

AMIGA

US EDITION



COMPUTING

Star act

*The Amiga's
starring role
on Broadway*

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Eyeteck's new
CD-ROM drives
under the
spotlight



- DOpus v5.5
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- Emplant Lite
- AWeb-II
- Termite TCP

ProGRAB... *Freezes Frames* ^{and Much More!}

The Cool way to Grab Images on your Amiga

CHECK OUT OUR NEW...
ProTel™, Sound Samplers
and PCMCIA Interface



Compatible
with both VHS
and S-VHS!

Grab images with
your camcorder
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or, Take a signal from a
TV with SCART output...

or, Use the signal from
your satellite receiver...

or, Grab TV or video
pictures from your
VCR's video output
including S-VHS.

**ProGrab is just
£129.95...**

ProGrab 24RT Plus

- Supports all recent Amigas and is also fully AGA Chipset compatible. You can render images in any Workbench screen mode resolution including HAM8 mode (Amiga RAM permitting).
 - Saves and Loads images in IFF/LBM, IFF/LBM24, JPEG, BMP, PCX, and TARGA file formats. ProGrab saves animations as Anim5 files and animations with sound (requires PCMCIA interface and separate sound sampler) as Anim5 + BSX files. A range of image processing effects, palette computing routines (AGA only) and dithering methods are featured in ProGrab Version 2.6.x. Photogenics fully supports ProGrab with a custom Loader to enable grabs directly from within the program - saving YOU time!
 - Software has built in mono and colour animation facilities. Number of frames dependant upon Amiga's RAM.
 - Release 2.6.x software now includes...
 - ADDITIONAL TELETEXT FACILITIES - With either Terrestrial or Satellite TV signals.
 - LARGER PREVIEW WINDOW - Double Resolution and 4 times area of previous ProGrab software.
 - INTERNATIONAL SUPPORT - Now compatible with composite PAL, SECAM and NTSC Straight from the box!
- ProGrab is supplied with just about everything you'll need +
- ProGrab™ 24RT Plus Digitiser
 - Latest ProGrab Version 2.6.x Software
 - Mains Power Supply Unit
 - Parallel Port Connecting Cable
 - User Manual
 - Input sockets for Composite and SVHS.
- + A video source cable will be required to match your own equipment - Ask for details

* Standard ProGrab hardware is PAL/SECAM/NTSC compatible. Interface mode options are available with PAL and SECAM only. ProGrab™ supports any Amiga with Kickstart 2.04 or later and a minimum of 1 Mbit free RAM

The revolutionary S-VHS ProGrab™ 24RT Plus with Teletext is not only the best way to get crisp colour video images into your Amiga, from either live broadcasts or taped recordings, it also costs less than any of its rivals. This real time PAL/SECAM/NTSC* 24-Bit colour frame grabber/digitiser has slashed the price of image grabbing on the Amiga and, at the same time, has received rave reviews for its ease of use and excellent quality results. ProGrab™ has earned honours from just about every Amiga magazine and Video magazines too! And... with ProGrab™ you needn't be an expert in Amiga Video Technology, a simple 3 stage operation ensures the right results - Real Time, after time.

STAGE 1...

Select any video source with S-VHS or composite output. This could be your camcorder, TV with SCART output, satellite receiver, domestic VCR/player or standard TV signal passing through your VCR/player... the choice is yours.

STAGE 2...

With ProGrab's software, select an image you wish to capture using the on screen preview window and Grab (because the hardware grabs frames in real time, there's no need for a freeze frame facility on the source device).

Once grabbed, simply download and view the full image on your Amiga screen. ProGrab also includes a Teletext viewing and capturing facility from TV or satellite sources.

STAGE 3...

Use the 'grabbed' image with your favourite word processor, DTP or graphics package.

ProGrab really does make
it that simple!

ProGRAB™
SVHS 24RT Plus

PCMCIA INTERFACE for A1200 and A600

Only
£39.95

ProGrab's optional PCMCIA Interface includes the latest version software and extends performance for serious/professional users - offering the following benefits:

- Faster Downloading Times (up to FIVE times quicker)
- Improved animation speeds of up to 11fps (mono) and 5fps (colour)
- Saving of animations direct to your Amiga's hard drive
- Freeing of your Amiga Parallel Port for use by a printer or other parallel peripheral
- Sound sampling and animation capabilities (separate sound sampler reqd. - see below)

STEREO SOUND SAMPLERS

Two high quality 8-bit sound samplers, specifically designed for use with our ProGrab 24RT Plus digitisers, are now available (PCMCIA interface required). The Hi-Fi version features the same 30MHz A/D converter used in the ProGrab™, meaning the maximum frequency is only limited by the Amiga's hardware. It also has a higher bandwidth (40kHz to 20kHz) than the standard version.

Standard Stereo Sampler **£19.95**

Hi-Fi Stereo Sampler **£24.95**



WHAT THE MAGAZINES SAY...

Camcorder User commented:
"If you're looking for a high resolution 24 bit digitiser then, at this price, ProGrab 24RT represents great value for money."

ProGrab™ - Voted as **The Best Video Hardware** product for your Amiga. This is especially pleasing because the award comes from the Amiga Shopper magazine's readers... Our Satisfied Customers!

ProGrab™ - Amiga Shopper **95% STAR Buy** and remarks like: "Sharp, crisp and faithful to the original colours, we were mainly impressed and... Highly Recommended. Whether you're a Videographer or a Graphic Artist, look to the ProGrab 24RT Plus. It's a winner!"

ProGrab™ - Amiga Format **93% Gold Rating** and comments like: "ProGrab 24RT Plus is quite simply the digitiser to get... Incredible value for money - no other digitiser offers so much for so little". When reviewing "Vid Amiga 24RT PRO, Amiga Format said: "Save yourself £100 and buy the much superior Pro Grab!"

"CU Amiga said ProGrab™ is: "Just the job for beginners and semi-professionals on a tight budget" and "very hard to beat. For the money, nothing can touch it."

ProTel™ Terrestrial/Satellite Teletext Decoder

Stand alone unit for grabbing teletext info independently of ProGrab™ and has a much faster download rate. Once the information has been downloaded, ProTel™ allows you to view pages instantly (no more waiting whilst your TV finds the correct page) files can be exported as ASCII text for use in a WP or saved as IFF Graphics for use in your DTP presentations. You don't need a Teletext TV/Video for ProTel™ - the signal can be received through a standard VCR.

£44.95

NEW...

Pro-TEL

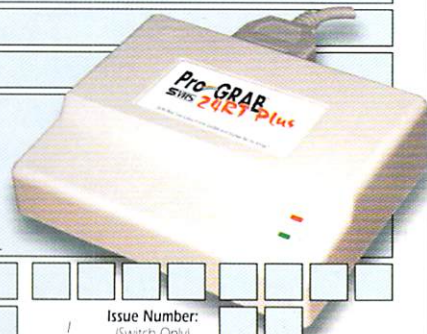
Post or FAX your requirements (quantity trade prices available) on the order form provided OR, if you'd simply like further information please contact...

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68040 VERSION CAN BE EXPANDED TO A FULL 68060



NEW 3D VERSION!
(Available September)

CYBERSTORM II

AMIGA 68040ERC and 68060 ACCELERATORS

Now you can choose between the 68040/40ERC Cyberstorm II or the ultra powerful 68060 version. When you fit a Cyberstorm II 68060 Accelerator to your A3000, A3000T, A4000 or A4000T you can, for example, render a graphic with Imagine 2.0 software in just 2.4mins... Compare that with a massive 10.34 mins on a standard A4000 '040V25! With no jumpers both Cyberstorm IIs are fully plug and play and A4000 users can choose the option of a SCSI-2 module (A3000 users already have SCSI built into their Amiga hardware).

- Up to 128Mb of standard SIMMs can be installed and you can even transfer the 72Pin SIMMS from your Amiga A4000 straight onto your new Cyberstorm.
- Optional SCSI-2 module available
- If your budget currently only covers the cost of a Cyberstorm II 68040ERC, you can always upgrade later to the full 68060 processor for extra power.

NEW Cyberstorm II 40MHz 68040ERC - 0Mb - Expandable to 128Mb	\$349⁹⁵	PRICE CRASH
Cyberstorm II 50MHz 68060 - 0Mb - Expandable to 128Mb	\$649⁹⁵	
Cyberstorm II SCSI-2 Module	\$89⁹⁵	
Cyberstorm II SIMM RAM Expansions (please call for prices)	\$Call	

CYBERVISION 64

64-BIT ENGINE A2000/3000/4000 (T Series) 3D Version 24-BIT COLOUR ACCELERATED GRAPHICS CARD.

For all Zorro-II/III Amigas & Tower System A1200s with Zorro-II backplanes. The core of this great board is the NEW VIRGE GRAPHICS CHIP from S3. With 3D capabilities it's able to process complex 3D functions in hardware (eg. shaded/textured surfaces) with Trilinear Filtering and Shading/Fogging for super realistic Real Time 3D Rendering. When used with CyberGraphX 3D Library, Cybervision 64/3D can even offer a broad range of 3D facilities for any software developer. OPTIONAL EXPANSIONS...

- MPEG Decoder - added to the Feature Connector to provide real time MPEG audio and video decoding at full size custom screens or, in Workbench windows (HQ display using 16/24 Bit modes from CyberGraphX Workbench). Stereo audio output is provided via the supplied dedicated line output jack. Upgrade to a Cybervision 64/3D and MPEG bundle (from previous Cybervision 64) for a SPECIAL LOW PRICE! - Call for full details now!
- Monitor Switcher - with integrated scan line doubler. Designed to fit into the Amiga slot this gives automatic switch over from the standard Amiga signal to Cybervision 64/3D's output. Both cards may be fitted inside A3000/4000 models leaving three Zorro-II slots free.

Cybervision 64/3D...	2Mb Version	\$239⁹⁵	4Mb Version	\$299⁹⁵
Options...	MPEG Decoder	\$174⁹⁵	Monitor Switcher	\$84⁹⁵

THE FASTEST RANGE OF AMIGA BOARDS AVAILABLE, NO ONE ELSE COMES CLOSE! COMPARE THE PERFORMANCE FIGURES BELOW FOR YOURSELF

Std A500/600/1500/2000	0.55/0.72
Standard A1200	1.33
Standard A1000/3050	4.43
A1200 with 1250/1500 & 4Mb	9.91
Standard A1000, 030	19.10
Amiga with 1240T/ERC, 2040ERC or Cyberstorm II 68040ERC	30.00
A1200 with 1260, 060 & 1Mb	38.71
A1500/2000 with 2060, 060 & 1Mb	38.71
A1000 with Cyberstorm, 060 & 1Mb	39.85

Comparative MIPS performance figures measured using SysInfo. Each board had the appropriate SIMM fitted (required to activate accelerator).

BLIZZARD 1230-IV, 1240T/ERC & 1260ACCELERATOR BOARD FEATURES...

- May be disabled with Simple Keystroke on boot up - For Full Games compatibility, even badly programmed/older software
- Battery Backed Self Recharge Real Time Clock
- High Performance Expansion with Full 32-Bit wide DMA
- Easy Trapdoor Installation - no modifications required (1240T/ERC fits in Tower)

1230-IV features PGA FPU Socket allowing Optional 50MHz, 68882 FPU

1230-IV
BLIZZARD
030
A1200 TURBO ACCELERATOR and MMU - 50MHz 68030
0Mb Standard, Exp. to 128/256Mb
9.91MIPS with 60 Nanosecond SIMM fitted

Blizzard 1230 MkIV Turbo Accelerator Memory Board
The highest performing 68030 accelerator available for your A1200! With its 50MHz 68030 and MMU, the 1230-IV offers BETTER PERFORMANCE at a LOWER PRICE! With a SysInfo rating of 9.91 (using a 60 Nanosecond SIMM) you can see the 1230-IV is very fast... a performance gain of up to 500% 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 of auto-configuring 32-Bit FAST RAM (or up to 256Mb with the SCSI-2 option using its extra SIMM socket).

1230-IV Turbo 50MHz 68030 & MMU
0Mb, 32-Bit Fast RAM
Expandable to 128/256Mb
\$159⁹⁵
Fast 60 Nanosecond SIMM RAM Expansions
32-Bit, 72 pin (Call for prices)
\$Call
Motorola Maths Co-processor
68882 PGA type FPU, 50MHz
\$Call

SCSI-IV KIT SCSI-2 Module for 1230-IV, 1240T/ERC and 1260, with additional 128Mb SIMM socket (Fast SCSI-2 DMA Controller - up to 10Mb/sec transfer rates with additional SIMM socket allowing extra memory to be fitted)

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Please Note: Memory, SIMM & FPU prices may change without warning due to exchange rate fluctuations. Please confirm price prior to ordering. CALL TO CONFIRM AVAILABILITY BEFORE MAKING A LONG JOURNEY TO VISIT US. OUR OPENING TIMES ARE... Monday to Saturday, 9.00am until 5.00pm

1240
BLIZZARD
040
1240T/ERC
A1200* TURBO ACCELERATOR and MMU/FPU for *TOWER SYSTEMS
40MHz 68040 - 0Mb Std, Exp. to 128/256Mb
30MIPS with 60 Nanosecond SIMM fitted

Blizzard 1240T/ERC Turbo Accelerator Memory Board
A super LOW COST A1200 Turbo Accelerator Board, ideal for housing on any *Tower System A1200 main board (mechanical dimensions, high power consumption and heat emission require an active cooling cap - we therefore do not recommend fitting to standard A1200's without the appropriate modifications etc.). The "ERC" Processors used on these boards are recycled and vigorously tested 68040 CPUs operating at 40MHz with MMU/FPU - an excellent guaranteed and competitively priced alternative. Available options such as the SCSI-IV Kit and RAM are shared with the Blizzard 1230-IV and 1260.

1240T/ERC Turbo 40MHz 68040 & MMU/FPU
0Mb, 32-Bit Fast RAM - Expandable to 128/256Mb
\$279⁹⁵ Can be expanded to FULL 68060

1260
BLIZZARD
060
1260
A1200 TURBO ACCELERATOR and MMU/FPU - 50MHz 68060
0Mb Standard, Expandable to 64/192Mb
38.71MIPS with Single Sided 6070 Nanosecond SIMM

The Blizzard 1260 Turbo Accelerator Memory Board
offers Amiga A1200 owners FULL 68060 POWER with a board that plugs into the trapdoor slot! Your A1200 will operate at twice or even three times the speed of an '040 based upgrade and up to five times the speed of a standard A4000! Available options such as the SCSI-IV Kit and RAM are shared with the Blizzard 1230-IV and 1260.

1260 Turbo 50MHz 68060 & MMU/FPU
0Mb, 32-Bit Fast RAM - Expandable to 64/192Mb
\$579⁹⁵

\$89⁹⁵

Blizzard and Cyberstorm products use MOTOROLA (680X) series processors. They run WITHIN the electrical timing specification laid down by Motorola to prevent any possible overheating/reliability problems. So, when you pay for a 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!

T-ERC and ERC Processors used on selected boards are recycled and vigorously tested (68040 CPUs operating at 40MHz - an excellent guaranteed and competitively priced alternative).

OUR RANGE HAS WON MORE AWARDS THAN ANY OTHER...

What the Magazines think...
Amiga Shopper 91% STAR BUY "...the Blizzard 1260 is destined to become the ultimate object of desire for A1200 owners"
Amiga Computing 92% BLUE CHIP "...want the fastest Amiga in the World, get this board!"
Amiga Format "...Ride on the fastest A1200 in the World..." - 95% GOLD Rating

2040
BLIZZARD
040
2040ERC
A1500/2000 TURBO ACCELERATOR and MMU/FPU - 40MHz 68040
0Mb Standard, Expandable to 128Mb
30MIPS with 60 Nanosecond SIMM fitted

Blizzard 2040ERC Turbo Accelerator Memory Board
The Blizzard 2040ERC is a super new LOW COST board which offers A2000 owners the opportunity to upgrade to the same performance as our Blizzard 1240T/ERC board. Users will then be able to enjoy full A4000/040 power as well as take advantage of the built in SCSI-2 interface. The "ERC" Processors used on these boards are recycled and vigorously tested 68040 CPUs operating at 40MHz with MMU/FPU - an excellent guaranteed and competitively priced alternative.

2040ERC Turbo 40MHz 68040 & MMU/FPU
0Mb, 32-Bit Fast RAM - Expandable to 128Mb
\$329⁹⁵ Can be expanded to FULL 68060

2060
BLIZZARD
060
2060
A1500/2000 TURBO ACCELERATOR and MMU/FPU - 50MHz 68060
0Mb Standard, Expandable to 128Mb
38.71MIPS with 6070 Nanosecond SIMM fitted

Blizzard 2060 Turbo Accelerator Memory Board
offers A1500/2000 owners the same specification as the Blizzard 1260 Turbo (A1500/2000s will operate at up to five times the speed of a standard A4000) with FULL 68060 POWER & also includes built in SCSI-2 interface! If you want the fastest A1500/2000 around... fit a Blizzard 2060 now!

2060 Turbo 50MHz 68060 & MMU/FPU with built in SCSI-2
0Mb, 32-Bit Fast RAM - Expandable to 128Mb
\$629⁹⁵

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- BY PHONE: Simply call our order line. We accept VISA, Mastercard, Access, Switch, Connect, Delta AMEX and Lombard Creditcharge (most 'store cards' are Lombard eg. Dixons, Currys etc.) - WITH NO TRANSACTION SURCHARGES!
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- GH WARRANTY: Manufacturers' standard warranties apply or, ask about GH's comprehensive extended options which are always recommended for professional users to minimise costly down time. Ask GH for full details.



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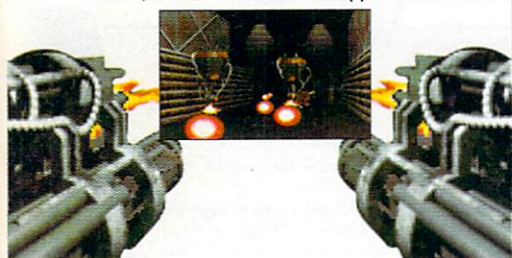
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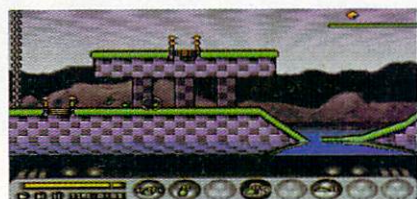
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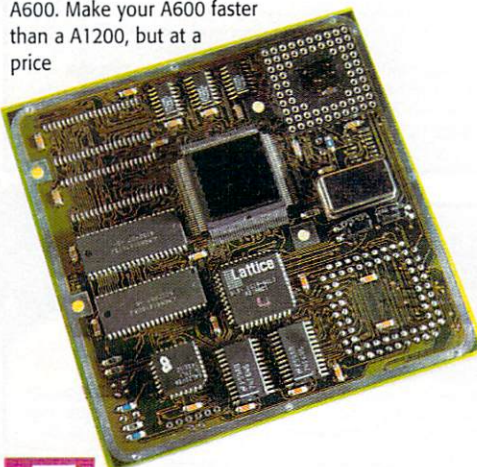
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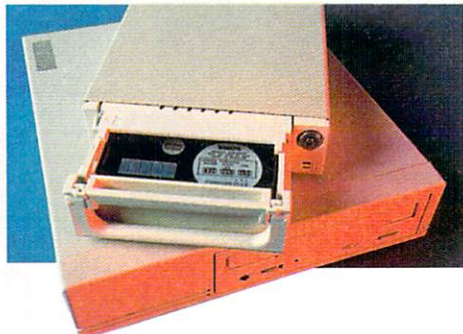
A new accelerator board for the A600. Make your A600 faster than a A1200, but at a price



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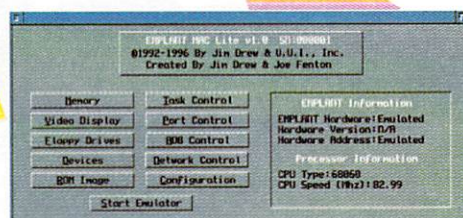
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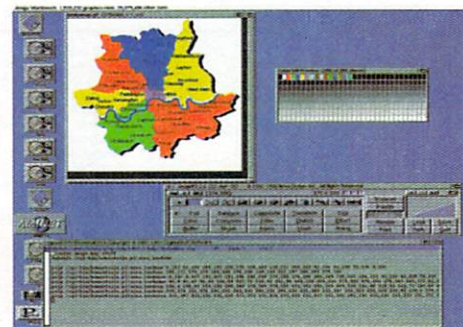
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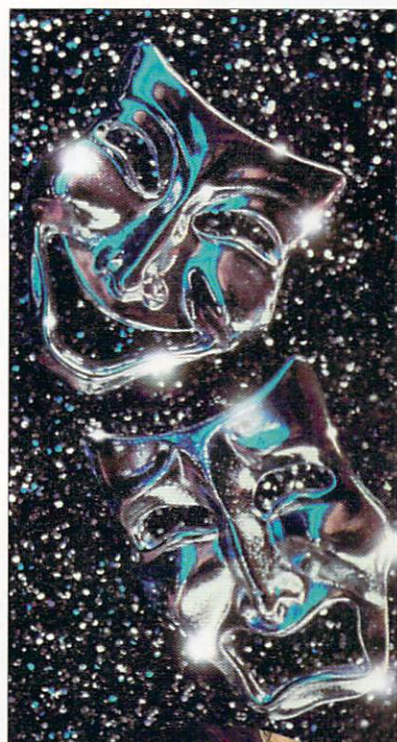


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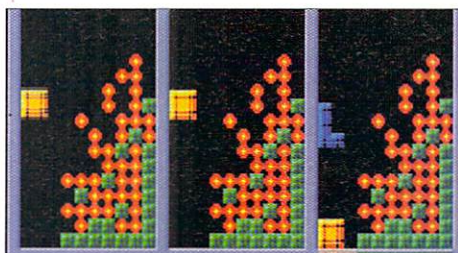
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**"World of A1200" & "Top 100 Games"
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£199.99 with Squirrel**

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VALUE**

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Incredibly fast (upto 4x faster than a ZIP drive) SCSI drive will store a massive 135mb per cartridge. Comes complete with power supply, SCSI cable, instructions and cartridge.

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REMOVABLE
DRIVE**

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Now includes CD ROM drivers and instructions.

The Dataflyer is a 16 bit SCSI II controller card that converts the signals on the internal IDE interface to also run SCSI devices at the same time as the IDE hard drive. The Dataflyer SCSI+ will operate up to 5 SCSI devices such as CD-ROMS, hard drives, Syquest removable drives, tape back up drives etc. Unlike other SCSI interfaces, the Dataflyer SCSI+ is compatible with all known accelerators etc and it does not stop you from utilising any of the important expansion ports on your A1200/A600. The Dataflyer SCSI+ easily installs into the A1200/A600 (simply pushes in, no need to remove the metal shield) and provides a 25 way D connector through the blanking plate at the back of the A1200. Full instructions and software supplied.

DATAFLYER ONLY £79.99 or £49.99 when purchased with a SCSI device

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PCMCIA fitting SCSI interface**

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A1200 trapdoor fitting memory expansions feature a battery backed clock and a socket for an accelerator FPU.

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THE A1200**

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only £24.99 when purchased with above**

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Our highly rated, top quality feature packed modems are ideal for Amiga users. All modems include our **FREE MODEM ACCESSORIES PACK** (worth £19.99) which includes a cable to connect the modem to the Amiga, NCOMM comms software, Amiga Guide to Comms and a list of Bulletin Boards from which you will be able to download vast amounts of free software as well as have access to E-MAIL facilities.

• MNP 2-4 Error Correction • MNP 5 Data Compression • Fax
Class I and II compatible, Group 3 • Hayes Compatible • Full 80
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14400 MODEM £69.99

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NET AND WEB SOFTWARE £34.99

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Discology is the ultimate in disk copying power for the Amiga. The package comprises the Discology Disk, manual and Discology cartridge for making copies of heavily protected programs with an external disk drive. Discology will also format disks, check disks for errors etc.

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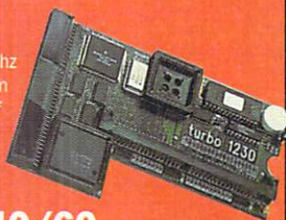
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Up and coming

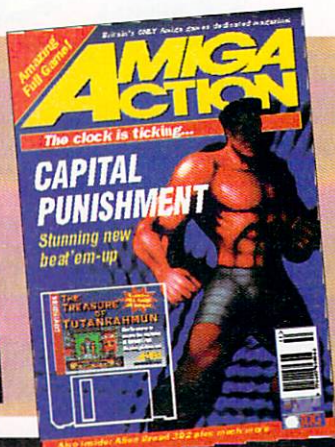
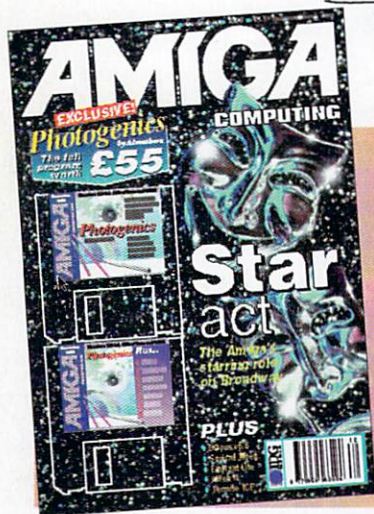
Instead of the usual grumblings you have to put up with on these pages, I want to take this opportunity to tell you about what's coming up over the next few months. First of all, from our Christmas issue onwards we will incorporate our sister magazine, Amiga Action. This means we can bring you the games market expertise of Britain's most popular Amiga entertainment title.

Amiga Computing will remain the same, bringing you definitive reviews of all the latest hardware and software, informative features on developments in the world of Amiga as well as our essential technical guides. The only difference will mean that instead of finding System as our games section, you will find Amiga Action there instead. We hope you enjoy it.

Also coming up next month is plenty of ideas on what to buy the Amigaphile who has everything (it is Christmas, you know). There will also be an exclusive reader offer from 10 Out Of 10 Software, jam-packed cover disks as well as a new series on companies who have played a key role in the Amiga's history. Tune in next month.....

Tina Hackett

Tina Hackett, Editor



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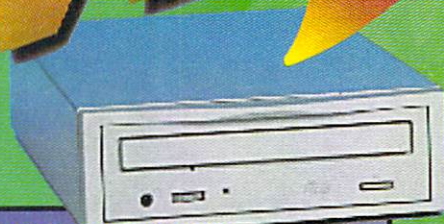
For eight years Amiga Computing has been the leading magazine for Amiga enthusiasts. Amiga Computing promises to inform, educate and entertain its readers each month with the most dedicated coverage of the Amiga available



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- Audio CD player software allows you to play your audio CDs.
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The interface simply plugs onto the 44 pin IDE connector inside the computer (still allows a 2.5" or 3.5" internal hard drive to be used as well!) and provides a connector in the blanking plate at the rear of the A1200 next to the mouse socket. This can be installed by anyone in 5 minutes!

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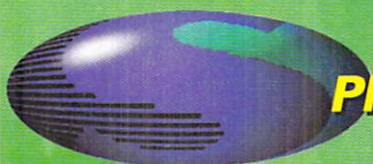
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news

By Tina Hackett

NEW CONCEPT

A new French company called Ateo Concepts have announced a range of Amiga-related products. Priced at £43 is a PC keyboard interface for the Amiga 1200. It works with the new 105 key Windows '95 compatible PC/AT style keyboard and is 100% compatible with all Amiga games and non-DOS software. The Amiga keys are mapped to the Windows keys and reset is performed as with an Amiga keyboard.

They also have available IDE Mux hardware (£32) which connects 4 IDE units on the Amiga 1200 or 4000. It works with most of the common disk and CD-Roms on the market and with IDE Fix software (not supplied). Ateo will also have a Zorro II board for the Amiga 1200 tower - details are limited on this at the moment but we'll bring you more as we get them.

Also if you're a UK dealer and you're interested in distributing these products, contact them on 00 33 40 85 30 85 (voice or fax).

DIRTY PARTS

Whilst not the coolest of computer gadgets, this Mini Vacuum cleaner from Jessop allows you to clean parts of your computer you couldn't normally reach. Priced at £9.99, it comes with various attachments that allow you to clean awkward things such as keyboards and the like. Call 0116 232 0033 for more details.



BEST BETT

Anyone with an interest in IT and Education should pop along to the BETT '97 show which is being held at Olympia between the January 8 and 11. Three hundred and fifty leading suppliers of educational IT will be there as well as a four-day seminar programme.

ONLY AMIGA

Direct Software, the proud new owners of an Amiga only shop, have set up a 24 hour hotline. Apparently you can call about anything Amiga related, whether you want technical tips, product advice or the latest news. Call 01623 759498.

OLD AGED SPACE INVADERS

Those who remember the heady days of Space Invaders and Hungry Horace, should head along to the Museum of the Moving Image to see their latest exhibition which tells the story of videogames. It runs from November 29.

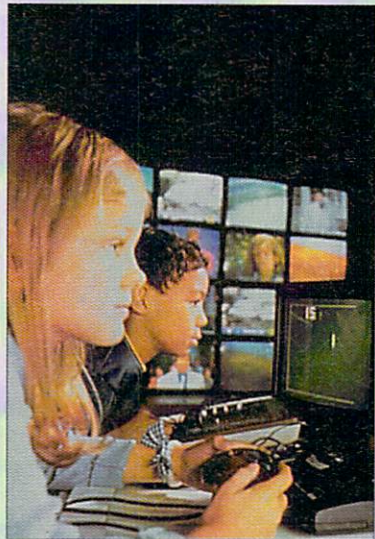
Visitors can try their hand at many old and new games and learn how games have developed over the last 30 years through video screens. The exhibition, called Re-Play, also tells of why the arcade release of Space Invaders in Japan caused a shortage of 100 Yen coins and why military technology influenced video games. Visitors can also see what physiological effects games have on the body.

In conjunction with Re-Play, the National Film and Television Archive has asked anyone with videogames from the 1970s and '80s to get in touch. They want any relevant information, hardware or games so that they can produce an archive of equipment and a CD-ROM. If you can help, write to Tony Hetherington, Videogame Researcher, British Film Institute, 21 Stephen Street, London, W1P 2LN

DRAWSTUDIO RELEASE

A new drawing and presentation package is due out soon on the Amiga. Written by Graham and Andy Dean and published by LH Publishing, it will be released on both disk and CD. And unusually, it is aimed at both artists and those who can't even draw!

According to LH Publishing, it has features never seen before such as the ability to fill any object with a bitmap fill and also transparent fills whether as single colours, patterns or gradients. Using MUI as its chosen interface, the creators say it will be extremely easy to operate and have concentrated a great deal on providing innovative new features - we'll bring you more details soon.



Walk down the memory lane of computer games at Re-Play

SALE OF AMIGA CONTINUES

The saga continues.... It was hoped that the end would soon be in sight for the sale of Amiga Technologies to VISCORP. However on August 20 it was announced that the trustee for the bankruptcy of ESCOM and Amiga Technologies, Bernard Hembach, had extended the closing date for the purchase.

The reason given was that although the agreement was firm, one of the financial institutions supporting VISCORP wanted more documentation. They stated that the closing date would not be extended further. However, 30 days later, there was still no agreement with Jason Compton, VISCORP's Communications Manager stating that negotiations were still ongoing. We'll keep you posted.....

WORLD CONFERENCE TACKLES NET PAEDOPHILES

Child pornography on the Internet topped the list of issues discussed at the world's first Conference against the Sexual Exploitation of Children. Anti-porn activists are trying to devise ways of preventing anyone from peddling child porn on the Net, following a number of investigations around the world that have uncovered a network for paedophiles on the Net.

Campaigners are concerned that unless urgent action is taken to stamp out the Internet's distribution of child porn, whether it features real children or just computer generated images, it could spark greater demand for child pornography.

ECPAT, the Bangkok-based campaign to End Child Prostitution in Asian Tourism, has prepared a report

for the five-day Stockholm conference that opened on August 27. It claims that the regulation of child pornography on computers presents special challenges and calls on governments to fund better training.

According to the report, if governments fail to prohibit child porn on the Net, computer generated images could well re-establish the commercial trade in child sex, making it more acceptable to society.

ECPAT are calling for the establishment of an international research organisation with specialists in the areas of investigation, law enforcement, behavioural science, prosecution, law and computer technology.

COMBAT 18

It appears that even Aminet is not immune to political propaganda. Combat 18 seem to be on a recruitment drive and are putting adverts out over Aminet.

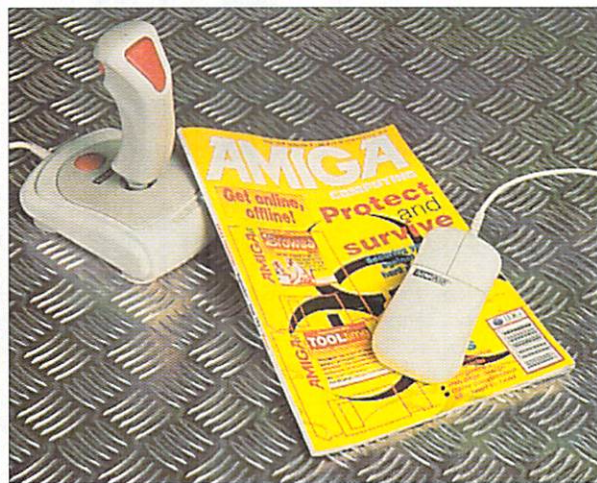
A reader was disturbed to see that when he downloaded an Amiga guide file he was greeted with an appeal from the most extremist far right group operating in Britain.

MORE PD

A new Public Domain house has been set up and offers software from just 99 cents. Amongst the software on offer are Fred Fish, Amos, educational titles and games. For a full catalogue, send \$2.00 to Phillips PD, PO Box 31, Savanna IL, 61074-0031, USA. They have also said that any programmers wanting to submit their PD work to them, can do so and will be included in their catalogue.

CUT PRICE PERIPHERALS

Hong Kong computer peripheral company, TecnoPlus, have set up a UK office. This move means that they can reduce the price of some of their Amiga products such as the three button joystick and a fully microswitched mouse. The joystick will now cost £12.99 which saves you £2 off the old price and you can save £5 off the mouse which is now priced at £9.99.



Just think what you could buy with the money saved...how about another copy of Amiga Computing



NET USERS BEAT POSTAL STRIKES

The Post Office strike proved to be a boon for one sector of British industry - Internet Service Providers.

UUNET Pipex registered a dramatic rise in the use of e-mail during the postal strikes. Pipex are now hoping that the businesses that have got used to using e-mail will realise the potential of the Internet instead of fully reverting to snail-mail.

ONLINE INFO

This year's Online Information exhibition celebrates its 20th anniversary and for the first time, both Labour and Conservative front bench spokespersons will discuss their parties' views on the information industry.

Roger Freeman MP, Chancellor of the Duchy of Lancaster and Minister for Public Service will talk about the Government's vision on how information technology can be used to deliver Government services to the public and business. Geoff Hoon MP, Shadow spokesman on the Information Superhighway and Communications will discuss Labour's views on the DTI's Information Society which is a £35 million scheme set up to help UK businesses exploit IT.

Online Information 96 takes place on December 3 to 5 at the London Olympia.

PAYS TO ADVERTISE

An American guy has come up with an innovative way to use the Amiga and make money. Dwin Craig is buying Amigas and setting them up in shopping malls to display advertising. He uses DPaint IV to generate the adverts and Performer to display them.

He reckons that the advantage of this system is that people's attention is grabbed by scrolling logos and morphing pictures. The Amiga excels at creating these things and has the advantage over video, in that it can be easily edited and doesn't wear out. He has found that local businesses were more than happy to pay for the exposure in these Amiga driven show reels.

GTI CD

GTI have a number of new CDs on offer which include Multimedia Backdrops, a CD-ROM with 100 backgrounds that have been developed for desktop video and multimedia and a title called 3000 JPEG Textures with graphics material from stones to forests.

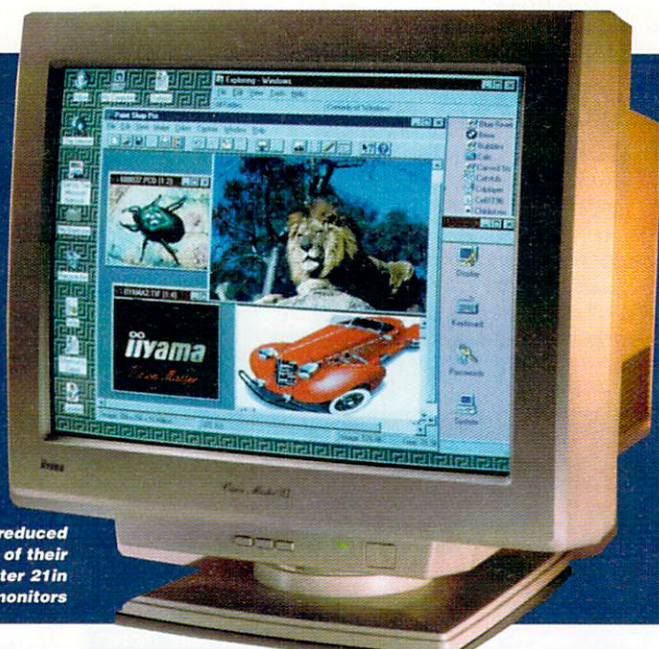
Another called DEM-ROM contains 1,000 digital elevation maps (DEMS) which can be used with World Construction Set, for example to create wonderful still images or flights. The flights could then be loaded into Lightwave 3D to create realistic 3D flights.

GTI are also offering Imagine PD 3D, A CD-ROM that contains thousands of 3D objects including subjects such as computers, ships, sports and music.

MONITOR MADNESS

Iiyama have announced that they have cut the price of their 21in Vision Master colour monitor. They have reduced the Vision Master 21 by 19% to £959 + VAT and the Vision Master Pro 21 by 20% to £999.

