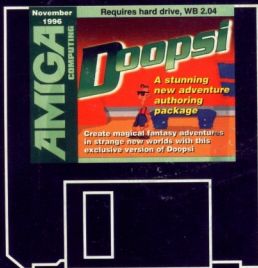


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Grab images with
your camcorder
including S-VHS...



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 video output
including S-VHS.

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it that simple!

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camcorder
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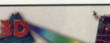
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Comparative MPS performance figures measured using Synths. Each board had the appropriate SIMM fitted (required to activate accelerator).

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1230-IV

1230-IV

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1230-IV Turbo SIMM 68030 & MMU

1230-IV Turbo SIMM 68030 & MMU

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1240

1240/ERC

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3.9MIPS with 60 Nanosecond SIMM fitted

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68040, 32-Bit Fast RAM - Expandable to 128/256MB
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1260

1260

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AND MMU/PU - 50MHz 68060
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Offers Amiga A1200 users Full 68060 POWER with a board that plugs into the triple slot that your A1200 will operate at twice or even three times the speed of an A4000 based upgrade and up to five times the speed of a standard A4000! Available options such as the SCSI-2V Kit and RAM are shown with the Blizzard 1260T and 1260.

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2040

2040ERC

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AND MMU/PU - 40MHz 68040
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2060

2060

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Amiga Software 91% STAR BUY - "Blizzard 1260 is destined to become the ultimate object of desire for A1200 owners"

Amiga Computing 93% BLUE CHIP - "and the joint Amiga in the World get this board"

Amiga Format - "Ride on the jacket A1200 in the World... 99% GOLD Rating"

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TWO... Monday to Saturday, 10am to 5pm

C o n t e n t s

SYSTEM

SYSTEM NEWS 72

Andy Maddock delves deep to bring you the latest plus goodies to win in our compo

KANG FU 74

Roll Harris gags a-plenty as this Kanga-ramp goes under the System Spotlight



BOGRATS 75

We take a sneak preview of the forthcoming puzzler from Vulcan Software

THE KILLING GROUNDS 76

The moment you've all been waiting for - does this sequel beat all previous Alien Breed installments



CAPITAL PUNISHMENT 78

Kapow, bam! Andy Maddock gets violent as he tests the much hyped game from ClickBOOM and proves he's not a girl's blouse, really

BRIAN LARA'S CRICKET 82

All armchair cricket fans can relax in the knowledge that they can play their favourite sport without budging. It's the update to Graham Gooch but can it deliver?



R E V I E W S

PRINTER PERFECTION 23 MIAMI NICE 31

Fancy a new printer? Check out our comprehensive review of the new Epson



MODEM MAGIC 29

Online PD releases its solution to get you connected

MICE MATTERS 29

Eek, the new mouse from Wizard. We review its latest peripheral



F E A T U R E S

WEB PAGE DESIGN 24 MAX POWER 44

Dan Winfield delivers more compelling hints and tips on how to create web pages with impact



Neil Mohr finds out if this new Internet software matches up to AmiTCP

IMAGE FX 50

Nova Design's latest version of its image processor and art package is reviewed



DKB WILDFIRE 53

Harv Laser and Skipper Smith supercharge their Amigas

STORM C 56

Neil Mohr is impressed by this compiler from Blittersoft

OCTAMED CD 59

Music to Andy Maddock's ears. We look at the new Octamed CD

QUARTERBACK 65

Dave Cusick asks if this is the king of backup systems

IBROWSE 66

This latest browser gets the treatment as we find out if it's just what Amiga surfers need

THE COVERDISKS

DOOPSI

Create your own adventure games with this exclusive version of Doopsi, a stunning new adventure authoring package



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MCP1.21, DASModulePlayer, QT1.1, StartMem, Superworm, Execute, Datelnspctor and Smart WB

REGULARS

NEWS

News scoop Mohr reports on the latest happenings in the world of technology

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PUBLIC SECTOR

PD man, Dave Cusick brings you the best, and the rest, from the latest in Public Domain

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LETTERS

Go on, write in, you know you want to! What ever your opinion, let us know.

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ACAS

Uncle ACAS lends a helping hand (well, a dammy mit anyway) to help you fix your Amiga

36



AMIGA GUIDE



Dave Cusick explains all about those library files and what to do with them

88



Phil South explains how to get the best out of colour cycling in Amos, of course

93



Paul Overaa completes his re-entrant code discussions with an example program

89



Paul Overaa looks at some new scripts to help you get along with Music-X

95



Learn how to make your scripts more application independent with Paul Overaa

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Paul Austin helps you get the best out of cross-platform communication

98



Find out the cream in comms software with the ever so lovely Dave Cusick

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Steve White starts to get complicated with his famous Blitz program

97

COVER STORY

FUTURE DESIGNS 40



Neil Mohr and Andy Maddock talk to the main players who have designs on the Amiga's future and ask how they will implement this...



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VIScorp has announced impressive plans to invade the home market with the ultimate set-top solution. It will connect you to the Internet, let you shop from the comfort of your own armchair, and allow you to take part in interactive multi-player games with people from across the world. It also promises services that otherwise would only be available if you had an expensive multimedia PC. The ED even offers features such as a built-in magnetic card stripe reader so that credit or debit cards may be swiped to confirm transactions.

What's more, the time scale that VIScorp is working to means that we will be seeing the appearance of these inventions on the market by January 1997.

It sounds very impressive, and it is easy to get swept along by this idealistic vision of the near future. Admittedly I was (imagine all that shopping you can do without even going out into the cold), and it wasn't until someone asked me whether I thought there was a market for these products that I started thinking about whether anyone is actually ready for such technology.

GADGET FREAKS

I think the Americans are more likely than most to embrace these new ideas - after all, products tend to get launched over there first, and they, more than most, are the real gadget freaks. Then of course there are the early adopters who want the latest gizmos before they're even invented! - these people are not the barrier VIScorp has to face. It's the average family that has to be convinced that this new technology is what's needed - or rather that it's indispensable.

Obviously, marketing and advertising are a must, but the question is: how should it be done? A good bet would be to target the families who have not yet got an Internet connection or the technophobes who go pale at the mention of HTML, VRML and FTP. Many people are being frightened away from the Internet by technofear and no proper understanding of what it is about, but recent hype and publicity has sparked more than idle curiosity in most.

One major difference in all this is that VIScorp is aiming its product at the TV user,

Tina Hackett asks if
the market is ready
for a set-top box

**amiga
comment**

Set-top solution

as opposed to the computer user - it shouldn't presume that this audience has technical knowledge, and should keep jargon and complicated technical talk to a minimum. VIScorp needs television campaigns (after all, it would seem that its potential audience is sat right there, in front of the TV) to show what the average family can get from their set-top box. For example, (using the cliché advertising family) good, old Dad could be doing his home banking while Mum shops from the comfort of her arm chair. And as for the kids - multiplayer games. Then of course there's the Internet itself. Dad can look up gardening tips, Mum can download cooking recipes, and the kids can make international pen pals (it's a hideous stereotype - but you get the idea).

ADVANTAGES

Unlike any rival attempts at providing this kind of solution, VIScorp does have many advantages. It can provide a one-stop means of connecting to the Internet; it can offer services which were previously unavailable or which needed expensive

equipment to access; and you don't have to know your modem from your mouse (well, almost) to get connected. Also, one of its major advantages is that by incorporating Amiga technology, it has a cost effective solution which should put its set-top boxes in easy reach of most families pockets.

So, if VIScorp gets its way, the Amiga could find its way into many of our homes. And who knows, it could start to equal the number of PCs that are now commonplace in so many families!

Tina Hackett

Tina Hackett
Editor

Your Comments

If you'd like to address any issue we raise in our Comment section or feel that there is something you'd like us to cover, please write to ESP at the usual address. You can also e-mail me at tinah@idg.co.uk

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We regret Amiga Computing cannot offer technical help on a personal basis either by phone or in writing. All reader enquiries should be submitted to the address in this panel. Amiga Computing is an independent publication and VIScorp is not responsible for any of the articles in this issue or for any of the opinions expressed.

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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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Success at Amiga Convention '96

A miga Convention '96 in Montreal featured a wide variety of exhibitors. National Amiga, Wonder Computers, Valleysoft, and The Computer and You were the Amiga vendors present, all of whom had special show pricing on at least a few items, making it hard to leave the building without making some sort of purchase.

Software developers were present in numbers as well. The Nova Design table featured the popular ImageFX image processing program, as well as screenshots of Aladdin4D, its newest acquisition. In addition to the usual IAM products, such as Connect Your Amiga, The Deathbed Vigil, Megaball, etc. it was selling the new MRBackup software. clickBOOM was demonstrating yet another demo version of Capital Punishment, which was discovered to work (very well) on a 1200 equipped with an 060 card. Syzygy was present as well, demonstrating Digital Universe, and Moebius Technology showed off its upcoming spread-

sheet software, which was still in developmental stages. The only real hardware being demonstrated at the show was from Silent Paws. The 1200 portable, (which was also displayed at World of Amiga Toronto '95) was fully functional, and included a 68060 upgrade. The favourite application to run on the portable at the show was clickBOOM's Capital Punishment, as it really showed the capability and compatibility of the machine.

Other notable events were demonstrations by various companies, including Virtual World (who gave out free passes to Battletech), a speech by David Rosen of ViScorp, the presence of Jim Butterfield, and a panel discussion with David Rosen, Jason Compton of ViScorp, and Dale Larson of IAM. The overall mood seemed to be hopeful for the future.

Other shows planned for North America for 1996



by Katherine Nelson

include the Midwest Amiga Exposition in Ohio in October, a November show organised by Amazing Computers, Randomize, and Comspec, and a December World of Amiga Toronto organised again this year by Wonder Computers.

PORTABLE SOLUTIONS

The case for the upcoming Amiga portable from QuikPak (a different design from Silent Paws' portable) was shown at the Atlanta user group meeting in early August. This portable will be based on the Amiga 4000 and will feature a Motorola 68040 or 68060, an on-board RAM capacity of 128 megabytes, and video and Zorro slots. The colour LCD screen will be NTSC compatible. One of the possible uses for this machine could be to provide a portable Video Toaster or Video Toaster Flyer system. Some comments from the audience included relief that an Amiga portable was finally being worked on, but others had doubts as to whether or not the single fan in the case would be enough

cooling power for such heat-intensive equipment as a Toaster/Flyer.

The specifications available on the case are as follows:

The black case is a standard PC case, so the keyboard, unless changed, will be a 101/102 PC keyboard. There is an optional European keyboard layout available from Prism, the case manufacturer, but whether or not this will be available in the Amiga portable is unknown. The case currently supports two 5.25" and two 3.5" drive bays. The dimensions of the case are 9.75" high X 16" wide X 8.5" deep. Projected retail cost is roughly \$3000US, and inquiries should be directed to ViScorp.



Silent Paws' 1200 portable as seen at the WOA '95

READING AMIGA

Two new Amiga publications for North America have been announced. The Informer Newsletter is already available by subscription, and Amiga Legacy, due to debut near the end of the year, will be an ad-funded magazine, distributed through mailing lists and free to the readers.

The Informer features reviews, announcements, user-group/BBS listings, developer profiles, advertisements, and other departments. Advertisements are free to companies which donate Amiga products to the bimonthly Informer giveaway. In addition to subscriptions, issues are also distributed by companies who include the newsletter in the packages they ship to their customers.

Among other departments, Amiga Legacy will feature reviews, information on Amiga clones, such as Draco, the Ed, etc, on-line happenings, news, tutorials, and 'The Fun Page'. Advertisers are being sought, as are companies with mailing lists in North America. Companies which donate mailing lists receive discounted rates and preferential space. A sell sheet is available to those who wish more information.

USEFUL SEARCH

The Champaign-Urbana Commodore Users Group, maintainer of the Amiga Web Directory, announced the release of its new Amiga Internet search tool, Agnes. The Agnes search engine encompasses more than one thousand Amiga World Wide Web sites. Furthermore, it will search the news database of CUCUG to find show reports, news items, press releases, product announcements, and the like. In addition, all issues of Amiga Report magazine since January of 1995 are available for searching, as is the CUCUG newsletter. Product reviews from the comp.sys.amiga.reviews newsgroup are also among the sources that Agnes draws from. The searches may either be categorical, or a massive search of all sources is also allowed. Sites are regularly checked to weed out outdated URLs, which speeds up searching by removing irrelevant data. The Agnes search tool can be found at <http://www.cucug.org/agnes.html>.

