & more - Great! (Packaging is shown for illustration purposes only and is not included)



**MOTOROLA MOTIVATED...**  
The Sign of Quality built into every Blizzard Board!

All Blizzard and Cyberstorm products use brand new MOTOROLA 68030 series processors (not second hand as in some of our competitors' boards). They always run WITHIN the electrical timing specification laid down by Motorola to prevent any possible overheating/reliability problems. When you pay for a new 50MHz CPU for example, that's exactly what you get - not a 40, 33 or even a 25MHz CPU "clocked" to 50MHz! Look out for the MOTOROLA MOTIVATED logo - your guarantee of our commitment to quality and reliability - BEWARE of "clocked" CPUs!

## WHAT THE MAGAZINES SAY...



Blizzard products have consistently achieved the highest magazine accolades and awards!

Amiga Shopper said...  
"in short if you want the fastest Amiga in the World, you have no option."  
Amiga Computing...  
"Amigas can now do anything Pentiums can..."  
Amiga Format...  
"...buy one as soon as you get chance" - 95% rating



# SoftWood



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