Iiyama have reduced the price of their Vision Master 21in monitors



news

By Tina Hackett

SPEEDWAY TO NEWSGROUPS

UK Internet users stand to gain faster, more reliable access to newsgroups with a new satellite broadcasting system due to be launched this October. UUNet Pipex is offering ISPs full access to the contents of thousands of newsgroups via the Eutelsat satellite.

The volume of newsgroup traffic is so great that ISPs have had to offer only a limited selection of groups or install expensive fast links to the Internet to cope with the deluge of information. E-mail and Web access is also slowed down by the volume of newsgroup traffic.

With newsgroup postings beamed to their servers via satellite, however, ISPs land lines will be left free for other traffic. The service will cost around £35,000 a year, far less than a terrestrial line of equivalent capacity, with obvious benefits for smaller ISPs.

SHOOT YOUR PD ARROW

A new incentive has been set up with the aim of showing the big publishers what a strong and loyal user base the Amiga has. Called Arrow-Dynamic, they aim to achieve this through a licenseware scheme which aims to keep the software market alive and attract Amiga programmers who are finding it increasingly difficult to get their work published.

They believe that although shareware is important to the Amiga, the programmers don't get all they are

entitled to. With licenseware however, the distributor gets cash in order to advertise and promote titles and authors get their incentive to carry on programming.

To get the ball rolling, Arrow PD have set up a competition for programmers to send in their efforts with prizes up for grabs for three of the best. The closing date is March 31, 1997 so get in touch with Arrow on 01304 832344 for more details.

GOLDEN DRIVES

Golden Image have announced a CD-ROM Drive for all Amigas. Following on from the success of their quad speed drive, they have now launched an eight speed which is available for £189 for the A1200/600 and £149 for the A1500/2000/4000 - these prices include the IDE interface and AT-Bus 2008

The drives feature fully PhotoCD compatibility and software such as CD32 emulation, Music CD player and automatic installation. They connect either through the Internal IDE port or through the PCMCIA slot and include a stereo headphone jack with all the cables to connect to your Amiga and speakers.

RIVAL DRIVES

A Californian company called Diba have announced that they are producing set-top boxes that will allow users to surf the web with their TV sets. This could be a potential rival to ViScorp's similar plans. Diba have been looking for partnerships in the UK and have already contacted UUNET Pipex and British Telecom. They plan to have their Set-tops on the market for Spring and could possibly retail at £300 (£200 for a phone version). Your move, ViScorp.... Jason Compton for ViScorp commented, "Without knowing anything about their box I can't say how it will compete from a capability standpoint. ViScorp's strategy is to both sell its set-top boxes commercially and directly to cable companies....and to that end, we've had discussions with cable and telecom companies world wide.. Time will tell where the ViScorp boxes first make their mark but public launch is scheduled for January y.

ANIMATION TIME

The London Effects and Animation Festival and Digital Media World Exhibition is set to take place at Wembley on November. 19 to 21. Digital Media World has been organised in conjunction with ACM and is Europe's premiere exhibition of digital technology for professionals. Sponsored by Walt Disney Feature Animation, the Effects and Animation Festival includes presentations from creative professionals from all over the world. Exhibitors include Macromedia, Silicon Graphics, Newtek and Alias/Wavefront.

Europe's biggest show of digital technology for professionals takes place at Olympia



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If the title you want is not available give Bruce Smith Books a call and they will print and despatch your order. They can be contacted on 01923 894355. Their current titles are Total! Amiga ARexx, priced at £21.95 and Total! Psion which is £17.95.



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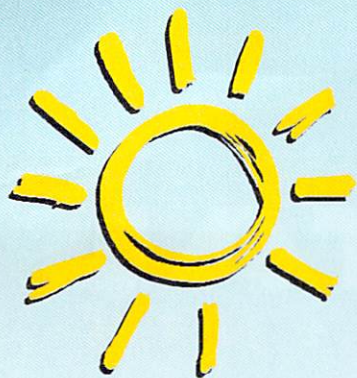
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VIScorp must Wait

On September 18, VIScorp notified the Amiga community that the purchase of the Amiga technology had not been completed, but was expected to be concluded shortly. No dates were given as to when exactly this would occur, but reassurances were given that talks were still open between VIScorp and Escom AG. As of the writing of this article, no further news has been released.

AMIGA REZONED

The Amiga Zone, an online Amiga community and resource that was founded in 1985, will be leaving Portal on September 30 after five years of residing at that location. The new site for The Amiga Zone will be on CalWeb Internet beginning in October 1996. It now can be reached at www.amigazone.com.

This change of location is in response to the recent announcement that Portal intends to drop all Internet services. The Amiga Zone has arranged for free sign-up for all former and new users, who are urged to sign up at the new location. To receive this free sign-up, call 916-641-9320 and state that the Amiga Zone sent

you. CalWeb has no hourly charge for those who telnet in. In other Amiga Zone news, one copy of Termite TCP will be given out each Sunday night at the weekly Amiga Zone contest until all the donated copies have been given away. In order to participate in the contest, you must be present at the time of the contest at the evening chat, and you must be a subscriber to the service that it is located on. (Portal until September 30, CalWeb thereafter).

These copies were given to the Amiga Zone by Bob Luneski of Oregon Research. Other donations are appreciated, and will be given out in the same manner.



The Amiga Zone has been serving the Amiga community since 1985

TIME CUTS

Cronus announced price cuts on new and old software. New releases, such as AT Developer CD, Amiga Repair Kit, OctaMED Soundstudio, Print Studio Pro, and Amiga CD Sensation have been discounted 20 to 30%. Older titles that are still in demand such as Aminet, Goldfish, Eric Schwartz Productions, Turbo Calc and others have been reduced in price by 20% to 50% off of suggested retail prices. For more information, send e-mail to

info@ninemoons.com.

Cronus also is the site of LoveBytes, a dating service that uses a collection of personal advertisements and photographs to attempt to help people meet others. Cronus will scan your picture for free. There are also search routines to help in the browsing effort. Many different lifestyles are supported by this service. This service is free to both respondents and personal advertisers.

EMPLANT UPDATES

Jim Drew has announced that he no longer works for Utilities Unlimited, maker of the Emplant Macintosh hardware/software emulator. This follows a file for bankruptcy by Utilities Unlimited International, Incorporated.

Jim Drew stated that he was not responsible for any false advertisements or vaporware, citing that he was following orders from the company owners. Due to the bankruptcy, the warranty on any Utilities Unlimited product is void.

He did receive from the former Utilities Unlimited, the copyrights to all products. Therefore, along with former co-worker Joe Fenton, he is launching a new company, Persistence Software. Now that he is no longer held captive by his former

employers, Jim feels he will be able to be more honest in this company about what is and is not complete.

A planned release under the new company is a new 80x86 PC emulator for the Amiga computer, called PCx. It will encompass the Pentium and 686 instruction sets, and will be roughly three times faster than version 2.3 of e586DX (The Utilities Unlimited PC emulator for the Emplant) under protected mode, and 50% faster under DOS.

The demo version of PCx will not allow you to write to floppies, will only allow you 8Mb of hard disk space, no sound support, and a few other limitations. The full version will require a machine running under a 68020 or faster, will have

VGA and graphics card support, Sound Blaster mono sound (stereo may be added at a later date), CD-ROM support, and other features.

This emulator is software only, and will retail for \$59.95US, or £49.95UK/Europe.

This price includes a licensed copy of American Megatrend's AMIBIOS. Owners of the Emplant e586DX may send in their original floppy for 1/2 off the retail price.

UK-based Blittersoft will be handling world-wide distribution of all Persistence Software products, as well as helping in their technical support.

Persistence Software is based at an unstated site in the US, but is unrelated to the California-based company of the same name..



by Katherine Nelson

BOOM SOON

clickBOOM announced that Capital Punishment will not be released as planned on Friday, September 13. The reason behind the delay was given as the need for perfection in every aspect of the product. Capital Punishment will be released as soon as possible, when the completed product, including manuals and boxes, is up to the standards of clickBOOM.

CONTACT POINT

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312-655-0903 phone
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jcompton@xnet.com
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clickBOOM

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M3J 2G4 Toronto Canada
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The Amiga Zone

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CalWeb
916-641-9320 voice

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LoveBytes

(same address as Cronus)
800-804-0833 phone
lovebytes@ninemoons.com
<http://www.ninemoons.com/LoveBytes/>

Jim Drew

Persistence Software
jimdrew@lnknet.com
Blittersoft
bsoft@wildnet.co.uk

HAVING PROBLEMS

If you have any problems with this month's cover disks, try booting your machine with the first cover disk, this guarantees everything is set correctly.

Before you even think of putting the cover disks any where near your computer make sure you write protect them. To do this move the black tab in the top corner of the disk, so you can see through the hole. Doing this makes sure the disks cannot be damaged in any way. There is no reason why the cover disks need to be written to, so even if the computer asks you to write enable the disks, don't do it.

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. Normally most programs will need further installing, so read the documents on how to do this.

HARD DRIVE USERS

Hard drive users do not have to boot with the first disk, but you must make sure you have the Amiga's *Installer* program in your C drawer. To make sure your hard drive has the correct files in place double click on the *Set-upHD* icon. This will check if you have the *Installer* program and if not, will copy it across - do not worry as it won't write over any existing files.

INSTALLING PHOTOGENICS

Photogenics comes on two disks, both are compressed using DMS. To create the main Photogenics disk, start your machine with the first cover disk in your floppy drive. Once Workbench has loaded double click on the AC disk icon and again double click on the Photogenics icon. A window will appear asking if you are sure you want to continue, before pressing 'Y', make sure you have a blank disk to hand. When DMS asks for the disk, put it in the internal disk drive and hit return. Once finished you can boot your machine with the Photogenics disk and away you go

HARD DRIVE USERS

Readers with hard drives have to install Photogenics on to the hard drive. The installer is on the second Photogenics disk, to create this insert the second cover disk double click on the AC icon and double click again on the Photogenics icon. A window will now appear asking if you are sure you want to continue, before pressing 'Y', make sure you have a blank disk to hand. When DMS asks for the disk, put it in the internal disk drive and hit return.

If you have already created the first Photogenics disk you can now open up the second Photogenics disk and double click the install icon to copy Photogenics to your hard drive. You will also have the added bonus of a selection of colour fonts and a full set of tutorial files to get your teeth into.

REGISTRATION NUMBER

When you first run Photogenics it will ask you for a registration number, this is it.

309851220



Amiga Computing exclusively presents
the full version of Photogenics 1.2a

PHOTOGENICS

Author: Almathera
Workbench 3.0

It has been rated time and time again as the Amiga's top art package by every Amiga magazine, and even managed to score an amazing 10 out-of 10 in this very magazine when it was first released. Amiga Computing and Almathera now give you the full version of that top scoring program, **Photogenics 1.2a** with this month's Amiga Computing.

Photogenics is a true 24 bit art package with all operations applied in true 24 bit, yet it will work comfortably on a 4Mb machine. A unique feature of Photogenics is Paintlayer, this can be thought of as a pane of glass above of your current image. It allows you to paint onto the Paintlayer as much as you like and erase any

mistakes, without affecting the actual image. When completely happy you can fix the changes that are on the Paintlayer to the actual image and carry on with a fresh new Paintlayer.

This provides a different way of working with images than DPaint or Brilliance offer, where any changes you make directly affect the image.

The Paintlayer allows you to paint on colour or effects and then rub out part or all of what you have done, leaving the image unchanged. I can try to explain 'how the Paintlayer works until I am blue in the face, but the best way to learn is try it out, so what are you waiting for? Go on then, load it up



TOOLBOX

Colour – The current paint colour, click this to get the colour picker

Dotted Freehand – Draws single dots with the left mouse button, remove with the right button

Continuous Freehand – Draw a single line following the path of the mouse

Line – Allows you to draw a straight line selected with a rubber band

Fill Freehand – Mark out a fill area with the mouse

Curved Line – Draw a spline through three points marked out with the mouse

Fill – Fill an area of the image, click twice to change tolerance levels

Rectangle – Draws a rectangle marked out with the mouse, click again to choose filled rectangle

Polygon – Draws a polygon marked out with the left mouse button, the final point is selected with the right button, click twice to choose a filled polygon

Circle – Draws a circle, click twice to choose a filled circle

Ellipse – Draws an ellipse, click again to choose filled ellipse
Zoom – Select the zoom centre and the adjust the zoom level zoom out – Return to 100% magnification

Cut – Cut out part of the current image to use as a separate image, click again to choose free-hand cut

Colour Picker – Select a particular colour from an image

Smear – Allows you to smear pixels using the current brush. This works directly on the 24 bit data and not the Paintlayer so once applied cannot be rubbed out

Warp – Deforms an area of the image, click again to change the warp settings

Mode – Brings the paint/effects mode window to the front

Mode options – Pops the paint/effects mode options window to the front

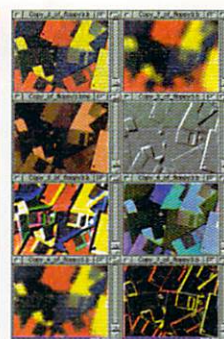
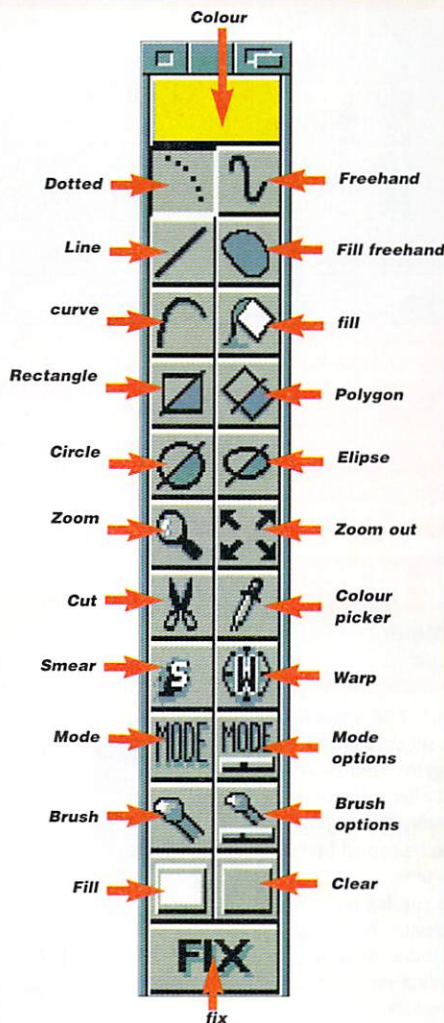
Brushes – Brings the brush selection window to the front

Brush options – Pops the brush options window to the front

Fill paint layer – Completely fills the paint layer with the current selected paint effect

Clear paint layer – Removing everything in the current paint layer

Fix – Fix the current changes in the paint layer to the image



Just a small selection of the huge number of effects available in Photogenics



DAMN, I'M GOOD

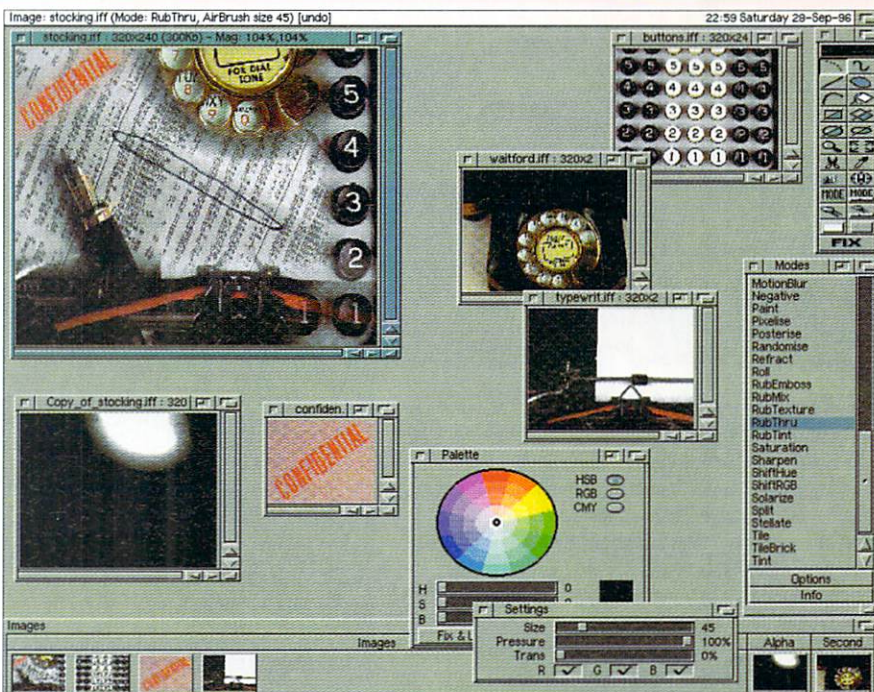
OK, just ignore for the moment that Photogenics gives you over 50 drawing effects, high speed AGA and ECS displays, direct support for CyberGraphX and has 15 different load and save modules. You may also notice one of Photogenics' most powerful feature is its alpha channel.

Alpha channels are nothing new they can be used with ImageFX and ImageEnginner, but nothing makes them as easy to use as Photogenics. Thanks to its multi-window design that also lets you have as many images loaded as memory allows, and with the ability to paint onto all of them, combining images has never been so easy or as quick to do.

To try out alpha channels load an image and select a new black page from the Project menu. In the new black page draw a white circle of any size, select fix and drag the image's icon to the alpha box in the image window at the bottom of the screen. If you now try drawing on the original picture all the corresponding black areas on the alpha image are protected, while you can paint on the areas marked with white.

Alpha channels do not just have to be black or white areas, if you perform a simple blur on the circle alpha channel, found in the Image menu, set to about 5 pixels you will see that the grey areas let you blend the original image with the paint layer.

This ability together with a second image used in Photogenics secondary buffer lets you simply combine two images together. Using the alpha channel to protect areas on the original image, while smoothly merging the areas you want on the second image gives impressive results.

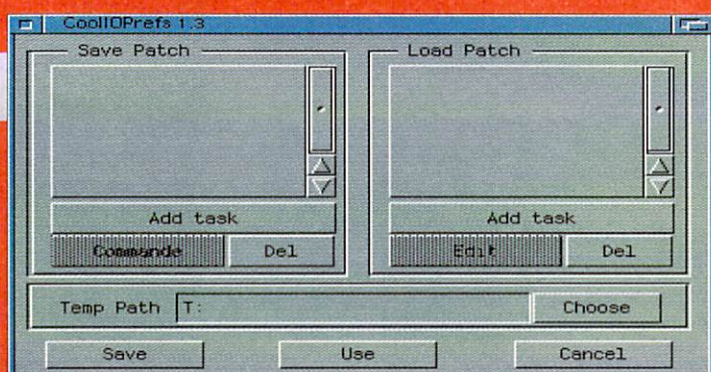


Once I had found all the relative images, the final image took about 15 minutes to produce with me painting the alpha channels for each combination step

COOLIO

Author: Rodrigo Reyes
Workbench 3.0

From the simple preference you can make a program load any type of image format



Wouldn't it be just lovely if you could load and save any picture or file type with any program you are using? Dream no more as CoolIO lets you do exactly that.

Using data type to convert loaded files to IFF-ILBMs and external converter programs to change saved files to whatever you want, CoolIO is

very flexible.

To install CoolIO copy the preference program to your Prefs drawer and copy the program to your WBStartup drawer. Using the preference program you can add new program tasks to the load and save list. On the save list you will need to set up an external program to do the converting.

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.

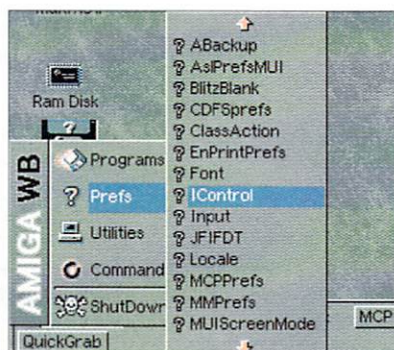
Please allow 28 days for delivery

RUNBAR

Workbench 3.0
Magic User Interface

Well they keep coming out and I keep putting them on the cover disk. Yes, its another copy of Window 95's start bar. This one is a little bit different, as the start bar that pops up at the bottom of the screen gives you a quick link to any of the currently running commodities.

The pop up menu will then give you links to all the currently installed preference programs and any extra utilities you may want to add.



Attractive icons and a simple commodity short cut makes RunBar handy to use

HAPPYENV

Author: Martin Gierch
Workbench 2.04

With the arrival of Workbench 2.04 a whole new preference system was set up, using the ENV directory to store program settings. At the start this works well but after some time your ENV drawer will probably be bulging, and as all these files have to be copied from your hard drive it also takes time.

HappyENV gets rid of this copying process by implementing an ENV device. To set up your machine, copy the handler to your L directory and using a text editor remove the ENV assign and the ENV directories from the MakeDir command then insert the C:MountENV command. Once this is all done restart your machine.

DISK 2

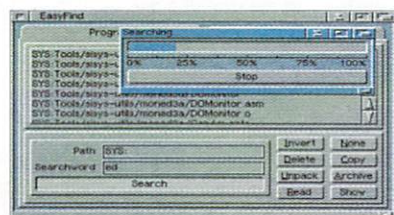


Never lose a file again, as EasyFind will hunt it down for you

EASYFIND

Workbench 3.0
Magic User Interface

Anyone who has used the Find utility on the new Mac System 7.5 will know how it allows you to quickly hunt down a file and either view it or run the program once you have located it. EasyFind gives you a powerful search system that once finished lets you view or launch the found files.



MUI-ASL

Author: Flavio Stanchina
Workbench 3.0 Magic User Interface

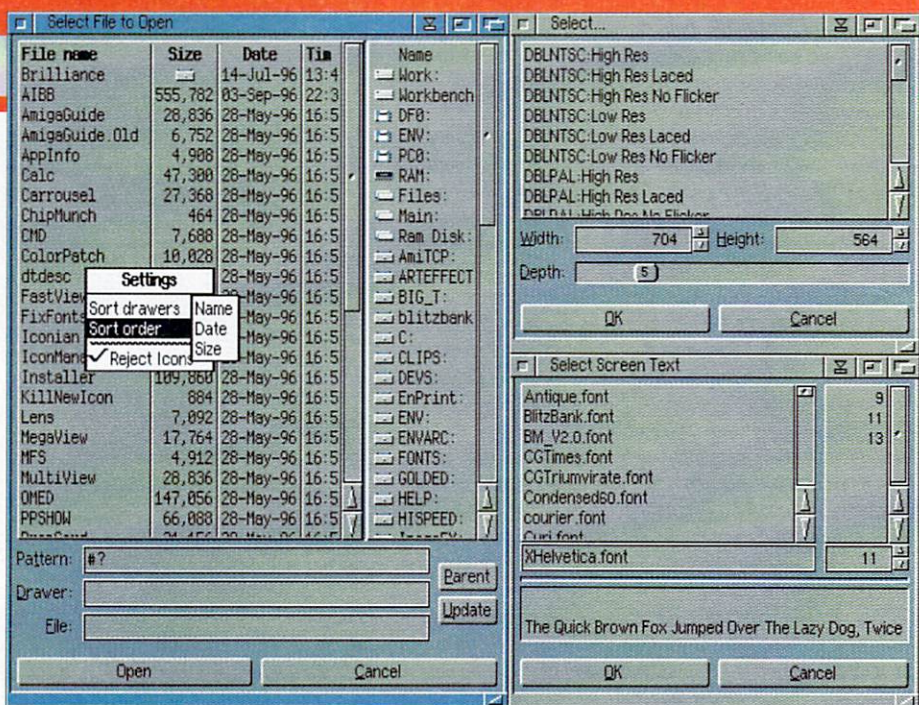


To use the following program you need to have the Magic User Interface installed on your system. Without it you will not be able to run any MUI program. MUI is available from any good PD house.

This program is really going to get up the nose of any MUI hatters out there as it is a direct replacement for one of the main Amiga libraries, the ASL library.

What you get is not just a simple replacement but a much more advanced file requester. Anyone who has seen MagicFileRequester will know the benefits this MUI replacement holds. Not only are all the current volumes always at hand but you have more power over the files in the requester and more flexibility.

The installer simply copies over the existing ASL library but does rename your current one to ASL.library.orig just in case you want to go back to it at some time in the future.



You get a far more advanced file requester, all thanks to MUI

Photogenics

MANUAL OFFER - PHOTOGENICS 1.2

To get the best out of your free Photogenics 1.2a cover disk, you'll want the 130pp manual giving you tutorials and full references to the program. You get the manual plus a free disk of plug ins and files to use with Photogenics 1.2a

PRICE:

UK residents £19.95
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We were promised so much with Mpeg – easily accessible video from compact disk and abundant FMV for all – but with the demise of Commodore only a small number of Mpeg modules ever made it out for the CD32. And the CD32 player for the A1200 never made it and never looked like it would sport an Mpeg decoder. So only Amiga owners with deep enough pockets and a big box Amiga were able to access Mpeg videos using Scala's decoder.

If you thought it would never be possible to view a VideoCD, HiSoft, well known for its innovative Amiga peripherals, has come up with an extremely neat way of allowing you to do so.

The SquirrelMPEG, now known by the much catchier SMD-100, is a small black box that attaches to your SCSI chain. Place a VideoCD in a dual-speed or better SCSI CD-ROM and hit play, and the SMD-100 will spool the Mpeg code off the CD and squirt a TV signal out of the Scart socket at the back of the box.

The whole package is neatly put together. The SMD *player* can handle both PAL and NTSC format VideoCDs and can output both PAL and NTSC video signals with the signal being automatically adjusted to suit the CD format and video output. At the back of the box is a single Scart socket which connects it to your video or TV. Depending on your TV, the SMD can output plain old composite as standard, RGB or SVideo.

CYCLING

By default composite is always used but by pressing *play* once the video is started you can cycle through the different outputs and so take advantage of the 24-bit quality RGB output. Thanks to the addition of a 9-pin D-plug socket it is also possible to hook up a Genlock and superimpose graphics over the video. This mode is again selected by pressing *play* once the video is selected.

Control for the box is via a small remote control pad. All the added bonuses of VideoCD are catered for so you can instantly jump to any one of the pre-set locations on the video from the numeric pad. You also have multiple speed of slow motion and fast forward/rewind, along with the rock-solid freeze frame and an eject CD button.

To attach the SMD to the SCSI chain two standard 50-pin Centronics-style connectors are situated at the back of the box along with four dip switches to select a SCSI ID and internal termination.

To use the SMD you do not need a SCSI interface or even a computer – just a dual-speed SCSI CD-ROM and the leads to hook everything up. The unit can quite happily talk to the CD-ROM all on its own. I can testify to this, having just watched the VideoCD of *Airplane* on my TV without a single computer in sight – if you don't count the Playstation.

Quality of VideoCDs is always going to be an issue but generally it is better than traditional video tape and the 16-bit sound output is far superior. Problems with Mpeg videos occur when there is either a lot

Neil Mohr

jumps at the

opportunity to slump down and relax in front of the TV – all in the name of a review

"The unit can quite happily talk to the CD-ROM all on its own. I can testify to this, having just watched the VideoCD of Airplane on my TV without a single computer in sight – if you don't count the Playstation"

detail and movement in a scene which results in *blocking* being apparent. Pausing the video while someone is walking across the screen it becomes obvious that the image is made up of small blocks. The same effect can be seen in Jpeg pictures that have been compressed at low quality.

Currently there is no software to backup the SMD-100, such as that to control playback from Workbench, but really this is unnecessary as it would be simpler to use the remote.

HiSoft is also still considering whether to implement software that allows you to spool VideoCD off a hard drive, although this would only really be of use to people doing presentations or kiosk work. The company is interested in hearing from anyone who could make use of this facility.

Make sure you get the correct cables for your TV depending on whether it accepts

only composite input or has a Scart or SVideo socket. If you want a VideoCD player there's nothing better than the SMD-100. With a free copy of *Four Weddings and a Funeral*, the only bad thing about it is that it's another remote control to lose down the back of the sofa.

AC

Bottom line

REQUIREMENTS

RED essential **BLACK recommended**



Dual speed SCSI CD-ROM



Cables



28" Surround sound Scart TV

PRODUCT DETAILS

Product	SMD-100
Supplier	HiSoft
Price	£199.95
Tel	01525 718 181
E-Mail	sales@hisoft.co.uk WWW: http://www.hisoft.co.uk

SCORES

Ease of use	98%
Implementation	95%
Value For Money	80%
Overall	92%

Only last month I was taking a look at the fairly impressive Miami, and now look what's dropped into the office – TermiteTCP from the makers of the renown comms program Termite.

TermiteTCP is meant to be one of these new age TCP/IP stacks that are nice and easy to set up, and that's a fair enough claim for this particular product. Once installed – a very straightforward process using the normal Amiga installer – you are left with the single TermiteTCP drawer in which you have the TermiteTCP program.

Assuming you have your modem hooked up and you know the basic details of your Internet account, you can be connected to your IP in a few minutes. The basics are your account name, password, e-mail address, domain, ISP's phone number and your ISP IP address – basically, all the information you should have when you get an Internet account.

Just tap the details into the two configuration windows and then select Record Login. This dials your ISP and allows you to type in your login name and password. If your account can use either PPP or SLIP, such as Demon accounts, the protocol in this case is PPP. Once done you double-check the dial sequence and save the configuration off. Hitting the Connect button will do what it says and get you connected.

LESS FRIENDLY

Termite differs from Miami – which has its own separate configuration program – in that it needs similar information but goes about getting it off you in a less friendly manner. Miami also has that big list of modems which guarantees that yours will work first time; with TermiteTCP you have to make do with the preset generic modem Init string. This should be fine for all recent modems, and I had no problems with any of the modems in the office, but if you do have problems you will have to indulge in playing with those obscure Hayes commands.

It is nice to see that people pay attention to how programs work on other machines, as

The tiny frontend hides away the neat configuration windows that let you easily set up TermiteTCP

Can the Amiga world take another TCP/IP stack? **Neil Mohr** dives into the heady world of the Internet thanks to **TermiteTCP**

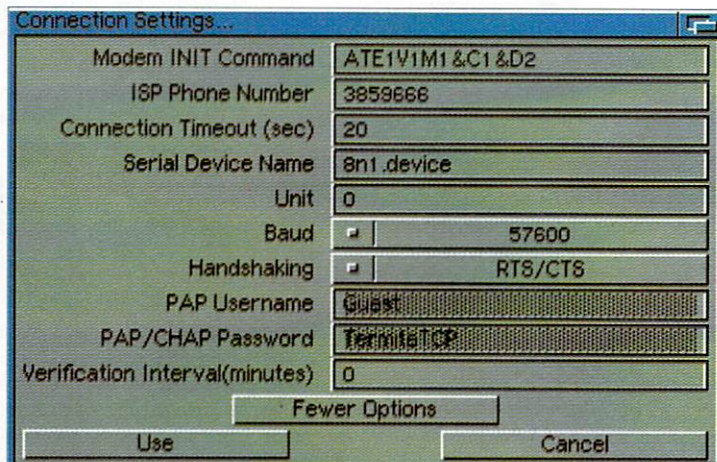
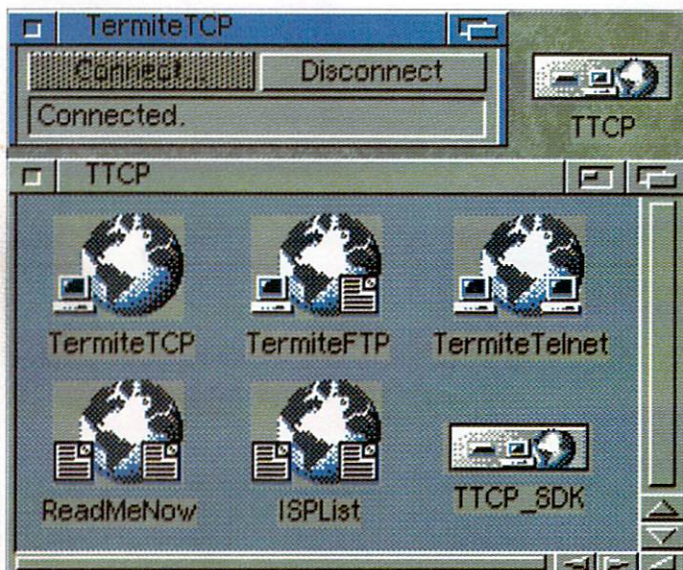
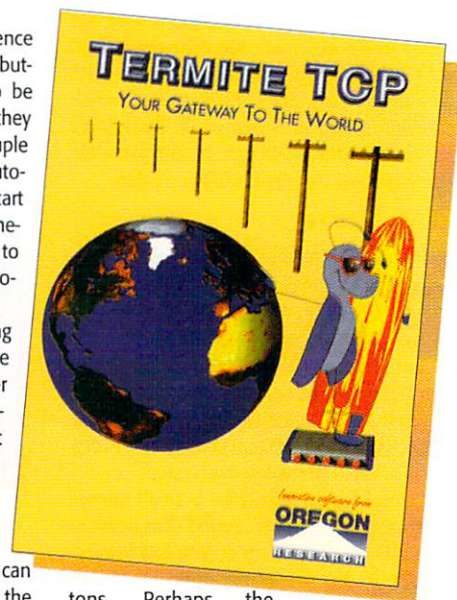
My mate Termite

both the connection and network preference windows sport 'more' and 'less' option buttons. These allow unessential options to be hidden from novice users, making sure they do not get confused. There are also a couple of tool types that can make TermiteTCP automatically connect when it is run, and start iconised to help speed connection – something that would be a welcome addition to Miami. I also prefer TermiteTCP's small, two-button interface.

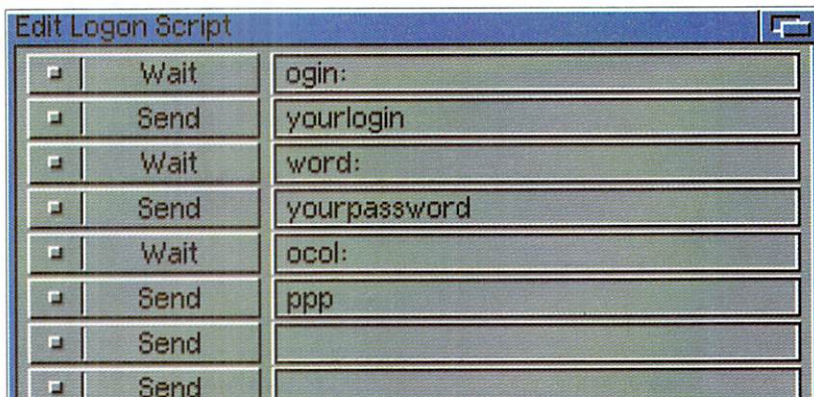
An annoying problem when connecting to your ISP is that once you have hit the connect button you have no control over TermiteTCP until the program finally connects or decides it cannot connect or set the modem. Compared with Miami, this is not very friendly. If you are a Demon user you will know that unless you connect before the second ring you won't connect at all. With Miami, if you hear two rings you can simply either hit the F4 or F5 key to cancel the dialling and try again – it would be nice to have at least a cancel button, instead of just leaving you there staring stupidly at two ghosted out but-

tons. Perhaps the Connect button changing to a cancel button while dialling would be a solution?

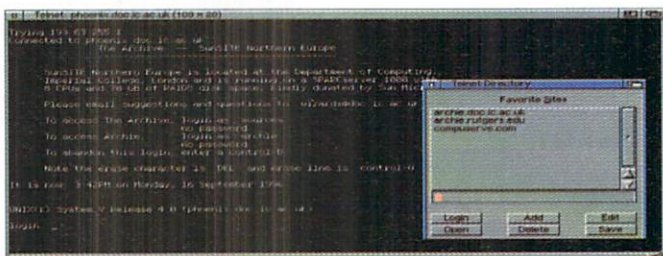
TermiteTCP has the same problem as Miami in that if you have an Internet account that



All the modem details are set through the connection window



Making life easier, TermiteTCP will automatically create the login script



Telnet gives you access to other machines all over the world

"The saving grace for TermiteTCP is that it uses less than half a meg, fits on a single floppy and makes Internet connection on a 2Mb machine – an A1200 for example – a real possibility"

enough, but it would have been nice to supply replacements for these commands as well.

A part of the Internet that seems to be used more by programmers is Telnet, one of the oldest services available on the Internet. Generally it allows you to connect to another computer and use resources on it. So, from a small home computer you can access all the power of a super computer, as long as you have a shell account. There are also a number of freely

JARGON BOX

ISP - Internet Service Provider – the people, such as Demon or AOL, who maintain your Internet account. To use TermiteTCP you need a PPP Account with your ISP

PPP - Point to Point Protocol – a standard that defines how two computers can communicate with each other over a serial link. This replaces the older SLIP protocol and is marginally more efficient

TCP - The most common transport layer protocol used on Ethernet and the Internet. It was developed by DARPA. TCP is built on top of Internet Protocol (IP) and is nearly always seen in the combination TCP/IP (TCP over IP). It adds reliable communication, flow-control, multiplexing and connection-oriented communication. It provides full-duplex, process-to-process connections.

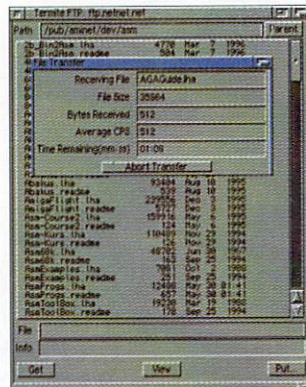
MEMORY CONSUMPTION

Memory-wise there initially seems to be quite a big difference between Miami and the other two TCP/IP stacks, but once MUI is loaded, either just left resident in memory or there through loading iBrowse, these differences are reduced somewhat. This shows that people running on a tight memory allowance will really have to hunt out none MUI products to get the most out of TermiteTCP.