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news

By Neil Mohr

DISC'O'EYETECH

Eyeteck has announced the release of a new CD-ROM and storage system for all A1200 and A600 owners. The CDPlus will be available in either four or eight-speed configurations and is enclosed in a CE marked casing including a built-in 40 watt power supply. The buffered extended IDE (EIDE) interface that comes with the CDPlus supports up to four IDE/ATAPI devices and will work with either 2.5" or 3.5" internal hard drives and does not interfere with PCM-CIA or trapdoor devices.

The CDPlus not only puts back all the IDE and processor protection circuitry that Commodore left out, but also enhances the interface to support a total of four IDE devices. The power supply is also capable of powering a second IDE device such as a hard drive, SyQuest, Zip or Jaz unit, and Eyeteck can supply external drive cases and cables to allow connection of these removable media drives. The four-speed CDPlus costs £150, while the eight-speed system is £199.95 including VAT. Contact Eyeteck on 01642 713 185 for more details, or try its Web site at <http://www.compulink.co.uk/~eyeteck/index.htm>.

A recent development by Eyeteck is a range of 'DIY' Amiga products for people who already own CD-ROMs and hard drives but still want to take advantage of Eyeteck's EIDE interface. To help, the individual parts of the CDPlus are available separately, and until the end of September there is a 10% discount for anyone spending over £100 - including VAT, of course.

The EIDE interface, CD-ROM casing, power supply, external hard drive casing, internal 3.5" hard drive adaptor kit for A1200, CD-ROM/hard drive data and power cable set, and a CD-ROM adaptor for floppy only systems, are now available separately.



Eyeteck plans to give A1200 owners the ultimate in EIDE expansion

DOPELESS UPGRADES

All fans of the ultimate file manager will be pleased to know that Directory Opus 5.5 is now available. GPOSoftware has spent more than 12 months developing this latest version of the Amiga's most popular file and directory management utility.

GPOSoftware claims that this latest release is more of a complete new version rather than a simple update. Having listened to users' comments and suggestions, almost every part of Opus has been examined, allowing many improvements over the original Opus 5.

There are many life improving features new to this release: WorkBench Replacement Mode has been enhanced; Opus 5.5 can be used with complete confidence to replace the standard Workbench; an integrated OpusFTP capability lets you access remote Internet sites directly from standard Opus Listers; Button banks can now be borderless with a sleek minimal dragbar instead of a full window border; a new Automatic File type Creator allows you to create and test file types with ease; button and icon images have been colour remapped; Cybergraphics RTG is now supported; and enhanced clipboard support provides full cut, copy and paste in gadgets and file Listers.

More details on Opus 5.5 can be found on GPOSoftware's home page at <http://www.livewire.com.au/gpssoft/>. Registered users should already have received their upgrade offer, but if not, UK readers should contact Wizard Developments on 01322-527800 for more details. North Americans can get hold of Opus through Micro R&D on 308 745 1243. The recommended price for Opus 5.5 is £59.99 or \$99.

B LITTER STUFF

Blittersoft is now the exclusive UK distributor of the AWeb-II WWW browser for the Amiga - UK Price £39.95, including VAT. The first commercial release of the popular WWW Browser 'AWeb' by Yvon Rozijn, along with the first commercial release of the 'HTML-Heaven' suite of code generating tools by Paul Kolenbrander, will see both programs bundled together with additional tools in the new AWeb-II package.

AWeb-II now supports background images, localisation, icons, hierarchical hotlist, image borders, centering, enhanced lists, limited frame support, plug-in support for mail/FTP/telnet/news, automatic TCP stack start/stop, and other new HTML 3.2 tags, with more to come.

HTML-Heaven v2.0, with new ToolChest and Charrie programs, has added support for HTML 3.2 tags and WYSIWYG editing using AWeb, and will work with almost any ARexx compatible text editor. This suite of programs allows you to create your own Web pages and documents with simple point & click insertion of tags from the tool lists, and now Charrie adds HTML entities as well.

Blittersoft is also stocking the German art package Arteffect, the normal price of which is £149.95, including VAT, but until the end of September it is available at the introductory price of £89.95. For more information contact Blittersoft on 01908 261 477, or try its Web page at <http://blittersoft.wildnet.co.uk/>.

DIRECTORY OPUS 5

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DESIGNS ON VISCORP

ViScorp has decided to reflect that it not only owns the Amiga, but is backing it 100 per cent. As a result, Amiga trademark images are being incorporated into the ViScorp logo.

In keeping with all its recent announcements, ViScorp would like this new design to involve the Amiga community and is therefore giving you the chance to submit your own logo designs. Anyone thinking of designing their own must follow these guidelines:

1. The Logo MUST be provided in a form that will show up in NTSC and PAL broadcast video (avoid white backgrounds, etc). We recommend, but do not insist upon, a battle-ship-grey background at 10% screen.
2. The Logo MUST be provided in a form that will be colour-separable and printable.
3. The Logo MUST incorporate the Amiga double-check mark in the 'V' of ViScorp.
4. The Logo SHOULD incorporate the Amiga rainbow colour stripes (as found on Amiga OS manuals, etc) in the 'o' of ViScorp. If you wish, you may ALSO submit a design with the Amiga boing ball as the o, but the rainbow 'o' should take precedence.
5. The Logo MUST be designed on an Amiga.

Entries should be submitted to ViScorp, and disks can be provided in any format.
ViScorp, 111 N. Canal St., Suite 933, Chicago, IL 60606, USA

The winner will receive ViScorp's undying gratitude and will get recognition for their contribution on the inside flap of ViScorp's official information packet.

All entries will become the property of ViScorp. Contact Jason Compton, ViScorp Communications Manager, for more details at jcompton@xnet.com.

30 DAYS MORE

ViScorp has announced that there has been an extension made to its purchase of Amiga Technologies. On August 20, 1996, the trustee for the bankruptcy of ESCOM AG and AMIGA Technologies GmbH, Bernhard Hembach, extended the closing date for ViScorp's purchase of AMIGA for 30 days with the support of ESCOM creditors.

While the agreement is firm, one of the financial institutions supporting ViScorp in the transaction required more documentation to authorise its portion of the funding. Satisfied that ViScorp would meet these requirements, the closing date was extended. The closing will not be extended past this date.

HARWOOD'S BLITZ

Gordon Harwood have just announced price reductions on many of the Blizzard boards, along with a whole host of new releases from Phase5. The currently stocked Phase5 boards have all been reduced in price, with the Blizzard 1230-IV costing £159.95, the 1260 £579.95, and the Cyberstorm II 060 falling to £649.95.

New from Phase5, the Blizzard 1240T/ERC is a low cost high performance 40MHz 040-based A1200 accelerator designed for tower units. Due to the additional power and cooling requirements of the 040, it would be impractical to design one to a standard A1200, but the new towers make this a possibility.

So that Amiga 2000 owners do not feel left out, the



Blizzard 2040ERC is another 40MHz-based 040 accelerator incorporating a fast SCSI-2 interface. Similarly, a special low cost version of Blizzard's Cyberstorm II accelerator has been released for all A3000(T) and A4000(T) systems that makes use of this lower cost high power processor. When tested with Sysinfo, all boards return 30 Mips, can be expanded up to 128MB, and can easily be upgraded to a full 060 when needed.

Gordon Harwood will also be stocking Phase5's all-new Cybervision 64/3D in both the 2 and 4MB versions, along with the Mpeg decoder board that allows you to watch Mpeg movies full screen or in a Workbench window.



*If you do not like
this logo, design
your own you
cheeky monkey*

KVD NG CD

Good news for everyone is that 10 major electronic companies have now revealed the replacement to the CD - Digital Versatile Disc, or DVD. Towards the end of 1995 the originally competing companies decided to pool resources and combine the best of each of their own next generation CD formats. The result is a product that is superior to anything the individual companies would have made.

Thanks to new technology, the DVD discs can hold around 14 times the amount of data of existing CDs, and basic drives will work at around the speed of a 9x CD-ROM. Even though DVD discs utilise the same technology as current CDs, due to advanced error correction technology, improved laser technology allowing small pits and closer tracks, the capacity of a single disc is boosted to 4.7Gb.

Basic DVD discs will be double-sided, giving them a capacity of 9.4Gb, while double-sided discs that do not have to be turned over thanks to the laser being able to read the second data layer, will hold 8.5Gb due to the need for additional error correction. A third type of disc will have four data layers and so hold a whopping 17Gb.

Planned applications include MPEG-2 video DVDs having both normal and wide screen versions on the same CD, along with three types of audio tracks including Dolby pro logic surround sound. The first DVD players should be out at the end of this year and early 1997, while recordable versions should make an appearance in 1998.

STREAMING AHEAD

Listen up all you DTP enthusiasts! SoftLogik has announced the latest beta 5 version of PageStream 3.1. Even though this is a beta, SoftLogik has publicly released it, saying that any customers waiting for 3.1 can upgrade with confidence.

Many new features have made it into this latest version, including find/change text, print tiling/scaling, define hyphenation and editing of multiple objects simultaneously. SoftLogik claims that release 3.1 will be the most important and solid upgrade in PageStream's history.

Just to whet your appetite even more, Stream 3.2 will be released at the same time as 3.1. Owners of PageStream 3.0 will be able to elect to have the free 3.1 upgrade or pay a minor fee for the 3.2 upgrade. New features for 3.2 include an enhanced toolbar, which can be hidden and is fully configurable. Indents and tab spacing are now fully adjustable, objects dragged onto the paste board will be available for every page, and PageStream 3.2 will support irregular shaped graphic frames.

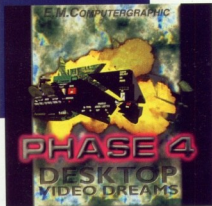
For more details, SoftLogik can be contacted in America on (314) 256 9595, or via the Internet at <http://www.softlogik.com> and e-mail at sales@softlogik.com.



CDs WORLDWIDE

To spread its CDs as widely as possible, E.M.Computergraphics has just set up distribution deals with two international companies, readers in the USA, Canada and South America will be able to buy all of E.M.Computergraphic's range of CDs from Computer Safari, while for Australia and New Zealand they will be available from Amistar Systems.

You can contact Computer Safari on 916 661 3328 or via e-mail at safari@woodland.net. Amistar System can be reached on (09) 495 4905 or via e-mail at amistar@crystal.com.au.



NINTENDO TROUBLE

Nintendo shares were suspended from trading in the Tokyo and Osaka stock exchanges due to a financial press report stating that sales of the Nintendo 64 had slowed dramatically from the initial booming sales of the first two months. This was possibly caused by the fact that only three games are currently available for the N64.

The report itself stated that half year profits could drop by as much as 70 percent or £112 million, and end of year profits could be down to 53 percent at £324 million. This resulted in panic selling and Nintendo's shares being suspended until confirmation could be gained. Nintendo vehemently denied the claims and went on to say that all its sale forecasts will be met.

AMIGA BITS

Our American readers may be interested to know that Paxtron has bought out Service Management Group's Amiga parts inventory, and is now offering a wider selection of Amiga goods ranging from floppy drives to replacement motherboards and technical manuals. If you are interested, why not contact Paxtron Corporation on (914) 578-6522, or check out its Web page at <http://www.paxtron.com/>.

FANTASY BAR

For all Amiga owners who need the best possible quality prints, Fantasy Prints is offering a whole host of printing services to Amiga owners. Having been in business for five years, it has come a long way from its original AS500. Now, with its recently purchased top of the line Cannon colour copier and Fiery RIP, Fantasy can offer Amiga owners the best colour prints laser printers can produce.

Fantasy Prints can take documents produced by Pagestream 3, Final Writer, DPaint, Prodraw, Wordworth and ImageFX. Documents can be up to A3 in size, double-sided, printed onto card or transparencies.

If you fancy plastering your garments with pictures of yourself and your friends, Fantasy Prints can personalise all manner of things with your pictures. All types and size of tops and T-shirts are in stock, along with mouse mats, baseball caps, jigsaws, mugs, calendars and badges.

Along with the normal Amiga application documents, Fantasy Prints can accept images in IFF, BMP, GIF, PCX, EPS, Jpeg, PhotoCD and TIFF formats on Amiga, PC or Mac floppy disks, along with Syquest 44/88 Mb and EZ cartridges. Contact Fantasy Prints on 01289 30 32 42 or check out <http://www.compulink.co.uk/~fantasyprints>.