TCP/IP stack	Termite	Miami	AmiTCP
basic	340k	995k	170k
on-line	410k	1155k	350k
newsagent	940k	1685k	895k
+ MUI	1135k	1322k	1139k
iBrowse	1950k	2190k	2015k

FTP'ING AROUND

One of two extra TCP programs that come with TermiteTCP is the imaginatively entitled TermiteFTP. This is a pretty straightforward FTP client which, as you would expect, will let you access any FTP server on the Internet. The program itself is a tiny 80k and so will suit people running 2Mb machines, but anyone with more memory will probably want to get hold of a more advanced client, probably AmFTP if you are a MUI lover.



A little basic, but easy to use, TermiteFTP gives you everything you need to get files off the Internet

available services, such as archie and IRC connection using Telnet.

Overall there is nothing wrong with TermiteTCP, but on the other hand there is nothing startling. If it had come out one or two years ago there would have been nothing like it around, but with Miami out there already at half the price! – and with the next release of AmiTCP set to have a simple frontend, there is nothing particularly outstanding.

The saving grace for TermiteTCP is that it uses less than half a meg, fits on a single floppy and makes Internet connection on a 2Mb machine – an A1200 for example – a real possibility. The inclusion of the small and fully featured FTP and Telnet programs does help, but where are the IRC client, the news reader, the mail program and the Web browser? All these are extras to be paid for on top of the 60 quid you have already spent.

Bottom line

REQUIREMENTS

RED essential	BLACK recommended
2.04 Kickstart	Modem
4 Mb RAM	ppp internet account

PRODUCT DETAILS

Product	TermiteTCP
Supplier	HiSoft
Price	£59.95
Tel	01625 878888
E-Mail	sales@hisoft.co.uk WWW: www.hisoft.co.uk

SCORES

Ease of use	90%
Implementation	85%
Value For Money	80%
Overall	83%

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 The American Institute of Aeronautics and Astronautics
 August 96

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A small advertisement for 'E-Paint' featuring a space helmet and a banana on a field of colorful pixels.

CHIARI OFFICE - 1995



With the T-630 fitted, a standard A1200 pales in comparison

Fast

and furious

Well, I never thought I would see the day when an A600 was running faster than the office A1200, but lo and behold it's arrived! And it's all thanks to a new board from German manufacturer M-TEC.

Getting on for a year ago I took a look at the Apollo 620 – a 68020 accelerator for the Amiga 600. The board itself had everything you would want (Simm socket and an included FPU), but the way it was attached to the A600 was very suspect.

The T-630 is faced with similar problems, as the only way you can add an accelerator to an A600 is by plugging it directly over the original 68000 processor. The Apollo board did not make a very good job of this, but the T-630 has a much better socket that fits the processor perfectly, even though you shouldn't shake your A600 too much once it is fitted.

Fitting the board is not too tricky, but it's a little time consuming – you have to remove the A600's casing and also the top of the shield.

BENCHMARKS

Along with the standard SysInfo speed test it is always handy to look at the wider range of tests that AIBB provides. All tests are compared with a standard A1200, and the A4000 had its maths co-processor disabled.

Test	T630	A600	A4000
EmuTest	5.05	0.55	9.19
WritePixel	0.71	0.33	5.11
Dhrystone	4.99	0.5	9.55
InstTest	5.67	0.57	5.73
FTrace	4.53	0.47	7.31
BeachBall	4.14	0.39	7.25
MemCheck	4.62	0.36	1.27

If you thought an **A600** would never give an **A1200** a run for its money, think again

Once done you just 'plug' the board into place. Once everything was back in place the A600 powered up first time and Workbench booted with no problem at all. The difference in speed is quiet startling, and you'll wonder how you ever put up with such a slow machine.

DILEMMA

The standard unit is available with either a 25 or 40MHz 030 processor, and it can come fitted with either 4 or 8Mb of RAM. The board can also take a PGA-type 68882 FPU if you think you need one.

The dilemma for an A600 owner is whether they should get this accelerator or go for an A1200. An A600 fitted out with a T630 and a hard drive would be quite a good machine, with the only limitations being the available display modes. The trade off will be cost. If you

already have an A600 with a hard drive, this can be used in an A1200. So do you go for the accelerator or the computer?

Bottom line

REQUIREMENTS

RED essential **BLACK recommended**



PRODUCT DETAILS

Product	M-Tec T-630
Supplier	M-TEC
Price	T-630 25Mhz 4Mb - £143 T-630 40Mhz 4Mb - £184 8Mb Upgrade - £21 Shipping - £9.23
Tel	+49 (0)2041 46 56

SCORES

Ease of use	79%
Implementation	79%
Value For Money	??%
Overall	80%

JARGON BOX

FPU - Additional hardware to perform functions on floating-point numbers such as addition, multiplication, logarithms, exponentials, trigonometric functions and various kinds of rounding and error detection. A floating-point accelerator often functions as a co-processor to the CPU

68030 - A microprocessor from Motorola. It was the successor to the Motorola 68020 and was followed by the Motorola 68040. The 68030 has on-chip instruction and data caches. It also has an on-chip MMU, except in the 680EC30 version

Benchmark - A standard program or set of programs which can be run on different computers to give an accurate measure of their performance

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As always, Eyetech is maintaining its pledge to support the Amiga with a continuing stream of new products. Here we take a look at its latest range of CD-ROM drives – the CD Plus. The first thing to mention is that, unlike most CD drives, the products in this range comes with their own internal power supply which can be used to power an additional IDE hard drive or a removable cartridge. They are IDE/ATAPI drives and have an extended IDE buffered interface board which will support up to four IDE/ATAPI devices.

Eyetech is offering CD Plus as either a four-speed or eight-speed drive, both of which include the multi-drive supporting power supply, four-device EIDE interface board and all cables. They are priced at £149.95 (inc VAT) and £199.95 respectively. So they're not bad value at all, but how do they rate for quality?

COST CUTTING

Eyetech claims it has not been tempted to cut costs by using the original SCSI connectors normally fitted to external CD-ROM enclosures. Instead, it has had the connector changed to stop anyone damaging its computers by trying out a SCSI peripheral. This also has the advantage that if different length IDE cables are needed, they can be obtained more cheaply and easily than SCSI cables.

The drive connects to the Amiga through the four-device EIDE interface, which then connects to the Amiga's internal IDE port. The hard drive, if fitted, connects to the interface board along with data cable to the CD-ROM. The data cable comes out of the join between the two halves of the Amiga's case, which means that

the CD-ROM can be placed conveniently on the left-hand side of the computer so that it doesn't obstruct the floppy drive. Depending on whether you have a 2.5" or 3.5" internal hard drive (or none at all), you can order your CD Plus to be configured accordingly.

So far, this is all well and good. But unfortunately, when we got down to the practicalities of actually setting the drive up, it was rather fiddly and it proved quite hard to follow what to do. Eyetech is only a phone call away, however, and will offer help before you start. Once connected, the installation software included is easy enough to set up. Included are PD/shareware versions of a CD-ROM filesystem and an ATAPI device driver – this can be upgraded (for a small fee) to the full version, which includes a CD32 emulator, Audio CD Players, on-screen CD ejector, and software support for two hard drives and two ATAPI devices.

When you get up and running, the drive itself works nicely. It features a smooth yet sturdy tray loading mechanism, and the drive itself seems robust. Situated at the

OPTIONAL EXTRAS

The CD Plus is designed to be a CD-ROM and Storage Subsystem. The drive is housed in a CE-certified case with a 40 watt (60 watt peak) power supply. This means you can run an additional IDE hard drive or a SyQuest, Zip or Jaz drive from it. It will also run the new ATAPI tape streamers. Eyetech has a range of external drive cases and power/data cables available with which to connect hardware straight to the CD-Plus.

front are the headphone socket and volume control, as well as power and drive lights. Unfortunately, both lights are tiny and you actually have to look closely to see what they're doing.

Overall, the main advantage of the CD Plus range is its flexibility – the fact that it has a built-in power supply means you are able to run extra hardware from it and it doesn't interfere with the PCMCIA, memory upgrades or any accelerators. Although the CD Plus is extremely fiddly to set up, both the eight-speed and four-speed drives provide flexibility and good value for money.

AC

CD power

Amiga Computing puts
Eyetech's new CD-ROM
drives under the spotlight

Bottom line

REQUIREMENTS

RED essential | **BLACK** recommended

A1200/
A600

PRODUCT DETAILS

Product	CD Plus
Supplier	Eyetech
Price	Four-Speed - £149.95, Eight-Speed £199.95
Tel	01642 713185

SCORES

Ease of use	80%
Implementation	65%
Value For Money	91%
Overall	90%

Modem configure:

Max: 2400 Min: 1200

Options:

Setup: ATZ^M^~AT&D2S2=1S0=2^M

300: CONNECT^M^J

600: CONNECT 600^M^J

1200: CONNECT 1200^M^J

2400: CONNECT 2400

4800: CONNECT 4800

9600: CONNECT 9600

12000: CONNECT 12000

14400: CONNECT 14400

19200: CONNECT 19200

38400: CONNECT 38400

Busy: BUSY^M^J

No DT: NO DIALTONE^M^J

Serial unit #: 0

Device name: serial.device

Snd setup

Modem configure:

Max: 38400 Min: 300

Options:

Setup: ATZ^M^~AT&D2S2=1S0=1M^M

300: CONNECT^M^J

600: CONNECT 600^M^J

1200: CONNECT 1200^M^J

2400: CONNECT 2400

4800: CONNECT 4800

9600: CONNECT 9600

12000: CONNECT 12000

14400: CONNECT 14400

19200: CONNECT 19200

38400: CONNECT 38400

Busy: BUSY^M^J

No DT: NO DIALTONE^M^J

Serial unit #: 0

Device name: serial.device

Snd setup

A change to the defaults often beats the login blues. On the left the defaults causing misery, on the right the light

The Modem Configure screen grab is the place to start before a mate tests your BBS.

The five Options flags commonly bring grief when going on-line for the first time. If people aren't connecting properly, try the Options ticked like in the grab. The 300 (bits per second) in the Min field is the minimum speed a user can connect.

ATZ^M^~AT&D2S2=1S0=1M^M

This Setup string works fine with my Supra Fax 14.4k LC modem. In the case of it not working with some models, we're asking for those who have used Max's with different modems to e-mail their setup string for publication.

The ATZ cleans the modem with a reset. Always remember the ^M in Max's, which equals hitting return, thus sending a command. A two-second delay kicks in while that's going on to give the modem time to finish resetting. This bit can be a back breaker for frustrated Sysops who have been using one tilde and are stumped as to why autoanswer won't come on.

TYPING

Notice that you don't need to type AT before each and every command. Individually, AT&D2S2=1S0=1M would expand to AT&D2, ATS2=1, ATSO=1 and ATM. The essential bit in there is ATSO=1. The S refers to 'S register settings' that can be set in the modem. S0 is the one dealing with answering the phone. Normally turned off, here it is set to 1, meaning one ring before pickup. S0=2 would let it ring twice before pickup. The M turns the speaker off; useful if leaving the BBS on overnight. Just remove the M if you want to hear the whistles. With the modem connected and on-line, the Setup string can be

MAX

power

part 3

Jason Jordache looks at terminal to BBS connections; the bane of the Sysop trying to set his config to login a user without throwing him off

sent at any time by clicking the Snd Setup button.

It's fine turning the modem on, but should it be turned off while the inactive BBS screen (BBS.text) is visible, the computer crashes. Unless, that is, any of the windows are open (the way to stop it crashing), in which case a requestor - 'Warning: Carrier detected!' - pops up, along with two buttons, Sleep and Thanks.

You always get alerted by the Carrier

Detected requestor when someone logs on if you are backstage editing configs. Click on Thanks at this stage, quit out of the window and they'll log on as normal. When chosen from the menus, BBS/Sleep (Right Amiga-!) enables you to have Max's operational, the modem on and ready, but prevented from answering the phone. Clicking on Sleep from the requestor throws them off and the BBS goes into the standard Sleep mode.

TERMINOLOGY

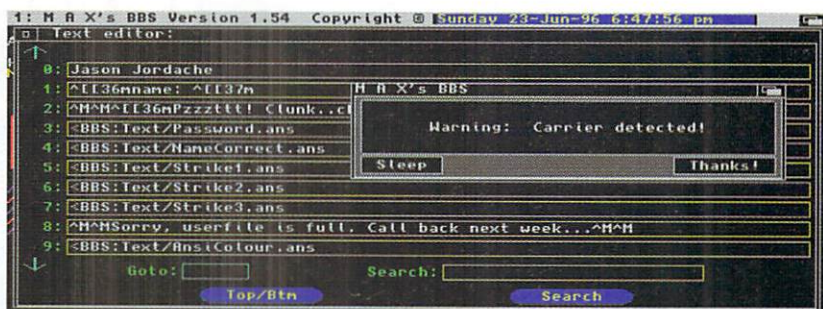
AT commands: A series of commands built into today's modems enabling you to set parameters such as whether to answer when a ring is detected, the speaker volume and dozens more. Like typing at the CLI/Shell, an AT command is issued by typing AT (for attention) in the right software followed by the actual command. ATO would take the phone off hook so you can listen through the modem's speaker when someone is talking on the phone down-

stairs. An unpolished spying method, they'll hear it pick up like an ordinary phone.

Baud rate: The speed a modem can send/receive files or data. 28.8k (28,000 bits transferred each second) has been taking over from the slower but established 14.4k variety. Treat yourself to a 28.8k; at the very least 14.4k. Go too low and the newcomer can hardly get a fair trail with comms. With eight bits in a byte plus two more to transmit a given byte, that's

10 bits to send one byte or character on your keyboard.

BBS, Bulletin Board System, board: Some are rubbish, some excellent, some are on 0891 lines. Max sends several, definable AT commands all at once, relevant to your modem type (via the Setup field in the Configure/Modem window), in the same way you would use AT commands from NComm, the terminal software for calling BBSs. With the



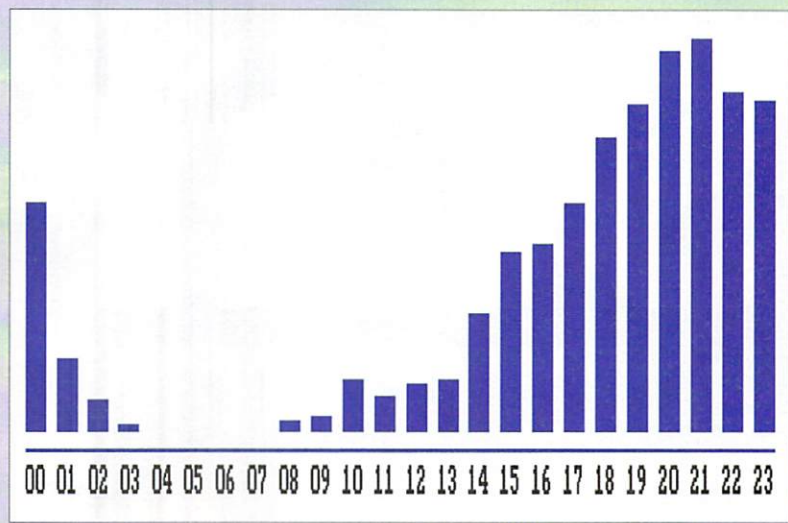
ALL ABOUT SYSOP

SysOp. System operator. Runs the BBS. Mostly guys running a system from home, in their bedrooms. The so-called enthusiast. Most are friendly. Some Sysops feel the position of power and some users, especially new ones (newsers), give it to them by regarding the Sysop as some kind of divine entity, like a pop star. Admiral, General, King, Managing Director, Sysop. Instant peachy imagery. Reasons for starting: they want to save on their phone bill by having people call them, offer a service for the Amiga community and so on.

Open hours Would-be-Sysops are put off by the commitment aspect of running a BBS (though when you get down to it and find you like running a BBS it's not that much hassle after all). If you begin calling it a hobby you'll be enjoying it, and sure, there's loads of

time put in, but you won't care. And should you feel it's becoming too much of a tie, you can always quit with the BBS any time you like. Happens all the time. 9-10pm is a common BBS opening time for the non-24 hour system, ending in the early hours or about 8am the following day as the phone rate change (see bar chart). The bar chart shows the hourly usage by users of a 24-hour BBS.

All BBSs differ, but this gives a fair idea of what to expect. Calls pick up through the night, trickling off in the early hours. The happy hour lands around 9 or 10pm. You get one or two calling at 4am, and you think they're quite sad until you find yourself following a similar path. Known record for a user staying on-line lies with a friend who had a guy chatting to him and his girlfriend for a seven-hour non-stop marathon.



right string the Setup resets the modem and enables it when someone calls to 'pick up' - autoanswer. The Setup is sent to the modem when the software is first run and each time a user logs off, in preparation for the next caller. The modem and BBS software work together to interpret what the caller's modem is saying so as to log them on. The modems communicate with each other via those screeches, whereby they agree on a common speed to connect and what have you.

There is nothing special about the line a BBS

operates off. It is an ordinary phone line with a BBS hooked on the end instead of a telephone. Anyone can have a dedicated line installed. It's advisable to give a few months trying out Sysop life before paying cash, as the novelty can wear off. Installation of a second BT line with a separate number costs £116.33 and can be spread over a year.

File ratio: A 5:1 ratio means you download five files from a BBS for each one you upload. 5:1 is viewed as pretty mean, 10:1 is more common.

ALL ABOUT THE USER

He who calls the BBS via NComm or Term. The worst thing for users is for a board to advertise and when they call it isn't operational. Generally, users couldn't care less about the BBS software (though Sysops are often heard arguing the joys of whatever software they happen to run), though there's a tendency to latch on to Xenolink and other boards-you-buy as the Sysop has actually spent money on the software so there's an expectancy of loads of files.

Typical pattern for a new user:

Download as many files as possible just for the sake of having the software, because it sounds good, and upload as little as necessary to keep their ratios buoyant. This can annoy the Sysop and the user is branded a leech. The user finds there are plenty of file ratio free BBSs to call without bothering with the annoyance of strict 5:1 boards.

Often, the user who gets chatting with a Sysop doesn't mind uploading files the Sysop wants. This led to a trick by which one Sysop used to get his users to pay a £20 a year membership. Just drop in and have a chat and at the right moment ask them to join by sending off their subscription.

The approach works both ways and users are known to chat to the Sysop and promise the world just to get unlimited downloads. A user will usually have his favourite leech boards, the ones with a seven CD-ROM sharer and an extensive HD file base, and boards where he knows the Sysop well and goes to chat. This can lead to talking on the phone by voice - always feels strange - and meeting face to face, never failing to shock.

Login, log on: The process of phoning a BBS and entering your name and password to access the BBS proper. New user logins involve the dreaded questionnaire, and in worst case scenarios another questionnaire plus a 24-hour wait till validation.

Modem: MODulator/dEModulator. Plugged into the phone line like a telephone via the jack in the wall, leading into your Amiga enabling you to connect to BBSs, the world, the Internet.



The Amiga has proved itself the most versatile of computers. Firstly, it was a top class games machine that showed off the latest releases. It also showed that it was an excellent graphics platform, able to produce film quality work for the likes of Babylon 5 and Robocop. And, over the years, Amiga Computing has delved deep to discover other uses such as in museums and even hospital waiting rooms. Now however, you may be surprised to learn that the Amiga has taken to the stage and is helping to produce Shakespearean classics, entertain passengers on cruise ships and even amuse shoppers outside the Warner Brothers Studio store with colourful effects.

Behind all this is a Canadian company called Richmond Sound Design. Using the Amiga at the heart of their systems, they have developed an innovative method of controlling sound and effects for live shows.

Founded in 1972, they started making theatrical sound consoles and eventually developed the Stage Manager, a MIDI sequencer which allows control of sound, lights and mechanics from

one device. Cue lists can be created by clicking through plain language menus and because it is designed for live performances, pre-programmed cues can be overridden manually.

Charlie Richmond from Richmond Sound Design, explained why they chose the Amiga, "We began the development of our computer controlled sound scaping system (COMMAND/CUE) in 1985. The Amiga was chosen because it was judged to be the most appropriate for the job: Accessible price, open architecture (which the Mac was not and we needed a high speed bus interface), graphical/mouse interface, and especially multitasking." He continued, "Their primary advantage is true pre-emptive multitasking which allows us to do live show control in absolute real time. There are other options which allow this but they are higher in cost and involve industrial or custom operating systems."

Stage Manager software can now also send commands via the computer's operating system to SCSI ports to control CD-ROM drives playing normal audio CD's. Several CD-ROM drives may be controlled together providing multi-track replay, and when used individually the CD-ROM drives provide cheap but high quality replay sources for spot effects.

Stage Manager's unique flexibility has proved very popular and Richmond can boast that amongst its many users are Universal Studios, The Royal Shakespeare Company and EuroDisney.

John Leonard is a sound designer who uses Stage Manager 3000 extensively. We

Star



P&O's ship, the Oriana where Stage Manager was used in their performance venue

UNIVERSAL APPEAL

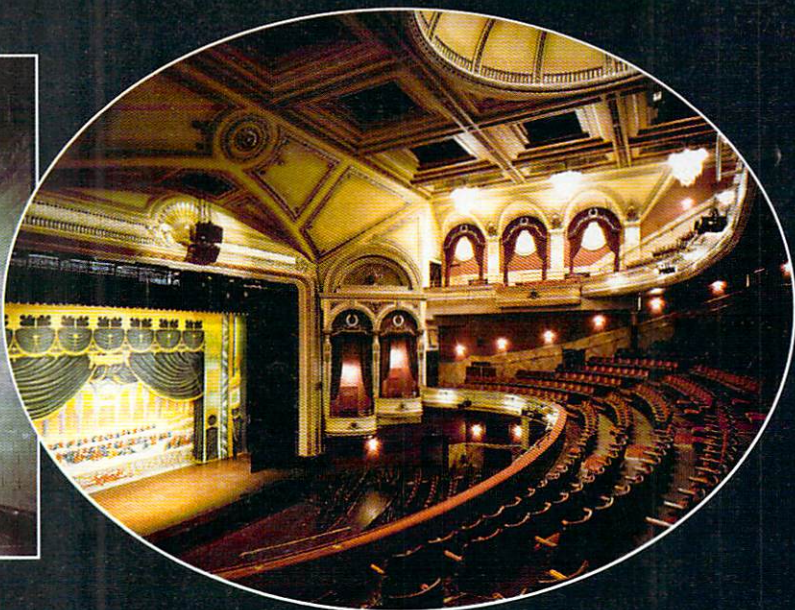
Richmond Sound Design's work can also be found at the Universal Studio's theme parks. They have been used for routing of multiple audio tracks for live action stunt shows produced at their park in Florida in the Wild West Stunt Show, the Porto Europa in Wakayama, Japan, (for the Stunt Show) and also Universal Studios, Hollywood for Waterworld.

Bill Bittel has worked on many of Universal's attractions. He told us, "The Richmond system is unique in it's ability to perform true multi-tasking operations. The programmer may establish many different cue lists. Each list contains different instructions that must be performed at the same MIDI time-code value (the same time). The Amiga architecture was the only system available that could guarantee simultaneous execution of multiple commands."





Glantre have provided stage rigging, lighting and sound for Edinburgh's Empire Theatre (left and right)



asked him, what exactly is Stage Manager? He explains, "It is an advanced MIDI event controller and you need any 68020/030/040 Amiga with at least 4Mb of memory, a hard drive and a MIDI interface to use the software. Things get interesting though when you hook up external MIDI controlled devices to your system."

John continues, "To appreciate what is

possible with SM 3000 it's important to understand the degree to which MIDI has taken over as a protocol in the [theatre and entertainment] business." He goes on to explain, "It's now common practice for sound effects to be stored on samplers. Instead of musical samples being assigned to individual notes, sound effects are used instead, so hitting middle C on a keyboard

might trigger a thunderclap, with other notes assigned to rain, wind, loops and so on. Instead of using a keyboard to play these samples back, computers running MIDI control software are often used."

He has found that the flexibility offered by Stage Manager is invaluable for the many plays he has worked on. John is currently working on a production of Lorca's Blood Wedding at The Young Vic theatre where they have a cue-list that controls a MIDI panner which sends the sound of a Didgeridoo around the theatre whilst a second cue-list controls parts of the mixing desk and the effects devices. He describes how he sets up some of the effects, "During rehearsals, or in the studio, I'll capture the MIDI data stream from a keyboard or controller, or enter notes or commands individually using the mouse and on-screen menus to set up effects and MIDI events. These are then recorded as simple cues

Tina Hackett reports on how the Amiga is being used in the glamorous world of entertainment

Act



that go at the push of a button on a remote that plugs into the game-port on the Amiga. You can have multiple cue-lists running at the same time, which allows you to carry out some extraordinarily complex cueing sequences."

Most of the shows John works on use Stage Manager 3000, either during rehearsals or to control the actual show. There are systems currently running at The National Theatre of Norway, The Royal Shakespeare Company Barbican Theatre, Hampstead Theatre, The Almeida Theatre and The Donmar Warehouse Theatre.

AWARD

He has also used SM3000 on the Almeida Theatre's *Medea* with Dame Diana Rigg and *Hamlet* which starred Ralph Fiennes. Both plays were a huge hit on Broadway and won him the New York Critics' Drama Desk Award For Sound Design. However, he comments that he had the most fun on *Neville's Island* which starred Tony Slattery.

John commented, "We controlled both sound effects, lighting and a section of the play involving a fireworks display with SM3000. Each fireworks had a sound effect and lighting and we were able to produce exact synchronisation, with lighting fade-ups and flashes being controlled by the Amiga, along with the sampled sound effects."

The Hackney Empire has also benefited from the system for their production of

Hamlet.
At 7pm,
SM3000 opened a
cue list and started the
sea and storm effects that

gradually built as the audience came into the theatre. At 7.25pm a second cue list started to ring the bar-bells at one minute intervals to get the audience into their seats.

John continued, "When the operator arrived, she fired the last bar-bell cue manually, and the timed cue-lists closed themselves down, and opened up the show running lists. At the interval, the last cue of the first half opened up a further timed cue-list which played the storm sounds again and counted down for 15 minutes before triggering the bar-bells again."

This has all proved relatively trouble-free. He remarked, "We only had two problems with this, once when Prince Charles came to see the show and all the audience had to be seated early, and once when we changed out of British Summer Time halfway through the run!"

Because of the flexibility of Stage Manager, John is pleased how well it adapts to different needs, "Without doubt, Stage Manager 3000 is amongst the most powerful show-control systems currently available in the world today. I've used similar packages on both PC and Mac and they're not close in terms of versatility."

Reading based company Glantre Engineering, are Richmond Sound Design's contractor representative. Glantre's Robin Shuard also told us the advantage of using this system. "There are only about three other systems that do this. The Amiga is the only one which offers real time multi-tasking. People have asked us why not a PC? But a PC really can't multitask."

However, using the Amiga did not come without its difficulties and as well as having

"Without doubt, Stage Manager 3000 is amongst the most powerful show-control systems currently available in the world today. I've used similar packages on both PC and Mac and they're not close in terms of versatility."

to convince the cynics that the Amiga is still viable they had problems with Amiga - in particular getting any technical answers on the Amiga system especially with the current situation.

Many of Glantre's projects have been on cruise ships. They have installed a system on P&O's, M.V. Oriana in their performance venue, The Theatre Royal. They wanted to have sophisticated lighting, sound, video, projection and stage rigging. They also wanted all the technical aspects to be controlled by two people - one of which would be on the stage.

Using an Amiga 4000 running Stage Manager 3000 software, Glantre installed a system that would control the sound source, lighting, stage rigging system as well as control two S-VHS players, a Laserdisc player and Slide-to-Video Converters for conference and educational events.

CONTROL

Glantre have also provided a system for the Arndale Shopping Centre in Manchester for Warner Brothers. In the square outside the shop, there are cartoon characters and various coloured lights and effects which were controlled by the Amiga (until they changed things around). Their work can also be seen in EuroDisney at Hurricanes Beach Club. There it controls the lighting and effects on a pre-programmed sequence. Every hour, this sequence runs and sets off flashing lights, wind machines and audio - all controlled by an Amiga 3000.

Despite having developed such a successful system, Richmond Sound Design are not content to rest on their laurels and are already working on new developments for the future. Charlie Richmond told Amiga Computing, "We are in the prototype stage of a DSP based sound control system with 10 inputs (8 analogue/2 digital) and 16 analogue outputs that will do just about anything you can think of to sound in real time including playing it back from an internal hard drive. We call it simply APT - the Audio Power Tool." He continued, "We are currently porting our most popular show and sound control applications to the BeBox and also creating less capable products for Windows and Mac."

AC

John Leonard is looking for a company to modify the A1200 so that it fits into a standard 19 inch rack-mounting case with a detachable keyboard. If you can offer a professional job get in touch. His Email is john@soundman.demon.co.uk

I N THE LIMELIGHT

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Stage Manager 3000

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This **month** we've had the usual barrage of abuse, praise and queries on subjects such as **Amiga** clones, viruses and beginners problems. If your blood is boiling over the state of the **industry** or you simply want to share some handy hints, you know where to send 'em....



NO MORE PESSIMISM

Why is it that all Amiga magazines and users are so pessimistic about the Amigas future? Comments like "the Amiga is STILL brilliant" or "it's STILL a good low cost alternative to a PC" isn't what we need to hear. The Amiga isn't "still brilliant", we haven't seen anywhere near the best of it YET!

Programs like MUI3.3, Photogenics 2, Final Writer 5, Dopus 5, Lightwave 5 and many more NEW programs are brilliant, and a couple of years ago we couldn't even dream of them. A message to all Amiga owners planning to buy a PC: use your money on an Internet connection instead. Then try Aminet - it's the BIGGEST shareware archive in the whole world and can supply you with much more software than you'll ever have the time to try. I can tell you from my own experience that running a Pentium with Win95 isn't fun at all. Personally I only use PCs for Internet and playing games. When I have the chance to, I can always play Slantit or Gloom on my Amiga, and I prefer it for surfing the net, too.

If the Amiga is going to SELL well in the future, a lot of things are going to happen, though VISCORP cannot do everything, but at least they could start by enhancing the OS (they say they are doing this at the moment, but they should be more specific, WHAT are they improving?). The inclusion of programs such as Iconian, MUI, MagicWB, MCP, EDGE, Miami and Launchpad could well do the job, if they only incorporated them into the OS, not as separate programs (for instance, just replace the old icons and palettefiles with the MagicWB ones, ok?). An AGA-upgrade for A500/600/2000/3000 would be a good thing,

and so would a lower price on the A12000 and A4000.

For us dedicated Amiga owners there is no need to include those programs, because most of us have already have them installed. But there are many beginners who think Workbench "sucks" because of the lack of any bundled software and horrible design. The ED can be a success, but there is also a possibility for it to fail, so VISCORP should ensure that the Amiga is safe before using all their money on the ED.

VISCORP also has to do something more difficult. Convincing companies, mainly old Amiga-developers like Softwood, HiSoft and Power Computing to make Amiga clones. I'm not kidding! I think this could prove very valuable to the Amiga's future, and it would NOT require a lot of resources if VISCORP sell the chipset, ROMs and manuals cheaply to developers, like Microsoft sells Win95 to all PC manufacturers so that they can bundle it with their machines.

Clones not only mean lower prices, it also means much better distribution, more/different kinds of marketing and more talk about the machine in magazines, newspapers and on TV. And I am not just talking about Power Amiga-clone, we also need a good replacement for the A1200/A4000 while we are waiting for the Power Amiga

Please continue supporting the Amiga with your excellent magazine, and please do five or more pages on Internet in every issue! More SW/PD reviews would also be appreciated.

Evan Sandvik Underlid, Norway



Something you want to get off your chest? Why not

write in to ESP, Amiga Computing, IDG Media, Media House, Adlington Park, Macclesfield, Cheshire, SK10 4NP. Or even better - send it in on a disk, saves my poor fingers, you know. You can even Email us at esp@amiga-comp.demon.co.uk

I'll deal with the easy bit first! Regarding our Internet coverage we do try and put a fair bit in - there's a healthy share of Internet stories in the news, plus technical how-to guides for creating web pages and so on. At the moment we're testing the water - a fifth of our readers do have an Internet connection - and we want to ensure that we give it the coverage it deserves without alienating those readers who aren't connected. But as more people join the Internet we will increase this. At the moment we'd be interested in hearing what other readers think. More, less or keep it as it is? Let us know at the usual address....

Right, onto your main point. Yes it would be great if companies like Power and HiSoft made Amiga clones - however, I think it unlikely. Our best hopes of this lie with Phase 5 and PIOS who are quite keen on such a project. You say that we haven't seen anything yet from the Amiga - yes - and with the ED, especially, I think we could be on the verge of something big. This of course, depends on VISCORP and how they market the ED but if they can tap into all these potential buyers (and play up the fact that it is an Amiga at the heart of it all) then we could see a huge revival....



Programs like Final Writer 5 are still keeping the Amiga alive

DYING SLOWLY?

Having seen so many comments about the Amiga and its current situation and the future of our machine, I decided to add my thoughts to this debate. Personally I believe that the 'standard' Amiga should now be one with 6 megs of RAM (total cost 80, 50 for the board 30 for the RAM) and a hard drive. This allows you to experience the multi-tasking abilities and virtually all programs will run on this configuration.

Even with this new standard the Amiga as we know it is dying and within almost most two years the commercial market will have dried up completely at the current rate of desertion. No doubt the PD section will remain (as with 8-bit machines) but only true Amiga lovers will use the machine and will certainly purchase another machine (hopefully either the excellent BeBox or even better a RISC Amiga). I hope the RISC Amiga will have an improved set of custom chips (i.e. 24-bit graphics moving at the rate which they can produce excellent 2D games, improved sound) and a new 3D chip. Even if the above cannot be done, an improved OS should be designed.

It may be possible for ViScorp to license the N64 custom chips in a compatible computer/console which would certainly have all the graphical power required and just update the CPU. A Zip type of drive must be standard with an optional floppy drive. A CD drive (double density?) would also be required as well as a monitor and a hard drive. Though of course the Amiga should still be able to be easily connected to a standard TV for video work and just in case the monitor brakes or whatever. Compatibility with the Motorola based



A high price point put many potential new owners off

Amigas is not essential but if possible would be nice. But certainly the price should be around the level of PowerPCs. What has certainly stopped the Amiga from making a comeback has been the price point.

Now it is more costly for the 'standard' machine than a PC, e.g. A1200 + non-multisync monitor + 170 meg HD + 4 meg RAM costs more about 700 if you shop around. I would have hoped for a 500 price point. The Walker was a nice idea but would've only have done well at low price point, though it may still be released by a third party.

Amiga owners should not be glum we've had lots of fun with ALL the Amigas and the Amiga has lasted longer than the average PC before its CPU is outdated. Even when the Amiga is dead there will be PD. Of course there is plenty to do now which you'll be able to do for long time, send an E-mail, write a letter, find that classic game you missed the first time round, surf

the Net, produce an animation, title a video, make tunes and so much more. Just have fun with your machine.

Mark Kloczek, London

Dying within two years - well, that's a bit gloomy - don't you believe that things could turn around? As you mention though, competitive pricing is essential. We, as dedicated users, know what the Amiga can do and know that it is worth splashing out for but let's face it, any new machine will have to compete with the PC. It's no good just selling an over-priced basic machine. New users will be looking for value for money packages which include monitors, CD-ROM drives etcetera. Let's face it - you pick up a half decent PC for around £1,200 and although they become quickly outdated, people will need a lot of convincing if any new machines appear overpriced.

GET THE POWER

In issue 104, (October 1996), within the article "Caught in the Net" on page 18, written by Neil Mohr, there is a boxout describing a program called PowerMail, an e-mailer.

This item excited me greatly and I have done my utmost to locate it, performing searches on Aminet (various sites) and from within the world-wide web. Unfortunately, I can find no reference to this program with either method (although there are a lot of hits in Yahoo for a Mac program of the same name)!

Could you please give me further information as to where / how to find this impressive-looking mailer? How does it compare to YAM 1.3 (my current mailer)? How stable is it? Is it to be shareware or a full, commercial release?

Jonathan Hollin

PowerMail is a follow-up to Metatool and as far as we know PowerMail will initially only be available as part of a software package called NetConnect which we'll review as soon as poss.



NASTY VIRUSES

I wanted to thank you for the nice article that was written—hell, the entire magazine is nicely written—in the September 1996 issue of AC (US Edition). I'm talking about the article regarding computer viruses.

I've been observing the whole Amiga Virus scene for several years (I was once a member of Safe Hex International). For the past few years, however, while the Amiga was in limbo, I've gone into a major depression.

Now I've managed to upgrade my A1200 and with the news of ViScorp acquiring the Amiga technology (I hope that's true and not a rumour) I've reignited my interest in the Amiga...and in Amiga viruses.

I once wrote an article on Amiga Viruses (found in an issue of Amiga World several years ago). One thing I would like to point out, regarding viruses not infecting floppy disks when they are write-protected: There is a hack out there that allows you to make some hardware changes to your DFO: drive that allows you to OVERWRITE the protection (meaning, it will write to a write-protected disk). I would strongly caution ANYONE from doing this to their poor DFO: for their own sake. (Apparently this hack was done in order to be able to write to any disk without having to flip the tab.)

I would like to see a regular column about Amiga viruses because since all the cool stuff comes from overseas unfortunately so do most of the nasty viruses. And thank you again for a nice publication...we don't have much to go on here in the States...

Jim Maciorowski, jimmymac@citicom.com

Thanks for the warning. If anyone else has tips to share then write in. As for a regular column, it's something we'll certainly be considering. In the meantime we'll bring you updates as and when we get them.



Do all you can to protect your computer system from viruses

DON'T SELL UP!

It's quite sad to see a large number of readers selling their Amigas in favour of PCs. They have obviously lost faith and patience in the future of the Amiga, and are frustrated at the constantly diminishing Amiga games market. The majority of these people were probably quite loyal Amiga users who will come flocking back if ViScorp can deliver its promises and turn the Amiga into a dominant force once again.

I personally will always remain loyal to the Amiga. I'd only sell my Amiga for a better Amiga. I also have faith in ViScorp and believe that ViScorp will reverse the fortunes of the Amiga and revolutionise home computing and entertainment in the near future. At the moment there is every reason to be optimistic about the future of the Amiga. ViScorp's set top box and recent enquiries regarding the 300MHz DEC ALPHA CHIP, PIOS and Phase 5's plans for hybrid and new generation Amigas, are the reasons why I would urge people not to be hasty in selling up in favour of PCs.

I own a high spec Amiga and PC and hope that a hybrid computer combining the best of both systems is planned or in development. Both formats have their advantages - the Amiga's superior multi-tasking operating system combined with the range of cheap peripherals that can be purchased on a PC would be a desirable system. Imagine a fully functional multimedia Amiga/PC, this would end the Amiga vs PC war once and for all and silence the ignorant PC owners around (of which they are plenty). Command and Conquer, Warcraft, Word, Excel, Directory Opus etc all on once computer - yes please!

For those readers who have made their mind up to jump ship, invest in plenty of headache pills because unless you're experienced with PC's you'll need them. DMA's, IRQ's, 3640k base memory limitations, installation woes - you'll soon be going grey or bald. Don't expect a customisable, multi-tasking user friendly system like workbench, MS DOS is archaic and Window's file manager is not in the same league as Directory Opus. And bear in mind that you can be creative on a PC, but it will cost you plenty of money in software and hardware.

My clear message to the would be deserters is don't get drawn in by the hype, stick with the Amiga and wait and see what develops in the next six months. If still not convinced at least the prices of PC's will have fallen considerably in this period. Better still if you can afford it, use both computers like I do myself.

Nigel Brook, Reading

Yes, a combined machine would definitely give us the best of both worlds. Let's hope that something along these lines will get developed. Until then, it's sound advice to wait and see. As you say over the next six months a lot can get happen. Once we see the plans from the likes of ViScorp, Phase 5 and PIOS and the state of the PC market, then buyers can make a proper, informed decision.

BEGINNER'S LUCK

After being away from Commodore and Amiga Computers for quite some time, (Having owned a C-64, a B-256, and a Amiga 500), I recently bought a A3000T for US \$50. Yes, the Amiga is all, there, and includes a AMAX II + Macintosh board, a Commie AZ 865 Ethernet card, and a (I guess) older than Old Sysquest SQ 555. Oh, and a Quantum 200 meg SCSI.

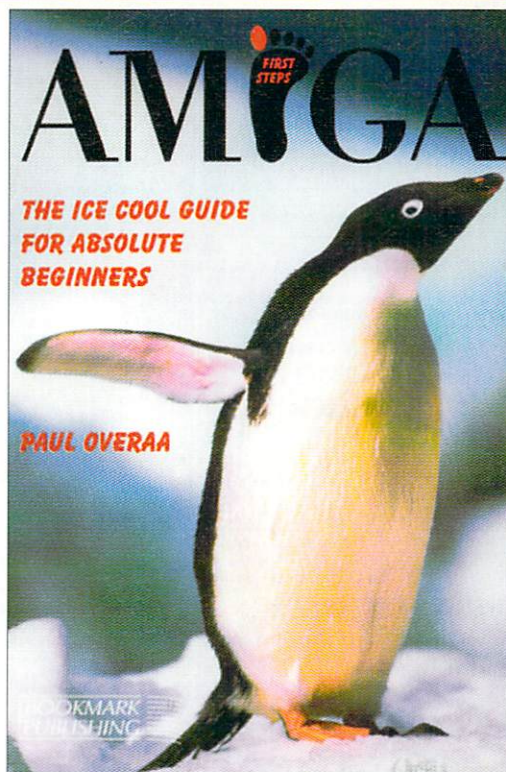
I bought your issue number 101, and although I am impressed somewhat with it, I am distressed with the lack of support for "Somewhat" beginners" like myself. Since there is no forum for "Us who bother you who know", could you perhaps point me in the right direction?

Just to show you how much of a beginner I am, I have no idea how to really set-up software on my Amiga, although I can easily do the same with most DOS-type machines. I guess I just need some "hand-holding".

Thanks for ANY help at all, in advance!

Gene Lambert

Well, Neil is often ready to lend a helping hand so if you have any specific questions you can write in to good, old Uncle ACAS. On the other hand, for more general advice there are still some good beginners books out there such as *First Steps, Amiga: The Ice Cool Guide For Absolute Beginners* by Paul Overaa (from Bookmark Publishing).



Handy hints for the beginner

AMIGA - "NOBODY DOES IT BETTER"

I've read your mag for years ever since I had an Amiga but I really think we have lost the plot! Everybody wants the Amiga to do really well but we are attacking the problem from all the wrong angles.

First, why on earth would you get rid of a custom chipset when it really is why an Amiga is an Amiga! Okay, so the AGA chipset is getting on - lets find a solution which is right in front of our faces!!! UPGRADE!! Let me explain. I have 2 computers (3 if you count my A500). My CD32 SX1 with internal HD 8mb simm didn't start out like that, I simply added to it as I could afford BUT, AND IT'S A BIG BUT !! nobody took the time to really make it user upgradable so that's its limit, if I want to go further I need to buy a whole new machine!!!

However I also own a PC computer, but its not the one i originally paid money for. Those parts are long gone to computer heaven! Did I pay someone to upgrade it?? No, it went from a slow 486 to a fast Pentium, from a 512k video card to a fast 2mb pci card, from one hard drive to 3 hard drives, from a 2 speed to a six speed!

Okay, your going to say buy an A4000 with a 060. Yes I'd love too but do you know how much they cost!! The price is over the top. What I'm trying to get to is this: make a new model Amiga but put it in a big box (if it looks like a PC who cares!) make the motherboard able to accept lots of addons easily (true plug and play), put the AGA chipset on a removable board - then you could upgrade easily to a new

graphics set. Also put the sound chips on a board: again new upgrade easily done!!! And make the cpu easily upgradeable.

I guess it sounds like I am trying to turn an Amiga into a PC but we could learn a lot from how the PC has progressed from its 286 days to the days of where Pentium means computer.

John, Aussieland

Aah, that old chestnut again. Amigas are fairly easy to upgrade - however, it can work out more expensive as the cost for some equipment is higher than for the PC, plus the basic machine is more expensive. But think of all the fun you get out of a nice user friendly Amiga....



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COSTLY CONNECTION

? Like many people I wish to get connected to the Net. I have seen an advert for the Speedcom 28Kbps V34 modem priced at £150. This seems like good value. Is it, or are there better modems available at around that price?

What is the average connection charge for the Internet? My local service provider charges £12, but with no on-line charges, is this about right? The provider is Aladdin, which is based in Southampton. Can you give me more information, as my local shop charges commission and I would like to contact Aladdin direct.

On a different subject, requesters; and in particular, that of the WBPattern program. It does not work anymore. I click on Choose Image, the requester appears and then stops. Resizing works, but the buttons do not move. The requester is now frozen and I cannot close or use it.

This is the only program's requester that does this – the font, screen mode and normal file requesters all work. I use ReqPatch, but this is not the problem. After several formats and reinstalls of my System partition I think I have traced the problem down to the ASL library, but installing other versions just results in the expected 'Need higher version'. This has been going on for about a year now. I am computer literate but this is beyond me.

One final thing; could you please tell me where I can find the Mac ROM file for Shapeshifter, as I really cannot get access to a Macintosh? I have phoned PD libraries, but no-one can help.

Mark Dickinson, Portsmouth



To start with, £150 for a 28.8K modem is fairly normal, and the Speedcom is BABT approved. As with most things nowadays, pricing is very competitive. On the provider front, I had a look at Aladdin's Web site, but the only pricing I could find was an initial £20 start fee and a monthly £15 charge. This did include a Windows software package, so it may be possible to get a lower priced connection package. You can contact Aladdin on 01489 782221.

For comparison, Demon, this country's largest Internet Service Provider, charges £10 a month and just recently started to give customers 5Mb of Web space on top of its normal services. A problem with Demon is that the large number of users it has causes connection at peak times to become unreliable, and you will normally have to try a number of times to get connected. With a smaller ISP this should not be as big a problem.

One thing you should keep in mind is

that getting connected to the Internet is not just a case of buying a modem and an Internet account with an IP. The other side is software.

The best solution would be to have an ISP that provides an Amiga software pack, is easy to install, and provides technical support. Unfortunately, very few do. Demon does have its AmigaNOS, but this only gives you e-mail, newsgroup and ftp support. It is also very old and unsupported by any recent Amiga software. As such it is pretty much useless nowadays.

An unofficial but much better AmiTCP-based installer has been written by James Savage. Once you get on-line with the AmigaNOS package you can download this installer from Demon's FTP site and use this instead.

Up until very recently your only other option was to get hold of a copy of AmiTCP and install this yourself – easier said than done. But recently there have been a few developments with Amiga Internet software, and products such as Net&Web, NetConnect and Miami have made getting on-line much easier for the novice user. You should strongly consider getting one of these along with your modem.

From the look of the screen grab you sent it looks as if you are running Urouhack, or a similar system hack. Even though most programs do work okay with these sort of hacks, any program that does something out of the ordinary is going to trip up. Unfortunately, Commodore's own programs are not particularly well written – sometimes



Like a guiding beam of light radiating out of the night, **ACAS** will help guide unsuspecting Amiga users away from the perilous rocks of disaster

they don't even follow their own style guides. I would guess that WBPattern is doing something it should not be doing with the ASL file requester – I recall having a similar problem a while back. Basically, stop using the version of Urouhack you have and switch to the latest version of MCP.

Legally you have to own your own Mac to make a copy of the ROM, and even then you are only allowed to run either the Mac or Shapeshifter. You cannot run both at the same time as you would be using two copies of the Mac ROM and would therefore be breaking the copyright laws. The other thing is that you will need a copy of the Mac's operating system System 6/7.5, which is available on either HD disks or CD.



Most modems perform and cost pretty much the same these days

AMIGA ARCHIVES



Having owned an Amiga since 1985 you might expect me to know a few things about the innards of the machine by now.

However, I never got into programming and I still consider it a mystery. The Amiga has always been so easy to use that I have gone and spent my work time labouring over PCs and advising on CAD problems.

My problem is that when I try to use PD mail order utilities, I always run into Lha compressed files and do not know how to get them to load or uncompress from the CLI or Shell – they do not work from the Workbench either. I guess I am just a dumb Workbench person who has never got into the background of my Amiga.

You have had quite a few good articles on the Internet and getting on-line, so another question is how do you even get a modem to connect to the phone lines? In one letter you said that you could use external but not internal modems with regards to the A1200. I have an A2000 with two PC slots, so shouldn't an internal modem work? Or do I need specific Amiga software to recognise the new hardware?

Kenneth Canavarro, Portland USA



Lha archives are single files which store as many or as few files as needed. These files can also be compressed to save space.

The Lha command itself is CLI-based, and you should be able to find it on one of the PD disks you have. Once you have got yourself a copy and put it in your C drawer, you will be able to use it from a Shell.

The most straightforward use of Lha to extract the files is as follows:

```
lha x ram:
```

This will extract the archive to RAM. The best way to use this is to change directory using the CD command and type the above. A simpler way of handling Lha archives is to use a GUI-based system such as LhaGUI, a program which makes handling Lha's a matter of pointing and clicking.

I am sure I have said this already, but you can never assume some hardware is going to work on your Amiga, particularly if it is PC specific. True enough, your A2000 does have PC ISA slots that will let you plug in PC cards, but the Amiga has no way to access the card as you need the software to back it up.

SNAPPY UPGRADES



I am a subscriber to the US edition of your excellent magazine and was hoping in your infinite wisdom that you could answer some questions that have been nagging me:

1. If I am viewing the contents of a PC format disk using CrossDOS and I find it contains an Amiga-type picture, sound or Anim file, can I view it straight from the disk using say, multiview, or must the file first be copied to RAM or an Amiga disk?
2. Since IDE CD drives are cheaper, could I simply get a longer IDE cable and run it through the small port at the back of my A1200 and use AmiCDFS to access an internal drive I have supplied power to?
3. If I plug a mouse into a NTSC or PAL CD32 and hold the mouse buttons during boot up, would I get the same early startup screen as my A1200, allowing me to select PAL/NTSC, Chipset, etc?
4. After seeing an advert for the Snappy video capture system, which claims to be the highest resolution PC video grabber at just \$299, I have to ask would this be usable with my A1200, or do I require Amiga specific equipment?
5. I thought my A1200 would be all I'd ever need, but lately I have yearned for a faster processor, more memory and a hard drive, and have been toying with the idea of selling my A1200 and buying an A4000 to fulfill all my requirements. However, I have heard of some incompatibilities between the two machines. How bad is this, and if you please, why?

Rob Daviau, Toronto



1. Yes, you can view files straight off PC formatted disks using CrossDOS. The Amiga treats the PC drives just as it would any normal Amiga drive, so you can perform all the same actions on the PC disk as you can on the Amiga disk.

2. If you do not have an internal IDE drive already, you could run an ATAPI CD drive off the internal IDE interface. You would, however, need a 2.5" to 3.5" cable, and the

SURF SNAIL



Having recently bought myself a multisync monitor and discovered the much nicer DbIPAL monitor modes, I have noticed that iBrowse reacts much slower when using them. Also, images seem to load much slower than they did when I used the standard PAL screen modes.

I was considering buying a SurfSquirrel because of its separate serial port; would this make a difference to the speed of iBrowse? At the moment I am using AmiTCP; perhaps switching to Miami would make a difference? Does it work any faster than AmiTCP? Any advice you could give would be appreciated.

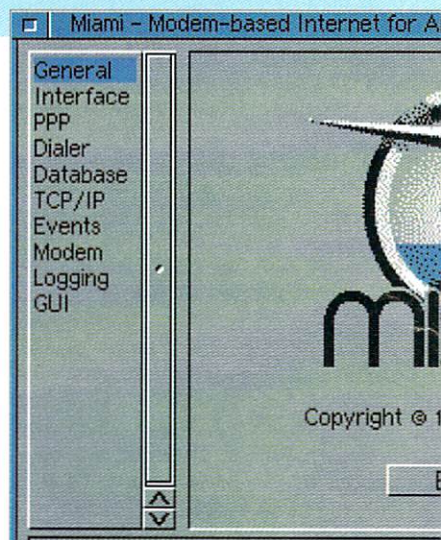
Andy Maddock, Poynton



The lack of speed from iBrowse is caused by two different areas. First off we can have a moan about the

DbIPAL screen mode, and all the Amiga's AGA screen modes while we're at it. Due to the Amiga's unique architecture, both the processor and its custom chips can access a single area of memory called chip or graphics memory. In here any type of data can be stored, including the displayed screen.

When you use the AGA monitor screen modes, such as DbIPAL, the display chip has to work so hard just pipping out the display data to your monitor that it uses up almost all of the memory cycles. So, when the CPU comes to update the screen, it has to wait for the gaps when the display chip is not accessing chip memory. The result is slow screen updates. This explains why iBrowse takes so much longer to respond. In general,



the AGA monitor modes take four times as long to display as the standard PAL modes.

The only way to speed up access is to give the display chip less to work on, so the best way is to use an eight or 16-colour screen. Another possibility is to reduce the width of the screen. This again gives the processor more time to work with, as the horizontal blank time is increased. Or if you have a big box Amiga you can get a graphics card, which really makes a difference.

The problem with the slow downloading is connected with the slow display. When used at high speeds, the built-in Amiga serial port takes an awfully large amount of CPU time. Couple this with the fact that the processor is already crippled by the DbIPAL screen mode and you can see that there is not much time left for downloading and decoding images.

Jargon box

CD drive would need its own power supply and a casing. You would be best off getting one of the new CD expander kits, as they give you the proper cables, power supplies and cable converters.

3. No, holding down both the mouse buttons on a CD32 just brings up the save game selector screen.

4. Unless hardware specifically says it works with the Amiga, you should never assume it will, particularly with PC-related hardware. So, basically, the Snappy will not work with the Amiga. It probably could but someone would have to write software to use it, and I doubt anyone will do that.

5. Incompatibilities between the A4000 and A1200 will generally be due to the A4000's 040 processor. If there is any compatibility it is due to bad practice on behalf of the programmer. Nowadays, most programs and many demos are very well behaved and work flawlessly on the A4000. Most of the software we test is run on an A4000 and we have to say that if it doesn't work on that machine straight off it just goes in the bin.



If a program does not work on an A4000, it is just badly written



For trouble-free Internet connection you can't get much better than Miami

A Surf Squirrel would help the downloading situation a lot, as it almost completely removes the download burden from the processor. This frees up a lot of the CPU time, which can then be used for decoding the images. Another possibility is to get a replacement serial device driver, such as 8n1.device which can be found on Aminet at comms/misc/8n1.lha. This is a slightly more efficient serial driver and can help save some processor time, but it's nowhere near as good as Surf Squirrel.

With regards to AmiTCP vs Miami, you will not see any real performance difference between the two. I would suspect both are based on the freely usable NetBSD source code, and as a result use the same program code for their TCP/IP message processing. The only thing is that Miami is much easier to configure than AmiTCP.

CONKED OUT CD'S

When I boot my machine from the hard disk I can access my CD-ROM discs, such as magazine discs, with relative ease (except for the normal problems of library files and odd assigns etc).

However, the problems start when I boot from the CD drive and try to run some programs from the CD. The most common message is: 'this file is not executable', although as I said, I have no trouble when running the same file when booted from the hard drive. Also, all the major assigns appear to be pointing in the right direction.

I have CD32 emulation as supplied by Hi-Soft with my CD drive, and this appears to work reasonably well with some discs. I am aware of the problems with the PCMCIA slot and the eight meg of extra RAM which I can switch to four meg if necessary.

I am sure this problem is something to do with the setup in the CD startup file, but I'm afraid my knowledge of the 'nuts and bolts' of the system is somewhat limited. If you could point me in the right direction I would be very grateful

Keith Nixon, nixonk@clmse1.agw.bt.co.uk



From what you have told me it is a little difficult to work out what exactly is going wrong when you try to boot a CD. Usually, when a CD is booted, control is switched from the normal startup sequence on your hard drive to the CD Startup script in your S directory. All this does is switch all the assigns from your hard drive to point to the CD you are trying to boot. It then goes on to try to run a startup sequence on the CD. If you load the CD startup into a

ISP - Internet Provider - a company that maintains a large, usually UNIX-based, computer system that routes all your Internet messages onto the Internet. That's as well as storing your e-mails and any Web pages you may have

UNIX - An interactive time-sharing operating system invented in 1969 by Ken Thompson (originally so he could play games on his scavenged PDP-7) after Bell Labs left the Multics project. Dennis Ritchie, the inventor of C, is considered a co-author of the system.

Internet - The world-wide network of computers, communicating together via the TCP/IP protocol, or something. It is a three-level hierarchy composed of backbone networks, mid-level networks and stub networks.

TCP - The most common transport layer protocol used on Ethernet and the Internet. It was developed by DARPA. TCP is built on top of Internet Protocol (IP) and is nearly always seen in the combination TCP/IP (TCP over IP). It adds reliable communication, flow-control, multiplexing and connection-oriented communication. It provides full-duplex, process-to-process connections.

ASL - In response to the need for standard file, font and screen requesters, the ASL library was written. Programmers already had access to these requesters thanks to ReqTools, but a standard library was needed and the final results are quiet nice

text editor you will be able to see this.

From what you have said it sounds as though the Workbench has booted up, or perhaps the startup has failed and fallen back to the Shell and you are trying to run programs from there. There is nothing set in the CD startup that should stop programs being run and return the error 'this file is not executable'. If you try to run a program it will try to run. Usually, you only get this error if you are trying to run an AmigaDOS script. This is a real possibility, so if this is the case try adding *Execute* before the command.

Other than that I don't know what other advice I can give you, apart from: What is wrong with running things from Workbench?



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 in the coreect manner?

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 you can e-mail us at ACAS@acomp.demon.co.uk

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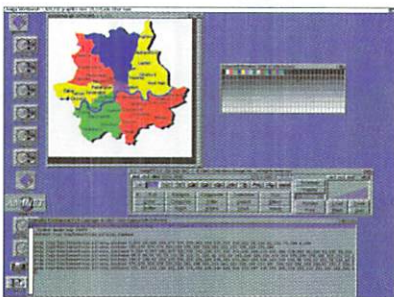
Following on from where we left off last month, we can now use our base knowledge of Perl to try and write a CGI program that we can show off with on our Web site. We are going to write our own CGI guest book, which will involve taking a look at how to collect information from forms and use them in our scripts. At the end we will also see how we can use image maps on our Web pages.

Okay, this is how it's all going to work. We will write ourselves an html page with the guest book form in it – 'guest_form.html'. The form will have two text boxes; one for a name and one for an e-mail address. There will also be a text area box for the main message and some submit and reset buttons. This form posts to a URL which is the location of our script 'guests.pl'. The script collects the data, checks for errors and then adds the users message to the bottom of your guest book page 'guests.html'.

The form that we need is as follows:

```
@: <html><head></head><body bgcolor=
or="#000000" text="#ffffff">
@: <form action="/cgi-bin/guests.pl"
method="post">
@: Name:<input type="text" name="guest_name"
size="60" maxlength="40"><p> @: Email:<
input type="text" name="guest_email"
size="60" maxlength="40"><p>
@: Message:<textarea name="guest_message"
rows="10" cols="60"
maxlength="256"></textarea><p>
@: <input type="submit" value="Sign
Guest Book">
@: <input type="reset" value="Clear
Form"></center>
@: </form></body></html>
```

I have added the maxlength="" attribute to the form to limit the amount of text a user can type into a form item. This helps prevent people writing short stories in your guest book but is only supported on some



An Image Map of London, complete with headache map file

MARKING OUT AN IMAGE MAP

The syntax for marking out the areas in the map file for imagemaps is all based on shapes and points.

circle	two pairs, centre and edge points
oval	two pairs, upper left and lower right
rect	two pairs, upper left and lower right
poly	many pairs, to make a polygon
point	one pair

When using the point markers, the nearest point to the click on the Image is the link that is followed. You can use any combination of these markers to make up the overall mapping of your image map

Dan Winfield

is his name, advanced
CGI scripts are his game

**Web
design**

Part 6

perls of wisdom

browsers. Even though I have not done so, make sure you add some instructions on your form for the user.

When posting information to a CGI script you can use the 'post' or 'get' method. Get will append the form information to the script location and will show what has been posted in the URL box of your browser. The post method, however, sends the information hidden from the user. I find the latter option somewhat tidier and have therefore used it here.

Here goes for the first part of the script, which details all the sub-routines that are needed to make the guest book:

```
@: #!/usr/bin/perl
@: #Amiga Computing CGI Guest Book
@: require "cgi-lib.pl";
@: print &PrintHeader;
@: #set the array of our data
@: %in = &ReadParse;
@: #check the input exists / valid
@: &check_errors;
@: #append to our guest book page this new
entry
@: &add_to_book;
@: #thank the user for writing in your book
@: &thank_user;
@: exit;
```

That seems straightforward enough. Checking for errors is always a good move – it will make the guest book a lot more tidy if you reject any mistakes! The sub-routines which should be appended to the file above are as follows.

```
@: sub check_errors {
@: ($in{'guest_name'}) || ($errors = "<li>You
forgot to put your name!");
@: ($in{'guest_email'}) || ($errors .=
"<li>Not no email?");
@: ($in{'guest_message'}) || ($errors .=
"<li>Hm.. no message");
@: ($errors) && (print <html>Sorry but your
form contained the following errors<p>$errors
</html>") && (exit);
@: }
```

The () || () syntax I have just introduced is very useful. This is the OR statement. If

`$in{'guest_name'}` exists, the first brackets will be true and `$errors` won't be set. If `$in{'guest_name'}` does not exist, the value inside the first brackets will be false so the OR statement will evaluate the next brackets and set `$errors`. Similarly, `&&` means AND, so only if `$errors` exists will the error message be printed and the script exited.

What is actually more user-friendly at this point is to give the user the form together with the error message. If you read last month's tutorial you can use the methods I described there to set a variable with the contents of a form, even filling it in with anything the user did submit. Eg `<input type="text" name="guest_name" size="40" value="$in{'guest_name'}">`. Finally, notice the `=` syntax – this will append to the variable `$errors`. This is useful for custom-building HTML in fragments.

If the user fills out the form correctly, the next routine `add_to_book` will be called.

```
@: sub add_to_book {
@: # This path is equivalent to work:/web/docs/
@: open(FOO, ">>/work/web/docs/guest.html");
@: $out .= "<<<HTML>";
@: <<hr>
@: $in{'guest_name'}</b> <a
@: href="mailto:$in{'guest_email'}">$in{'guest_email'}</a><p>
@: $in{'guest_message'}
@: HTML>
@: print FOO $out;
@: close(FOO);
@: }
```

This routine simply opens the file `guest.html` ready to append to it (see boxout), sets `$out` to be the formatted HTML of the guests message, prints to the end of the `guest.html` file, and then closes the file. This happens every time someone posts a message to your guest book. I suggest you create the file `guest.html` with your text editor first; that way you can add a header to the page and any text you might want before



The Guest Book in action. Note Ibrowse's psychedelic button!

FILE HANDLING

File handling in Perl is not too difficult to master, and is usually the only way you can store data on a Web server that isn't your own. You create a file ready to write to with:

```
@: open(FOO, "<</path/to/file/filename.txt");
```

`FOO` is the name of the filehandle that you associate with the file. You refer to this filehandle until you close the file with `'close(FOO)'`. To write to the file you just:

```
@: print FOO "This is the line I want to write to the file";
```

If the filename has `<<` or nothing at the beginning, the file is opened for input. `>>` will open the file for output and `>>>` for appending. To read from the file, `$line = <<FOO>;` will set `$line` to the next line in the file with filehandle `FOO`.

The way to print out the whole file is:

```
@: open(FOO, "<</path/to/file/filename.txt");
@: while($line = <<FOO>) {
@: print $line;
@: }
@: close(FOO);
```

FORMS AND THE CGI-LIB

When we receive the information from a form in our script we need to process it into a more manageable format. The routines for form handling are such a key part of CGI scripts that fortunately they have been written by other people already. Steven Brenner has written a library of routines we can use. The script we need to require is called `cgi-lib.pl` and is used as follows: These routines are usually used at the beginning of your script. The `require` is essential and

```
@: #require the library so we can use its routines
@: require "cgi-lib.pl";
@: #print out the all important content-type header, using a cgi-lib routine
@: print &PrintHeader;
@: #Let's print out the contents of what we have just posted to this script
@: print &PrintVariables;
@: #Set the array %in to be the data we have just posted to this script
@: %in = &ReadParse;
```

`ReadParse` is the most useful. You can use `PrintHeader` just to save yourself having to remember the syntax, and use `PrintVariables` to debug. When you set `%in` using `ReadParse`, the names of the form items are the keys used to access the data, ie `$in{'email'}` would be equal to the value of `<input type="text" name="email">`. This all-important library can be downloaded from the Stuff page of the Amiga Computing Web Site at <http://www.idg.co.uk/amigacomp/>.

people's messages start to appear.

Finally, we have to thank the user for submitting their message to our guest book. This routine actually is just what we learnt last month.

```
@: sub thank_user {
@: print <<<HTML>";
@: <html><head><title>Thanks for signing the
@: guest book</title></head>
@: <body bgcolor="#0000ff" text="#ffffff"
@: link="#ff0000">
@: <center><h1>Thanks for signing the guest-
@: book</h1></center>
@: <hr>
@: <a href="/guest.html">View the Guest
@: Book</a> | <a href="/index.html">Back to the
@: Main @: Page</a> ]
@: HTML>
@: }
```

I have included some links just to let the user have somewhere to go back to on the site. A guest book is a simple CGI application, which can in fact be any script where you collect information (such as a buy and sell notice board). What is important is the principle of collecting information from forms and storing it for viewing from a Web page.

I promised at the beginning of the article that we would look at imagemaps. Firstly, you'll need a nice image drawn in your favourite Amiga paint package; secondly, the location of the imagemap program on your Web server; and finally a map file containing co-ordinates of URL locations.

When you click on an imagemap, the co-ordinates are sent to the imagemap program and

the map file is then used to interpret them. The HTML you use on your page will look something like this:

```
@: <a href="http://www.immstudios.com/cgi-
@: bin/imagemap/maps/imm.map"></a>
```

This is in fact the imagemap from the IMM Studios front-page. The first part of the href, `www.immstudios.com/cgi-bin/imagemap`, is the location of the imagemap program on the IMM server. At the front of the href is `/maps/imm.map` – this is the argument that is passed to the imagemap program telling it where to look for the map file. This map file is in a directory called `maps` in the document root. It is important that you set this argument after the imagemap reference correctly. In between the anchor tags is a normal image tag with the additional attribute `ismap` – this tells the browser to treat the image as an imagemap. I have also turned off the border around the image with the `border="0"` attribute. The accompanying map file is:

```
@: # IMM imagemap file -imm.map
@: default /cgi-bin/info.pl
@: rect / 0,0 121,22
@: rect /cgi-bin/inter.pl 121,0 205,22
@: rect /cgi-bin/soft.pl 205,0 294,22
@: rect /cgi-bin/kiosk.pl 294,0 365,22
@: rect /cgi-bin/news.pl 365,0 430,22
@: rect /cgi-bin/feedback.pl 430,0 520,22
@: rect /cgi-bin/info.pl 520,0 569,22
```

The `#` character can be used to comment out any notes. You must have a default URL location and then there is the list of URLs and their co-ordinates. Since the imagemap is so simple I have only had to use the `rect` method for marking out the areas (see boxout). The URLs all happen to be CGI scripts, but don't let this put you off as they will in most cases be HTML links. You can of course put a full path as the URL (eg <http://www.amigaforever.com/guest.html>). To mark out the co-ordinates on your image, remember that the point 0,0 is in the top-left of the image. Most of the Amiga graphics packages, such as Personal Paint and ImageFX, display co-ordinates, so you should have everything you need now to make your own imagemaps.

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When the last incarnation of Directory Opus arrived at Amiga Computing's offices, the team received it initially with surprise, then with frustration. Jonathan Potter's acclaimed file manager had turned into something rather more ambitious and, in the process, something far more complicated to actually use.

Opus 5 was a file manager designed to replace Workbench itself, but reviewer Frank Nord was not convinced. Regardless of vastly increased multi-tasking capabilities and an array of powerful additional features, Opus 5 had lost its ease of use. The simple and highly functional interface of version 4 had been replaced with a program our reviewer at one point described as 'schizophrenic'.

So now we have 5.5, trumpeted more as a new program than an upgrade on the basis



Oh dear. I suppose Bill is quaking in his boots

of a large list of new features and enhancements. It certainly remains an ambitious project, with the designers expressly seeking to finish the job they started in the last version. 5.5, according to the makers, is now best used as a replacement for Workbench.

To recap on the basic operation of the program, which essentially remains the same, Directory Opus in appearance and operation is a millions miles away from the traditional file manager concept. Whereas it was once composed of the familiar dual windows above an array of functional buttons (Directory Opus 4), the new version allows you to work with as many windows (or listers) as you like - simultaneously.

Opus 5.5's interface breaks down into two main areas: The listers display files, each with a clickable array of icons; and then there's

the button bank, which can be configured, shaped and positioned anywhere on the screen to suit. The truth is it all looks rather cluttered and complicated at first, though fortunately there's an excellent context-sensitive help facility - click on a feature you're curious about and the relevant advice will pop up automatically.

So that's the basics, but why bother shelling out your money for the upgrade?

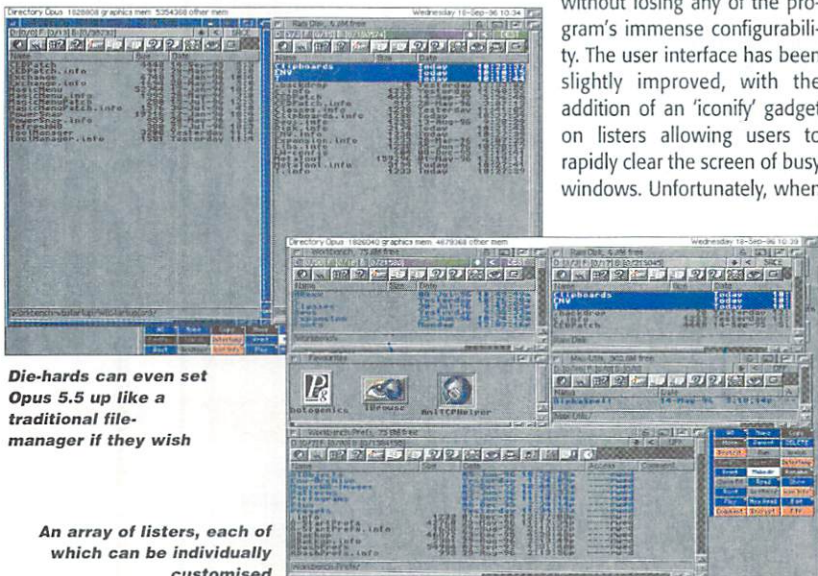
ENHANCEMENTS

Certainly there are a number of important enhancements and improvements to this version, the most significant of which is the fact that Workbench Replacement Mode has been considerably refined - the bugs that cropped up in version 5 appear to have been removed and certain operations have been simplified without losing any of the program's immense configurability. The user interface has been slightly improved, with the addition of an 'iconify' gadget on listers allowing users to rapidly clear the screen of busy windows. Unfortunately, when

The Amiga's most **revered** file manager has undergone a major overhaul, but is it easier to use? **Gareth Lofthouse** puts Directory Opus 5.5 through its paces

working with numerous listers (and that's most of the time in this program), the iconified ones have a habit of disappearing behind other objects, making them awkward to find again.

Other superficial improvements include the ability to have background patterns in icon-mode listers 3D pop-up menus. In fact, pop-up menus seem to have got everywhere. Hold down the right mouse button down while over a lister title bar, for example, and a menu appears allowing you to change the lister's mode - iconify, snapshot, create a new directory or sort icons by name, type, size or



Die-hards can even set Opus 5.5 up like a traditional file-manager if they wish

An array of listers, each of which can be individually customised

INTERNET CONTROL

For Amiga owners busily exploring the Internet, the designers have now included a facility they claim will make it easier to work with Internet-based files. The new Opus FTP module will allow users with an active Net connection to directly access directories on a remote Internet site just as if they were on your Amiga hard drive itself. Most Opus commands will work on the FTP directory, including the copy-file function to and from the site. In fact, you can even double-click on a remote picture to view through the Opus viewer. On the other hand, you still have to connect up to the Net via your normal method, so it's not quite so seamless an operation as it sounds.

That said, it's still one of the update's best new features. You can even extract archives straight to disk, as well as working with extra-long, case-sensitive UNIX filenames. OpusFTP also supports a variety of different server types, including WindowsNT. All in all, a very welcome addition.

date. This is one of 5.5's more valuable enhancements and is much quicker than using the pull-down menus, though these are still available. In addition, you can add custom entries to these menus using the Opus Filetype Creator.

New scripts have been included which allow you to trigger Opus commands on events, ranging from the pointless but fun samples you can have played on certain operations, to more useful functions - for example, a requester asking if you want to format non-DOS disks when they are detected in the drive.

Workbench's rubber-band selector has not only been included, it's been improved! Now you can select a group of files or icons to drag and drop without having to hold the shift key - this turns out to be a bigger benefit than it might sound.

Support for programs like Magic Workbench has been improved, allowing

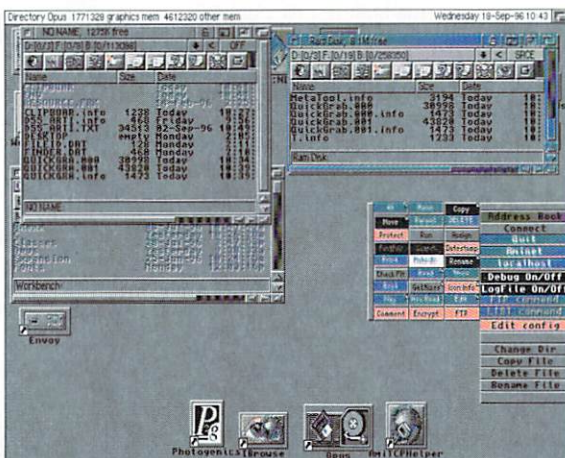
users to add a bit of colour to their desktops. Graphics card owners are also catered for, with an internal picture viewer that now works with CyberGraphix screen modes, including 24-bit.

As mentioned above, button banks are an essential element of the interface, and you can have as many buttons banks showing text or icons as you want. Opus 5.5 has slightly enhanced the look of them, allowing users to remove bulky borders and scroll bars for neater control panels that take up less space.

The documentation meets a high standard, with a well-written ring-bound manual that includes a stage-by-stage introduction as well as comprehensive details on every aspect of the program's functioning. What impressed me was the fact that amendments to the new version have been fully

"The documentation meets a high standard, with a well-written ring-bound manual that includes a stage-by-stage introduction"

The upgrade features an excellent FTP module



JARGON BOX

ARexx An inter-process communication language that determines how Amiga programs interact with each other

FTP File transfer protocol, used for transferring files to and from the Internet

Hot Key One touch buttons that provide short cuts for specific operations

Iconify Function that instantly shrinks a lister to a small icon, clearing space on the desktop

Lister Opus's windows in which directories and files are listed

Pop-up Menus Quicker to access than the usual pull-down variety

Script Small Arrex or AmigaDOS programs that increase the functionality of Opus

incorporated into the relevant topics, as opposed to being tagged on as an addendum.