KNIGHT TIME

White Knight Technology has been appointed as MacroSystem's exclusive UK distributor. MacroSystem has produced products such as the VLab Motion and Retina and also the DraCo which provides high quality non-linear video editing capabilities. The DraCo scored an amazing 10 out of 10 in Amiga Computing not so long ago. White Knight has announced that it will shortly be forming a new company to handle sales of the DraCo Video Editing Workstation and any future non-linear editing systems to specialist video dealers. MacroSystem is also about to announce a new product called Casablanca which, according to its news release: "represents an entirely new concept in consumer video editing." Watch this space. White Knight has also slashed the prices of its 24-bit graphics cards. For example, there is a huge saving on the Retina BJT 23, a Zorro III card for the A3000 and A4000, where the price has been cut on a 1Mb board from £379 to £235 including VAT. Contact White Knight on 01920 822321.

PSYGNOSIS SALE

Once big time Amiga games producer Psygnosis is to part company with its current owner, Sony. Originally bought for the tidy sum of £15 million, recent bids for Psygnosis have been around the £150 million mark, with one reportedly topping £200 million. Psygnosis has five new titles in the works. Following up PlayStation success with Wipeout and Destruction Derby, two of the planned titles are Wipeout 2097 and Destruction Derby 2.

SIAMESE SLIP-UP

Following the review of the very nice Siamese system last month, HIQ has pointed out a couple of changes to the final system. Firstly, the PC to Siamese video cable has been remoulded so that any possible problems with fitting it are eliminated. Also, the MountPC program that allows you to access drives on the PC side, including CD-ROMs and the floppy drives, does in fact work over the SCSI network and not just the serial cable as was suggested in the review. Therefore you can have fast access to all the drives connected to your PC.

MAGICMENU AMIGA HEAVEN 2

Everyone's favourite workbench enhancement MagicMenu is going to be seeing an upgrade soon to version two. The new version will be more compatible with Term and FinalWriter, and will feature MagicWB colouring scheme, separate preferences, and a chunky mode for graphic boards. Anyone interested in a beta version can find it at <http://tsinfo.cs.uni-sb.de/~cattaneo/magicmenu/magicmenu.e.html>.

As reported in last month's issue, Direct Software, which is opening a new shop specialising in Amiga games, has been so overwhelmed with enquiries that it has opened a special line to handle them. The new number is 01623 759 498.

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800-735-2633

VisionSoft

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EXTRACTING COVERDISK FILES

Before you even think of putting the coverdisks anywhere near your computer, you should make sure you write protect them. This is done by moving the black tab in the top corner of the disk so you can see through the hole. You cannot then damage your disks in any way. There is also no reason why the coverdisks 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, press proceed once on the current screen, then again on the next. The program can then be found in your RAM disk. Normally most programs 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 SetupHD icon. This will check if you have the Installer program. If not it will copy it across - don't worry, it will not write over any existing files.



Once again Amiga Computing brings you the best in shareware and freeware

QT 1.1

Author: Marcus Comstedt
Workbench: 3.0

These days, the Internet has become so graphically and sonically orientated that many sites offer large video files for downloading. Although there's no such thing as a standard audio-visual file format on the Net, certainly the most common is QuickTime. Until recently, however, Amiga owners wanting to display QuickTime animations have had to rely on the likes of X-Anim, a rather slow and clumsy port which simply does not do justice to these movies on most occasions.

QT, on the other hand, was written specifically to show QuickTime animations on the Amiga, and it does a splendid job of doing so. However, due to the demands being made

on your hardware, for optimum performance you will need a fast Amiga - an 020 probably won't suffice.

Once you've got QT installed and working, it's a relatively simple task to configure programs such as iBrowse, ClassAction and Dopus to use it when displaying QuickTime files. As an example of the animations which you will be able to view using QT, we have included an extremely brief clip from big Amie Schwarzenegger's latest action movie Eraser. Blink and you'll miss it - we couldn't cram anything larger onto the packed AC coverdisks, but this is a good taster of the potential of QT.

DISK 1



DOOPSI GAME CREATOR

Author: Fabio Rotondo
Workbench: 2.04

There are several programming languages which have been used to good effect in Amiga games creation over the years, most notably the Amos and Blitz basic variants. However, even using sophisticated software

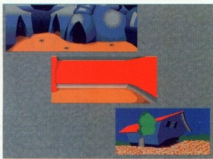
packages like these, you'll need to possess a good deal of programming knowledge before you can produce your own blockbuster. If you're the sort who doesn't fancy locking yourself away in a darkened room for a fortnight with nothing but coding manuals, cans of coke and piles of Megadeath records for company - congratulations, you're normal! You have probably never been tempted to have a stab at producing your own game, but now you have a copy of

Doopsi, there's simply no excuse. (Of course, the Megadeath albums are not compulsory).

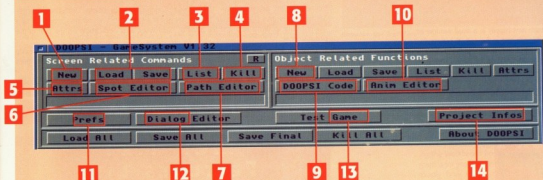
Doopsi stands for Dynamic Object Orientated Programming System Interface. Although this isn't the full registered Shareware version, the Doopsi included on the coverdisk was specially prepared for Amiga Computing by the author. It features fewer restrictions than the demo available on Amnet and from PD libraries. After de-archiving and installing the software, run the Doopsi editor and use the Load All option to load the demonstration game. This is an extremely basic example, but it hints at the potential of this excellent authoring system.

Using Doopsi you will be able to create accomplished adventure games with a host of impressive features. Employing a methodical approach and planning as you go, you'll find the whole process straightforward and understandable. After firing up the editor you

The demonstration mini-game only contains three scenes, but it hints at what can be achieved with a little thought and effort



ICON SEE CLEARLY NOW



1 Tells Doopsi that you want to add another scene

2 Unsurprisingly, load/save scene commands

3 Lists all the scenes in Doopsi's memory

4 If a scene proves a total disaster, click this button to remove it completely

5 Displays scene attributes. From here you can change numerous settings, including a scene's background graphics and music

6 The Spot Editor is used to set the locations of objects within a scene

7 Here you can define how the main character moves around the scene

8 Enables you to specify the characteristics of an object, and to place it in a scene

9 The Doopsi code itself is what ties everything together, telling Doopsi what to do when the player specifies an action with a particular object

10 Lets you set up complex animated objects

11 From here you can tell Doopsi which paths it should look for in certain files. You can also change the palette and screenmode, and

choose which scene to place the player in at the start of the adventure

12 This is the conversation control panel. The key to a great adventure is generally the way in which the main character interacts with other inhabitants of the fantasy world, so creating entertaining conversations is important

13 When you think everything is ready, hit this button and try out your creation

14 Displays the number of scenes, objects and dialogs in memory, and also shows the amount of free memory

may be initially discouraged by the fact that half the interface is in a foreign language. If this is the case, you've probably accidentally run the Italian installation program rather than the English one, so quit the program and show all the files in the Doopsi folder. Rename the catalogs file as something like _catalogs, then restart the program and Doopsi will magically be in English.

The first stage involves defining the scenes in which your adventure will take place. Then you can limit the areas of the scene through which the main character will be able to walk. This is done by defining paths between various 'nodes' with the friendly paths editor.

You can then place objects in these scenes and choose whether or not to animate some of these objects. After this you can define exactly how the main character will interact with these objects. This last stage is the only one that actually requires any form of coding - the rest is easily accomplished through the intuitive interface.

The extensive Amigaguide documentation included in the Doopsi archive will help make all of this rather more understandable. It works through tutorials and explains clearly all of the concepts involved. Initially it might all sound a little confusing, but before long you'll be churning out Monkey Island-beaters on a regular basis...

DAS MODPLAYER

Author: Pauli Porkka
Workbench: 2.04

To use the following program you will need to have the Magic User Interface v2.0 or higher installed on your system. Without it you will not be able to run any MUI programs. MUI is available from any good PD house.

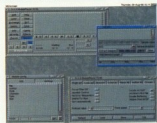
Ever since it was but a glint in Jay Miner's eye, the Amiga has been impressing people with its sound capabilities. Whilst PC owners have only recently become aware of the full 'Multimedia' potential of the home computer, Amiga programmers have been churning out extremely accomplished sound trackers to the delight of the musically talented (or deluded). The astounding number of daily uploads to Aminet's mods directory is testament to the fact that tracker programs are a cheap, simple and effective way of producing music on a home computer.

The problem with the proliferation of tracker programs is that over the years a large number of incompatible file formats have evolved. In the old days, the Soundtracker file format was pretty much the standard, but it has since been superseded by formats sup-

porting more fancy features. Since very few tracker programs themselves support multiple file formats, a multi-format player is an absolute essential for the serious tracker fanatic.

DAS ModPlayer combines the glorious configurability of MUI with a colossal features list, making it one of the best module players around. It recognises a host of module formats, including Soundtracker, Med, Fasttracker, Screamertracker, and Protracker. If your favourite tracker isn't yet supported (unlikely as this is), the modular nature of the program means that support can easily be added in the future.

Other impressive aspects include support for a multitude of packers using the appropriate external libraries, a wealth of module grouping options that, for instance, allow you to group all of one composer's work together, and so on.



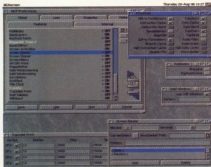
Powerful and gorgeous, DAS ModPlayer has it all

SUPERWORM

Author: Jouko Pynnönen
Workbench 2.04

Superworm runs happily in a small window on the Workbench and is the sort of entertaining diversion which can break up the tedium of working at the keyboard for hours. It brings a new twist to the tried and tested Worms formula - instead of being able to pull off astonishing 90-degree turns on the spot, your worm must now steer around the playing field as he gulps those filling blocks.

DISK 2



After installation, run the MCP Prefe program and set things up to suit your requirements before resetting your machine to start MCP itself

Assign Manager - for keeping track of all those pesky assigns
AssignWedge - make assigns on the spur of the moment rather than having to enter them all before running a program
Automatic Screen Activation - activates the screen currently being displayed
Requestor Timeout - gets rid of particularly irritating requestors
Blanker - supports Swazblanker and

SHAREWARE

Some of the programs on the Amiga Computing coverdisks, including Doopsi, SampleEditor and DAS Module Player, are shareware. Such well written programs take many hours to write and involve a lot of hard work and dedication on the part of the programmer.

When a program is called shareware it means the programmer has generously allowed you to try out their program, sometimes with no restrictions at all. If you then decide you like it you are obliged to send the author the shareware fee.

Normally this is not an unreasonable amount, and in return the author will usually keep you supplied with the latest version of the program, along with their undying gratitude of course. So please don't forget to send your fee.

MCP 1.21 FEATURES LIST

Garashnenblacker screen savers

Dimmer - dims the screen after a specified time

Mouse Acceleration - totally configurable, of course

Mousepointer Blanker - causes pointer to vanish after periods of inactivity, or whenever you start typing

GuruHistory - saves all gurus to disk

Screens menu - pressing the right mouse button on the screen flicking icon displays a menu of available screens

WB Title Clock - which can also display things like available and used memory, processor load, etc

Drive NoClick - get rid of that annoying disk drive clicking noise

Workbench Display Enhancements:

PropHack - makes windows and scrollbars look much more attractive

16 Colour, Hires Pointer - does wonders for your mouse pointer

Moving Solid Windows, Scaling Solid Windows - fancy effects which look quite nice on faster Amigas

ICON INSTALLER

Author: Tom Ekström
Workbench: 2.04

Amiga icons hold a lot of valuable information, from telling the computer whether a file is a project or a program to storing preferences (as tool types). Changing your icons to Magic Workbench or NewIcons can result in a loss of valuable information if you simply overwrite all the icon files. Admittedly there are plenty of icon copying utilities, many of which offer you the choice of retaining tooltypes and settings from the original icons, but none offer quite as wide a selection of options as Icon Installer. It's simple to use, extremely fast and configurable, and absolutely indispensable.



Icon Installer makes icon management an absolute doddle

DATE INSPECTOR

Author: Robert Ennals
Workbench: 2.04

Occasionally, after a particularly unpleasant crash, the Amiga's battery backed system clock decides that sensible dates aren't very exciting. It promptly begins stamping files with dates such as 0-0-00. This can cause problems if it's not picked up on fairly quickly, because any programs which rely on date sorting systems will get confused, and it will become difficult to recognise recent versions of files.

Date Inspector attempts to avoid such sticky situations. It resides in your Workbench Startup drawer and checks the clock on start-up, alerting you to strange and inconsistent dates.

EXECUTE

Author: Michael Griggs
Workbench: 2.04

The Workbench "Execute Command" option has a few fairly major limitations which prevent it from being as useful as it might otherwise be. Execute replaces it with an enhanced version, which runs in the background as a commodity and boasts several notable improvements.

Execute uses the BGUI layout library, which some people prefer to MUI. The BGUI library is included in the archive for the benefit of those who don't already have a copy in their Libs drawer.



Enhance the workbench
Execute Command menu
with this handy little patch

MCP 1.21

Author: Alien Design
Workbench 2.04

To use the following program you need to have the Magic User Interface v3.0 or higher installed on your system. Without it you will not be able to run any MUI program. MUI is available from any good PD house.

to use the following program you need to have the Magic User Interface v3.0 or higher installed on your system. Without it you will not be able to run any MUI program. MUI is available from any good PD house.

Commodities remain one of the most powerful and versatile aspects of Workbench. They sit in the background providing helpful features, and are accessible at any point via hotkeys. Over the years there have been several attempts to produce the ultimate all-in-one commodity combining all manner of handy system improvements into one easily configured whole. Many previous attempts have been extremely useful and powerful - most notably YAK and MultiXc. However, neither has anything like the number of features of Alien Design's Master Control Program.

With MCP running, you can dispense with a multitude of other little programs such as SysInfo, CacheFront, NoClick etc. This latest update also includes plenty of all-new features, including a controversial requestor timeout. This has been the source of some problems, because potentially it could be used to remove Shareware requestors, thereby making people less likely to register. As a result, in the version available on the Amiga Computing coverdisk (and that available on Amnet), this particular feature is limited so as to make removing such requestors impossible. All other features are fully intact.

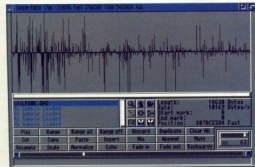
MCP can be configured to suit your tastes using the MUI-based preferences program, which will of course require Magic User Interface 3.x in order to run. Incidentally, users of less powerful Amigas should be aware that MCP uses a considerable amount of memory.

SAMPLE EDITOR 1.4

Author: Jouko Pynnönen
Workbench 2.04

This is an effect-packed sample editor which supports BSVX, Raw and Wav file formats. On a basic level it can simply be used as a file format converter, but its real strength lies in chopping and changing samples and generally playing around with them. Amongst its more unusual features is the option to play samples at various pitches using the Protracker-mapped computer keyboard.

Play around with sound samples to your heart's content thanks to Sample Editor



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I can remember a time when I had a nine-pin Epson RX-80 dot matrix printer hooked up to an Apple IIe; a time when I was highly impressed by the crudely dithered mono picture of John Wayne that hardware managed to print out. Boy how things have changed... well, apart from the government.

Epson's latest addition to its ever burgeoning range of Stylus printers is the Stylus500. A true 720 dpi printer using Epson's latest piezo inkjet print head, the Stylus500 can produce colour or greyscale printouts, and thanks to its separate black and colour cartridges, will produce true blacks on your colour prints.

The Stylus is a rear-loading affair that can take up to 100 A4 sheets or 10 envelopes. Size-wise the Stylus takes up about the same amount of room as a Deskjet, even though its

footprint is about half the depth the separate front and back paper trays add to the amount of room it takes up.

As the Stylus is a new printer, the Amiga has no standard printer drivers for it. Therefore you are going to have to get hold of third party software that has Stylus drivers, such as TurboPrint, or the EnPrint software we used for this review. Both of these implement 24-bit print drivers on your Amiga and will let you get the best out your printer.

Quality-wise the Stylus is up against some stiff competition, namely Canon and Hewlett Packard's BJ and Deskjet ranges. The Stylus is going to be have to be able to produce something special to beat these, and it certainly manages that.

Epson refers to the printer as being photo-real, and when you print at 720 dpi on its

specialty coated paper, they are just that; photo-realistic. Alright, if you look close up at the paper the dithering is visible, but at normal reading distance the prints look immaculate. As I said, this is using Epson's special 720 dpi coated paper that stops the ink droplets 'bleeding' and makes the printed colours far more vibrant, but this is the case for all ink and bubble jet printers.

Colour prints on normal paper generally result in slightly more blurred and duller colours, as the individual ink drops blur together. Even so, this is fine for doing proofs at say 360 dpi, with finals done on the coated or even glossy paper that Epson offers.

At under £300 the Epson Stylus500 is not only very well priced, it is amazingly well specced. Someone who wants quality prints should give the Stylus a lot of consideration.

ENPRINT

Once installed, EnPrint provides you with five new Amiga printer drivers; one for each of the Stylus printers available from Epson. When you come to print with one of these drivers, the EnPrint driver will be used instead of the old 12-bit Amiga printer driver, this being a full 24-bit driver offering full control over dithering, gamma, intensity and colour control. But it's still compatible with the old printer device, so any program you print with will still print correctly with the EnPrint driver.

Once you have selected your Stylus printer from the normal Amiga preference program, you have to select what density to print at from the PrinterGx preferences. Instead of referring to a printer density setting, it highlights one of seven possible printer configurations set from the EnPrint preference program. This goes for any Amiga program that allows you to adjust the printer settings.

EnPrint comes with default settings for each type of Stylus printer available, apart from this latest

Stylus500. It is meant to be virtually identical to the older StylusII, but I did have to increase the initial gamma settings and change the RGB colour correction levels to around 120% to get a reasonably bright print. The EnPrint software is regularly updated so the next release should correct this.

Compared to TurboPrint output, EnPrint produces almost as good quality, with both doing an excellent job of picking out fine detail. I would say TurboPrint produces slightly richer colour, but this could be to do with Stylus500 not being set up quite correctly for the Stylus500.

The preference program could do with a couple of additions, such as a dither preview. There are well over 60 dithers, but you will have no idea what they look like until you print with them, so a small on-screen preview would be most welcome.

Also, the print manager program that comes with it should at least allow you to scale and move the print area using the mouse, and loading files via Datatypes would be a nice addition.

Bottom line

REQUIREMENTS

RED essential BLACK recommended

2.04

Workbench



Hard drive

PRODUCT DETAILS

Product	EnPrint
Supplier	EyeTech
Price	£291.00
Tel	01642 713 185
E-mail	eyetech@ix.compulink.co.uk

SCORES

Ease of use	87%
Implementation	80%
Value For Money	90%
Overall	84%

Bottom line

PRODUCT DETAILS

Product	Epson Stylus Color 500
Price	360 Paper - £8.99 720 Paper - £10.99 Gloss paper - £22.99

SCORES

Ease of use	95%
Implementation	90%
Value For Money	90%
Overall	91%

ENVIRONMENT VARIABLES

These variables are set for you to use in your scripts by the Web server. They can tell you the IP address of the person accessing the script, which browser they are using, and other useful bits of information. They are set in the associative array %ENV. If you

want to see all the settings, try this somewhere in your script:

```
foreach $var (keys %ENV) {
    print "$var is %ENV{$var}" in"
}
```

This is a good way of seeing the contents of any associative array.

Just two examples for now: \$ENV{"REMOTE_ADDR"} contains the IP address of the user, and \$ENV{"HTTP_USER_AGENT"} contains details of their Web browser. By using "if" statements you can serve browser-specific HTML to people!

I have formed a sub-routine which takes an argument of a pagename and prints out the header for that page. I only have it working for two pages, but this can be for as many as you need. The line 'local(\$whatpage) = @_;' takes the argument I will pass to the sub-routine and sets the variable (see variables boxout) \$whatpage to the value of the argument. @_ is one of Perl's special variables, @_ signifies a list variable and @_ is list-name passed to the sub.

I have only passed one item in the list. To collect four arguments try 'local(\$whatpage,\$arg2,\$arg3,\$arg4) = @_;'.

To use this library let's take a look at an example main script:

```
#!/usr/local/bin/perl
#frontpage script
#Use content type before 'printing' to the Web browser
print "Content-type: text/html;"
#Require the library so I can use it in this script
require "amigalib.pl";
#Print out the top part of the page using the library sub $l = $page_header("front");
#Print my main content using variables as usual
print "<HTML>";
#here is a small list of links-
#Goto our search page
#The back page, great!

$signed_by dekota
HTMLEND
```

This is the simplest model for library use on Web sites. It is especially useful when maintaining five or more pages with common information. Using a layout library you can change every page on your site in seconds. I have done this before on a site of over 1000 pages.

Next let's look at something more funky; a sub-routine that will return a random image:

```
sub random_pic {
    #Get the list of pictures
    local($pictures) =
        ("pic1.jpg","pic2.jpg","pic3.gif","pic4.jpg",
         "pic5.gif");
    #Get the random seed
    srand;
    #Choose a number between 0 and $pictures
    local($roll) = int(rand($pictures));
    return "$roll";
}
```

You must always use srand before using the rand() function, as it sets the random seed. \$pictures is the number of elements (four in this case) of the @pictures (remember, this is counted from 0). rand(\$pictures) returns a random number from zero to four and int(rand(\$pictures)) makes it an integer. To use this sub-routine just insert these line

VARIABLES

There are three main variable types in Perl: strings, lists and associative arrays. They can either be global or local.

```
$smyname = "Dan";
@sames =
    ("Dan","Ashley","Tushar","Turtle");
@sarraynames =
    ("Dan","Winfield",
     "Ashley","Molands",
     "Tushar","Josh");
```

These are global variables and once set are available to all the sub-routines in the script. \$smyname is a string variable, @sames is a list variable, with each item being a string variable of \$sames[0], \$sames[1] and \$sames[2]. %sarraynames is an associative array, with Christian names as keys and Surnames as values. \$sarrayname["Dan"] is a string reference and has a value 'Winfield'. Variables can also be numbers or letters in Perl, hence:

```
$num1 = "23";
$num2 = "34";
print $num1+$num2;
```

prints the value 57.

into your script:

```
$picture = $random_pic;
print $picture;
```

Okay, that's enough for this month. I realise this may be a bit of a jump, so I recommend getting a Perl book, such as Larry Wall's 'Perl', published by O'Reilly. Alternatively, you could look at the on-line docs at <http://www.metronet.com/perlinfo/doc/manual/html/perl.html>. Finally, if you want to ask me a question, e-mail me at dan@immstudio.com. Next month we'll look at CGI forms and setting up our own Amiga Web server.

FINDING ERRORS

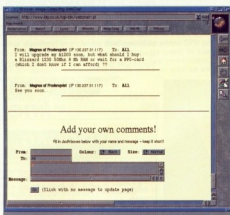
You should be testing your scripts on your Amiga before you put them on the Web server. Common errors include not delimiting "s or @s. If you ever print an e-mail address you have to write the address as dan@amigaforever.com. Make sure that the HTMLEND marker is at the beginning of the line; it won't be found otherwise.

If the script works on the Amiga but not on the Web server, check the following: Are you printing the Content-type line first?

Are the permissions on the UNIX Web server set correctly?

Is the script bit path set correctly?

If you are having a real nightmare, ask the sys admin of the server for help. As a last resort you could even ask me.



Perl scripts allow you to add 'interesting' things such as chat pages to your Web site

require the library and use its variables and sub-routines. Here is an example of a typical library:

```
#!/usr/local/bin/perl
#Library for my Web site - amigalib.pl
#Always put % in libraries.
#When requiring this library it must return true!
1;

#Set our servername in case I want to move it!
$servername = "www.amigaforever.com";
#Set the links to the 2 pages, use the variables from now on so it
#is easy to change the links from now on
$link_front = "http://$servername/cgi-bin/frontpage.pl";
$link_search =
    "http://$servername/searchform.html";
$link_back = "http://$servername/cgi-bin/backpage.pl";
#Takes an argument of a page name, prints out header for that page
sub page_header {
    local($whatpage) = @_;
    #All pages start with same format, although
    #don't have to!
    print "My scripted site"; $l = print "
Welcome to the $whatpage page";
    #Now here is the switches for each page
    if ($whatpage eq "front") {
        print "<HTML>";
        #This is the coolest scripted site
        around!
        HTMLEND
    } elsif ($whatpage eq "back") {
        print "<HTML>";
        #That was the coolest scripted site!
        HTMLEND
    }
}

print "";
}
```

Firstly, I set some link variables which I will now use instead of 'hard coding' HTML. Note how I insert \$servername to set the links.

As I promised last month we are now going to look at CGI programming that will let us run scripts on our Web sites from the cgi-bin. I could easily have had another HTML month, but you can learn HTML as you surf the Web. The cgi-bin is the area of the Web server that will lead you towards becoming a true Webmaster. It's amazing how many Internet Consultants don't know their CGI from their left armpit, but you are going to see how it's done this month.