Users have always been able to attach a specific hot key to any button or menu within Opus, but now Opus 5.5 has added a specific set of user-defined hot keys. They can be used solely within Opus, or as a global system of hot keys, depending on your preference, and you can assign custom scripts and commands to each one. The short-cut method to access specific paths within your system has also been improved, with the introduction of a system that allows you to customise the display of any specific directory on your Amiga. You can now define the Lister position, display format and size for any directory, and save them for whenever you re-access the directory. Of course hot keys can be allocated to bring up any specific directory on demand.

New Arrex commands have been added, or extended with new features, and - yes, I'm going to say that word again - you can customise Opus even further by adding your own internal commands.

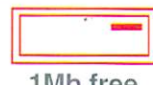
Bottom line

REQUIREMENTS

RED essential **BLACK recommended**



Workbench



1Mb free
HD memory

PRODUCT DETAILS

Product	Opus 5.5
Supplier	Wizard Developments
Price	Price: £49.99 Upgrade: £29.99
Tel	01322 527800

SCORES

Ease of use	68%
Implementation	86%
Value For Money	90%
Overall	81%

MANAGER GONE MAD?

Opus is made for life's born-fiddlers; people who want the option to customise just about every single aspect of their software. If they weren't messing with their Amiga configuration, they'd probably be fitting turbo-nutter cow-catchers to VW Beetles instead; they want everything to be uniquely suited to their needs, and why not?

Given how configurable Opus 5.5 is, it's unlikely that any two user's desktops will ever look the same. For every given task there seem to be four or five different ways of doing it, but whether this is good or bad depends on your perspective.

There is much to commend in this program. The ability to access and handle FTP files just like any other normal file within a standard Opus lister is particularly attractive, and generally Workbench replacement mode is more stable and functional than was the case

with the last release. Pop-up menus, new scripts and hot keys all help to make Opus a slicker beast to run.

Unfortunately, those who found Opus 5 too fiddly are unlikely to change their minds on the basis of this latest release. While the originally cumbersome Windows on the PC is getting increasingly user-friendly, Opus 5.5 threatens to turn the Amiga into a machine best suited to techies.

The makers say it just takes getting used to, and that if you persist you'll never want to go back to your old habits. For some users of Opus this may be so, but as far as I'm concerned, I just haven't got the time.

Despite these criticisms, the power and flexibility of the program as a replacement for Workbench is undeniable. For those willing to endure a period of hard work familiarising themselves with Opus 5.5's quirky ways, it will no doubt prove to be a valuable product.

Walking the World

Amiga users all over the globe now know that a Netscape Navigator of any description will never appear on the Amiga. The task of releasing a user-friendly and efficient browser with which to view the World Wide Web has been pretty much left to Amiga users themselves.

IBrowse by Stefan Burtstoem is placed firmly at the top of the list after scoring an overall score of 92% in our November issue. At the moment there are only a few other usable browsers. The early versions of AMosaic failed to impress Amiga users, despite it being the first browser to display graphics, and the others, including Chimera, Voyager and the text-only viewer ALynx, were greeted with still less enthusiasm.

OWN OPINION

AWebII is IBrowse's only real competition, and I suggest you try them both to form an opinion of which one best suits your own particular needs.

The first and most important difference between the two browsers is the fact that IBrowse runs using MUI, whereas AWebII uses a set of libraries called ClassAct. Although ClassAct isn't quite as advanced as the Magical User Interface, it still manages to provide plenty of user-configurable options.

The ClassAct library comes with the packaged version of AWebII, just like MUI 3.3 comes with IBrowse. The major differences are that ClassAct doesn't feature 3D textured buttons, animated icons, or anything near as fancy, although the program is neat and will do a reasonable job with the minimum of

Andy Maddock takes a look at the latest Web browser set to steal the crown from the excellent IBrowse

hassle.

AWebII comes on two disks, the second of which contains HTML Heaven. This program is designed to help you create your own pages and generally familiarise yourself with the workings behind the World

Wide Web. More and more users are now beginning to realise that their own pages can be generated simply and cheaply.

Demon Internet Services is currently giving subscribers 5MB of free space on its server, which is why you can find a mirror site of Amiga Computing's Home Page at <http://acomp.demon.co.uk>.

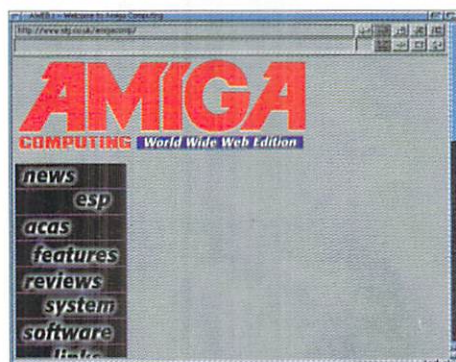
AWebII happily supplies you with enough utilities to have a go. HTML Heaven doesn't need much HTML authoring either, as the majority of common styletags can be inserted, removed and placed anywhere on your text document, allowing you to concentrate on the content of your page rather than the technical workings. Once you have designed your page you can easily load up the .html files as a local-host.

Also, if you manage to get stuck while using AWebII, you don't need to flick through pages and pages of manual just to work out a simple feature. Full on-line help is available, covering everything from organising your TCP/IP stack to setting up your own hotlist of Web sites. Of course, you can multi-task between the AmiGuide document and the browser itself.

MORE NEED FOR SPEED

One of AWebII's features which certainly impressed me was the speed. Okay, so Netscape Navigator can load up images pretty quick on the Macintosh and the PC, but this is the Amiga.

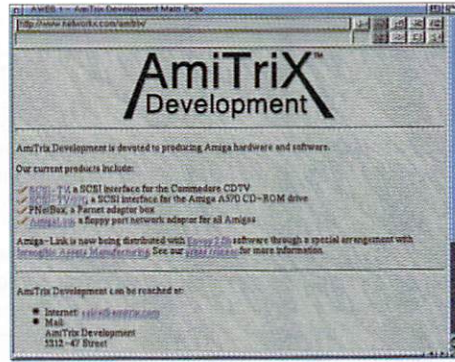
Personally, I prefer to read the information of the World Wide Web and tend to ignore the graphics side unless it's a site which contains image maps. Text-wise, the speed of AWebII is pretty good, especially if you find you've clicked on an unwanted link – you can zip back almost immediately without the need to wait for the page to load again. In fact, by clicking on the arrow-back icon you can zip through the entire history of your Web career and see the first page you loaded up.



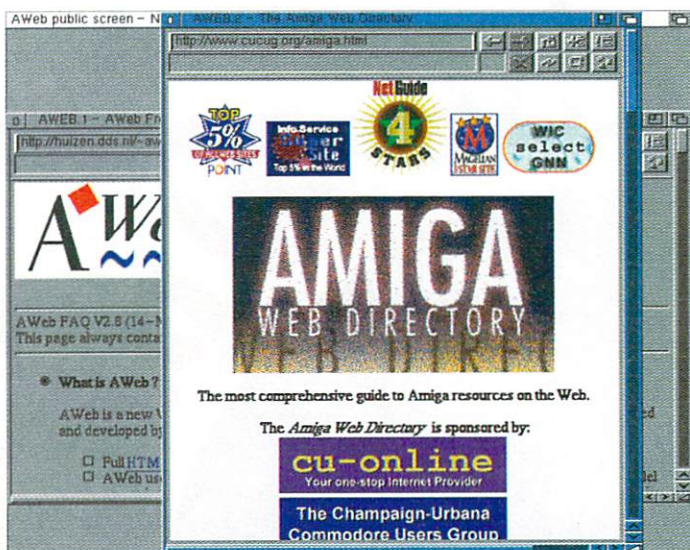
Demo version 1.2 shows its previous inability to centre and justify images



This also a screenshot of the demo version of AWeb. This new version has very much improved



You see that background screens can now be viewed using the AWebII browser. Phew!



The actual look of AWebII has remained the same as the demo version 1.2

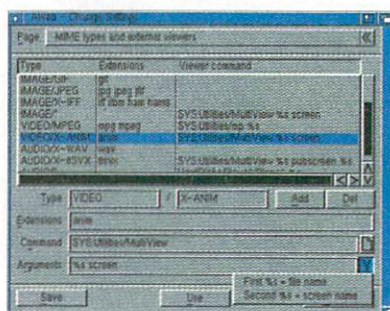


The "Network" window will give you information regarding file and image sizes

Before you begin worrying about your TCP stack, AWebII will happily run using various TCP connections such as AmiTCP, TermiteTCP or the brand new Miami. The only problem you will encounter when viewing the graphics is the need for at least two datatypes, such as .gif and .jpeg. However, they can easily be downloaded from Aminet if you do not already have them.

One of the main problems with the demo version 1.2 was downloading a page of text, as the styletags would still exist when loaded into a text editor. This was because you could only save the document as source instead of plain text. However, this problem has just about been sorted out, and there is now a short CLI program which dumps the styletags, leaving behind a plain text document. Although AWeb's installer fails to unpack the program, it's still an invaluable addition.

Another good feature of AWebII is that



You are also given the opportunity to customise AWeb to your own preference

PLUG IT IN

The majority of features which appeared with demo version 1.2 of AWebII are still included, although there is something else which is just about a necessity, especially if you are involved with the Internet on a regular basis.

AWebII offers plug-in support for other external applications which would otherwise need to be started by other means. There is support for mailto: and ftp:, so if the need arises to switch to an external program, speed is the key - especially with sending mails.

"Thankfully, all of these bugs and additions have now been corrected and included, meaning AWeb looks just as good as any other browser on the Amiga"

when you look up a host and begin downloading, after a short trip to the menu bar you will be able to open up a separate window entitled 'Network'. This enables you to view what stage the page is at, what images are downloading, and the overall size. If you like to see the inner workings of someone's efforts at designing a page, I'm sure many of you would indeed be interested. It also gives you a full description of your page status, even if you load from localhost.

GREY AREAS

Version 1.2 of AWeb refused to recognise any background screen whatsoever and continued to present a standard grey affair. Also, our Amiga Computing Web page contains borders which AWeb failed to acknowledge. There were also problems with centred text and images.

Thankfully, all of these bugs and additions have now been corrected and included, meaning AWeb looks just as good as any other browser on the Amiga. I've also heard the next version of AWeb is in development, and this will hopefully include features such as tables amongst others. This is good news indeed, as registered users will receive free upgrades for any improvements and new features.

As far as the comparison in terms of looks goes, IBrowse easily has the edge. Nicely coloured buttons with an animated loading image in the corner and the option to move the URL window, buttons and status gauge, win hands down. However,

AWebII features a small cluster of grey images in the top-right corner. Although this allows more space to view the actual page, it just doesn't have that professional look. Even AMosaic manages to supersede AWebII in terms of looks.

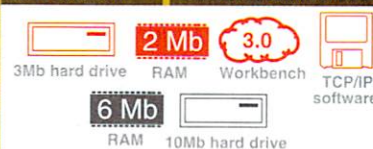
Overall, AWebII is an excellent browser which contains a multitude of excellent features. Unfortunately, none of them really overshadow IBrowse. Graphically, however, AWebII looks slightly superior - even in 64 colours it looks good and doesn't suffer from the dithering problems which were so common in IBrowse.

If you're looking for a good quality browser, you can't go far wrong with AWebII. It's certainly an alternative to IBrowse and offers a lot more than many other Amiga browsers. It's all a matter of taste and personal opinion, and my opinion is that IBrowse has the edge - but only just.

Bottom line

REQUIREMENTS

RED essential **BLACK recommended**



PRODUCT DETAILS

Product	AWebII
Supplier	Blittersoft
Price	£39.95
Tel	01908 261466

SCORES

Ease of use	87%
Implementation	89%
Value For Money	89%
Overall	89%

So far in the series you've seen how to create scripts using Ed, learnt about ARexx variables and those all-important function units that allow scripts to be broken up into easily handled (and easily understood) separate units. And you've had some practice with ARexx macros and the communications side of things. What we haven't dealt with, because it has not been particularly important with the examples to date, is decision making. This month - all that changes.

Now decision making is something that us humans are particularly good at. On a good day we're even able to make reasonable decisions when we don't know all of the facts. "John, do you think that it would be possible to alter our company's filing system so that..." etc. If John makes the right decision he'll doubtless get a well deserved, 'pat on the back'. If he wasn't so fortunate he'll probably look for some reason (or someone) to get him off the hook - "Sorry but when Pete asked me to rearrange the filing system Mr Jackson - I had assumed that HE had asked you first!"

With computer style logic things are a lot more straightforward than they are in everyday life and decisions, at the end of the day, tend to come down to simple Yes/No type alternatives. Does the user want to quit the program or not? Is the value held in the variable *x* greater than 10 or not? In short a statement within an ARexx script will check a condition and then, depending on the result obtained, will either perform, or not perform, a particular action.

With ARexx many program decisions can be made by using something called an IF-THEN statement which takes this general form...

```
if <expression> then <statement>
```

The underlying purpose is easy enough to

In this last instalment
Paul Overaa explains
how ARexx's decision
statements can be used to good effect...

ARexx for beginners

Part 6

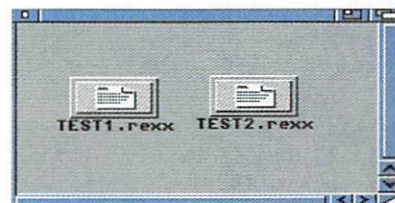
Command performance

understand - the second, statement, part of the expression is only carried out if the specified condition is true. For example, if you wrote this line of code... if number= 200 then say 'you entered the number 200' then the SAY part of the expression would only ever be performed if the number variable contained the value 200! With ARexx however you are not limited to expressions containing just single lines. A whole group of statements can be enclosed within DO/END markers like this...

```
if number=200 then
do say 'you typed 200'
  say 'thank you'
end
```

The important thing about both these forms is that they operate in the same way. The expression is evaluated and only if the condition being tested turns out to be true will the statement or statements which follow be exe-

To save typing you'll
find both of this
month's examples
on the cover disk

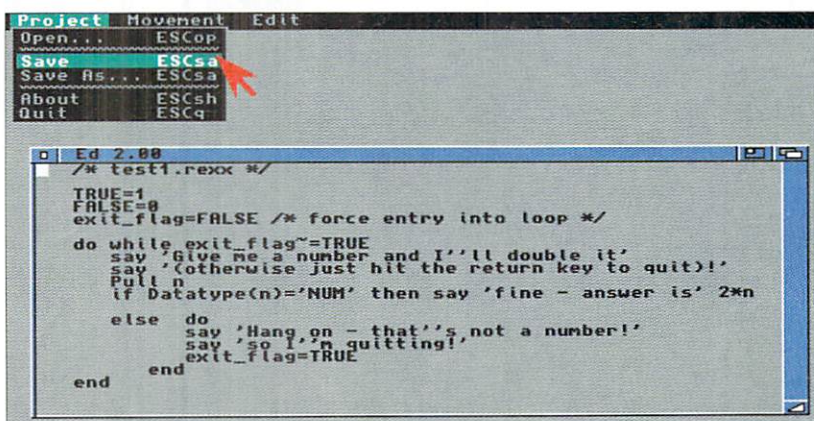


cuted. ARexx also provides an IF-THEN-ELSE extension to these arrangements and these take the form...

```
if number= 200 then
  say 'you typed 200'
else say 'OK, so you don't like 200'
- fair enough!
```

Again you can enclose sets of ARexx statements with DO/END markers so that a whole group of statements are performed, or not performed, depending on whether the condition part of an IF statement is satisfied (true) or not. You can also use other logical tests such as greater than (>), greater than or equal to (>=), less than (<), equal to or less than (<=), and not equal to (<=).

When ARexx is evaluating statements such as 'greater than' or 'equal to', it represents the outcomes of these tests using the value zero as meaning false, and unity (1) as being true. Many languages do in fact allow you to set up named constant values to represent these values but often programmers opt for using uppercase named variables, ie TRUE and FALSE, for this purpose instead.



When you are writing
larger scripts
you should use
your text editor's
Save option to
save your partially
written script to
disk on a regular
basis (say every
five minutes or so).

AREXX'S SELECT-WHEN CASE STATEMENT

Simple IF-THEN and IF-THEN-ELSE statements are fine for the majority of ARexx decision making but occasionally you may need to check for a number of different conditions or outcomes. Suppose for example that you used SAY statements to print a list of numbered menu options to the screen, and then asked the user to type in a menu number. Having collected the number using a PULL state-

ment the idea then would be to perform some set of ARexx statements related to the selected option.

ARexx provides a SELECT-WHEN-OTHERWISE statement that is ideal for this sort of use. Basically it allow you to test an expression and then, on the basis of the result, carry out one of a number of code sections. Cases are tested consec-

utively until one expression evaluates as true and again the sections of code can be either single statements or a DO-END block of statements. You can incidentally leave out the otherwise part of a select-when statement if there's nothing you want to do when other cases are not satisfied. The example in listing 2 shows how this type of selection statement might be used.



Why, having said in earlier instalments that ARexx completely disregards case in variable names, do we bother to use uppercase? It's a convention which stems from languages like C and, once you are used to the idea, it can help make scripts easier to read. You'll know straightaway that such uppercase terms means that the value given to that variable at the start of the program is never going to be changed. In other words as far as the script goes that name essentially represents a constant!

To see how this works in practice take a look at the example in listing 1. It's a program that asks you to enter a number - and then doubles it for you. OK, so it's not exactly stunning as far as effects go, but it is the overall code structure that's the main thing here. The script uses an ARexx do-while loop, a piece of code enclosed by DO/END markers that will continue to repeat itself for as long as the specified condition is true. The condition being tested in our example is this...

```
do while exit_flag=TRUE
```

Looks a bit frightening but if you translate the statement into the equivalent words things aren't so bad. It's simply saying - 'do this loop code whilst the variable called exit_flag is NOT equal to TRUE (ie unity)'. We actually get into the loop by setting exit_flag to zero (using the variable we've defined as FALSE)!

Inside the loop a couple of SAY statements are used to display some instructions,

Listing 1: As soon as the exit_flag variable is set to TRUE the loop present in this script terminates!

```
/* test1.rexx */
TRUE=1
FALSE=0
exit_flag=FALSE /* force entry into loop */
do while exit_flag=TRUE
    say 'Give me a number and I'll double it'
    say '(otherwise just hit the return key to quit)!'

    Pull n

    if Datatype(n)='NUM' then say 'fine - answer is' 2*n
    else
        do
            say 'Hang on - that's not a number!'
            say 'so I'm quitting!'
            exit_flag=TRUE
        end

    when Length(n)=0 then do
        say 'OK, OK... I'm quitting!'
        exit_flag=TRUE
    end

    when type='CHAR' then say 'Hang on - that's not a number!'
    otherwise say 'fine - answer is' 2*n
end
```

```
/* test2.rexx */
TRUE=1
FALSE=0
exit_flag=FALSE /* force entry into loop */
do while exit_flag=TRUE
    say 'Give me a number and I'll double it'
    say '(otherwise just hit the return key to quit)!'

    Pull n

    type=Datatype(n)

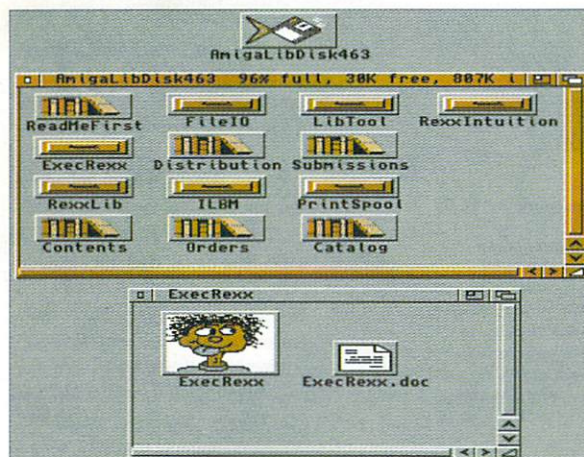
    select
        when Length(n)=0 then do
            say 'OK, OK... I'm quitting!'
            exit_flag=TRUE
        end
        when type='CHAR' then say 'Hang on - that's not a number!'
        otherwise say 'fine - answer is' 2*n
    end
end
```

Listing 2: Select-when type code arrangements can often give useful extra flexibility!

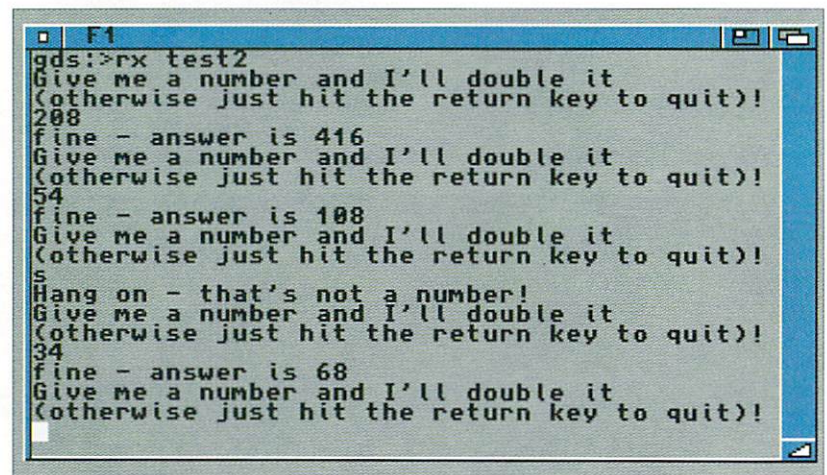
and a PULL statement collects, what is hopefully, a number from the user. Datatype() is the name of an ARexx's built-in function which, when used in the way that we've used it, returns either NUM or CHAR depending on whether the contents of our variable n is a number or a string of characters. You will, incidentally, find many more built-in functions listed in your ARexx manual!

With the example in listing 1 then we're testing whether the user typed a number

and either executing a SAY statement which prints the doubled value or, in the case where a number was not entered, printing an error message and then forcing our way out of the loop by setting the exit_flag variable to TRUE. But supposing you didn't want the script to quit just because the user entered some non-numerical value, how would you do it. One solution would be to add some further if-then test statements, but there is actually a better way...



Public domain scripts provide one of the best ways of learning more about ARexx.



This month's test2.rexx script in action

AND SO TO FINISH...

Well, although we've come to the end of this particular series it's undoubtedly best to regard this as the beginning of your ARexx travels, not the end of them. And make no mistake, you can take your ARexx coding much further. Now years ago anyone wanting to learn about computer programming would do it using Basic (that's actually why the language was invented). OK so Basic has grown in power and usefulness over the years but ARexx is just as good in many respects (and better in some). It's easy to learn, it provides all the

conditional loops, functions, and use of long (understandable) variable names that are needed to write modern day programs - and it's good at catching any slips presenting the code without crashing like some languages do. What's more it's FREE. All you need now is practice and don't forget that you can always get regular extra help from AC's monthly ARexx page.

Some last advice? Well I think style should be kept high on the agenda. Avoid the common pitfall of treating ARexx as some sort of AmigaDOS-

style language only suitable for small scripts. ARexx deserves more than this. Above all keep your scripts understandable - make a point of using understandable variable names, indenting do/end loops and dividing individual section of your code using /* -- */ markers and so on. Do that and not only will your relationship with ARexx will be a happy one but you'll get into a method of coding that'll stand you in good stead should you ever decide to learn about other high-level languages!

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This month we look at a couple of interesting games with which to while away those long winter evenings, and there's the usual helping of indispensable utilities.

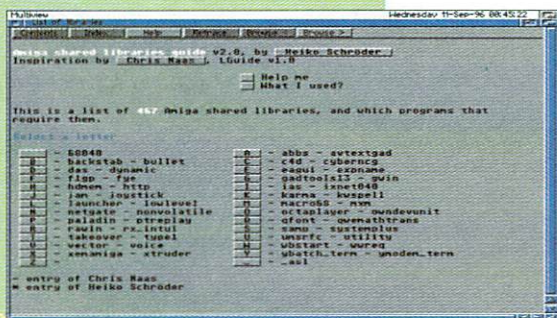
As ever, if you're worried by the number of programs in Public Sector which are listed as being available from Aminet, don't forget that your favourite PD library will probably have the software too. Even if they don't, several libraries now offer Aminet download services for extremely reasonable prices - try Your Choice for instance. If you do have Internet access, don't forget to visit the Public Sector pages, which you'll find by following the Software link from the Amiga Computing homepage.

LIBRARY GUIDE 2.0

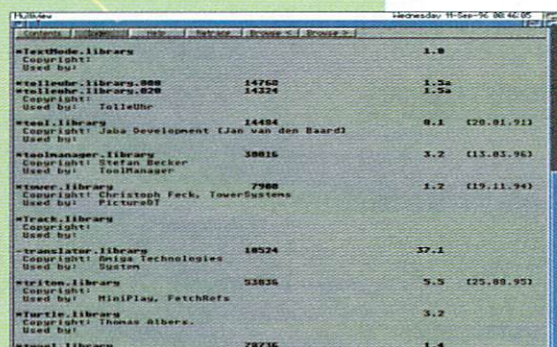
Produced by: Heiko Schroder
and Chris Naas
Available from: Aminet

The concept of shared libraries is fundamental to the Amiga operating system. Many programs will not function without certain versions of libraries present in the Libs directory, and keeping up to date versions of common libraries is essential.

This Amigaguide document catalogues 467 libraries, most complete with details of the author and copyright, lists of programs that make use of the library (handy for determining whether you can afford to delete mysterious library files), and the version number of the last revision. It's an extremely handy document for reference purposes.



Find out whether your Libs directory contains the latest version of those essential libraries



Blimey, so many libraries...

Public Sector

Dave Cusick once more surveys the cream of the PD and shareware crop

RUSH HOUR

Programmed by: Andreas Spreen
Available from: Aminet

This engrossing puzzler is based on an old Commodore 64 game called Traffic. Your task is to

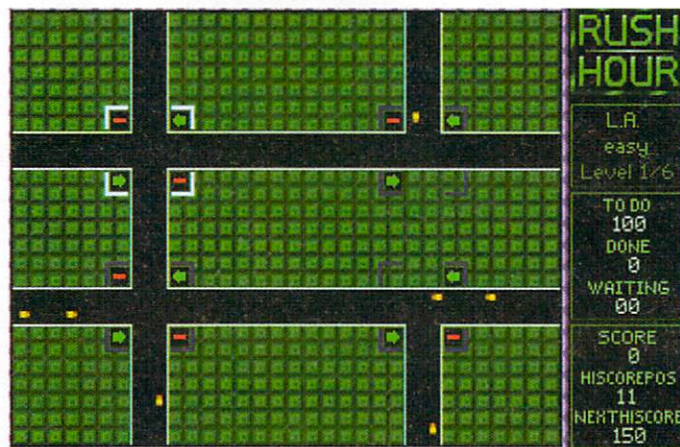
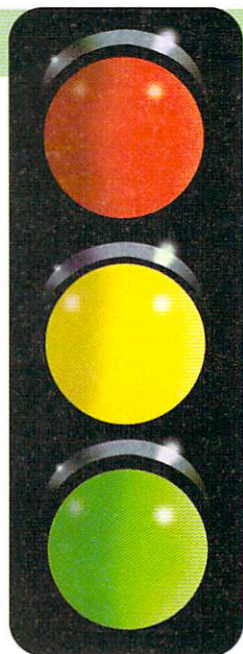
supervise the traffic flow in one of three cities by controlling traffic lights, which sounds simple enough, but in practice can require a good deal of thought and some quick responses as the queues build and impatient drivers start honking their horns.

Each city is divided into six levels, each consisting of one screen containing a number of road junctions. On each level you must ensure that a specified number of cars successfully negotiate the city centre at Rush Hour before the number of vehicles waiting to enter the city becomes too great. If you accomplish this then the bonus mode begins, where you simply keep accumulating points until the volume of traffic entering the city causes everything to grind to something of a standstill. Then it's on to the next level for more of the same.

There are three difficulty settings, and in the Hard mode things can really get frenetic. There are also cooperative multiplayer modes, so that if you are having trouble coping on higher difficulty levels you can enlist the aid of one or two friends to keep an eye on certain traffic hotspots and help keep everything running smoothly.

If you are expecting a flash game with impressive graphics then you will be disappointed by Rush Hour, but if you want a diverting little puzzler then it fits the bill perfectly. It even multi-tasks happily, so you can have it running in the background whilst you do some word processing and then flip screens every now and again for a short break.

As thinking games go, this is one of the most entertaining offerings I've seen in some time, and it is worthy of a place on any hard drive.



Rush Hour:
all the horns
but without
the Road
Rage, or
something

COOLIO

Programmed by: Rodrigo Reyes
Available from: Aminet

The rather scarily named CoolIO is not, perhaps fortuitously, a Gangsta Rap composition program. It is actually an Input/Output patch - it allows programs which would not ordinarily be able to load or save a certain file format to do so, by making use of datatypes and external file converters respectively. For instance, whereas ordinarily with DPaint you would be restricted to loading and saving pictures in IFF-ILBM format, by using CoolIO (with the appropriate datatypes installed, of course) you could load GIF, JPEG, PNG, PCX and many other image file formats, and by calling something like GFXconv you could save pictures in JPEG format.

Since CoolIO makes use of datatypes you will need to have a Workbench 3 machine for the program to work. Installation is simply a matter of copying CoolIO to your WBStartup drawer and using the Preferences program to specify which tasks you wish CoolIO to monitor. Setting up the Saving monitor is slightly more complex than the Loading one in that some parameters will need to be specified for the program or script which CoolIO is to call when your chosen application attempts to save files. However, all this still takes just a few minutes and it will save a lot of time and effort when using format-fussy applications in the future - no more firing up Image Processing packages just to convert images for loading into DPaint so you can edit them.

The archive contains some example saving scripts (for instance, to save files as LHA archives, or to choose the file format whenever you save a file) and a program called ConvertPic which can take IFF-ILBM images and save them as JPEG or PNG files.

Considering there are commercial packages around whose sole purpose in life is to patch programs like DPaint to load and save JPEG images, the freeware status of CoolIO makes it an extremely attractive proposition. Definitely worthy of investigation.



Power up programs like DPaint with the indispensable CoolIO

DON'T DREAM ITS OVER

Unfortunately things have been a little disappointing on the Public Domain and Shareware fronts over the last couple of months, with something of a dearth of decent new software. Indeed, those bursting bagfuls of PD submissions have in recent weeks become but a distant memory, and checking the new uploads on Aminet has become rather disheartening - unless of course you happen to have a soft sport for endless Tracker modules and pic-

tures of peoples' Workbenches...

Hopefully this isn't a sign of terminal decline, merely a temporary lull - but the longer things continue in this way, the less hopeful we can all afford to be. Lively Freeware and Shareware scenes are essential to the survival of a machine these days, and unfortunately many authors seem to be moving across to the all-conquering PC rather than continuing to develop for the Amiga. In these difficult times it is more important than ever that loyal Shareware authors are rewarded for their efforts, so if you've been a little slow to register any programs you use regularly, now would be a good time to redress the situation. You know it makes sense.

TRITUS AND R3 DEMOS

Programmed by: Davin Pearson,
Bruce Webster
Available from: F1 Licenceware

F1 Licenceware now operate a Shareware service whereby members of the public who might normally have qualms about sending money off to authors in the post can instead purchase complete versions of software from a library, who will then pass on the money to the author responsible. This disk contains two Diskmashed demonstration versions of two games in their Shareware series.

Tritus is essentially Tetris with knobs on, allowing up to three players to compete against the computer and one another in a radically enhanced version of the original. Wacky bonuses, built-in bat-and-ball games, strange creatures that begin nibbling away at the blocks in the well, and many more additions help elevate this above the numerous Tetris clones which proliferate in the Public Domain.

Appalling music aside, this is a faultless puzzler which will entertain for hours. This version is practically complete, relying on an irritating "Register Me" speech popping up from time to time to encourage you to shell the small fee the author so fully deserves.

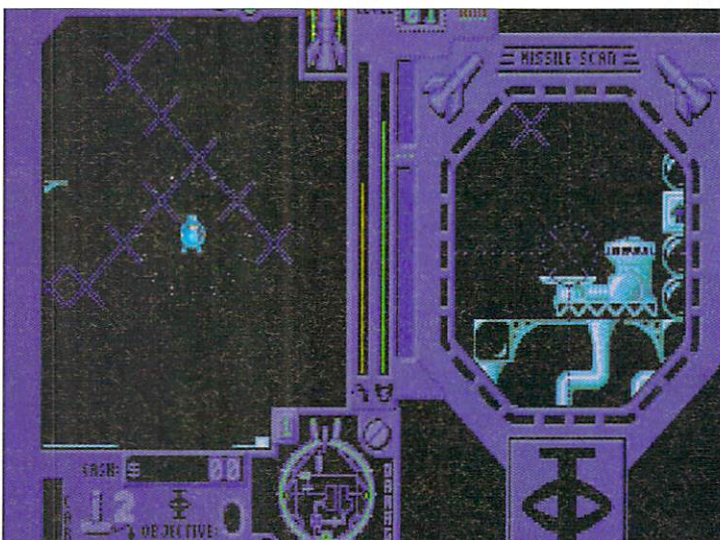
R3 is a decent offering in the mould of Thrust, Rocketz, Bratwurst and others. There are a variety of playing modes - one person can tackle numerous missions, two players can cooperate on other missions, or you can simply challenge a friend to a dogfight.

An extra dimension is added to the game through the inclusion of various different types of starship. There are five different classes of ship at your disposal, each available in three flavours. After completing a mission it is possible to trade in your ship for a superior model.

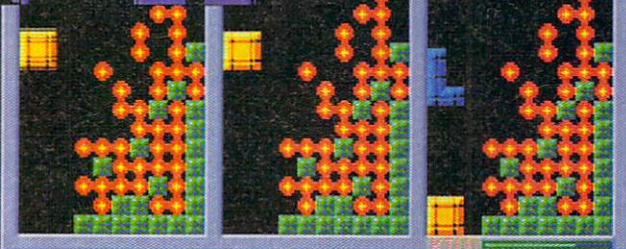
You will have to refuel your ship periodically, or land to make repairs. If you don't bother making repair stops, bumps will gradually result in various systems failing and you will experience considerable difficulties piloting your craft.

Other interesting features include the coins littered around some levels and the idea of earning money for every alien killed (which can be used when upgrading ships), homing missiles, several types of doors and gates which will need to be opened if you are to complete the missions, teleporters, and so on. Overall, R3 is a well presented blaster

which may tax the old grey matter a little bit into the bargain. For twelve quid you'll obtain a version of Tritus without the annoying messages, a complete version of R3, and an R3 level editor. For two excellent games, this registration fee represents superb value.



R3: a bit like Thrust, really



Tritus: a bit like Tetris, really

FALL AT YOUR FEET

I want to hear from you if you have any program, whatever its purpose, which you consider worthy of review. Whether it will be freely distributable Public Domain, Shareware or Licenceware, if you feel it's of sufficient quality to merit coverage then stick it in a jiffy bag or padded envelope and send it in with all haste. Although Public Sector can't possibly hope to cover all submissions, I promise I'll at least look at your work even if it's yet another Lottery program or Klondike cardset. It does make my job a lot easier though if disks are clearly labelled. Please also include a cover letter detailing the disk contents and price, and giving some basic instructions. The magic address is:

Dave Cusick
PD submissions
Amiga Computing
Media House
Adlington Park
Macclesfield SK10 4NP

EASYFIND 1.01

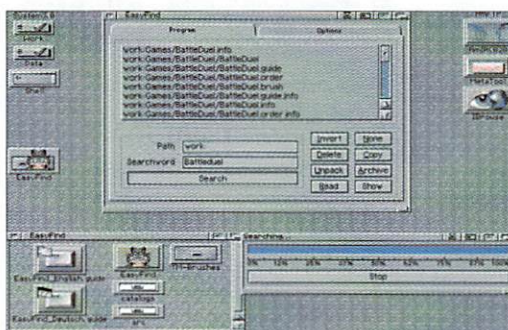
Programmed by: Jan Schwenke
Available from: Aminet

No matter how organised your hard drive, sooner or later you'll forget where you put an important file, be it a text document or a handy utility. At times like these you can end up cursing the lack of a built-in Workbench file finding program, like those on the Macintosh and the PC. That is, unless you happen to have EasyFind close at hand.

EasyFind is a wonderful file locator which makes use of the Magic User Interface and combines impressive functionality with commendable speed.

To locate that elusive file, you simply enter the search keyword, select a device (EasyFind can search all manner of devices from ordinary hard drives to removable media and CD-ROMs) and then click the Search button. EasyFind then hunts around for a short time and presents you with a list of files containing the keyword. You can then choose to copy, read, delete, show, archive or unpack the selected file using a handy file manager in the mould of Directory Opus.

There are a number of options you can play around with to make the most of EasyFind, but



its beauty is really in its simplicity and design. Get hold of a copy, drag it onto your Workbench for instant accessibility, send the author the postcard he requests, and you'll never have to hunt around your hard drive again.

A file finder should have been built into Workbench, but EasyFind performs the job admirably

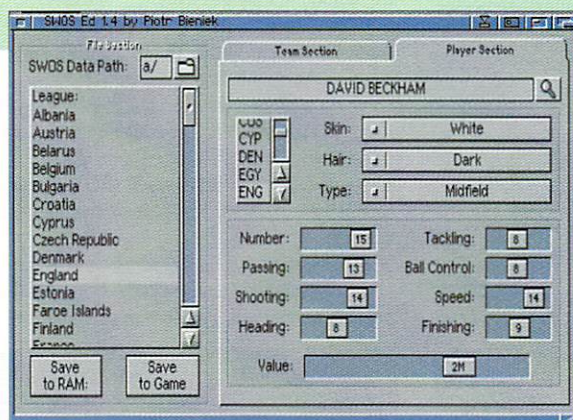
SWOS ED v1.4

Programmed by: Piotr Bieniek
Available from: Aminet

Whilst Sensible World Of Soccer remains one of the most playable football games ever created for any machine, it's not perfect. Upgrades do appear reasonably regularly, but in modern football things change very rapidly, and within a couple of weeks you may well find certain teams such as the Newcastle Uniteds of this world are no longer well represented by SWOS.