Let's start at the beginning: the cgi-bin is a directory on the Web server where you store all your scripts or executables. When a visitor to your Web site accesses a link or posts a form to a URL that points at a CGI script, such as `http://www.amigaforever.com/cgi-bin/helpe.pl`, the Web server will execute the file `helpe.pl` and then return the output. This output will, 99% of the time, be straight HTML, although it could be any file type, such as an image for example. For now, however, focus on the HTML output. The Web browser will then display this to the visitor, and that is the full process explained in operational terms.

The scripts on the Web server can be written in any language – Perl, C, Python, TCL, Rexx, or even Visual Basic if you really must! C produces the fastest executables as they are compiled, but it is slower to develop compared with an interpreted language like Perl or Rexx. Sadly, there are not many Amiga Web servers for you to put Rexx scripts on, so I am going to cover Perl. Perl is widely used, is virtually always set up on the Web Server, and has excellent text handling functions.

Perl 5.003 (see boxout) is available for the Amiga, so you can setup a development environment to test your scripts before putting them on your Web server. Remember I said that scripts return HTML? That means the simplest script will be a straight conversion from HTML.

```
#!/usr/local/bin/perl
# Script that returns HTML - www.pl
# This line tells the Web browser what it is
# getting back from the script @! = Without
# this line the user will get a Server Error!
print "Content-type: text/html";
# Here goes with the content
print "<HTML>";
```

My first script

```
If you can see this on your Web browser then
it has
worked.
HTML&
print "";
```

A few things to notice about this script:

The top line is called the script bit; it points to the location of the Perl binary on



Getting technical,
Dan Winfield plunges into the
depths of CGI and Perl programming

**Web
design**
Part 5

Perly gates

the Web server. I have put the standard path, but it may well be different for your ISP – best to ask them before you get going. Always remember to print the Content-type first; things just don't happen without it! I have put the body of my HTML between the HTMLEND print markers. This saves me having to delimit the "s with \\'s as I have done in the last line with the image tag. The #\'s are for commenting out lines.

There really is no point in the above script. It does, however, show you how to actually print out HTML, but this is nothing that a straight .html file couldn't do. Here is a list of the main advantages of a scripted site:

1. You can set variables to be links or

blocks of frequently used HTML. Then when you want to change all the occurrences of that link/block across the site, you just have to change it from one place. This saves changing every html page to alter a contact e-mail address!

2. You can have pages that are different every time someone accesses them. This is useful for rotating advert banners, variety, or just plain showing off!

3. Processing information from forms. Examples of this are guest books, search engines, discussion groups and contact forms (more next month).

4. Linking databases and pages that display real-time information. A bit complex, but very useful in big sites.

Let's have a look at the first point. When I design a site I put common parts into a library, then when I write a new script I just

INSTALLATION AND USAGE

You will find Perl 5.003 on Aminet (eg `sunsite.doc.ic.ac.uk`) at `dev/lang/perl/5.003-bin.lha`. Read the installation instructions carefully and you should have no trouble getting going. Write your script using your favorite text editor, save it with a name like `myscript.pl`, and then in your shell type `perl myscript.pl` to see the output. When testing Perl from an Amiga shell, set the stack of your shell to 250000 by typing `'stack 250000'`. This will prevent crashes, as Perl needs a large stack.

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Ever since the Macintosh first appeared with its graphical user interface (borrowed from the Xerox Parc), the mouse has been the input device of choice. Every computer worth its salt (and even the PC) now features a Windows, Icons, Menus and Pointers System, representing directories and files in an abstract manner on-screen for the user to manipulate via the mouse.

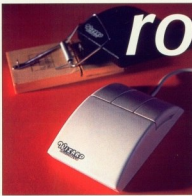
However, in a trend possibly set by Apple itself with its Macintosh mice, a great many mice included with computers are not actually very good. The Amiga mouse was never an exception - the buttons have a distinctly tacky feel and the responsiveness and resolution leave a great deal to be desired. Admittedly, having two buttons as opposed to the single Macintosh button was at least a start, but they still necessitated a great deal of clicking in order to accomplish certain more elaborate operations within Workbench.

With software such as Directory Opus and MCP supporting a third mouse button, there's never been a better time to replace that antiquated (and probably rather worn) Amiga mouse. Wizard offers its 560-dpi mice in black or white, with the former oddly costing an extra two quid.

The Wizard mouse is extremely comfortable to use, its curved contours fitting easily under all but the largest of hands. The three microswitched buttons click reassuringly when pressed, and the mouse pointer glides smoothly and precisely around the screen. The lengthy lead should enable convenient use on even the most crowded desktop.

The package includes a floppy disk containing several programs enabling the use of the third button. And, should you feel the need to dust off an aging Atari ST at any time, the mouse can be switched for use with that computing relic. Combining excellent performance with a reasonable price, the Wizard mouse represents a sound investment and is sure to bring a new lease of life to a multitude of Amiga Workbenches.

Reliable rodent



Dave Cusick throws his Amiga mouse away in favour of Wizard's impressive alternative

Bottom line

PRODUCT DETAILS

Product	Wizard Mouse
Supplier	Wizard Developments
Price	£12.99 (white), £14.99 (black)
Tel	01322 527810
E-mail	sales@wizard-demon.co.uk

SCORES

Ease of use	89%
Implementation	85%
Value For Money	83%
Overall	86%

Surfing solution

As the Internet continues its inexorable creep into the everyday lives of the masses, modem prices shuffle slowly downwards as the manufacturers jostle for market domination. Little over a year ago a v32bis modem capable of transferring 14,400 bytes per minute was the fastest machine most home users could afford. Now, however, falling prices and the sluggish nature of the Internet have persuaded many to upgrade to a more spritely 28.8k modem. These powerful beasts are capable of transferring binary files at approaching 3k per second, and text files even faster.

With the catchy moniker of M2BE, Dynamode's latest offering boasts an alarmingly attractive fascia. It is especially stylish and compact, with a clear front panel and a particularly useful switch on top, rather than at the rear of the machine.

To a certain extent, one modem is much the same as another, and as one would expect, the M2BE boasts full Hayes compatibility and is capable of fax transmissions. In use, the modem doesn't disappoint. Since it's BART approved, connection to a BT phone line is simply a matter of dropping the back panel

cover down and plugging in all the supplied cables. The modem itself, as you might expect in these IBM dominated times, only comes with PC software. However, OnLine includes a huge array of Amiga PD and shareware applications on floppy disk. These include the TCP/IP stack AmiTCP, Web browsers (Voyager 1.0, AWeb 1.1 and IBrowse 0.133demo), a demo of the Voodoo e-mail client, plus news readers, terminal programs for accessing Bulletin Boards, and so on. There's even a demo version of Miami, the new dial-up networking stack that takes all the hassles associated with configuring AmiTCP out of getting connected to the Internet. The package also contains Magic User Interface 3.3, AmiConnect, and even some comms guides. Nearly a dozen Internet Utility disks are also thrown in. Indeed, everything the Net Newbie could need is here, although of course registration is necessary if you continue using some of these programs.

It all adds up to a well designed package that offers excellent value for money. The hardware is superb and the software selection is comprehensive to say the least. It's the perfect buy for anybody who fancies a test drive on the Information B-Road.

Dave Cusick investigates OnLine PD's latest modem package

Bottom line

PRODUCT DETAILS

Product	Dynamode M2BE
Supplier	OnLine PD
Price	£149.99 (delivery £7.50 or £10 next day)
Tel	01704 834335

SCORES

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

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The rate at which Internet software has been appearing for the Amiga has been getting a little scary. Fuelled by the media hype, a whole load of interest is helping push along software development. Strangely enough, a lot of this development has been by shareware and public domain programmers, though this is not to say these programs are anything but of commercial quality.

For a long while the only real choice for Amiga users when it came to getting on-line was AmiTCP. The early versions were freely available, it then became shareware, and for version four it is a full commercial product. As a TCP stack, AmiTCP is excellent, but as a user-friendly easy-to-set-up product, it is far from ideal. From doing the Surfer feature a few months back I spent a couple of hateful days struggling to get AmiTCP to install and work correctly in one sitting. Apparently, the new 4.5 version of AmiTCP is going to go a long way to rectifying this, but until it appears people will have to struggle on.

Miami is an attempt to produce a real alternative to AmiTCP; one that is simple to set up and use. Written by Holger Kruse Miami, author of AmIPPP, ReOrg and AmiWin, Miami is based on the actual NetBSD source code and is therefore a fully implemented TCP/IP stack. It also has the same interface as AmiTCP's bedsocket library, so just about any program that works with AmiTCP should work perfectly with Miami, and in use this seems to be the case. Voyager, iBrowse, AmFTP, AmiIRC all function perfectly.

Once you have got past Miamiinit you will use the main Miami program to link up and down. Using this you can alter all the technical details of how you link up and how the Slip and PPP protocols should work. On the whole the only thing you will need to alter is the modem speed, as changing any of the other settings is probably asking for trouble.

This may all seem idyllic, but Miami is not without its own problems. Firstly, mail is a potential problem, as anyone with an IP that only supports SMTP mail transfer as opposed to

Is the new Miami Internet software a match for AmiTCP? **Neil Mohr** provides the answer

Miami nice?

POP (ie Demon users), will have to get hold of a SMTP daemon. AmiTCP came with one ready for use.

Secondly, many AmiTCP programs, particularly mail programs, assume that a number of assigns and environmental variables will be set up by AmiTCP. With Miami this is not the case. You can do this yourself, but it is something that could be added to the program.

Memory is also a small problem. When up and running, Miami takes over a whopping 1Mb compared to 250k for AmiTCP. About half of this can be accounted for by the MUI libraries, but this still leaves around 600k being eaten up by

You are going to have problems setting up mail programs, particularly if you are using an SMTP-based account, but setting up your mail program is going to be far easier than with AmiTCP

Modem-based Internet for the Amiga - MIAMI



Bottom line

REQUIREMENTS

RED essential BLACK recommended

2.04
Workbench

MUI

6 Mb
RAM

PRODUCT DETAILS

Product	Miami
Supplier	Ryker Registrations, 1 Shrewsbury Street, Oldham OL4 2RS
Price	£25
E-mail	will@ryker.demon.co.uk Subject:MIAMI-REG

SCORES

Ease of use	94%
Implementation	85%
Value For Money	85%
Overall	90%

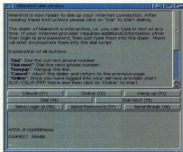
GET CONNECTED

The first claim made for Miami is that it is easy to set up. To make this as simple as possible there is in fact a separate program called Miamiinit which takes you step by step through the process of linking up to your Internet provider.

1. Select the serial device you want to use from a pop-up list. For most people this will be the serial device, but Surf Squirrel owners will use the squirrelserial.device (you may even have a replacement serial device such as Bn1).
2. Choose your modem from a very large list. If yours is not there, a generic setting is available that should work with any Hayes-compatible modem.
3. After Miami has checked your modem by trying to reset it, you can enter your IP's phone number.
4. Depending on whether your IP account uses a static or dynamic IP address, you select which is appropriate for you. You also choose whether to use PPP or Slip and determine your user name and password.
5. The final phase is to dial up to your IP and enter your user name and password. This is done by simply pressing three buttons on the Miamiinit GUI and then enter-

ing either PPP or Slip when asked which protocol you are using.

6. You then save off the configuration file, quit Miamiinit, load Miami and import the configuration file.



Look, it's so easy. Setting the dial script is a matter of pressing three buttons

HANDY HINTS

I read with interest the Protect and Survive article in the September issue, but you've left out a couple of points which would help BEFORE the disastrous happens. Obviously this information is aimed at those souls with a hard drive.

Viruses will attack the boot partition first, so in the event of a problem that's all you have to deal with. If it's a virus that tries to reformat the hard drive it is the boot partition that gets targeted first.

Keep a tidy and well structured hard drive as this will minimise any total virus damage or even accidental erasures, and will enable you to make repairs with relative ease. The boot partition should be small enough to contain ONLY the workbench, a resident virus checker and something like Tools Daemon and MUI, yet large enough to have room for additional libraries, fonts etc which programs will need as you add them to your system. You should never place any of your programmes, even DOpus, SID or AmiBack & Tools, in the boot partition. This is just asking for trouble.

I would recommend that the boot partition is 10% of the overall capacity of the hard drive, with a minimum of 8Mb for 80Mb hard drive or less, and a maximum of 30Mb for a hard drive of 300Mb or more. Keeping to these parameters works out well, as with a small hard drive there is a limit to how many programs you can load, and therefore how many additional fonts, libraries etc you need to put on. Getting rid of any unnecessary workbench icons can save over half a meg of boot space.

How the rest of the hard drive is partitioned is dependent on size. For under 200Mb you only need two additional partitions, Progs and Spare, with Progs being the larger of the two. For 200Mb and above I would suggest a partition called Progs (for commercial software) Data (for data) and Spare (for mucking around in), with Progs being the largest. For the larger hard drives I would suggest a maximum of 200Mb per partition, even if it means calling some partitions Spare-A, Spare-B etc. In the Progs partition I would place five drawers called

If anyone else would like to share their tips on protecting your machine from disaster, write in



Another bumper postbag this month for **Ezra**. Pick up some handy hints from other readers or read comments about **Stan's** latest tool, the Internet



Got something you need to get off your chest?

Want to share some handy hints with other readers? Simply put pen to paper and write to Ezra Surf's Postbag, Amiga Computing, IDG Media, Media House, Adlington Park, Macclesfield, Cheshire, SK10 4NP. There's £50 up for grabs for our star letter.

WP-DTP, Graphics, Music, Video and Utils, where each would contain the appropriate software.

It would be prudent to make a backup of the boot partition somewhere else on the hard drive, remembering to update the backup each time the system is updated. Periodically comparing one with the other would help in finding those files which a poor installer overwrites or in tracking down a suspected virus. A quick and simple way is to get DOpus or SID to count the bytes in each drawer for comparison. Having a backup on hard drive might seem like a waste of space, but it has saved my bacon on more than one occasion. Even when I only had an 80Mb hard drive, I still kept a backup.

Get hold of AmiBack & Tools, as with this program you can save the hard drive's RDB to disk. In the event of a virus attack or whatever, you can always replace the RDB from your backup, thereby saving the precious data and a lot of teeth gnashing and hair tearing. AmiBack & Tools will also help to keep your hard drive healthy, as well as recovering deleted files and making any necessary repairs.

Get hold of the older version of SID, SID 1.6 for instance. It is completely standalone and doesn't need any configuration files to work in a basic manner - reading partitions/disks and copying, deleting and moving files around. So, if the boot partition gets corrupted and your computer won't boot up, all you need do is bung in any self-booting disk, boot up on it and reformat the boot partition. Sling in the disk with SID on it, run SID and then copy over your backup system to the newly formatted boot partition. Hey presto! You're back in business.

Get hold of and install, so that it is resident on boot-up, any version of Virus_Checker 7.0 and above. This wonderful program has a facility which is incredibly useful for warning if any file becomes corrupted for whatever reason,

usually due to a link virus. The file/DIR watch facility can be instructed to keep an eye on ANY FILE ON THE HARD DRIVE so that even if a brand new link virus not recognised by VC invades your system you will still be informed that something has altered file XX.

VC will not be able to deal with the problem, but at least you can investigate and deal with it yourself by deleting the offending file and replacing it from your backup. Reformatting the boot partition and re-loading the system from your backup is as good a way as any of tackling an unknown virus. Reading the suspect file with a text editor will sometimes reveal some ASCII text giving the name of the virus. Happy New Year '96 is one such infidel.

On my system I have VC keeping an eye on a selection of files in the C directory, the start-up-sequence and the user start-up as well as the programs that I use the most. Earlier this year VC told me that C: Assign had been altered. It turned out to be a Happy New Year 96 virus. A badly written install script computed my start-up-sequence. VC told me as it happened.

Jim Buckley, Blackburn

Thanks for your comments, Jim. I'm sure they'll save a great many people from disaster. If anyone has any more tips like this, just send 'em in to the usual address. Our other readers will be eternally grateful. If you'd like to contact Jim directly he is on 01254 665112.

SEEING IS BELIEVING

Okay, I don't have an Amiga - yet. What I have is a Mac done running a 604 CPU at 132MHz. Next month I'll add a 200MHz Pentium to the stable just for playing games. What I'm really looking forward to, however, is a Power Amiga. After visiting a local video studio, my jaw dropped when I saw what a 3000 running a 25MHz '030 and Video Toaster could do. I could not believe my eyes. None of this is news to those of you who've used this machine for years, but after only one year of computing it is something that caught me completely by surprise and earned my respect for the platform.

You may be surprised to know that I'm by no means the only Macintosh user who's following the Amiga story. The Mac is a good machine, and so is the PC, and both platforms have their strengths and

weaknesses. But there are members of the Mac community, for sure, who'd be pleased not to see a 9MB system heap as the result of adding a few shareware programs. There are those of us who like the concept of a dual-bus design, a 512KB multi-tasking OS, and three co-processors. I doubt that many of us will rush out to buy a 4000 tower (for an equal number of US Dollars), or even a \$15,000 DraCo, but we are indeed looking forward to a juicier, stronger system with a 200+MHz 604e and perhaps a less expensive Video Toaster system.

The point is, you Amiga users are not alone. I can't say how large the waiting market is on other platforms for a new Amiga, but when the time comes, I will buy one. Until then, I may just buy a used 3000 so I can get up to speed on the OS. All

we need now is for the manufacturers to get it together!

Steve Duff

This is an interesting comment and one that hasn't really been raised much before. It would be good to see what other platform users think to the Amiga - I mean, okay, at the moment most people are going for a PC and it would be naive to think that they will all go for a Power Amiga when it's released. However, I think there is a ready market for those who don't want to get sucked into the PC chain. Again, a lot will be down to marketing and making other people (other than the existing Amiga community) aware that it's available and has a lot to offer.

AT WHAT PRICE

In replying to many of the letters published in your mag you have often asked: "How much are you all willing to pay for an Amiga?" For example, in issue 99 (letter from Jeff Rampe), you continued with the statement: "I would rather see the Amiga continue as a cheap, but good quality, hobbyist's machine, rather than ramping the cost up to or beyond PC or Mac levels."

I agree that CD-ROM drives and big hard drives are expensive, but need this really be the case? For the best part of a year I have been looking through the ads in 'Amiga Computing' with a view to upgrading my A1200. As with most people my funds are limited, and so getting the best deal is of the upmost importance. The cost of the components I intended to buy totalled about £750, and I was just starting to get the cash together, when a friend pointed out that for that sort of money I could build a pretty good PC. This started me comparing prices, and after looking at the price of PC components I came to the conclusion that Amiga owners are paying through the nose for their equipment.

I am very pleased to see that more than one company advertising in your mag is now able to offer 4MB simms for under £40. This must be good news for the Amiga but I feel it has been too long in coming. However, there is still plenty of ground to be made up, and I feel that hard drives and CD-ROMs are still rather costly. As an example, my friend recently purchased a 4X CD-ROM for his PC for £35, and his hard drive was far cheaper than anything on offer for our machine. Hard drives and CD-ROMs must be very similar in construction for both machines, so why do we have to pay so much more for ours?

I don't believe that Amiga equipment is so special it can command such a high price, and can only assume that some third party suppliers are just milking Amiga users for all they can get. I noticed recently that new tower cases are on sale for the A1200, but at what price? £180 with no power supply unit, when for the PC, £55 with a PSU. I realise that an A1200 tower is a dif-

ferent animal to a PC tower, but the point I am trying to make is that if a PC tower with 230W PSU costs £55, why do we have to pay £60 just for a 230W PSU? This is bad news for our cherished machine, and eventually users will start to buy PCs for their easy and cheap expandability alone.

Looking at it another way, for anybody starting from scratch, it is now possible to pick up a Pentium-100 system for £800. To build an Amiga up to any sort of comparable standard, you can add my £750 to the cost of an A1200 (£300) and a good monitor (£300). At £1350 it can hardly be called 'a cheap, hobbyist's machine'.

Fault doesn't only lie with third party suppliers, however, and I feel that rather than bumping up the price by selling the machines with a large software bundle - most of which many users probably don't want - Amiga Technologies should have offered a machine-only option at a lower price, leaving the customer to buy such software as he feels he needs. This, you will no doubt agree with, if you take note of the number of letters you publish from users recommending all manner of software to be packaged with new machines. Surely the best way is to put large numbers of machines in circulation, and so give software houses greater incentive to write more and better software for them.

This brings me to my third grumble, software. Although the Amiga is well supported in many fields, a lot of areas of computer work are poorly covered. Surely, the wider the range of uses the Amiga can be put to, the more people are likely to take the machine seriously. As an example, one of my other interests is astronomy, and apart from a couple of very good astronomy titles, ('Distant Suns' and 'Digital Universe'), there is nothing for the Amiga that is of any use to me in this field; certainly not to the extent that the PCs are supported.

So, to end what has turned out to be rather a long mon, I have to say this: "Wake up AT, the PC has come a long way recently, and your machine just isn't that

special these days. Third party suppliers get serious. Amiga users are not idiots you know, and we won't stand for having to pay over the top prices for our equipment. Software houses get writing. There are a lot of users who want to do more than just play games or do a bit of desktop publishing, so spread your net a bit. You never know who you will win over to the Amiga."

I am very fond of my Amiga, and would be unhappy to see it lost for good. But, I am sure that if anything is going to kill off this machine, it will be the high cost of putting together a power machine, and the lack of varied software support. The Amiga may be a different animal, but it still has to be competitive with other machines when it comes to price, or new users will go straight to the PC market without ever knowing what they could have had.

On a happier note, I don't intend to say all that grovelling stuff about how good your mag is, as no doubt you are getting sick of hearing that sort of thing by now. But I will say that I shall still be renewing my subscription to 'Amiga Computing', and do not intend to sell my A1200 just yet. However, I may not be upgrading it to the extent that I originally intended, as I feel that a new PC will offer better value for money, and a fairer choice of software. Let's hope that someone takes note, as I'm sure I am not alone in my views. I would be very interested to hear your views on the points I have raised, as you no doubt know far more about the finer points of add-on equipment than I do.

Colin Reeve, Lincs

I'm sure there are many people out there who share your views. PC's seem to be getting cheaper these days, which is a very worrying fact for the Amiga. And yes, software and hardware developers are going to have to watch their costs. However, there are many companies out there who are still developing quality products for the Amiga. Take Phase 5, VillageTronic and Nova Design, for example.

THE EVIL INTERNET

I'd just like to thank Tina Hackett for standing up in the name of logic and good reasoning where so many others have fallen to emotion-based judgement and overly-extreme conservatism.

The Internet has indeed become the latest scapegoat for many of society's ills, but as the 'Satan's den of iniquity' editorial points out, it has always come down to the same thing: Whatever the latest trend is that attracts so much attention 'must be' hopelessly evil.

As I am in the United States, I had a wonderful opportunity to watch when the news service broadcast the President doing his best to please the 'religious elite' and old-fashioned reactionaries by signing into law the CDA. This is not to say I have a problem with religion - one could go on and on about the virtues of moral guidance even if you don't believe in a central deity - it's just that when people allow pure dogma and certain 'accessories' of a religion to cloud their judgement, things can get out of hand. And it was inevitable that proponents of civil liberties, particularly the more zealous thereof, would attack... and defeat... the CDA.

So yes, I suppose you probably can find just about everything on the Internet. It's awfully big, after all, and made up of many totally independent units. But did the Internet 'invent' these awful things? I think not. People have always been able to gain access to 'indecent material'. Does the Internet make it easier to do so? Well, perhaps... but it's not as if you can randomly pick a Web page and find nude or lewd imagery or dirty language ready for the taking. The

Internet is full of terrific resources, and as usual, the bad stands out over the good.

Some of the biggest problems with Internet censorship stem from practicality. For one thing, it's made up of independent machines throughout the world (in different countries). For another, the world's programmers will always be one step ahead of any government in creating new ways of obscuring or encrypting files. Plus, the Internet is overburdened as it is, and adding any sort of 'regulatory daemon' (one of the more extreme suggestions) would make things far worse. And just because something

'evil' exists doesn't mean it's being used for 'evil' purposes.

So if we're trying to protect children from running across such things on the Internet, then yes, it is the parents' job to give the children a good, secure upbringing, and to assert supervision if necessary. And if we're talking about adults... who cares? As far as I'm concerned, 'to each his/her own'. I may not approve of people going after filth on the Internet, but it's not my role to stop them if they choose to (and since representative government is defined as being 'of the people' then in effect I am government, or at least part of it). It's called freedom of information, freedom of speech, and freedom of consciousness. Good, honest people aren't going to be turned into pervers by the Internet; and if they are already pervers, they'll always find a way to exercise that perversity anyway.