There are other SWOS team editors, but this MUI-based one is easily the most pleasant to use. However, before you can use it, you may well have to get hold of the SWOS Hard Drive installation patch (which is also on Aminet) because whilst SWOS Ed can unpack the compressed data files, it can't repack them without a separately available commercial program called ProPack. Having SWOS installed on a Hard Drive not only makes the whole game a lot quicker, but

...and it's now possible to update Sensible World Of Soccer for the new season



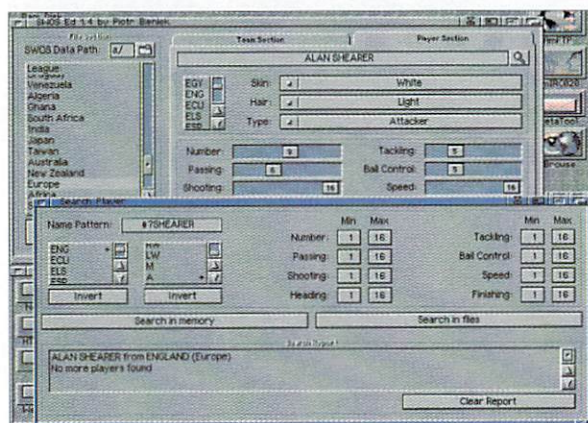
The new Player Search feature is one of the most notable features of SWOS Ed...

means you won't have to worry about saving updated teams to your original game disks.

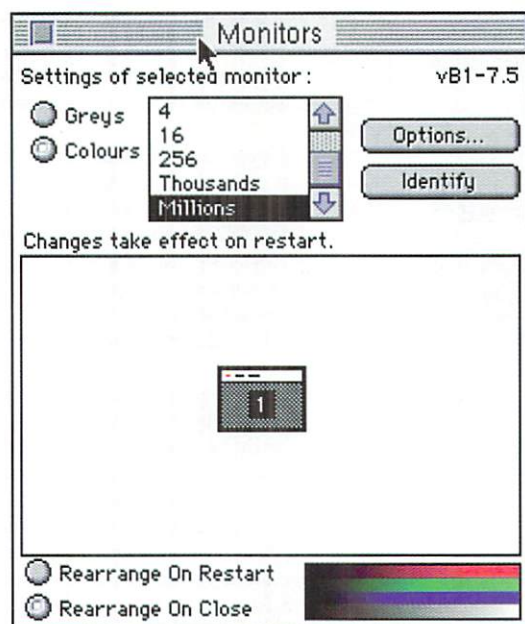
SWOS Ed allows you to edit the statistics which have been assigned to various players, so for instance upcoming stars such as David Beckham, valued in SWOS 95/96 at around £500k, can be tweaked, improved and revalued appropriately. It also enables you to move players between teams, so Alan Shearer can leave Blackburn behind and toddle off to Tyneside, and Vialli can don a four pixel by five pixel Chelsea shirt. If you want to move Emerson to Middlesbrough but haven't got a clue where he came from, then you can use the built-in player search option to locate his original team. SWOS Ed even lets you switch teams from one league to another, although why you would ordinarily want to do this is something of a mystery.

There is but one flaw in this otherwise excellent program. Sensi devotee Andy Maddock assures me that SWOS Ed can cause SWOS to crash when you edit the English league teams, because the uncompressed data file is simply too big for the pre-defined SWOS buffer. Therefore unless you

have access to ProPack you may have to move the Premiership teams into a smaller league data file and save that out, rather than saving directly over the original English league data. Although admittedly this is a fairly large problem for English fans, SWOS Ed is nevertheless an accomplished product which is an absolute essential for Sensi enthusiasts.



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You may never see Workbench with more than 256 colours, but thanks to Emplant's HAM8 screen you can have a 24bit Mac Desktop up to 1280x1024



Now you too can discover the delights of Netscape, and even try out RealAudio

Doppleganger

What is it they say, the grass is always greener on the other side, and why should computing be any different? Face it, it's all well and good Amiga owners harping on about how good AmigaDOS and Workbench are, but if you want access to the likes of Netscape and Photoshop you will have to wait a very long time for them to get ported to the Amiga. So what can you do? Run out and buy a Macintosh and get a large hole in your bank balance or splash out 50 quid and have a fully functioning Mac?

From the authors of the long standing Mac emulator Emplant, comes Emplant1200 and

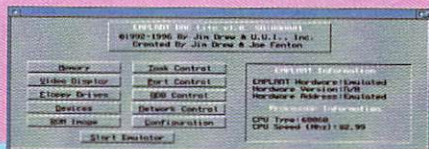
Emplant Lite. The original Mac emulator originally had to come with a Zorro II card that, although providing invaluable SCSI and networking connections for your Mac, put the pricing and necessary machine out of the range for many users. This clearly left the door open for the widely used Shapeshifter emulator Being software only it was vastly cheaper and accessible to a much wider audience. With the new

Imitation is said to be the sincerest form of flattery – Utilities Unlimited have gone for a double dose

I FORGOT

The main Emplant interface is where all the settings for the Emulation are made, allowing you to adjust the Emulation behaviour when in use and in the background, which floppy drives should be used, serial, parallel and ethernet drivers can be selected. You can also choose which ROM image to use, video driver and the all important memory requirements.

On the subject of memory, Emplant claims to require 4Mb of memory, which means 4Mb of free continuous memory. So even with a 6Mb Amiga it is going to be a struggle to be able to do anything useful with your Mac. Once memory is taken for the ROM and display, the Mac will only have a couple of Mb to play with, and really you would need at least 4Mb free. A 10Mb Amiga is ideal, and for using the Amiga and Mac side by side, 16Mb+ of RAM would be more realistic.



The main configuration window lets you adjust most parts of the emulation

hardware-less versions of Emplant, Utilities Unlimited are trying to reclaim lost users.

The two versions of Emplant are aimed at different Amiga owners even though they are essentially the same. Emplant1200 is specifically designed for, and will only work with, the A1200 or the CD32 fitted with a SX32 unit. Emplant Lite on the other hand, is designed to work on any 020 equipped Amiga and because of this it comes with a whole host of additional screen drivers for graphics cards as well as the usual AGA/ECS screen modes.

When you first get hold of Emplant you may be a little disappointed as there is just a single disk in a jiffy bag with no manual or printed material of any description, but looks can be

DISPLAYS

Emplant Lite supports a large range of graphics cards and displays: Here is the complete list

Amiga ECS	Picasso
Amiga AGA	Piccolo
CyberGraphX	RB2/3
CyberVision	Retina
ECS	Spectrum
EGS	Vision
MerlinOpalVision	Vivi

deceptive. The usual Amiga installer is used to copy all the relative files onto your hard drive and it also places the necessary Assign and PrepareEmu command at the beginning of the start-up sequence. The PrepareEmu command makes sure the lower 8k of memory is clear, as this is used by the Mac.

Once everything is installed, the next step is to find yourself a Mac as you will need a copy of the ROM from a genuine Macintosh. This can be done with a small program included with Emplant that makes a copy of a Mac's ROM. Once transferred across to the Amiga you can get on with setting Emplant. Probably the biggest first step with Emplant is getting a hard drive for the Mac sorted out. As with Shapeshifter, Emplant supports both true hard

"The Mac's System installation is pretty dire, nothing to do with Emplant I might add. As well as taking ages, it puts all manner of unnecessary junk on the Mac drive"

drive partitions, which gives the Mac a dedicated drive partition, or hard disk file with which a fake hard drive is created using a large single file.

A dedicated partition or hard drive is the much faster option particularly as you cannot even click on an icon without the Mac accessing the drive, but unless you are willing to repartition your existing drive this may not be an option.

SIMPLER

To help set up a hard disk file or dedicated Mac partition, two separate programs are provided with Emplant, but really the way Shapeshifter handles the process is simpler and more straightforward.

With all the configuration out of the way you can actually think about starting the emulation. Before getting down to using the Mac you will need to install System 7.x the Mac's operating system. To do this from floppy you will need a high density floppy drive as all the disks are HDs.

The Mac's System installation is pretty dire, nothing to do with Emplant I might add. As well as taking ages, it puts all manner of unnecessary junk on the Mac drive. Once you have restarted the Mac you will have plenty of fun poking around the System Drawers deleting things, particularly all the PowerBook utilities.

Once running, you have to all intents and purposes a complete Mac. As the Mac operating system and programs can be run directly by the Amiga's processor, they can run as fast as an equivalent Mac, and in certain circumstances faster. The real bottle neck with the emulation is the screen display. The Mac uses a chunky type

screen display but when using anything but a single plane screen on a normal Amiga display, the Mac screen has to be converted to the Amiga style bitplane display, and of course this takes time.

Owners of graphics cards will not suffer as much display slow down because graphics cards use chunky displays, so no conversion is necessary. Even CD32 owners have the bonus of screen drivers that take advantage of the Akiko chip. This can apparently convert chunky to planar screens as fast as an 040 processor - see you knew it would come in handy for something.

Emplant's drivers on an AGA machine are significantly faster than Shapeshifter's and you also get much more choice. I also prefer the way the various Amiga screen modes on your Amiga are transferred to the Mac's monitor preferences. This allows you to select different screen modes from within the emulation. With Shapeshifter however, you are stuck with the screen driver you start with. Emplant also lets you have access to larger Mac screens, anything up to 1280x1024 via an Amiga overscan screen - a little odd to use but it works.

Compared with Shapeshifter, Emplant stands up very well. Emulation speed seems much the same and on AGA and ECS machines, Emplant screen drivers are faster, making the use of 16 and 256 colour Mac screens possible. On the down side, Emplant is a little more tricky to set up and floppy access seems slower than with Shapeshifter.

For graphics card users Emplant does not really offer anything over Shapeshifter, but Emplant1200 for AGA/ECS and CD32 users it does give a welcome display boost along with the promise of Graffiti display drivers running almost as fast as a CyberVision display. For 50 quid you can have yourself a brand new computer.

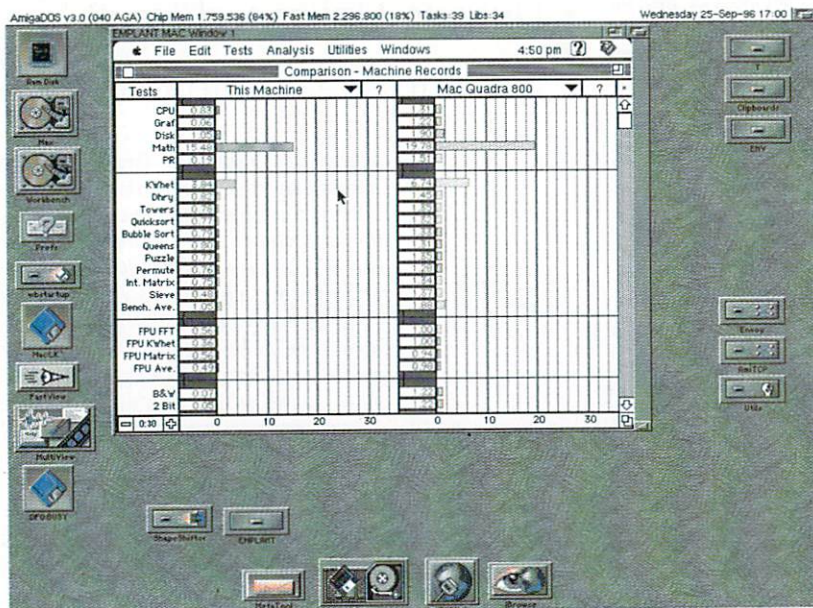
JARGON BOX

Akiko - The last new custom chip to be added to an Amiga, the Akiko, wound up in the CD32 and can convert chunky graphics to the Amiga bitplane graphics at high speed

Chunky - Chunky style graphics organise their colour data in complete blocks, so for a 256 colour pixel you have a block of 8 bits. On a bitplane system you will have 8 independent planes with a pixel have a single bit on each plane

ROM - Read Only Memory, memory that can only be read and is usually permanent. The Amiga and Mac use ROM to store the core parts of the operating system

Mac - The world's first commercially available computer that gave us the a GUI. Renown for its ease of use and well integrated operating system, the Mac rules the DTP world



Take two computers to work? No, I only use an Amiga

Bottom line

REQUIREMENTS

RED essential BLACK recommended

HD floppy drive	8 Mb RAM	20Mb hard drive
16 Mb RAM or above	120Mb hard drive	030/040

PRODUCT DETAILS

Product	Emplant1200, Emplant Lite
Supplier	ABlittersoft
Price	Emplant1200 - £49.95 Emplant Lite - £69.95
Tel	01908 261 466
E-Mail	bsoft@wildnet.co.uk WWW: http://blittersoft.wildnet.co.uk

SCORES

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Implementation	85%
Value For Money	94%
Overall	86%

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By Andy Maddock

Yorkshire Puddin'

About a month ago we received a very suspicious package with only two disks, previously thought to contain a bomb. No address, no name. Could it have been any more suspicious than that? Well, yes it can; the disk labels showed pictures of the title screen from Duke Nukem. And yes, it was clearly addressed to Amiga Computing.

Have PC developers finally realised the Amiga is due more respect than it has previously received? Could a software house in somewhere like California have heard about the Amiga and how good a games machine it really is and given us a quick taster



of the monster Doom

clone for the Amiga? What the hell was going on? Only a quick glance at the post mark would reveal the mystery.

Leeds! Yes, some thick bloke from Yorkshire decided he'd try and convince us that Duke Nukem will be converted for the Amiga. Once more, he sent us some picture disks which contained screenshots grabbed from the PC. Nice try mate, although using my contacts in the post office I've managed to follow up the post mark and date and now know exactly where you live. We'll be round with the horse's head and stuff in about a week, possibly Thursday. Get the kettle on.

Ignore this grab readers...



And this one. It's just a figment of some derranged imaginations

Chaos revisited



You must not confuse this game with OTM's future release just because it has the same name. I'm sure a legal battle will ensue, sometime in the future; we'll have to wait and see.

This particular Enigma is a platform game very similar to Chaos Engine 2 – how we love that game – in every way; the graphics, playability and a similar objective.

Peter Spinaze, the game's programmer from Australia assures us his product is very exciting and will give a much needed push for the Amiga games market – that's what all Amiga programmers say.

The game is based around Greek mythology. This is presumably because the programmer has a keen interest in the subject – just look at the potential

blackmail photos below.

Any way, you control a bloke by the name of Theseus and er, that's all I'm going to tell you because the programmer just goes on about seven girls, a minotaur and a murdered guy called Androgenus. Try and work it out for yourself but please try to keep your imagination free from filth.

We'll probably do a preview on it next month but just to sustain some interest, take a look at these screenshots and see if it's your particular cup of tea.



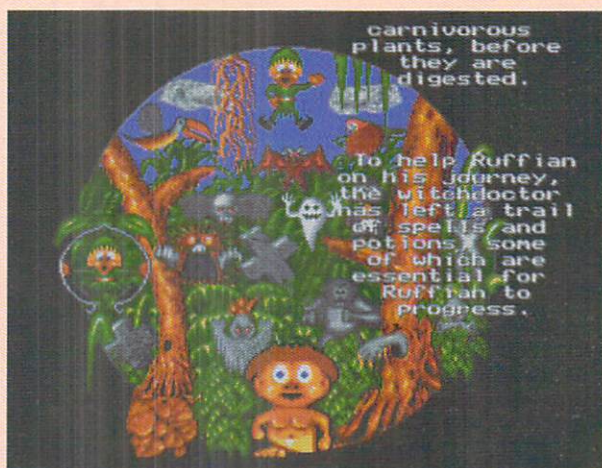
The graphics look reasonably good. If the game-play can match, the guy might sell a few

Ruff time

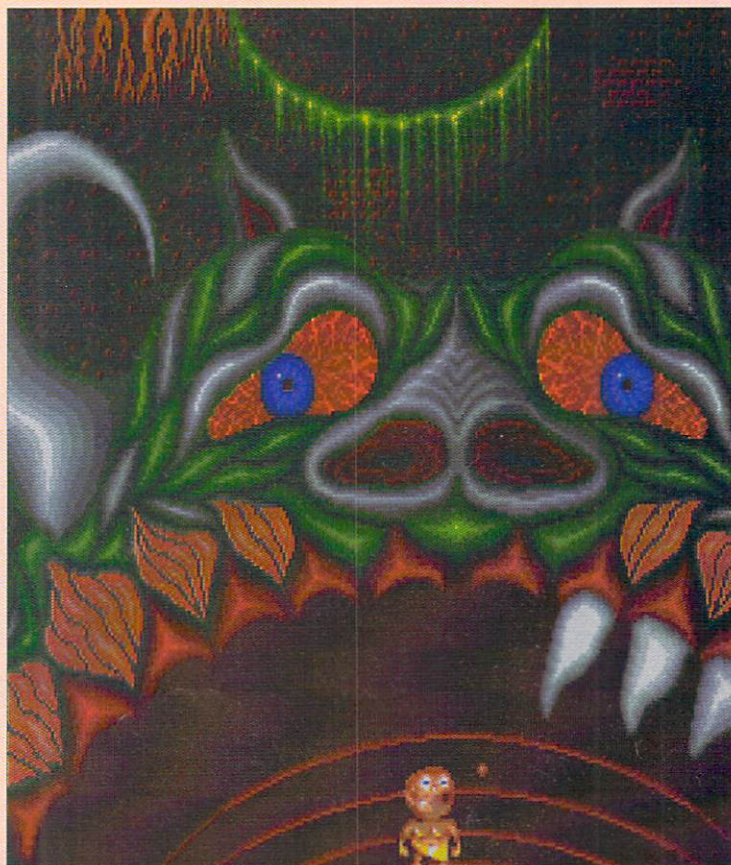
Cast your mind back a few years and see if you remember seeing or hearing anything about this particular title. A number of magazines, including ours, ran a preview and news stories on the game which consequently never came out.

Well now it is due, or so we're assured by David Jones who is currently organising plans to release it. We've already seen the new playable demo and it certainly looks professional which is a welcome change from the number of Public Domain-like games being released at full-price.

Hopefully we'll have a preview next month so watch this space. However, here's our Graham with a quick reminder.



The background graphics in particular are great. They move along at speed with the sprites



Forget you have ever heard or seen this game previously, it is almost ready for release so keep your eyes peeled

System Selection

What a turn up - only one decent game in the last two or three months. That's not particularly good, especially as the games market is picking up. We'll have to hope that between now and the New Year, better games will appear otherwise the Amiga games scene will just never recover.

Capital Punishment

The Canadian development team clickBOOM have developed without the doubt the best game of 1996. But to be quite honest the competition hasn't been as stiff as it should, but let's not take anything away from Capital Punishment, which is by far one of the greatest beat 'em-ups ever.



Find a copy and buy one today. You need this game for your collection

Sprechen sie Deutsch bitte?

A few weeks ago we received a pre-production CD-Rom version of that fabulous Doom clone Nemac IV. When we've all learnt to speak German we'll be able to read the included document and find out why we've got it and what we're going to do with it. Failing that, we'll just preview it. Sound good enough for you?

Here's a screenshot to show you what Nemac IV is.



Nemac: A fabulous Doom clone yesterday

hints & tips

You ask for them, we supply them. We give you the answers to finally complete **Universe**. Well, the first part anyway

By Andy Maddock

Universe



To complete Core Design's marvellous adventure, the first thing you must do is jump off the now disconnected service channel and onto the asteroid below. Look around the asteroid for a bent metal bar and a circuit board. After you have found them both you must jump onto the rock which is spinning. The timing has to be perfect; don't worry if you fail to get on the first time, just try again - with a bit of practice you'll get the hang of it.

When you finally complete the task, you must jump on the bridge which will whoosh you to the next screen of puzzles.

Take the bent metal bar and place it into the panel of the satellite dish. Then do the same with the circuit board. Afterwards, use the panel and you will receive a computer read-out. Select the 'Gavric Homeworld' filtration system. You can now link up the service channel with the filtration system. Just walk across

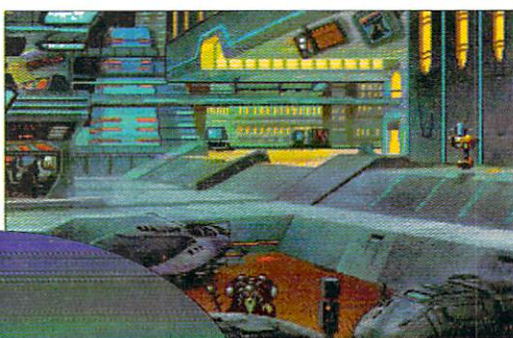
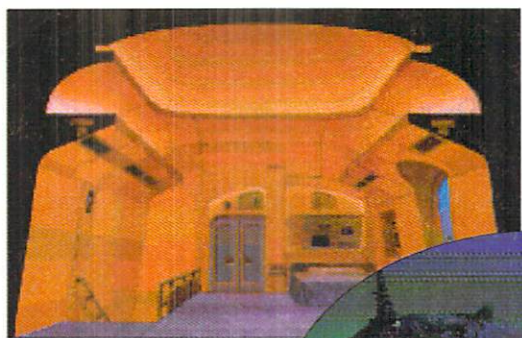


the new bridge and you will realise you have completed the first screen. Marvellous.

The next screen is a strange city with some funny things walking about. Walk towards the air ducts on the left-hand side of the screen. Push/pull on the air ducts and you will get sucked down to the asteroid with the spinning rock. You'll notice that you weren't the only thing that fell down the ducts. A mirror has fallen down with you - pick it up because you will need it to progress further.

Now you have to jump back onto the spinning rock, then jump onto the service channel until you reach the satellite dish. Proceed back to the screen with the air ducts on, then walk to the end of the scene and turn left to exit the screen.

Wait for the robot to pass by, before throwing the mirror at the lasers. The laser bolts will strike the mirror and reflect back, leaving the



area safe for you to explore.

Go to Silphinaa's house and use the keypad which is situated right next to the door. Once you get inside, start smacking the door keypad with the bent metal bar like an absolute mad-man. Go inside and find the wardrobe. Open it and put on the suit which you will find hanging up all nice and tidy inside.

Use computer arm on the console and then use the console to open the window shutter. You are now free to jump out of the window to safety. (Ooh, 'cos jumping out of windows is certainly a safe thing to do!)

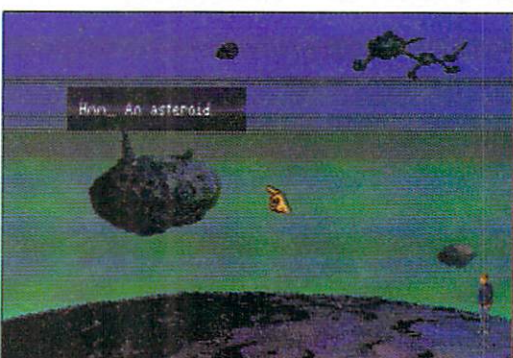
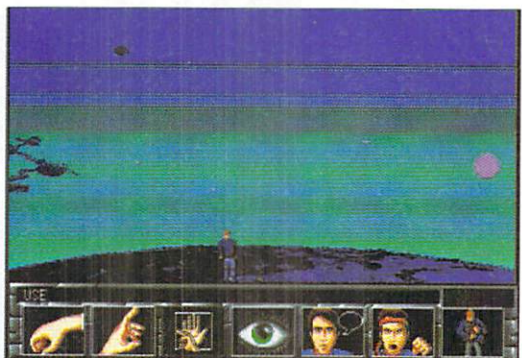
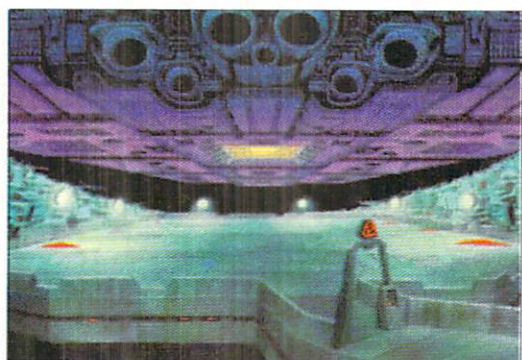
You must now use the arm computer once more, but this time on the posh parked car. Once you've done that, the car will be safe to enter. Jump in. You'll find that it needs to be hot-wired! (So there you go, I'm sure all our readers are quite familiar with that particular practice, eh?)

To get the car ready to roll, you must insert the keycard into the slot on the left of the control panel. Use the console on the right and it will ask you for a code. The code you should type in is '87764'. You must plot a course to Balkmos 7 (which is currently third to the left of your existing position.) Off you go then.

Land on the planet but make sure you select the top-right quadrant. Pick up the droid and the spray can too. Combine the droid with the spray can and use them on the aliens. Jump back in the car and speed off. Punch in a course to Jor-slev 4. Or something. It's probably the Earth equivalent of Luton.

Land on the planet once more, and this time select the top-left quadrant. (See, bit of variety there). Pick up a rock from the floor and throw it at the alien. Use the droid on the blob and then quickly jump back into your futuristic motor vehicle. This time you need to select the bottom-right quadrant. (It gets better all the time, man.)

Talk to the old man in the hut and give him the blobs. He will give you some carvite in return. Jump back into your car and ascend. Lay in a course heading back to the Pfallenop asteroids. Offer Snorglat the medicinal herbs. You can now dock with the ship. Use the left mouse button to accelerate and the right mouse button to activate the clamp. Ooh, hang on, I've just heard there's a cup of tea ready for me. I must fly, although I may pay you a visit next month with the concluding part. If you ask nicely.



preview



Previewed by Andy Maddock

Nematic IV

‘Nematic is pretty much a **Doom** clone. However, it feels rather different from every other game of this ilk,’

Contact

If you want to know more about Nematic, you can get in touch with a bloke called Ralf Rosselbruch. However, I wouldn't advise you ring him up, as his English isn't that good. You may be able to pass on some ideas via the post, though. Write to him at:

Software Store,
Munchinger
Strasse 30
71254 Ditzingen

A demo of Nematic IV made an appearance on one of our old coverdiscs a while back. Basically, Doom clones were all the rage at the time, with Fears, Gloom, Alien Breed 3D and Breathless all doing good business with the Amiga faithful. Nematic appeared a little late in the day to be honest, and with such strong competition it didn't really get a look in.

Some time last month, Nematic arrived in our office in a CD format containing 400MB of data and a rendered intro. This version of the game still isn't finished – that's why we haven't reviewed it – but the gameplay is pretty much intact, so it's more or less screaming out for a preview.

The storyline is pretty complicated and longwinded, so here's a drastically cut-down version of events to save you from boredom.

The year is 2048 and you are battling to stop Nematic IV – a big computer installation – from destroying the world. The computer itself more or less runs the planet, along with all global communication. However, its first test run was wrongly programmed and the computer believes there is a full scale war going on. Doh!

You take control of a big walker machine armed with laser cannons, bolters and machine guns with which to destroy the computer and

save the world. Throughout the game you will encounter many of its defence systems, including murderous robots which must be terminated.

As you have probably gathered from taking a brief look at the screenshots, Nematic is pretty much a Doom clone. However, it feels rather different from every other game of this ilk.

The introduction screen boasts a 3D rendered intro which can be viewed in high or low res – although for the high res intro you'll need a quad-speed CD drive with a decent processor. The game itself will work on any AGA Amiga with 4MB RAM. It will also support any graphic cards and the new DRACO from Macrossystem.

The actual game is pretty easy to master. Your guns are situated on either side of your walker and you can toggle between all different weapons to blow the enemy away. You can pick up various aids to help you destroy the super computer, although it can pick you off easily – you'll have to be quick and cunning.

The game screen can be configured – from screen resolution to screen size – much like with any other Doom clone, and for some unknown reason you can set the difficulty level to 'impossible'.

If everything goes well in the next few months, Nematic could be hitting the shops very soon. Oh, and don't forget, it comes on a CD! Hopefully we'll be able to have a full review next month.



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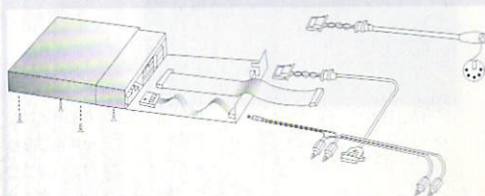


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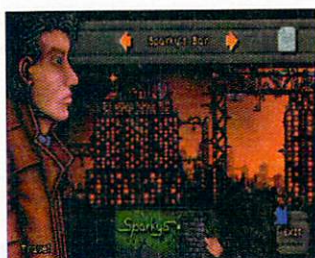
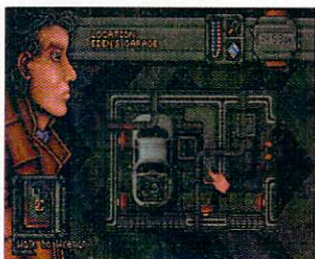
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hints & tips

By Andy Maddock



Dreamweb

The boring bit

You start off the adventure in your girlfriend Eden's bedroom, where there are a number of objects you must pick up. The first is the wallet which is on top of the desk. In the same room you should pick up your cigarettes and zippo lighter. Open the right-hand drawer and take the pound coin, then talk to Eden and she'll tell you to go to work at Sparky's bar.

Go into the kitchen, open the drawers and take a table knife. Open up the microwave and take the key from inside it. Take Eden's network card from the table.

Push the button by the door and go into the lift. Take the wrench, the oily rag and the screwdriver from the garage, then leave the whole place and head down to the end of the street.

Go to Sparky's bar. Once inside, find your usual seat by the bar. Talk to Sparky and then use your cashcard through the scanner. Talk to the man sitting next to you. He'll tell you that rock star David Crane is in town. Leave the bar and go to your flat.

Go through the first room and you'll find the door to your flat on the left-hand side. Use the keypad and type in the code. This number can be found in the back of the 'Diary of a Madman' (come on, we've got to let you do some of the work). Enter the flat and pick up the red network card that lies beside the keyboard. Take the Ankh from the clothes drawer.

Place the network card in the interface on the wall and then operate the network monitor. Logon using your password (which you will find in the diary), list what's in the mailbox and read Louis' message. List what's on the cartridge and read the private message. This will give you door codes to get into Eden's and Louis' flat, so you can access them at any-

Trapped like a defenceless fly in the Dreamweb? Never fear, this System guide you will set you free

time.

Go to Louis' place and you will get mugged. There's nothing you can do so just er... enjoy it. Use the keypad and enter the flat. Talk to Louis and he'll tell you to go to the pool hall. Take his trainers, which you'll find in the bathroom. Open the unit drawer and take out Louis' pool hall membership card, making sure you examine it. Leave the flat and go to the pool hall.

Once you arrive at the hall, talk to the assistant behind the hole. Run your membership card through the reader by the door. Use the lift to go to the basement. Talk to the bartender and remember the door code he tells you. Go to the far left-hand side of the pool hall. Via the newly acquired number, use the keypad and enter the office. Talk to Silverman and then run your cashcard through the scanner on the desk. Take the gun from Silverman and leave the office.



Kill that Crane bloke

Go to the hotel and talk to David Crane's fans who are just inside the foyer. Talk to the receptionist, use the cashcard scanner and take the keycard. Call the lift and use the keycard in the lift controls. When it stops, leave the lift and head left onto the next screen. At the bottom of the corridor is a firepoint; open it, take out the axe and head back to the lift (oo-er, it's getting scary).

Use the table knife on the lift controls and then use it again, this time on the green wire. Use the handle and you'll clamber up on top of the lift. At this point I strongly advise that you save your game, because the next part is a bit tricky. Use the axe on the lift doors. As soon as the next screen appears and as soon as the game will let you, open your inventory and use the axe on the guard on the right. Quickly open your inventory again and this time use your gun. Both guards will now be dead, so you can safely walk through the suite to David Crane's room.

You'll see him having a (ahem) good time with one of his many groupies. As soon as the game will let you, open your inventory and use your gun. After the carnage that follows you'll be transported to the Dreamweb.

Talk to the keeper. Once the conversation is finished you must head south to the end of the corridor. Pick up the purple crystal for use later on and go right into the next room. Use the first door you come to and go through it. Use the key from the microwave on the plinth in the middle of the room. You'll be transported back to your own dimension and you'll wake up in an alleyway. (If any of this sounds familiar in any way, I suggest you seek some help. Blimey, what a madman!)

Kill a bloke live on telly

Your next mission is to kill a bloke called General Sterling. Make your way out of the alleyway and go back to your flat. Once inside your home, boot up the network computer. Read all the latest news headlines and you'll, luckily, find out where General Stirling is.

Go to the Channel 6 TV station and wander all the way around to the back of the building until you see a guard. Talk to him and you'll find that this elderly geezer won't let you enter the station. So, you'll have to use your gun and shoot him in the face to get past (as you do). Operate the security controls and

head left onto the next screen.

Walk into the building via the now opened door and pick up the brochure. Drop it on the floor and you'll find a passcard. Pick this up and place it in your inventory. Head left and use the newly acquired card on the door at the bottom of the screen.

Use your screwdriver on the fusebox which is attached to the right-hand wall. Take the new fuse and leave the room. Head right and go past the entrance into the next screen. Enter the room and use the ladder. Open the winch control and replace the broken fuse with the new one. Use the winch and watch General Stirling get squashed.

Once you've talked to the keeper, find your way out of the Web, but use a different stone door this time.

Next...

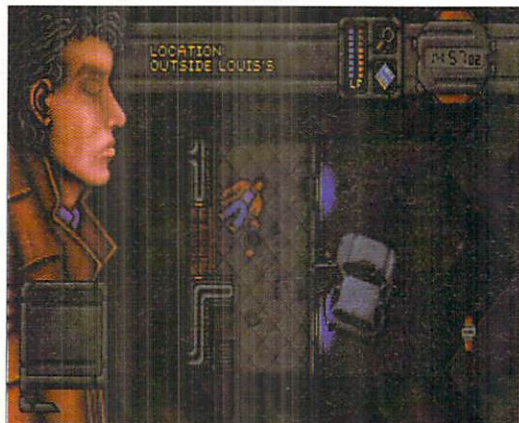
Go back to your flat and use Eden's network card in the slot on the wall. Use the network monitor and read the current news headlines. Read what's on the cartridge to get Sartani's keycode, and then leave the system.

Head to Eden's flat and you'll find her in the bath (make sure you get a good look at her chebs). Leave the bathroom, go into the bedroom and use Eden's personal organiser which is on the bed. On the organiser you'll find the address for Sartani Industries.

Travel to Sartani Industries and use your recently acquired keycode on the keypad by the door. The security computer will ask you for a password. Ignore the stupid computer and use your trusty gun on it instead. Head left, get in and use the lift.

You'll see Sartani run off and his guards will stand in your way with their guns raised. Don't use your weapon, but instead use the purple crystal that you picked up from within the Dreamweb. The guards will spontaneously combust and you can move downwards into the next screen.

There's a briefcase lying on the floor. Pick it up and open it, and you'll find some papers inside. Take them as they'll come in handy later on in the adventure. Walk through the right-hand door and follow the stairs up to the top of the building. Once you've reached the exit, head left and you'll see Sartani escaping in his helicopter. Use your gun. Sartani will die in the explosion and you'll be transported back to the Dreamweb. And... then you'll have to wait for the next part. Exciting, isn't it?



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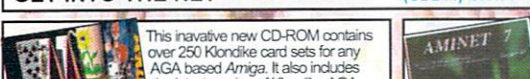
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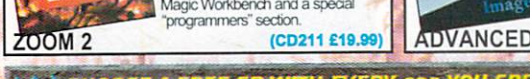


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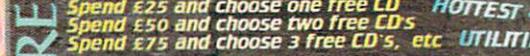
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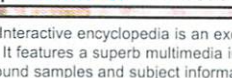
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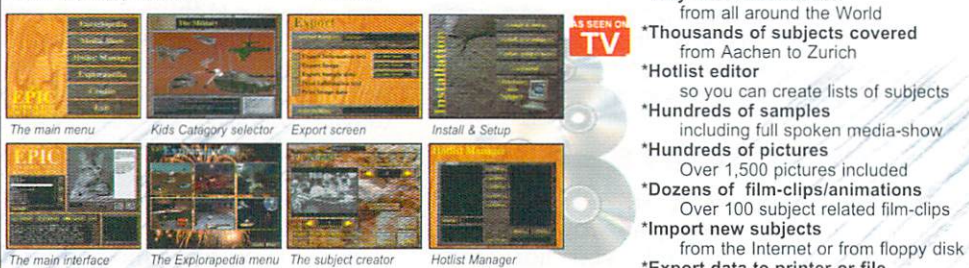
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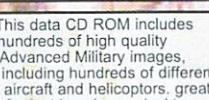
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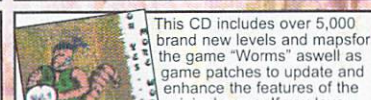
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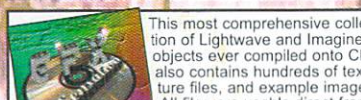
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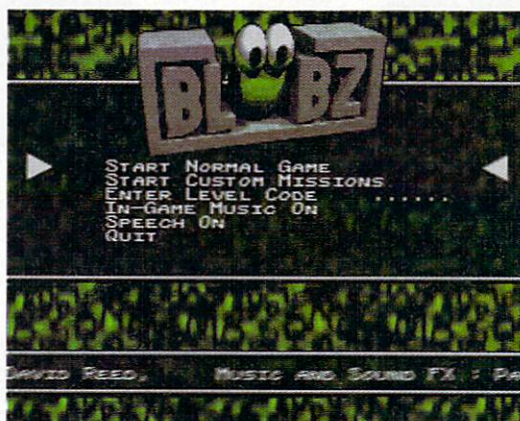
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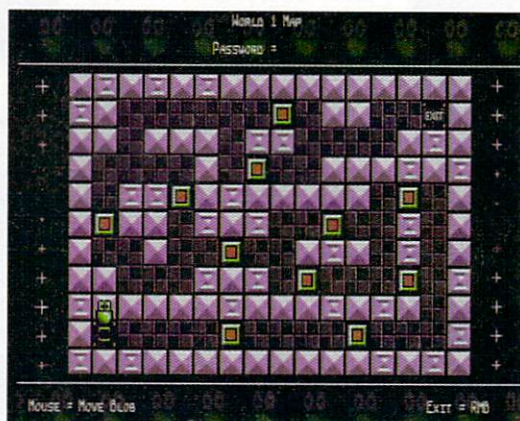
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review



Jumps over hazards need to be judged carefully if you are to avoid coming a cropper



There are over 60 levels to complete over six worlds, and each one is absolutely solid! Well, not really

GRAPHICS

SOUND

GAMEPLAY

OVERALL

81%

76%

80%

81%

PUBLISHER

Apex Systems

DEVELOPER

In-house

PRICE

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DISCS

2

HD INSTALL

No

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Blobz

Reviewed by Andy Maddock

Blobz is a brand new product which landed on my desk a while ago. It came as quite a surprise, as I remembered the developer from a golf game which came out a few months back.

Anyway, Blobz is based around Lemmings. The idea is to help these Blobz from one side of the screen to the other... er, a bit like Lemmings. The major difference is the fact that there is a series of missions to complete like collecting crystals and various other objects.

The screen is set out almost identical to Lemmings. Before the actual game begins you can select a level, and after some disk accessing an overall map of the playing area appears, giving you a brief but informative account of the task ahead.

The Blobz are really easy to control, as there are a series of actions listed along the bottom of the screen. The idea is to click on the action and then on your selected Blob for it to take effect. The actions range from jumping and firing missiles to drilling downwards and flying using a jetpack.

The first few levels are fairly easy because you only need to click on each Blob for them to hurdle over the obstacles. But, as the game goes on, you will find each level requires a certain amount of jumping, digging and flying.

You need to have excellent timing and reactions when you play Blobz; if you're a split-second late, you may lose a life.

When you have managed to steer your Blobz to safety, you will be presented with a screen which informs you of how many Blobz you

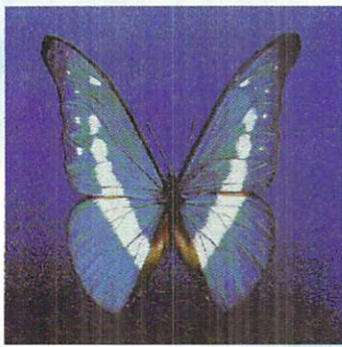
saved, objects collected, targets destroyed, skills activated, skills used and energy used. All these factors total up to give you a score. Oh, and don't forget, you have to get almost all the Blobz home to actually accomplish the mission.

After playing Blobz for a few hours I became pleasantly addicted and actually enjoyed it. The graphics are good, with some nice touches throughout the game, and the actual animation of the Blobz is nice too.

Overall, Blobz is an addictive game with truckloads of playability. It's just a shame that it won't be available in any shops - you'll have to buy it mail order. Still, it's nice to see that decent products can still be produced on the Amiga.



See that Blob there. He looks like your mother, only better looking



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preview

Previewed by Andy Maddock

‘The game will appeal to the **majority** of the market as it will happily run on an **A500** with 1 meg,



ver the last few years Vulcan Software has slowly built up a decent collection of games proving it is now one of the leading software houses. Its best offering which immediately comes to

mind is the Valhalla series.

There have been other successes such as Hillsea Lido and Timekeepers, and although they are both excellent, I don't think any will reach the heights achieved with Valhalla.

The latest release, JetPilot, is a flight simulation – quite surprising since we haven't seen one since the days of Coala by Empire.

The idea is to take control of a Lockheed F-104 which is said to perform within 10 per cent of the real thing. After you have managed to practise and master the art of flying you are given 20 missions to complete, the idea being to intercept targets from Scotland to Spain.

A feature we have yet to see in any other flight simulation is realtime contact between pilot and Air Traffic control. They will be able to confirm your position and even describe the weather conditions. You can select various messages from the menu bar during your mission. All the messages are going to be sampled (hopefully not in a Valhalla voice) so it will be the best flight sim ever, sonically.

The game will appeal to the majority of the market as it will happily run on an A500 with 1 meg, but to get the benefit from the game's best features an A1200 is recommended, as always.



If you've ever wanted to become a pilot, this will be the game for you

But that's not all, you're in for a special treat if you own an accelerator because you will be able to fly with 255 other individual aircraft.

As with other flight simulations, a number of sub-screens will inform you of your position and way-points. You can also select between various external views, as well as look around from inside the cockpit which is very similar to the Virtual Reality games found in the arcades.

If you're really bland or *technically minded* as Vulcan call it, an in-flight interactive manual with *operational performance data* is displayed in graphical form so it looks as if you know what you're doing even if you don't.

Jetpilot looks and sounds like one of the most realistic flight simulations since the Airbus series. Hopefully though, it won't be quite as bland and boring. The release date is set for November 1 so get saving those pennies for Christmas.



Airbus was one of the blandest games in the universe. Let's hope Vulcan strays away from that



The graphics look good, although you will need a fairly decent machine to get the best results



All the graphical displays look like real scanners and radar. Nice.

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feature



I can almost guarantee that most Amiga users are not using their first computer. Some of the very first Amiga games were very similar to those seen on the Spectrum, and software developers were swift to transfer their attentions from Clive Sinclair's brainchild to Commodore's new baby. Home users (and I'm sure an awful lot of you were involved here) inevitably soon followed suit.

When the Spectrum became fashionable, I was

only interested in Scalextric, Action Man and Star Wars. At Christmas, the only home computers I knew about were being gifted to my elder brother.

Our first Spectrum did indeed come courtesy of Father Christmas; it was a Sinclair ZX Spectrum 48k, and it came with various games and applications. A separate cassette deck was also supplied. In retrospect the whole loading process was horrendously long-winded and awkward, although after a few hours it became almost second nature.

The games gradually got

better over the years until finally the demand became big enough for Commodore and Atari to unleash their own ideas into the rapidly advancing world of technology. The Atari ST came flying into the shops followed by its main competitor the, er... what's it called now, oh yes, the Amiga.

You can now purchase your very own Spectrum Emulator from various outlets across the country. And believe me, the various versions on offer are worth every penny. If you want to play old classics you can't go wrong. Even if you still have a Spectrum, the emulator is still excellent value for money. The games will be slightly faster and will load instantly – it's the ultimate games machine if you ask me.

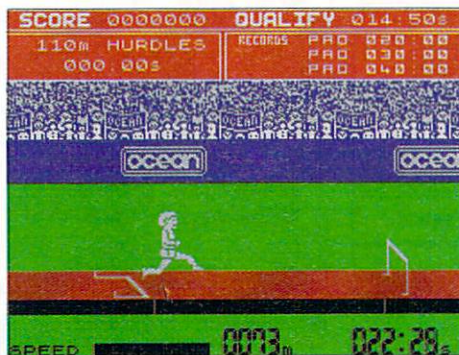
Colour my life

Andy maddock takes a trip down memory lane to look at some all time **Spectrum** classics

All-time Speccy games

Match Day

I believe Match Day is the greatest game in history. Regardless of its speed or graphics, it was the most competitive game around – there have been too many fist-fights to mention after a number of alleged 'pressing all your keys together to seize up the game to prevent a goal' incidents. It was, and still is, a complete classic – one which will never be superseded. Not even by Match Day 2.



Daley Thompson's Decathlon

Daley Thompson's Decathlon was always a family favourite. All you had to do was hammer two buttons on the keyboard as fast as humanly possible. There were a number of events to try your hand at, including the sprint, hurdles, pole vault and javelin. Easily one of the best games on the Spectrum.

Back To Skool

Back To Skool was the sequel to the immensely popular Skool Daze. As a student in an all-boys school, the object was to complete various naughty tasks without being caught and expelled. By far the greatest arcade adventure on any format.



Footballer Of The Year

Footballer of the Year was quite a surprise really. I'm sure not many people have played it, but if you lived and breathed football through the eighties you were guaranteed to have an absolute ball. The idea was, obviously, to become footballer of the year, basically by playing club football and scoring as many goals as possible until you got an England call-up.



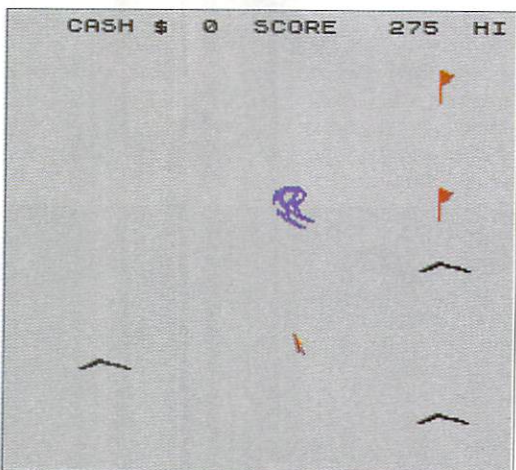
Commando

Commando was hugely popular in the arcades in the mid-eighties, and there was always a battle to take the top spot on the high score table. The Spectrum version followed the arcade version as far as technical limitations would allow, producing one of the most playable games ever.



Horace Goes Skiing

We got Horace goes Skiing bundled with our family's Spectrum. The whole concept of running across a busy road to buy skis may not have been a great example to children, but who's bothered. It was an absolute classic.



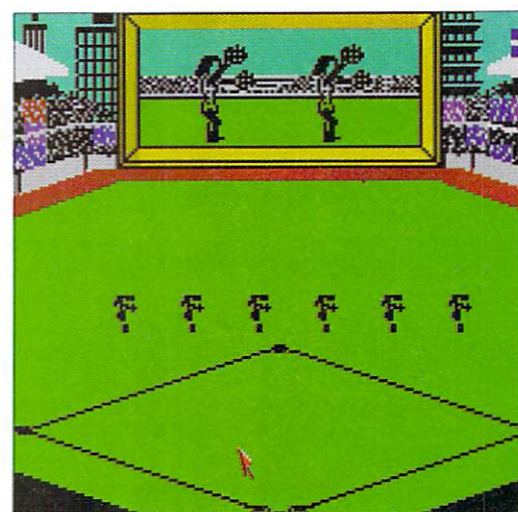
3D Death Chase

A lot of computer users regard 3D Death Chase as the greatest Spectrum game ever. The techies usually have something to say about the 3D graphic routine or something bland like that, but my only message to them is to shut up and just play it.



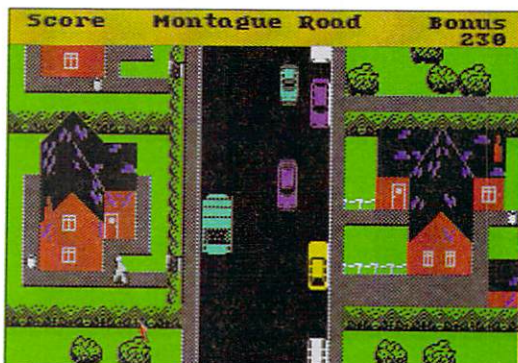
World Series Baseball

This was a largely undiscovered classic which I never would've experienced if I hadn't nicked it from Graham (the kid down our road). We got him to bring it round for a couple of hours and we ended up keeping it. And no, he isn't getting it back. Never before had a baseball game been so entertaining.



Trashman

I think this has to be the most bizarre idea for a computer game ever. Being a dustbin man or a waste disposal manager - whatever you like to call it - your job was to empty a number of bins from a certain road to win points. The disgraceful part was that you were often offered a cup of tea by bored housewives. Blimey.



Give me some money

If you want to experience Spectrum delights such as these, you can pick up various CD and floppy disk packages which offer any old Spectrum user plenty of good times.

You can pick up a CD from Epic Marketing for £17.99 that contains around 3000 games as well as hundreds of documents about the history of the legendary computer. It will work on any Amiga with a CD drive. You can order it buy calling 0500 131 486.

If you don't have a CD drive you can give Software 2000 a call on 01827 287377 and order a floppy disk pack containing an emulator and either 50,100 or 200 games, for £4.99, £7.99 and £11.99 respectively. You can also purchase all three packs for £19.99 - which sounds pretty good to me.

preview



Enigma

Previewed by Andy Maddock

‘Enigma does look and feel like **Chaos Engine**, which is no bad thing,’

Arcade adventure games have been missing from the games scene for many months. I'm not sure if or why developers are avoiding this particular genre, but their absence has certainly been noted.

Over the last few years, many consoles have survived on games like this, but the Amiga has always swayed more towards simulations. Maybe it's because console users are slightly younger, because the Amiga has never had any trouble producing games of the arcade adventure genre.

Enigma hails from Australia and is currently having the finishing touches applied to it by the one-man team of Peter Spinaze. He says he has committed himself to developing games of the highest quality, and has made no compromises with Enigma. He is convinced Amiga owners will be excited about his product.

Enigma revolves around Greek Mythology, for those of you who are interested, and sees you in control of Theseus. The basic idea, without sounding too bland, is to kill a minotaur and rescue several women. All in a day's work, eh?

Your job is to solve many puzzles throughout various randomly generated mazes, whilst

avoiding various monsters - you'll have trouble avoiding them later on in the game as they will come and find you. There are features such as bouncing balls, flamers, electric fields, transporters, pressure pads and underground levels, amongst others.

Enigma does look and feel like Chaos Engine, which is no bad thing. However, the game will need an AGA A1200 with 2MB, which is slightly unfortunate as existing A500 owners will miss out. But those who will be able to run the game will find that they will be treated to 3-D sound, some excellent graphics and pretty good gameplay.

If you want to find out more from the developer Peter Spinaze, or give him some ideas, information or anything else relevant, give him a call or fax him on 00 61 7 54452632. Bear in mind that the cost of the call will be relatively expensive, so don't get carried away. Oh, go on. You know you want to.

Lasting appeal

One of the most original parts of Enigma which will give the gamesplayer lasting appeal and good value for money is that near the end of the game you get the chance to take part in a Doom-like, first-person perspective level whereby you must find your way out of a maze. This particular part will run at 50 frames per second, and the developer is sure that it presents a smooth and realistic environment.

So far we haven't seen any screenshots of this particular part, although it sounds quite good, doesn't it? If it can match up with the rest of the game, Enigma could end up being pretty successful.



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T-shirt printing is simple, just print onto normal paper & iron on. One ribbon gives lots of prints. We can also supply ribbons in many colours T-shirt and normal ink.

Prices include VAT & postage. To order send cheques/PO payable to:

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LOWEST PRICED TOP QUALITY RIBBONS, INKJETS, TONERS & DISKS

Printer Ribbons

BLACK	1 off	2+	5+	10+	BLACK	1 off	2+	5+	10+
Amstrad DMP 2000/3000	2.80	2.65	2.45	2.25	Panasonic KXP1123/1124/1140	3.46	3.31	3.11	2.91
Amstrad DMP 4000	3.66	3.51	3.31	3.11	Panasonic KXP1080/1180/90/1592	2.89	2.74	2.54	2.34
Amstrad PCW8256/851/LQ3500	2.85	2.70	2.50	2.30	Panasonic KXP2123/2180	4.95	4.80	4.60	4.40
Brother M1009/1024/1109/1209	3.90	3.75	3.55	3.35	Seikosha SL900/295	5.70	5.55	5.35	5.15
Citizen 1200/LSP105/1249	2.85	2.70	2.50	2.30	Star LC10/20/100	2.29	2.14	1.94	1.84
Commodore MPS 1220/1230	4.50	4.35	4.15	3.95	Star LC200	3.00	2.85	2.65	2.45
Epson LQ1000	4.10	3.95	3.75	3.55	Star LC24-10/200	2.86	2.71	2.51	2.31
Epson LQ2000/4000/5000/800/850	3.45	3.30	3.10	2.90	COLOUR	1 off	2+	5+	10+
Epson FX/MX/RX80/FX/LX800	2.90	2.75	2.55	2.35	Citizen Swift 24	11.95	11.80	11.60	11.20
Epson LX80/86/90	2.12	1.97	1.77	1.67	Panasonic KXP2123/2180	10.63	10.48	10.28	9.88
Mannesmann Tally 80/81	3.90	3.75	3.55	3.35	Star LC10/20/100	6.00	5.85	5.65	5.25
NEC Pinwriter P2200	3.03	2.88	2.68	2.48	Star LC200	9.78	9.63	9.43	9.03
OKI ML182/183/192/193/195	3.17	3.02	2.82	2.62	Star LC24-10/200	9.63	9.48	9.28	8.88

These are just a small selection of our Ribbons - Ring for those not listed

Ring us and **WE WILL BEAT** all other Ribbon prices

3 1/2" Disks & Disk Boxes

	Bulk	Branded
	DD	HD
10 Disks	£5	£6
25 Disks	£10	£11
50 Disks	£16	£18
100 Disks	£29	£33
250 Disks	£65	£76
500 Disks	£125	£148

All Disks Certified 100% ERROR FREE

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30 Capacity 16.99

Various Dust Covers available from £3.99

Inkjet / Bubblejet Cartridges

	1 off	2+	5+
Canon BJ 10/10ex/20 Cartridge	16.30	16.10	15.90
Canon BJC 4000 Black Refill	7.00	6.80	6.60
Canon BJC 4000 Colour Refill	11.00	10.80	10.60
Commodore MPS1270 Cartridge	10.80	10.60	10.40
HP D'jet 500 Series Black Cartridge	10.80	10.60	10.40
HP D'jet 500 Series Tri-Colour Cart.	21.00	20.80	20.60
HP Thinkjet/Quickjet Cartridge	22.50	22.30	22.10

Inkjet / Bubblejet Refill Kits

Apple Stylewriter	8.50 for 2 x 20ml Refills
Canon BJ 10/10ex/20	8.50 for 2 x 20ml Refills
Canon BJ 200/230	8.50 for 2 x 20ml Refills
Epson Stylus 400/500/1000	8.50 for 2 x 20ml Refills
Epson Stylus Colour Colour	8.00 for 2 x 12ml Refills
HP D'jet 500 Series Black	10.50 for 9ml of each Col
HP D'jet 500 Series Tri-Col	11.00 for 2 x 40ml Refills
Star SJ48	12.00 for 12ml of each Col
	8.50 for 2 x 20ml Refills

Ring For Cartridges & Refills not listed

Normal UK Delivery £2.00, Next Day £7.50

Prices INCLUDE VAT (@ 17 1/2%)

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U039 KICKSTART not 2.55 load of
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U122 SD 1.5 copyable/totally file made very easy
U131 THERA COPY play title while copy disk great
U135 MOST USE UTILITIES (7) very useful util
U142 XCOPY PROFESSIONAL, very powerful disk copier
U146 CANALAN 2.0 Teach you how to program in C
U148 CAT AND LAMATE create your own animation
U150 BIRTHYTHS V4.01 display your own birthyths
U154 MASTER SEXA V1.1 complete assembler language
U155 UNLIMITED DISK CREATORS all tool on are here
U178 M COMPUTER AID Show, was commercial product
U186 SHOWNZ show design make 24" wide effect
U192 COPY COPYMOVE move files using a mouse
U200 AMOS-PAINT Vgogod paint package lots of feature
U202 UTILITY V2.01 best cataloge disk
U226 50+ MOST USE UTIL. load of very useful util.
U229 SLIDE-SHOW CONSTRUCTION KIT easy to make
U240 ARCHIVER 1001 5 pack more file on your disks
U241 CANON PRINTER STUDIO not A500 (1.3)
U242 CANON PRINTER STUDIO -4 all printer drivers
U243 FRACATL util load of fractal program, brill
U282 LAND BUILDER create realistic landscape
U283 COPY & CRACK TOOLS back up your software
U300 MESSY SD 1 readwrite PC MAC etc files
U301 AUTO DISK LOGGERS catalogue your disk
U302 DISK REPAIR KIT salvage & repair damage disk
U304 GRAPHIC util (2) one more Graphic tool
U305 IMPLOUSE 1.3 readwrite PC software + packer util
U334 EMULATOR COLLECTION (10) of emulator
U335 FREE COPY BACK commercial games
U337 MARKET SET util
U338 MULTI VISION (2) disk utilities
U340 MOUSE TOOLS many rpper tool
U350 TOOL, TOOL, TOOL many video title prog
U351 RACE RATER Similar to above, but both
U352 STAR CAT 1 create cataloge disk
U359 SEEKER find lost file on floppy & Harddrive
U360 P.D (1) adventure creator
U362 DISK REPAIR KIT salvage & repair damage disk
U370 WORD SORT process ASCII file
U372 UNDO UNDO 1.3 readwrite PC software + packer util
U373 UNDO SORT fantastic disk
U379 FRACASICE V1.2 new fractal similar to VISTA
U400 SOUND TRACKER V2.4 music make util
U402 SPEED BENCH (not WB1.3) create auto boot disk
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U481 THE KRILLIAN (2) disk (Kodak) Star magazine
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U509 ULT BOOTLOADER 4000-bootloader generator
U510 LOW BENCH (2) disk (Kodak) Star magazine
U512 ZIRCON UTIL (30) MOST USE UTIL 2 brilliant
U515 MPT COMPLETE UTIL 20 most use util

MUSIC

M001 BEASTY BOYS - We Want Some Pussy songs
M002 MICHAEL JACKSON - SONG BAD
M003 DO THE BARTMAN
M005 100 C&A TUNES (not A1200)
M006 BAT-DADE REMIXED
M017 GUNS & ROSES - YOU'RE CRAZY
M018 MONKEY FOR NOTHING - DIRE STRAITS HIT SONG
M027 BLUES HOWE (2 disk)
M028 SAFE SEX DEMO - Very funny
M031 BETTY BOO (2) (2) packs 2 drives (brilliant)
M038 SGT PEPPER (2d)
M072 MADONNA - Hunky Panky song
M084 C&A GAMES MUSIC
M115 MAHONNE KAKTUS 2 - 40 tunes compilation
M125 ADAMS FARM
M150 TIFFANY - I Think We're Alone Now
M171 MADONNA - (Link a Virgin)
M172 JANET JACKSON - RHYTHM NATION
M177 PET SHOP BOYS
M184 SAM FOX (Pleasure Me)
M186 MADONNA (Rescue Me)
M186 JOE LEXI
M188 MICHAEL JACKSON (Smooth Criminal)
M184 JESUS ON ICE (2 disks)
M202 RAVE - More Rave
M262 A TO Z OF C&A GAMES MUSIC (4) Brilliant
M314 DICK TRACY (Madonna) (2)
M335 STAR TREK & STAR TREK NEXT GENERATION (2)

PRINTER MANAGER

U427 PRINTER-STUDIO (2) disk print results
U429 PRINTER TOOL - includes typewriter, spooler etc
U432 PRINTER LABELS print disk labels/banners
U433 STAR PRINTER STUDIO - all star printers
U434 SEIKOS STUDIO - For all Seiko printers more specific printer driver for the above printer
U435 PANASONIC STUDIO - 5 & 24 pin printer driver & util
U436 CANON PRINTER STUDIO not A500 (1.3)
U437 CANON PRINTER STUDIO -4 all printer drivers
U438 CANON PRINTER STUDIO -4 all printer drivers
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Any pack comes on 5 disks
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High quality fonts for use with Paint or Personal Paints
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We also stock many more packs. Please Phone

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The very latest version. Now you can play real Commodore C64 games on your Amiga. All packs below are complete & ready to play directly on your Amiga. Printed instructions provided.

- C64 & 45 original games.....£4.99**
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P.S. C64 V3 & 100 GAMES PACK GOT 88%
REVIEW IN AMIGA SHOPPER ISSUE 54

ZX SPECTRUM 48K

Now you can play 100's of Spectrum 48K Games on your Amiga. Any Pack below is complete & ready to run on your Amiga. Full printed instructions provided.

SPECTRUM 48K GAMES PK1 ONLY £4.99
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SPECIAL OFFER
Take all 3 packs above & 50 New Spectrum Games (total 400).....For Only £19.99

More Spectrum games available
← screen shot from AMIGA

Special Offer

C64 & 45 games pack
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All 3 packs for only £9.99
SEE LEFT FOR DESCRIPTION

1000 SPECTRUM GAMES pack

See left for details. This pack comes on very large number of disks £29.99

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Special offer C64 v3 and 45, 100, 200 games pack with extra 55 C64 games making 400 C64 games & utilities disks. Comes on large number of disks - games list and loading leaflet. Only £24.99.
See C64 or Spectrum advert box for more details

AGA A1200 & A4000 ONLY

THIS LISTING ARE FOR USE WITH AGA AMIGA

- AGA001 EXTENSION DEMO. Stunning demo, fast landscape anim. and a rotating city. regard the best AGA demo.
AGA002 FRACAL GENERATOR fractal in 256 colour.
AGA003 WORKBENCH HACK. many basic tools, blank etc.
AGA006 NEW SUPER KILLER. know know & kill over 316 type of virus must for all A1200 owner.
AGA007 MINOWARP very first demo from the A1200.
AGA008 KLONKOE DELUXE AGA 1200 the best A1200 card games with all the cards face 18 + only.
AGA011 SLEEPLESS NIGHT 3.
AGA012 PLANET GROOVE Truly A1200 demo.
AGA013 MOTOR INVADER 2 (2D) brilliant INVADER game.
AGA015 POINT OF SCALE. Great A1200 only demo.
AGA016 CHROMAS. Fairly good demo.
AGA017 WORLD OF MANGA (4DISK) magnificent Japanese comic slide show include Japanese text etc recommended.
AGA021 MAGIC WORKBENCH. Improve the look of your WB & add some function to your WB really brilliant.
AGA022 WB 3 UTILITIES load of WB 3 only utilities.
AGA023 U-CHESSE the best chess program games so far but require 4 megabytes. Brilliant graphics.
AGA024 WORKBENCH 3 SCREEN Great back drop.
AGA025 SLIDE SLIDE 1-9 (2 disk each) "see below".
AGA026 BODY SHOP VOL 1-7 (2 disk each) "see below".
AGA027 FITCHICK vol 1-3 (2 disk each) "see below".
To order any disk above just state disk code & volume no (remember 2 disk per volume)

DEGRADER

- AGA090 A1200 FIX DISK COLLECTION 1
AGA091 A1200 FIX DISK COLLECTION 2
AGA094 RELOCTIT V1.4a latest, run A500 SOFTWARE
AGA096 A1200 FIX DISK VOL 3 (new July 95)
This disk above are design to make any old A500-A6000 Amiga programs/games etc to run on your A1200/A4000 MUST FOR ALL AGA AMIGA OWNER. RECOMMEND

- AGA097 A1200 UTIL. - AGA TESTER, SYNSIO etc
AGA098 ACTION REPLAY V4 Complete ACTION REPLAY.
AGA099 MADFIGHTER 2 brilliant street fighter clone.
AGA100 AGA BLITZ SCREEN BLANKER
AGA101 FAST GIFT 2 display GIFT pic in Workbench.
AGA102 AGA DIAGNOSTIC - NEW system tester.
AGA103 BLACK BOARD AGA decent image processor.
AGA105 QUICK GRAB AGA - grab AGA screen picture.
AGA110 WORLD BEYONDS 1 (3) stunning 256 COLOUR fantasy art. leave at all user/breathless.
AGA114 SMELL LIKE CHANEL NOS 355 brilliant demo. try trace picture ever release on the A1200.
AGA121 BACON FACTORY 1. STARK TREK (5 disk)
AGA123 AGA UTIL. V1.2 (2) AGA util completion.
AGA135 AGA UTIL. V3.4 (2) more of above.
AGA137 MULTIBOOT 4 various version A500 EMU.
AGA138 OFFICIAL WORKBENCH 3 HARDWARE INSTALLER.
AGA139 WB HARDISK PREF & INSTALLER installing.
AGA140 CROSS DOS PLUS V5.1 read/write PC files.
AGA142 SUPER LEAGUE 3 latest manager games.
AGA143 SPEAK & SPELL - educational software for kid.
AGA145 BIG TOPS (18 + only) HMM.
AGA146 KELO LAND - brilliant platform game.
AGA150 ACTION REPLAY V5 - NEW UP DATE TO V4.
AGA160 GIGER TRIZ very playable 256 colour tetris.
AGA162 FATAL-BLOW new STREET-FIGHTER 2 clone.
AGA164 CINDY CRAWFORD VOL 2 (2 disk) latest release.
AGA166 INFESTATION (3 disk) The ultimate AGA demo.
AGA170 CINDY CRAWFORD VOL 1 (2 disk) amazing.
AGA172 VIDEO TRACKER AGA - ultimate video maker.
AGA174 MAGIC WB EXTRA VOL 1 & 2 (2 disks)
AGA180 GUY BEAUTIES Vol (11-18) 8 more girls disk.
AGA189 FRIDAY AT 8 another brilliant AGA demo.
AGA190 AKAASHA A1200 AGA pic viewing util.
AGA192 ALIEN FRENZY 2 player blasting power up.
AGA194 BIG TIME SENSUAL (2 disk) SPACE BALL 2.
AGA200 MASQUERADE (2 disk) brilliant puzzle game.
AGA201 MASQUERADE (2 disk) brilliant puzzle game.
AGA203 EXPLIIT 2 DEMO new effect, wonderful.
AGA204 COMPLEX ORIGIN 2 disk release 2 disk drive.
AGA206 TREASURE OF TUTANKHAMUN - education tool.
AGA220 LOVE 2 disk/multi 2 disk/multi.
AGA231 AGA UTIL. V1 & 2 (2 disk) More USEFUL util.

SEE PAGE 1 FOR MORE SOFTWARE FOR YOUR AMIGA

SOFTWARE 2000 DOUBLE CD CONTAINS

OVER 1965 DISKS

This is the Big one! Nearly 2000 original disks from the SOFTWARE 2000 library included on a Double CD set. For the list just take a look at this Double advert for example of titles & packs which can be found on this CD. No lucky dip or unknown software. Full description on every disk titles. Very easy to use menu system on both CDs. This unique menu system lets you explore the contents of both CDs without disk swapping... Excellent. See below.

EXAMPLE OF DISKS CAN BE FOUND ON THE DOUBLE CD SET

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|--|---------------------------|
| 294 - VARIOUS UTILITIES DISKS | 118 - EDUCATION DISK |
| 252 - ANIMATION DISK | 133 - DEMOS |
| 181 - AGA DISKS | 225 - MUSIC DISKS |
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AMIGA GUIDE



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Neil Mohr gives
a few pointers
towards a stress
free life with your
hard drive



Easy driving

File organisation is probably the last thing you think about when you own a hard drive and it can turn out to be a real pain if it isn't sorted out before you start. Having used a hard drive for the last six years, and from the vast quantities of software we try out here at Amiga Computing (we only recently filled our 1Gb drive) I can tell you how important proper file organisation is.

Generally when you get a hard drive from an Amiga dealer it will already be partitioned and pre-installed with the Amiga system software, usually Workbench 3.0. If not, then you should already have Workbench disks, but still need the install disk which will partition and install Workbench.

The standard set-up for Amiga hard drives now is to have a partition called Workbench and a second called Work. The Work partition will hold all your own files and application programs and is used the most, while Workbench holds all the Workbench files along with small tools and utilities.

Depending on the size of the hard drive, I would advise setting aside at least 20Mb for your Workbench partition, with 40Mb being preferable, but no more than 80Mb is necessary. All your remaining hard drive space can be dedicated to the Work partition. If you are worried about hard drive crashes, and the amount of time required to recover files, you could split your Work partition in two.

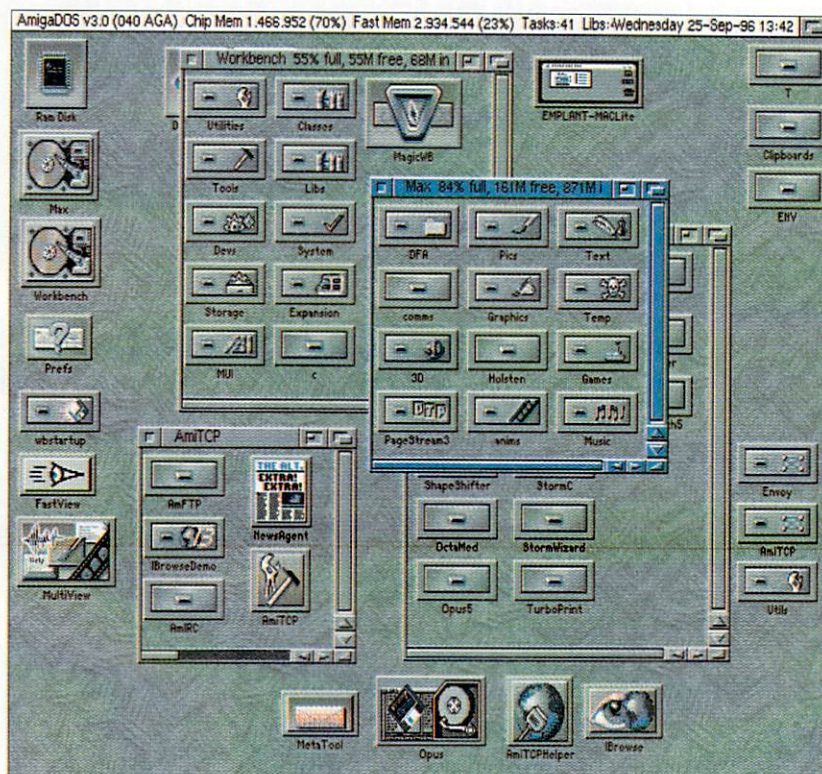
GOOD LOOKING

On the Workbench side, you can pretty much leave things as they are. One thing you may want to do however, is get hold of MagicWB which will give you a more pleasant looking Workbench.

If you expect to be digging around your Workbench files then there are a number of directories which as standard have no icons, but would benefit from having them. Primarily the Libs and Classes directories, which are used a fair bit and its helpful to have access to them. You may also want to add a Classes drawer in Storage.

If you do not already use the program WBStartup, it is wise to have a disabled drawer in your WBStartup. So if you wish to temporarily remove a command it makes it much simpler to drop it here.

On your Work partition, before you start installing programs wily nilly and saving files all over the place, consider what the computer will be mainly used for. It may sound trivial, but if you are going to be dealing regularly with even a few files, good directory organisation



Amiga Computing's Workbench is used more than most and needs to be well organised

tion will help you quickly get to the desired files and programs.

Remember that you do not want to have to hunt through more than two directories to get to a file, so this not only helps you get where you are going more quickly, but saves having hundreds of windows open on your Workbench.

Standard drawers that most people will opt for are an Art or Pics drawer, again subdivided into specific type of pictures. A Util drawer is always well used, with each program having its own drawer in here.

DRAWERS

A nondescript Files drawer can be used to store any old stuff and if you are trying out a number of programs on a temporary basis, then a Temp or Demo drawer a good idea. For larger applications such as AmiTCP or Final Writer, you will be better giving these their own separate drawer.

Also make good use of Workbench's Leave Out menu function, which lets you keep regularly used drawers out on the Workbench - you can also do the same for programs. If you regularly have to access a drawer in which you are

storing files, it would be advisable to set an assign pointing to this directory making access quicker.

BY THE WAY

One last thing worth keeping in mind with assigns - I have an ImagePro directory in the Util drawer, in which I keep all my graphic oriented programs.

This has the assign ImagePro made to this directory, so if any of the programs in this drawer need their own assign, instead of getting the assign Work:Util/ImagePro/blar, they get ImagePro:blar.

This may not seem to make much difference, but if for any reason you need to move the ImagePro drawer to a different location you have only one assign to change instead of a whole host.

Paul Overaa explains how to add file requester facilities to your programs



Making the most of the ASL library

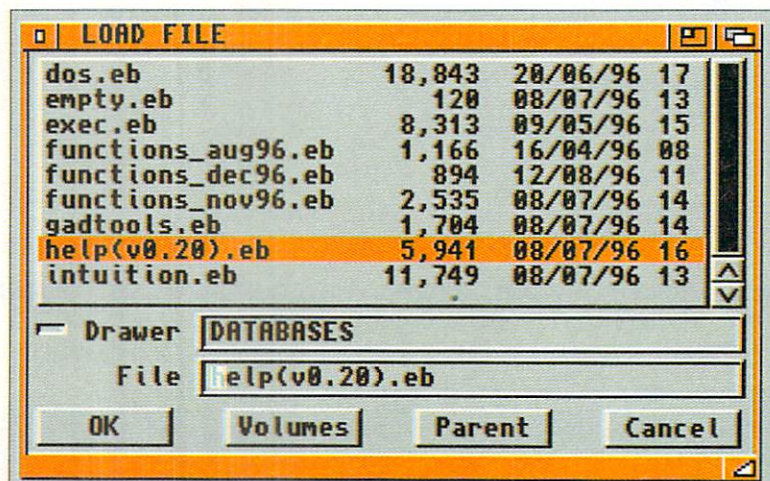
If, in the early days, a programmer wanted some file requester code they normally sat down and wrote it themselves. In fact it wasn't really until Release 2 of the Amiga's O/S arrived that coders finally got some standardised file requester facilities in the form of the asl library.

One reason that the ASL approach appeals to most coders is that the library functions themselves are very easy to use. Once the library is open there are in fact two methods available with the most flexible using parameters passed as tag items coupled with the use of three functions. The tag list approach begins with a call to AllocAslRequest() to allocate the main data structure for the requester. Providing this call is successful a program can then bring up the requester by calling an AslRequest() function as many times as is necessary (listing 1 shows some typical code that brings the asl requester to life). Before the program terminates a FreeAslRequest() function enables you to hand back all the resources allocated by the original AllocAslRequest() call.

The requester options themselves are specified using tag items defined in the libraries/asl.i include file. Setting up an ASL parameter tag list is no more difficult than say setting up an Intuition window tag list - listing 2 shows a couple of the file requester tags that are available for use and most of the time these tag lists can be set up using simple dc.l statements like this...

```
tags    dc.l    ASLFR_RejectIcons,TRUE
dc.l    TAG_DONE,NULL
```

But There's Even An Easier Method...



Once you've seen some code for using the asl requester (and this is coming next month) you'll realise how easy file requester use has become!