In effect it is up to people to morally govern themselves and their offspring. We are,

after all, individuals, and there's certainly something behind the term 'mature, responsible adult'. Violence, profanity and pornography on the Internet? Bah! Go after it if you wish, pursue the people who put it there if that floats your boat. Meanwhile, I'll just be over on Aminet; I hear there's some good software there. Just thought I'd expand on some very good points.

Michael Webb (MRW)

Thanks for your comments - it's good to see that other people have let common sense prevail rather than the over-emotional, 'ban it because we don't understand it' attitude. If these people actually took a moment to even have a go on the Internet, they may actually learn something. Most of the people using the Internet are normal, sane individuals, not dirty old pervers. However, because this bad element does exist, it's important to protect children from them. And as you say, this is down to the parent.



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LEARNING CURVE

1. I would like to understand the Amiga chipset and how it works compared to a PC's. Plus, what makes a Toaster Flyer machine different from a regular Amiga, and what is the difference between this and an AGA Amiga? I would also like to know what a Zorro slot is, what it looks like and what it is used for?

2. Could you explain what all the Workbench directories are and their purpose. If I understood them I could understand what is supposed to be in each directory and be able to debug any problems I might have with my Amiga.

3. Is there a simple and easy file manager type program available? I have Directory Opus and the More program, but they do not seem to be as easy to use as the file manager program on my PC at work.

4. Why are so many of the program names so cryptic? Like Urouhack, for example. I can hardly pronounce it let alone know what it is supposed to do.

Barry Townsend, Dorset



1. Probably the easiest way for you to understand how the Amiga chipset works is to go out and get yourself an electrical engineering degree. Short of this, it is not going to be very easy to squeeze an answer to your question into this reply.

Stop, put your shotgun away. With the help of **ACAS** we might yet be able to save your Amiga



Essentially, the Amiga's chipset is the same as the PC's. Now before you all start shouting, the Amiga has its display chip and blitter and PCs have their display cards with high speed blitters and now 3D accelerators. The Amiga has its sound chip while the PC has numerous sound cards, and the Amiga has CIAs and its interface chip just as the PC has high speed IO chips.

On the Amiga, however, the whole caboodle is integrated far better than on the PC, and as a result, much better access can be made to the hardware. It is just that the PC has far better generalised use of any hardware attached to it, so you can use any graphic or sound card you

like. If you want to find out more about the chipset, you could get yourself a copy of the hardware reference manual, which outlines how to directly program the OCS chipset; something that you should not do any more as your program will not work on any future Amiga.

A Toaster Flyer-based Amiga is a complete NTSC non-linear video editing machine. The difference between such a system and a normal Amiga is simply that it has loads of hardware attached, based around the Toaster card.

The AGA chipset is an extension of the original chipset, which was designed well over 10 years ago. With the addition of a number of extra registers, two more bit-planes were accessible, allowing 256 colour screens.

The display chip is also more flexible, enabling the horizontal and vertical display frequency to be adjusted. As a result

WRITING MASTERCLASS

I currently own an A1200 with a Blizzard 1230 with 8Mb. In a few months time I will be hoping to purchase a CD writer along with MasterISO.

1. What are the minimum requirements for the MasterISO software and CD Writer hardware? I have been told that you need 16Mb of Ram. Is this true?

2. There are many CD writers advertised for the PC, such as the Pinnacle, Ricoh, and HP 4020i models, with prices ranging from £525 to £800. Would these writers work with my Squirrel interface?

3. What is the difference between EIDE and IDE hard drives? If I got hold of a 3.5" EIDE hard drive would this work via the IDE interface?

4. What is parity on a 72-pin Simm? How do you find out if your Simm has it and does the Amiga need it?

5. If I purchase a 72-pin Simm at 50ns, would this speed up my Blizzard board's performance greatly? At the present I have a 60ns Simm.

Tony Poole, Helensburgh, Scotland



Just what I like, multi-part letters.

1. The MasterISO manual states that you need an Amiga 4000, AmigaDOS 3.0, a compatible CD-R

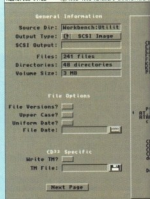
drive, a compatible hard drive with a maximum of 1.3Gb storage space, and a maximum of 16Mb of Ram. Now I think Assimware has set such specific requirements to cover its back, as it says it can only give support to people running very specific hardware configurations.

As long as you have an Amiga with AmigaDOS 3.0, a lot of RAM and a SCSI 2 interface, you should have no problems. As far as RAM is concerned, your 10Mb should be alright, but if the manual says you need up to 16Mb of RAM, there will be situations where you will need that extra memory. The latest Blizzard SCSI controller actually takes an extra Simm, so you could buy that get another 8Mb Simm and have the SCSI-2 interface as well. You are also going to need a dedicated second hard drive - either SCSI or IDE - on which to store the CD data.

2. You are very wise to make sure that any equipment you buy is going to work properly and allow you to do what you want with out any hassles. Assimware gives a list of compatible CD-R drives as follows:

Yamaha CDR-100, CDR-102;
Philips CDR-521, CDR-522, CDR 2000;
Pinnacle CDR-202; RCD-1000, RCD-5040;
Sony CDR-920;
HP 4020;
Plasma 94-11144.

MasterISO v1.22 - ©1993-1996, Assimware International Inc.



So, if you pick yourself one of these you will be sure to know it will work correctly with MasterISO.

3. EIDE is short for Enhanced, or maybe Extended IDE, and is an improved IDE standard that allows four EIDE devices to be connected together and has increased transfer speeds thanks to 32-bit data transfers. IDE only allows two devices to be connected together and can only manage 16-bit data transfers.

4. Simms that have parity bits are actually 36-bit - the extra four bits are used by PCs

the Amiga is able to output VGA-style displays.

Zorro slots are the Amiga's standard expansion slot, and are similar to the PC's ISA slots. The A1000 had Zorro 1, for the A2000 there was an update to Zorro 2, and in the A4000 and A3000 Zorro 3 was introduced to provide 32-bit asynchronous data and address buses. 2. Up until Workbench 1.3, the directories were fairly straightforward, but now, with the release of Workbench 3, the number of system directories has grown as the number of system resources has increased.

C - The C directory should contain any CLI commands you have. Nowadays you shouldn't need to put many commands in here, apart from perhaps small utilities such as picture and text viewers.

L - The L directory is meant to contain system handlers such as the CrossDOS file handler. This is rarely needed, but every now and again a handler may have to be placed here.

Libs - The library drawer is where the Amiga's shared system libraries are stored. Programs should not copy their own libraries here, as the program and libraries should be contained in their own directories, thereby making it easier to remove the whole program and its files at a later date.

Fonts - All your fonts can go in here,

including compugraphic scalable fonts which have an outline description file that goes in the *bullet_outline drawer*.

Devs - Any device drivers are normally stored in this drawer. With recent versions of Workbench, drivers for printers, monitors, keypads, DOS drivers and DataTypes are stored in their own drawers found in the Devs drawer. The less widely used network drivers and Kickstart files are also stored in their drawers in the Devs directory.

Storage - This is the mirror for the Devs drawer and allows you to remove unused drivers from the system by storing them here.

Classes - The most recently added directory. With AmigaDOS becoming more and more object oriented, this directory is used to store any new classes. Primarily this is used for DataTypes, but new gadget classes will also go here. In some ways this is an extension of the monolithic library drawer.

Locale - Another new-ish directory this is used to store language dependent files such as help guides and the translation catalogues for different programs. Normally you do not have to touch this as an installer should take care of copying any language file here for you.

S - The scripts drawer contains the very important startup sequence and user startup files. The idea was that users

would store their own AmigaDOS scripts here, but as most people rarely bother, all sorts of junk preference files can get copied here.

Prefs - As well as holding all your preference programs, the preference directory also contains the Envarc directory in which all your program preferences are permanently stored. They get copied from here to the Env directory, normally in Ram.

General drawers such as utilities, tools and system just contain programs. You may have a T directory which contains temporary files, and the expansion directory is meant for programs with third party expansions.

3. I am sure some people would disagree with you there. Personally I find Workbench is as good as anything when it comes to finding files, and DOpus allow me to perform batch jobs on multiple files. Which version of DOpus are you using? An update to 5.5 is out now and has many new features that make it much easier to use.

4. You have to remember that there are a lot of Europeans. As a result, many of the programs out there are written by Europeans and you inevitably get a lot of 'non-English' influences cropping up in program titles. Urouhach is named after the author, as are Swazblank and Swazinfo, which accounts for the strange names there.

TOOLBOX USAGE

I have been a long time proponent of the Amiga, and more recently your magazine. I own an upgraded A2000, and although I consider myself 'fluent' with OS3.1, there is much I do not grasp.

Please can you advise me on the following:

1. Where does the HDToolBox look for SCSI device drivers, and why did OS3.1 come with documentation for this utility?
2. Why do some SCSI controllers (Expansion Systems 'DataFlyer') have drivers in DEVS: (where they belong), and others (GVP) do not? Where does the Amiga look for these errant drivers?

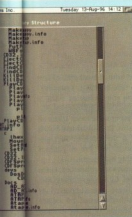
3. And lastly, what is the best publication for learning the AmigaDOS and architecture - things like Ext, Intuition, Vectors, Copper, Blitter, etc.

Please impart a pearl of wisdom, as my journey of self-discovery has run into a dead-end. Thank you in advance.

Nick Makris, zorba@moineilink.net

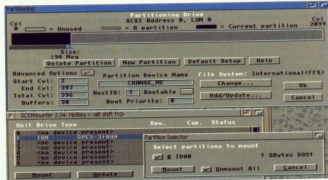


1. You should think yourself lucky that you got HDToolBox at all. For some reason Commodore thought it unnecessary to supply HDToolBox with the



to do memory parity checking. The check is used to tell if there are any problems with the main memory. As the Amiga does not need to carry out these memory checks it does not need this sort of memory. Blizzard and Apollo boards do allow you to use these Simms, but do not expect to get any more memory as the extra bits are just ignored by the Amiga.

5. Getting a faster Simm than the 60ns one you currently have will not give you an increase in speed. Even if it did the difference would hardly be noticeable.



If you are regularly going to be messing around with your hard drives, HDToolBox and SCSI Mounter are life savers

➤ A1200, so anyone that bought an A1200 and wanted to fit a hard drive had no way to partition it, unless their kind supplier could provide them with an alternative.

There is a way to alter which SCSI device HDToolBox will look for. The SCSI device is set through a tool type you need to place in the HDToolBox icon, which is SCSI_DEVICE_NAME= and then whatever the name of your SCSI device driver is.

This is the main tool type you need, but there are three more. First off, SCSI_MAX_ADDRESS tells it how many SCSI ID numbers it should scan for. Normally this will be set to six, so it will scan for SCSI devices zero through to six.

A third tool type SCSI_MAX_LUN tells HDToolBox how many units it should scan for at each SCSI address. Normally this will be set to zero, as you will only have a single SCSI device connected at each SCSI address. The final tool type is XT_NAME, which has something to do with the XT device name, but you will not have to use

this so ignore it. Probably the main reason why there is no documentation for HDToolBox is that no-one could be bothered to write any.

2. Well, you have answered your own question. The GVP board stores its device driver on a ROM, and when the machine is turned on the device is copied to main memory. This makes it more convenient for the user, but can lead to confusion when people expect a device driver in the Devs drawer.

3. What you need are the Amiga's ROM Kernel Manuals which describe how you should program for the Amiga and what every library function does. If you want to learn a little more about the Amiga's custom chipset, there is always the hardware reference manual, which describes the OCS chipset. Or you can try an AmigaGuide reference available in the public domain that describes the AGA chipset. Amiga Technologies says you should not directly program the hardware, but in the end it's entirely up to you.



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 correct 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, 10G Media, Media House, Adlington Park, Macclesfield SK10 4NP. Alternatively you can e-mail us at ACAS@acompany.demon.co.uk

TOOLBOX USAGE



I am ready to upgrade from my A500 to an A1200 this year and the questions that arise as I browse through the ads are that they all assume we average users know all the terms and what we want! What are Squirrels, SCSI and Zorro slots. I do not expect you to answer all the abbreviations here, but if you could direct me to a source where I can look up the definitions? I do not know if I need Zorro slots, as I have no idea what they are for, and so on.

As far as hardware needs go, can you suggest what would be best for my uses? I am heavily into graphics and art for my work. I know I need to upgrade my A500's Agnus chip, but should I request the same for a new A1200?