ASLFR_DRAWERS ONLY:

Setting this tag to TRUE causes the file requester to have no file gadget, and to display only directory names in the file list. You might use this tag if you wanted to have the user select a destination directory for a particular task.

ASLFR_RejectIcons:

When set to TRUE, this tag prevents .info files (icons) from being displayed in the file requester. To be honest you should use this tag in all your software because Workbench users should never have to see .info files.

Listing 2: Just two of the many file requester tags that you'll find details of in the libraries/asl.i include file!

Although setting up an asl parameter tag list is not really difficult there are some alternative asl library functions that bring up a default sized requester. This default parameter scheme involves first making a call to an AllocFileRequest() function and saving the returned requester pointer (checking the call for a successful, ie non-zero, return value). If all goes well the program can then bring up the requester by calling a RequestFile() function. Before the program terminates a FreeFileRequest() function must be called to

```
FileRequest move.l d0-d4/a0-a2,-(a7)
preserve registers
move.l file_request_p,a0      asl
requester address
move.l #tag_list,a1 #NULL if no tags!
CALLSYS AslRequest,_AslBase
<here we would extract and
use the filename info>
move.l (a7)+,d0-d4/a0-a2      restore
registers rts
```

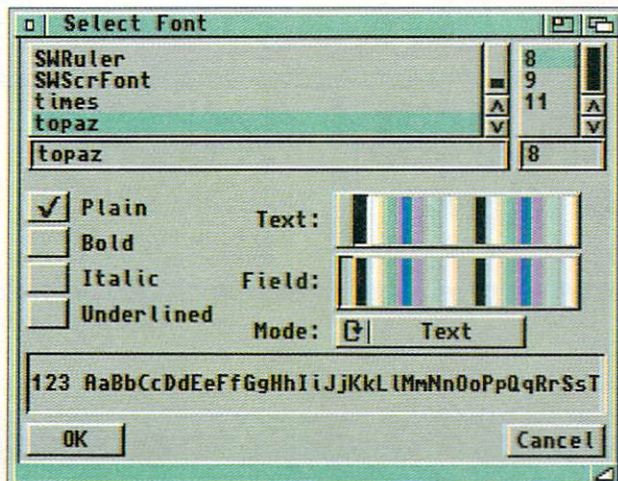
Basic framework for bringing up the asl requester

hand back the resources allocated by the original AllocFileRequest() call.

Easy so far and, with this code in place, the file requester would certainly appear and could be used to select files in the normal fashion. The difficulty at this point is that not only does your program now have to collect any file and directory names that are selected, but it must combine them to form a proper file path/name for the selected item.

Now this might sound like a fairly simple task but coders would often make a few too many assumptions about what users would, or would not, do when selecting files. Luckily this is another area where there are now standard library functions which can handle this job for you. Next month I'll not only explain how this is done but give you some runnable code so that you can see how everything works in practice.

In the meantime you'll find details of all the functions I've discussed this month on the cover disk (as usual they're provided as an EasyBaseAC file so you can add the details to your existing function database!)



The asl library also provides support for other requesters as well.

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Dave Cusick concludes his beginner's overview of the Net



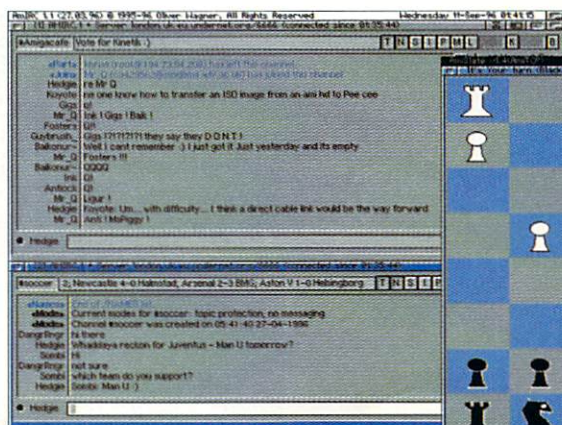
Dream team

Last month we took a look at some of the basic software which no self-respecting Internet junkie can afford to be without. This month we'll broaden our horizons to take in some programs which are rather less essential, but instead constitute enjoyable pastimes and hobbies in their own right. Whilst the Internet is paraded in the media as an invaluable source of information, in reality there will always be many parts of the Net which are entirely devoted to enjoyment rather than education.

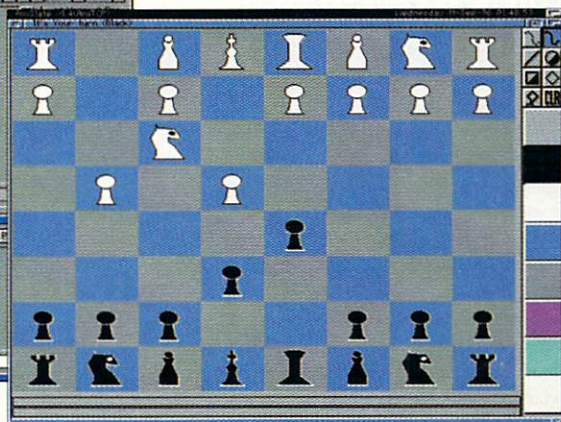
Possibly the most high-profile of these areas is the Usenet News service. Portrayed in the press as a wretched hive of scum and villainy where perverts trade extremely suspect pornographic images, Usenet is in reality simply the enthusiast's paradise, whatever he or she happens to be enthusiastic about. There are literally thousands of Newsgroups, forums debating topics as diverse as Politics, The Simpsons and Guitar Chords. Not all Internet Service Providers offer uncensored News feeds any more, but to be honest unless you are particularly interested in some of the less, erm, acceptable adult Newsgroups then this isn't a problem at all - simply take a look at the list of Newsgroups and subscribe to a few of those that interest you.

OVERCOMPLICATED

There is some debate as to which is the best News program on the Amiga. There are those who'll swear by Thor, which is definitely powerful but is in my opinion a rather overcomplicated beast. You can actually read Newsgroups with some Web Browsers such as Voyager and AMosaic, but to my mind the best solution is to opt for a nice dedicated Newsreader such as MNews, which is available on Aminet and (like



AmIRC: possibly my favourite program in the whole wide world...



AmiSlate's innovative use of Rexx scripts enables you to play games like Chess over the Internet

so many other Amiga Net applications) employs the ever popular Magic User Interface. It's easy to configure, relatively swift in operation, and gorgeously simple to use.

The next area I'd heartily recommend investigating is Internet Relay Chat. On several occasions in the past I've waxed lyrical about the joys of IRC, and indeed a couple of issues ago we looked at how to get the most out of what is possibly the best IRC client in existence on any computer, the wonderful AmIRC. It's not by any means the only program of its type on the Amiga (GrapeVine being possibly the most widely known alternative), but it's certainly the only one you will ever need. I won't go into great detail here since I covered IRC in some detail back in

issue 100, but I'd strongly advise you to download AmIRC, register it, and run up an astronomical phonebill as a result. It's available from <http://ftp.vapor.com/support/amirc/> and registration costs £18 (or £30 to register AmIRC and AmFTP together). Marvellous.

Another underexposed area of the Internet which is definitely worth investigating is Telnet. These days a great many Net users haven't got the faintest idea what Telnet actually is, possibly because of the huge media hype surrounding newer innovations such as the World Wide Web. That's really a shame, because Telnet offers a great many services and is in many ways more usable than the Web, if not as initially appealing.

DIRECT CONNECTION

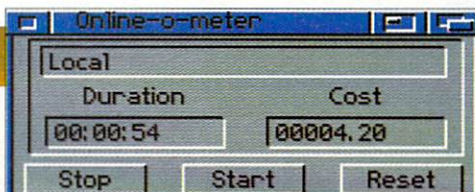
For those unfamiliar with Telnet, it involves connecting directly to a remote computer and searching for the information you require via a text interface running on that machine. Rather than using a fairly standard interface as with the World Wide Web, the information and commands will be presented in different formats depending on the site you have logged onto. You might be using any machine from a Unix computer to a colossal mainframe system, so it's generally wise to pay extremely close attention to the navigation instructions on screen to find out exactly what is going on.

Fortunately owing to the text-based nature of Telnetting, complex clients are simply not required. If you are using AmiTCP as your TCP/IP stack, you'll find a basic shell-based Telnet system in your Bin: directory, and using

ON-LINE TEST

With all these marvellous ways of enjoying Internet connectivity at your fingertips, you might well start spending large amounts of time connected to your ISP. Unless you are lucky enough to get free local calls, this can result in a nasty surprise when the British Telecom bill arrives at the end of the quarter.

One way of keeping track of your time on-line is to get hold of a superb little program called Online-o-Meter, which can be found on Aminet. It brings up a little window which can be pulled from one screen to another, displaying the time you've been connected and the total cost of the telephone call so far. When you quit the program it saves these details to a log file. The latest version, 1.5, is even reset-proof, so if your system unexpectedly crashes



Online-o-Meter: avoid those "How Much?" blues when the phone bill tumbles through your letterbox

you'll still be able to save the call details to the log file when you next run Online-o-Meter.

The archive even contains up to date BT charge information, so getting things set up in the Preferences program will only take a few moments. If you're worried about spiralling phone bills, then get hold of this beauty now - you'll find you suddenly start doing things a lot more quickly and efficiently when you are connected.



>

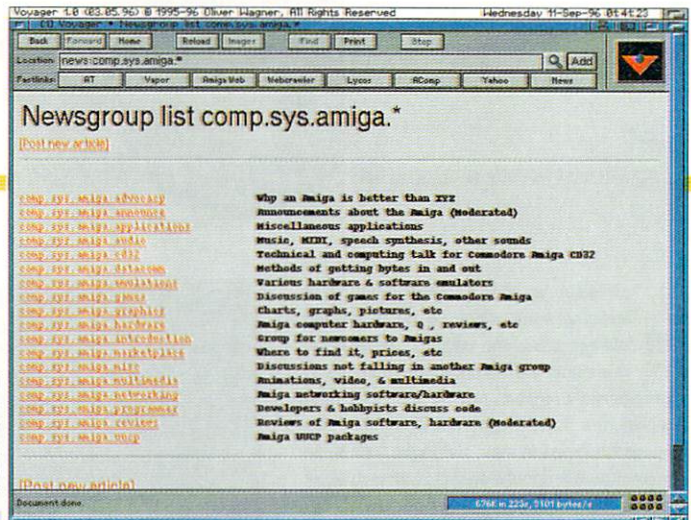
this is as simple as typing Telnet <hostname> (port number). If you don't have this program, or fancy something just a little bit more sophisticated, a quick scout around Aminet will reveal some decent Telnet clients.

Services available on Telnet can vary considerably. You might be able to search a library, participate in conversations with other users, join in multi-user roleplaying games or even visit certain BBSs. For a helpful listing of some Telnet sites, point your Web browser at <http://lmc.einet.net/hytnet/SITES2.html>.

Another interesting addition to your Internet software drawer is AmiTrack, a novel program from Aminet which allows you to easily find out whether friends (or enemies!) are logged on at any given time. The author Jeremy Friesner describes it as a sort of "Active Amiga Registry". When you run AmiTrack you log onto an Amitrack server, telling it your name and a message for others - such as "IRCing in #Amigacafe" or "Available for AmiPhone sessions". It's a simple idea which works well in practice, although disappointingly few Amiga net users seem to make use of it. Support for AmiTrack is actually being built into a new Net front end called Konnection (which was mentioned briefly in these pages a couple of months ago and at the time of writing is in private Beta testing), so perhaps when this is released AmiTrack's profile will receive a well-deserved boost.

The same chap who created AmiTrack is also

You can read Newsgroups with certain Web browsers such as Voyager



responsible for AmiPhone and AmiSlate. I've touched on both these products before, but a detailed explanation would probably not go astray. The former is an attempt to bring powerful Internet Phone support to the Amiga. Various products on the PC and Macintosh have for some time allowed Internet users to communicate with one another through their machines as if they were using ordinary telephones. The advantage of this of course is that you could talk to somebody on the far side of the planet for the price of a phonecall to your local internet provider.

In practice there are now so many individual Internet Phone applications around that you'll really need to tell whoever you intend calling what software you'll be using, making the whole thing more of an enjoyable gimmick than a genuinely revolutionary development, at least for the moment. It's therefore not a colossal disappointment to find that AmiPhone is not compatible with any PC or Mac Internet Phone formats, and that you'll only be able to communicate with other AmiPhone users. You will also need a

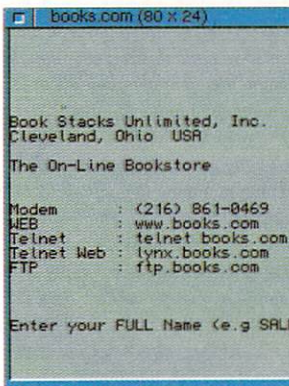
sound sampler and a fast modem to make use of the program, which I am reliably informed works quite well in practice.

AmiSlate puts your Internet connection to another novel use, by allowing you and a friend somewhere in Net land to paint together on the same canvas. At a basic level this enables you to doodle silly messages to one another in real time, which might be quite entertaining for a few minutes but will soon wear a little thin. The real attraction of AmiSlate is that though its innovative use of ARexx scripts you can play games such as Chess, Noughts And Crosses, Backgammon, and so on. None of these games are going to quite match a networked game of Quake on a PC, but they multitask nicely and can be an enjoyable way of passing the time whilst conducting a lengthy FTP session or trawling the Web for some important information.

And if it's on-line games you are after, then BattleDuel comes strongly recommended - Cow Wars for the nineties with modem and TCP/IP support, this can be hugely engrossing. There's also a game called Portals in the pipeline from ANGLE (Amiga Net Games for Light Entertainment) which looks as though it should take Amiga Net gaming to a new level.

For a long time, Amiga users have been told by PC and Macintosh users that Amiga Net software simply isn't as good as the alternatives on their machines. With the notable exception of Web Browsers, software on our beloved machine is now virtually on a par with that on other platforms - indeed, in certain areas, it's more advanced and user-friendly. Net software these days constitutes a large majority of all new software on the Amiga. At long last, the Amiga has come of age as a Surfing computer.

BattleDuel: hurrah for network games!



Using Telnet you can actually log on to remote computers

CONTACT

If you wish to contact me, my e-mail address is dave@dcus.demon.co.uk. Questions, suggestions and feedback are all more than welcome. I also have a homepage, which is now at <http://www.dcus.demon.co.uk/>.

Phil South shows you how to fade and how to make graphics using AMOS.



Not fade away

The wonderful thing about AMOS is how amazingly simple it is to use. For a start, so many things are built into it that you can make really groovy effects with the minimum of fuss and very few lines of code.

Take this brillo little fade routine – I use it to make videos of some of my graphics, a showreel of stills as it were. It loads the files, then fades them out and fades in the next one. There is a file requester routine in this version, but you could equally make it run through a list of files. It goes like this:

```
While Screen<-1
Screen Close Screen
Wend
```

Just a little set-up to close the screen when the screen number is greater than -1, that is to say 0. Now we have the main program loop:

```
Do
Show On
FS=Fsel$("","")
Hide On
If FS<>""
_FADEIT[FS]
While(Mouse Key=0) and(Inkey$="")
Wend
Fade 2
Wait 24
End If
Loop
```

This presents you with a file requester to select the file you want to show. Once it is loaded you can press a mouse button or keyboard key (the while/wend bit) and the file fades out in a slow and pretty way. The procedure is called _FADEIT, and has the variable FS fed to it. Now we do the procedure which does all the work:

```
Procedure _FADEIT[AS]
Auto View Off
Load If AS,0
Screen Clone 1
Screen To Front 0
For X=0 To 31
Colour X,0
Next X
View : Auto View On
Fade 2 To 1 : Screen Close 1 : Wait 24
End Proc
```

What's cool about this is that it does such a nice smooth fade you'd think it was being done by a video mixer – really nice.

But what about something a bit more game oriented? Okay, how about a game background which doesn't even open a screen? A nice trick but can it be done? Sure, we just use

the rainbow command:

```
While Screen<-1
Screen Close Screen
Wend
```

Same set-up as before. Then we set up the rainbow:

```
Set Rainbow 2,0,100,"",""
Rainbow 2,0,150,100
TEMP=98
For LOP=1 To 32
Read C,A
For LOP1=1 To A
```

Then we activate the rainbow on the screen:

```
Rain(2,TEMP)=C
Dec TEMP
Wait 2
View
Next LOP1
Next LOP
```

And finally the data for the colours of the rainbow:

```
BITTY_BITS:
Data
$D0,12,$A0,1,$F0,1,$C0,11,$90,1,$E0,1,$B0,10,
$80,1,$D0,1
Data
$A0,9,$80,1,$C0,1,$90,7,$D0,1,$B0,1,$80,6,$60,
1,$A0,1
Data
$80,5,$50,1,$90,1,$70,4,$40,1,$80,1,$60,3,$30,
1,$80,1
Data
$50,2,$20,1,$70,1,$40,1,$20,1
```

Obviously the data for the bands of colour appear in the DATA statements, and you can swap these around to make different colours with the copper.

Now that's something you don't hear much about these days – the old copper. Time was you couldn't read two or three lines in an Amiga magazine without mention of the old co-processor. It's still a lovely device and I'd like to see some really wild and psychedelic uses of the old thing. If you can come up with something – let me see your rainbow routines ASAP. Check out the chapters on the Rainbow commands in the AMOS manual and I'll see you next month when I'll be doing some more rainbow tricks.

In the meantime, here's a little bit of a project for those more technical types. I would like to see something which uses the input from a sound sampler, like the Perfect Sound Box which takes the input and turns it into patterns on the screen. You can use the rainbow techniques which I've used here, or you can use bobs or vectors or



whatever. I would like to see some really nice effects. If you can manage the effects but you can't hack the Perfect Sound Box, then just send the nice routines and we'll get into bolting them onto the sound to light routines in a later issue.

But for now, let's concentrate on blowing our minds. How about something which increments the colour cycling (as seen last issue) using the SHIFT command in response to a stimulus such as mouse movement or sound input? Or pulses of light using the fade command? Or maybe animating bobs and VU meters using the sounds? It's up to you, and you will be surprised once you discover this how easy it can be. Let's see your best ideas.

WRITE STUFF

If you have any other AMOS programs or queries about AMOS, then please write to the usual address, which is: Phil South, Amos Column, Amiga Computing, Media House, Adlington Park, Macclesfield, SK10 4NP. Please send routines on an Amiga disk with notes on how the program works on paper, not as text files on the disk. Make the routines short enough to appear in print, i.e. no more than about 30-40 lines of code, and if possible make them use no external graphics, or if they can't be used without them then be sure to provide them on the disk in native IFF format, and the same goes for sound files. Follow these guidelines and you stand more chance of being printed.

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Paul Overaa
explains Sound
Studio's sample
facilities



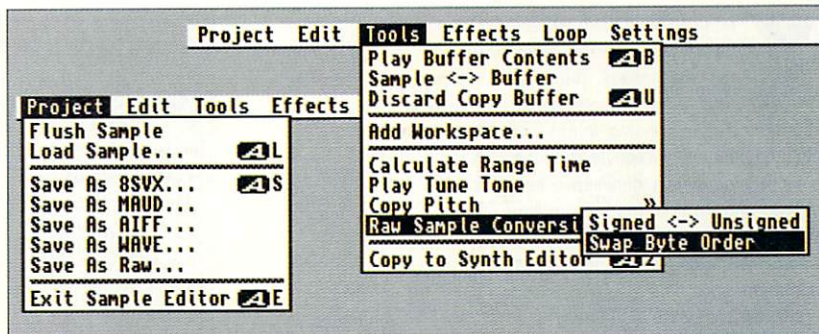
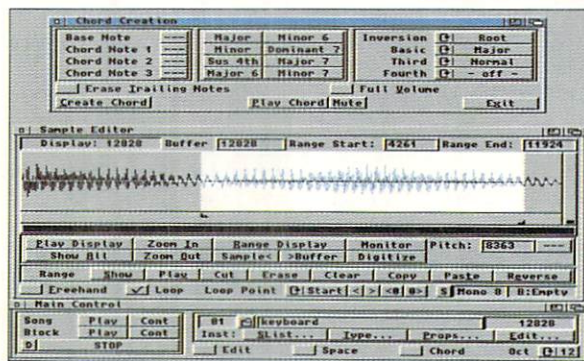
Sample mixing

It's not surprising that the sample mixing ability of the new OctaMED Sound Studio has hogged the lime-light in recent reviews. The ability to 'play' a song, or part of it, to disk in either 8 or 16-bit form is probably the most important facility that has ever been provided with any tracker program - and it has a number of potential uses.

Let's say you've created a drum track that you want to use as the basis for one of your songs. You just select the 1-64 channel mixing mode from the Song Options menu, choose either 8 or 16-bit disk output in the Settings menu Mixing Settings requester and bingo - when you play that section Sound Studio pops up a requester that allows you to choose a location and name for the file it's going to create. Then, as it 'plays' the block, Sound Studio generates and saves a sample equivalent to the drum track created.

You can do the same with bass riffs or anything else where having a repeatable loop could save sample space. In the case of drum tracks of course this means that your drum kit can contain any number of sampled drum

Sound Studio's editing facilities means that you do not need a separate sample editor like you did a few years ago.

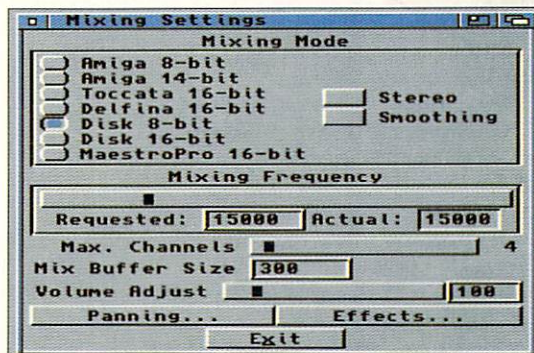


Converting samples between different formats and/or different machines is now a piece of cake!

sounds yet you end up with a single loop-able sample containing your drum/percussion backing!

Another dead useful option available with the Sound Studio's sample editor is the create chord function. This creates chords of between two and four notes from the current sample and, although there are a fair range of presets (major, minor, sus4, minor 6ths and 7ths etc), you've also got full control over the inversion used and on the sharpening and flattening of individual notes. Augmented, diminished chords and so on are therefore just as easily produced in practice as the preset chords!

These types of sound mixing/generation options, coupled with the fact that you also have a sample editor that can deal with a range of format conversion tasks, means that



Being able to send parts of a song module's output to disk as a digitally mixed sample has given Sound Studio the ultimate edge over other trackers!

the Sound Studio is able to offer editing options that are beyond anything that the sample editor packages of a few years ago (such as Audio Engineer or Audiomaster) were able to provide. Samples can be loaded or stored in 8SVX, 16-bit Audio IFF, MAUD and even as WAVE format files (the format used on the PC). As with previous OctaMED versions it's also possible to load and save 'raw' samples, ie the straight image of the sound as it exists in memory and, to help when moving raw samples between the Amiga and other machines (such as the PC), there are signed/unsigned and byte swapping facilities available. 16-bit sound sampling of course provides much greater waveform detail. An 8-bit unit will measure sound signal amplitudes and store them using a relative numerical range of -128 to +127. 16-bit samplers use a -32768 to +32767 resolution scale which is the same as used by a compact disk. The disadvantage is that working with 16-bit samples is more processor intensive and the samples themselves take up twice as much space in memory. The benefit of course is that they sound a lot better.

STILL WAITING BUT...

I suppose the only sad thing is that most Amiga users continue primarily to remain with 8-bit sampling. There has not been the 'en masse' jump on the 16-bit bandwagon that we've seen PC users making and this, to a large extent, is down to cost. You only have to take a look at what PC users are paying for 16-bit SoundBlaster type cards these days (if they get any cheaper they'll be giving them away) to realise why most Amiga users feel locked out of the 16-bit world. It's not just cost of course - unlike the PC there is no generalised Amiga system support for 16-bit sound and this doesn't exactly help matters either.

Such gripes however, especially in the current

Amiga climate, are neither here nor there. What is perhaps most important from a practical viewpoint is the fact that, even with the 8-bit samples that most people will use, the new Sound Studio really can make quite a dramatic difference to the sort of music you'll create. OK, it's always been possible to create looped drum tracks and so on by sampling drum machines but up until now it has only been the more serious (ie Midi-based) musicians that have been able to do this.

With the Sound Studio anyone can do it and, once you've heard what can be done (even with 8-bit sounds) you can't fail to be impressed!

Paul Overaa outlines the facilities offered by ARexx for using different number bases...



Hex horrors

You don't get far into the world of computers before hexadecimal numbers rear their heads. The reason they're used is that they provide a convenient shorthand for expressing things like memory addresses and so on because there is a nice simple correspondence between a hexadecimal address and the underlying binary (base 2) form (see table 1). This means that instead of having to write a 32 bit address as say...

1001 1010 0010 0011 binary
you can peel off groups of binary bits (four at a time) and, by using the digits 0-9 coupled with the letters A-F to represent 10,11,12,13,14 and 15, write that binary number as 9 A 2 3 hex. To convert it back to binary form you just replace each digit in the hexadecimal number with its corresponding binary equivalent.

Defining hexadecimal (base 16) numbers in ARexx is pretty straightforward - you just place an 'x' after the equivalent text string. So the number just mentioned would be written as either '9A23'x or '9a23'x. ARexx does incidentally also allow you to define binary numbers in a similar fashion - so you could actually write '1001 1010 0010 0011'b rather than '9A23'x although such expressions are not used very frequently.

Hexadecimal numbers are also used for defining particular ASCII characters. The Amiga's linefeed character for instance is the decimal number 10 but most coders would define it using the hex equivalent like this...

```
LINEFEED = '0A'x
```

One very common use of hexadecimal numbers is in defining sets of control characters. Here you can build up long command strings using ARexx's concatenation operator || even using other definitions within the string being defined. A Shell window command for turning text underlining on for example might be written as...

```
g.CSI= '9b'x  
UNDERLINE_ON = g.CSI||'34'x||'6d'x
```

OK, so the definition itself looks like a bit of a nightmare but the idea is that, once that definition is available, this series of control characters can be sent to a Shell window using the term UNDERLINE_ON.

Whilst we are on the subject of writing characters back to the Shell window it's worth mentioning that, although fine for straight text messages, ARexx's SAY command isn't really appropriate for these control-character-oriented tasks because it always insists on putting a linefeed character after any set of characters that are written (the solution

0	0000
1	0001
2	0010
3	0011
4	0100
5	0101
6	0110
7	0111
8	1000
9	1001
A	1010
B	1011
C	1100
D	1101
E	1110
F	1111

Table 1: This relationship between hexadecimal and binary makes it easy to convert numbers from one base to the other.

```
/* miscellaneous definitions... */  
/*  
g.TRUE=1; g.FALSE=0; g.CR='0D'x; g.BACKSPACE='08'x  
g.SPACE='20'x; g.APPROX='7E'x; g.ESC='1B'x;  
g.BACKGROUND = g.CSI||'3e'x||'32'x||'6d'x  
g.CELL_COLOUR = g.CSI||'34'x||'32'x||'6d'x  
g.INVERSE_ON = g.CSI||'37'x||'6d'x  
g.INVERSE_OFF = g.CSI||'32'x||'37'x||'6d'x  
g.ITALIC_ON = g.CSI||'33'x||'6d'x  
g.ITALIC_OFF = g.CSI||'32'x||'33'x||'6d'x  
g.BOLD_ON = g.CSI||'31'x||'6d'x  
LINE: 6  
Text entry mode. Press F1 for SE help.
```

Programmers usually include hexadecimal number definitions near the beginning of their scripts!

is to use ARexx's Write() routine instead).

In addition to allowing hexadecimal numbers to be used in definitions and so on ARexx also provides various conversion functions. C2X() and C2B() for example convert a string argument from character form to its respective hex and binary equivalents. So the following script...

```
/* just_a_test.rexx */  
n='9A23'x say C2B(n)
```

ends up, as you might expect, printing the value 1001 1010 0010 0011.

There's also a function called D2C() which converts a decimal number into its packed (ARexx internal) form. This, coupled with the two functions

```
/* base_convert.rexx */  
Say 'Give me a decimal number?'; pull n  
z=D2C(n)  
Say n 'dec =' C2X(z) 'hex =' C2B(z) 'bin'
```

Listing 1: Decimal <->hex<->binary base conversion the easy way!

just mentioned makes it easily possible to write a script that converts decimal numbers to their hex and binary equivalents automatically. There are of course far more sophisticated ways of converting numbers to different bases but the ARexx function based script shown in listing 1 is perfectly good enough for most coder's binary/hex conversion needs and, best of all, it takes just four lines of code!

VIEWING MEMORY ADDRESSES

One of the typical places where a programmer may want to display a hexadecimal address is when allocating areas of memory. You may, for example, want to set up a buffer area and print its address and one way of doing this would be to use the built-in GetSpace() function like this...

```
mem_p=GetSpace(blocksize)
```

With this call blocksize is the size of the memory area you want allocated and mem_p is its returned address. So you could display the location of the start of this buffer using the statement...

```
say C2X(mem_p)
```

ARexx incidentally frees this type of allocated memory automatically when the script terminates and so, strictly speaking, it is not necessary for a script to explicitly release memory acquired in this way. In general however relying on ARexx to do all cleaning up operations is ill-advised since it encourages programmers to get into habits that will lead to trouble with

other languages like C. Most coders would therefore tend to use ARexx's FreeSpace() function to return the memory after use...

```
n=FreeSpace(mem_p,blocksize)
```


Steve White adds a little interaction to BOOTIt and explains how to make the selections



Being select

Over the last few issues we have created the interface for BOOTIt and added event checking in the form of window, gadget and key events. With the cosmetic elements of BOOTIt completed we can now move onto the real guts of the program - the procedures that actually give BOOTIt the ability to perform the tasks it boasts.

Last month I provided the code for the procedures that allow you to select, de-select and toggle the files in the WBStartup drawer you want to disable. The three routines are called `togglestatus`, `allstatus` and `nonestatus`. I was also going to cover the `readwbstartup` procedure but this part of the BOOTIt code will need an issue dedicated to it so no executable code this month unfortunately.

TAGGLESTATUS

The first routine, `togglestatus`, actually checks to see if a WBStartup program has been selected or not and on this result toggles it to its opposite status - selected becomes de-selected and vice versa. The first five lines of `togglestatus` actually find the name of the program you have selected. All the filenames and status settings are stored in the NewType list called `contents()`. This data is collected and stored in the `readwbstartup` procedure. The variable `ec` actually holds the number of the file you selected and counts this many times through the list starting from the beginning - we get to the beginning of the NewType list using `ResetList contents()`.

```
togglestatus
ResetList contents()
For l=0 To ec
If NextItem(contents())
EndIf
Next l
```

The variable `stat` is then allocated the value of `contents()\status - 1` if the file is selected or 0 if it is not. The value of `stat` is then checked and the interface changed accordingly. If `stat=0` (not selected) the gadget list is freed with `GTChangeList 0,gadgetid+1` - before NewType lists that are associated with a gadget can be changed the list must be freed from the gadget. The status is then changed with `Let contents()\status=1` and the filename of the selected file has a + sign added to it in `Let contents()\name=contents()\name+" +"`. This indicated in the NewType gadget that the file has been selected. The NewType list is then reattached to the gadget with `GTChangeList 0,gadgetid+1,contents()`.

```
Let stat=contents()\status
If stat=0
GTChangeList 0,gadgetid+1
Let contents()\status=1
Let contents()\name=contents()\name+" + "
GTChangeList 0,gadgetid+1,contents()
EndIf
```

The above routine is then repeated if `stat=1`. The same checks are made but the only difference is that if the file is deselected the + sign must be removed from the filename. This function is per-

formed in the line `Let contents()\name=Left$(contents()\name,Len((contents()\name))-2)`. This basically sets `contents()\name` (the filename) with `contents()\name` minus the last two characters - the space and the + sign.

```
If stat=1
GTChangeList 0,gadgetid+1
Let contents()\status=0
Let
contents()\name=Left$(contents()\name,Len((con
tents()\name))-2)
GTChangeList 0,gadgetid+1,contents()
EndIf
Goto loop
```



NewType lists are a great way of handling information. But remember to free the list that is attached to a ListView gadget before you change its content

IT'S ONE OR THE OTHER

The `allstatus` and `nonestatus` procedures are almost identical to the `togglestatus` routine. They are different in only one way and that is that they check through the entire NewType list `contents()` changing the deselected files to selected (`allstatus`) and selected files to deselected (`nonestatus`).

The variable `amount` actually holds the amount of files in your WBStartup drawer, defined in the procedure `readwbstartup`. Therefore, the line `For l=1 To amount` checks from the first record to the last. In `allstatus` checks are made to see if `stat=0` (`contents()\status`) and if that is true then `contents()\status` is forced to equal 1 (selected). As usual the list is freed from the gadget, the content of the list changed and then reattached to the gadget. You must free lists from gadgets before you change the contents of the list - this is very important.

```
allstatus
GTChangeList 0,gadgetid+1
ResetList contents()
For l=1 To amount
If NextItem(contents())
Let stat=contents()\status
If stat=0
Let contents()\status=1
Let contents()\name=contents()\name+" + "
EndIf
EndIf
Next l
GTChangeList 0,gadgetid+1,contents()
Goto loop
```

The `nonestatus` procedure is almost the same but checks to see if `stat=1` and if so changes the current `contents()\status` to 0. As in the `togglestatus` procedure the space and + symbols are deleted from the end of the filename. This is probably a good time to explain this line in more detail.

The part of the line that reads `Left$(contents()\name,Len((contents()\name))-2)` takes the length of the filename minus the last two (-2) characters reading from the left end of the string (`Left$`) to the right. If it were `Right$` this would mean take the length of the filename minus the first two (-2) characters reading from the right end to the left.

```
nonestatus
GTChangeList 0,gadgetid+1
ResetList contents()
For l=1 To amount
If NextItem(contents())
Let stat=contents()\status
If stat=1
Let contents()\status=0
Let contents()\name=Left$(contents()\name,Len((con
tents()\name))-2)
EndIf
EndIf
Next l
GTChangeList 0,gadgetid+1,contents()
Goto loop
```


Fast rendering doesn't always mean spending more money on the latest CPU...



High speed 3D

This month we'll take a whistle stop tour of 3D fundamentals that can cut 3D production in half, without investing a penny on additional kit.

CPU speed is only one element in the overall rendering equation, technique can often save just as much time in the transition from paper to pixels. As rendering times are eaten away by faster machines it's often preparation and the elimination of mistakes and endless redos that make the difference between fast and slow 3D production.

CARDINAL SINS

It's very easy to start a design session only to discover four hours on that your pride and joy is totally unsuitable, or worse still, incapable of performing as required within the anim.

With this in mind detailed planning of both the objects and the animation is essential. In general, object design is the first and easiest part of the process. Can the object interact with other elements in the animation as planned? Will the basic design allow for the desired movement?

Equally important is story-boarding. Although roughly sketching out your models is essential, actually putting them in context is all important.

If you have a story-board at hand you'll know exactly what will be required for each shot. More importantly, though, you'll have an idea of the angle from which it will be viewed thereby reducing design time and memory needs for the unnameable elements the storyboard excludes from the anim.

CAMERA WORK

Another big advantage of story boarding is the effect it has upon the structure of the animation. Because you know the shots you want before you begin to animate, story-boarding can often inject some much needed structure into the camera movement.

One of the biggest complaints often levelled at 3D animation is the sometimes outlandish, and often completely unnecessary camera work. Although most real-world camera men/women would give their right arm for the variety and freedom that 3D can provide, simply flying the camera wildly around the scene can often destroy the impact of the overall anim.

The real key to classic animation often rests on the combination of effective camera work combined with appropriate lighting.

The storyboard once again comes into its own. No film maker ever walks on to a set without a script and story-board. If your 3D work is to be as much art as animation, classic cinematic must be embraced and then expanded upon.

Remember you're making movies not just animations. Why not steal some classic film making techniques, combine these with traditional camera angles and then add the power that only a 3D camera can provide?

Use cuts rather than constant tracking shots or super smooth camera pans. Try not to track the camera to a particular object. There's nothing more computer-esque than the main actor in a scene being slap bang in the middle of the frame.

Experiment with tracking to null objects, use zoom to add emphasis or tension to a shot. If the software supports depth of field, motion blur and other real-world emulations try to include them. They will add to the realism and intensity.

Obviously motion control of both the camera and objects within a scene is vital, but can often cause more heartache than any other aspect of animation. The trick is to key frame as little as possible, at least during the initial design stage, and then fine tune the basic motion later. Never start key framing camera positions until all the actors are on stage and their motions defined

KILLER KEYS

All the major 3D systems offer extensive hotkey support, and once memorised these insignificant little key combinations can make a real difference during the design of both objects and scenes.

At first glance the prospect of memorising hundreds of hotkeys may seem a little daunting. However, the situation isn't quite as bad as you may think. Firstly, most packages share the same functions on the same

key combinations. For example cut and paste are invariable Amiga/c and Amiga/v.

Secondly, there's a fool proof way of mastering all your favourites. The trick is simple enough - every time you need a particular feature go to the pull-down, highlight the feature you need and take a look at the hotkey equivalent.

Now cancel the selection and use the hotkey command you've just seen. Do this

once or twice and I'll guarantee you'll soon be able to recall every hotkey and forget pull-downs and button selections for good.

It's often worth taking a close look at the manual or any on-line help as many hotkeys aren't necessarily listed within the interface. And of course, some programs even allow you to define your own hotkeys and on-screen buttons - Imagine being a prime example.

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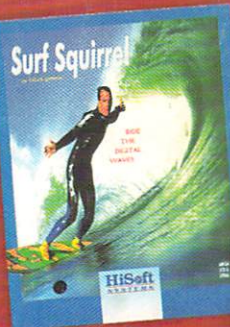
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