My second reason for upgrading is to scan my existing photo collection onto disk! Which scanners will be able to scan 8 x 10 inch photos in colour, and what upgrades in a stock A1200 would I be best advised to pursue? I would appreciate any assistance you can offer.

Randall Koller, USA



There are always going to be problems with people assuming the amount of knowledge people have about their computers, but in an advert you have very little space to put across information about the exact system requirements. So, if you have a product that requires a Zorro slot, it is much quicker to assume people that have Amigas with Zorro slots know they can use that product.

Anyway, to quickly explain the few things you mention: the Squirrel - or now the Surf Squirrel - is a SCSI interface that allows you to connect and access SCSI devices, such as hard drives, CD-Roms, Zip drives and scanners, amongst other things, from your Amiga; Zorro slots are the expansion slots found on 'big box' Amigas such as on the

If you want to do scans you are going to need a souped-up machine to handle them



A2000, A3000 and A4000.

If you are not sure about something you want to purchase, the dealer will normally help you out with getting the right upgrades. If you want to discover more in general about the Amiga you can learn all of the most recent changes right here in Amiga Computing. If you are on-line there a number of alternative sources. One of the best can be found on the CuCUGS site at <http://www.cucug.org/aminfoformation.htm>. A large number of links and files are there waiting for you.

The main reason for upgrading the Agnus chip in your A500 is to gain access to extra graphics memory: 2Mb in fact, allowing you to load and edit much larger images than normal. You will be glad to hear that the A1200 already has access to this amount of graphics memory so you will not have to get one.

As soon as anyone mentions scanning and graphics, the more memory and hard drive space you have, the better off you are going to be. A fast accelerator is also going to make a big difference. With the recent large drop in the price of Simms and hard drives, you should really be thinking about

a 1Gb hard drive with at least 8Mb of Ram on the memory side of things. I suppose I should be telling you to buy as much as you can afford.

You are also going to be much better off with an accelerator. The 50Mhz 030 boards are well priced at the moment. They give good performance and are a godsend when manipulating big images.

As far as scanners are concerned, Epson does an excellent GT range, starting with the GT-5000. These are supported by ImageFX, and with the latest 2.6 release even the SCSI version of these scanners can be used, allowing faster scanning. The GT scanners can take full A4 pages - the same size as Amiga Computing - and produce good quality colour scans up to 2400 DPI.

You would be well advised to consider the ImageFX/Epson combination, as ImageFX has a built-in virtual memory facility making the possibility of using the scanner's higher DPI settings a reality. To give you an idea of how much memory you need, a 200 DPI scan requires 11Mb of memory. Has that 16Mb Simms started to look a little more tempting?

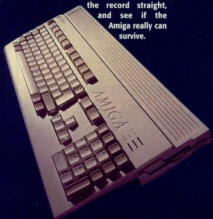
S At the time of writing, the future of the Amiga is still yet to be decided. Its fate rests in the hands of either a combination of companies or, on the other hand, just one.

The interested parties are Pios from Germany, co-founded by ex Amiga Technologies' John Smith; Phase 5, the maker of the Cybergraphx board; and last, but certainly not least, VIScorp, which owns all the rights to the Amiga and is the only company which can make a decision on the Amiga's future.

There has been much recent speculation about new machines coming from each of these companies, and rumours of co-operative agreements intended to produce a new Amiga.

There are lots of questions to which I'm sure you, the readers, would like answers. Clearly defining each company's plans and propositions would do for a start.

Amiga Computing set out to find out what the current situation is and what is likely to happen in the future. We started out by interrogating each company about their own personal plans and ideas to set the record straight, and see if the Amiga really can survive.



VISCORP

Jason Compton is Communications Manager for VIScorp and also the editor of the long running on-line magazine Amiga Report.



VIScorp is an American company which was founded in 1990. Many workers are past engineers from Commodore, while others have vast experience in the interactive TV industry. The company's mission is to be a world leader providing easy to use and affordable technologies and services that permit the average television viewer to take advantage of the Internet, World Wide Web, on-line services and interactive television.

Can you quickly outline what your UITI (how do you pronounce this?) and Ed boxes are, and the major differences between the two? Why should someone go for one over the other?

UITI is pronounced 'You-tee'.

The ED will feature more cable-tuning ability and better built-in software (likely more games as well). Why? Because some people like to feel they're buying a classier product. That, and the ED, may be more flexible for us to market to cable companies as a leaseable product, rather than the

direct sale route we're exploring with the UITI.

At what stage of development are the UITI and ED boxes? The way you talk, the UITI is almost complete whilst the ED still has some way to go. What work is there still to be done and when do you expect the ED to be released?

The first priority has been to get the UITI box out. Development is linked, as they are at heart the same machine, but the UITI is the one with a firm release date - it will launch in January '97.

There are still some software issues to be resolved in the set-top technology.

What advantages are there to owning a set-top box instead of just an Amiga with a modem?

Freeing up your computer monitor for the computer and not having to walk all the way over to it just to check e-mail or pop onto the Amiga Computing Web site to look for news. You can do it from the TV.

Staying alive

What markets are you expecting to sell the set-top boxes to, and how are you going to market and sell these devices?

We will draw on the strong marketing and distribution resources of our partner as well as push the box ourselves towards a public that is not necessarily in need of a full computer system – people who may simply want to be able to say that they, too, are 'on the Net'.

Concurrently, we are marketing the set-top technology to cable television providers as a 'high-tech cable box' that they can lease to customers for a few dollars to provide them with Internet capabilities. This is very appealing to a lot of people.

Are there plans to fit your set-top boxes inside TVs? At some point in the future are we going to be able to buy an 'Internet ready' TV?

Yes, this is a plan. There are currently no manufacturers who have signed on for this, but moving inside the TV is an ultimate goal for the set-top technology. It will make it even more transparent and unobtrusive to the user.

Can you sum up what your plans are for the Amiga as a computer?

More Amigas, faster, and better. Take the system to a RISC processor by making the OS portable between RISC chips, and select a partner to ensure the development is on-time and that we are assured future generations of CPU hardware.

What will be your first targets in producing a RISC Amiga?

Making the changes that need to be made to modernise the OS design for RISC; integrating device and standards support that the OS has fallen behind on, and improving its overall operation are high on the list.

Have you decided upon a processor yet for

An Amiga technology. PowerPC and Alpha have been the most strongly considered.

You have mentioned previously that there is a Chinese third party interested in the Amiga. Such a potentially huge market opens up many new opportunities. What are you doing to co-operate with New Star, and how do you see this market developing in the future?

any future Amiga? Which ones have you considered?

Not as of yet. It is very difficult to conduct serious negotiations with chip manufacturers when we do not actually own the

New Star has its own agenda and plans, but we have had talks in the past which I am sure will continue once our own rights to the technology are secure.

Recently there has been a lot of public argy-bargy between yourselves, PIOS and Phase 5. Surely in such a small market it will be to everyone's benefit to co-operate, pool resources and work together? Please put all our minds at rest and tell us this is the case.

Yes, that would be the case, and it's unfortunate that some press releases from other companies are decidedly not in the co-operative spirit. ViScorp has tried to avoid false hopes and promises by not making bold commitments to any plans before owning the technology, but sadly that is not the way some want the situation to be.

Many questions have arisen concerning the Amiga's future. **Andy**

Maddock and **Neil Mohr** talk to the companies with the answers

PHASE 5

Wolf Dietrich is the General Manager of Phase 5 digital products, a German hardware manufacturer which has been active in the Amiga market since 1992.

Phase 5 are currently focused on building high quality hardware add-ons for the Amiga, such as the Blizzard and Cyberstorm series of 68030/68040/68060 accelerators and the CyberVision64 graphic cards. We are still dedicated to the Amiga system, and are continuing to develop new technologies and standards to bring the Amiga forward.

What are your immediate plans for the Amiga as a computer?

We will bring out our PowerUp accelerators, which incorporate the PowerPC processor in existing Amiga systems, by the end of this year, and we are working closely with major software vendors to realise massive support for this architecture. In 1997 we will introduce a computer system which is based on a chipset we currently have under development. This development will result in a really breath-taking computer system, and we hope to find additional partners to make this new technology available in other systems

and different product classes as well.

If VSCorp reject your proposals, what options will be left available to you?

Phase 5 digital products will continue to be a technology-driving force in the Amiga market. Our PowerUp program will start the transition from the 68k processor to the PowerPC processor. Our developer support program, where about 500 developers are registered, will provide support so that lots of software products will join us in promoting this powerful next generation of CPUs in the Amiga. Within this program, we will have to supply tools, arrange co-operations, and define rules and guidelines as well. We will set standards for native PowerPC programming, the new CyberGraphX 3.0 standard, and CyberGL, for example, which is a subset of OpenGL for CyberGraphX.

With regards to CybergraphX/3D, how is this going to be integrated into future Amigas, and currently at what stage is software development, if there is any software? How are you helping third parties? Would you be interested in developing some sort of 3D fighting game, for example. clickBOOM says it would be interested.

CyberGraphX 3.0 is a new software revision which



is planned to incorporate lots of new functionality. It will offer additional features and can be used in future Amiga systems, independent of the CPU or the graphics hardware. When we release the version that supports PowerPC native code, a performance increase for parts of the functionality can be expected; especially as the new 3D and MPEG functions we are currently integrating will be very powerful and useful for developers. We do support developers in our general developer support program, and we are happy to support everybody who wants to join this new standard.

For the 3D issue we will have a CyberGL, which is a subset of the OpenGL standard, offering lots of functionality to 3D programmers. For our upcoming CyberVision64/3D graphics card, we will have an additional second 3D model which is optimised for high-speed applications such as games. We hope that these efforts can support the software developers strongly, and invite everybody to make use of this functionality and our developer support.

PIOS

Dave Haynie was formerly a Senior Engineer at Commodore. He worked on the Commodore 128, the A2000, A3000, A4000 and some add-in boards.

PIOS' plan is to make consumer-oriented, PowerPC-based computers. While we expect to run a variety of OSs (since the PowerPC market is, slowly, converging on PPCP, an open standard for building compatible systems to run any PPCP OS in shrinkwrap form), we're all coming from the Amiga, and we hope to support the AmigaOS as much as possible on the PIOS systems. Naturally, a port to the PowerPC isn't under our control, or even available to us, unless VSCorp says so. So, in the meantime, we will have the MacOS, and we're looking at other possibilities too (not Windows NT).

If talks are successful with VSCorp, what will be your first steps in the process of developing a brand new Amiga?

The very first step will be getting a workable AmigaOS emulation on the existing PIOS PowerPC machines. This can be hosted under MacOS or pretty much any other. The main point is that, best case, the PowerAmigaOS would be done in Summer of '97. We need Amiga systems to ship now, or the platform is doomed. Any PPC system type from PIOS will be capable

of running the PowerAmigaOS, assuming we do have one next year.

What sort of systems are you expecting to produce? If you expect to have a machine out by September, is this going to be a straight PowerMac?

There are several reference platforms available, some based on PReP architecture (like the BeBox and the Motorola RISC PCs), and some based on the PowerMac architecture (like the Power Computing systems).

It won't matter all that much to the AmigaOS. Like the BeOS of today, the next generation AmigaOS should have its own specified hardware abstraction layer. You port the HAL to whatever system you want, and the OS runs over it without change - as long as your Exec has knowledge of the CPU your PPC machine has.

Currently, Pios is the only company to state that it wants to produce a 'low cost' exciting machine. VSCorp talks about high cost Alpha-based systems, while Phase 5 gives the price as £1500 (\$2000). What will

be the price point of your machine?

The first PIOS systems will be in that price range too: 120MHz and 200MHz PPC 603e-based is the current plan. Everyone's selling that kind of system; in part because the OS's in common use make it necessary - they have 15 years of code bloat, bad decisions and creeping featurism behind them. But 65% of US folks and 90% of Europeans don't have home computers. Cost is a factor here, and I'm in favour of building computers that individuals use, not machines for business drudgery (thus, no MS-DOS, no Intel x86, etc).

If you owned the rights to Amiga, what would be your immediate plans, and what do you think VSCorp will decide?

I would offer it immediately for licensing to other companies, and work with other companies on building a portable version for desktop systems. I don't believe that any one company left in the business is large enough to make the AmigaOS a viable desktop OS in any market. Together, perhaps?





ou can log on to your own BBS for testing purposes by choosing BBS/Local Login from the menus or Right-Amiga L from the keyboard. The slippery slope to con-

stant local logins to check the BBS is beginning. Instead of logging off normally, for speed you Twit yourself out (the quickest method of logging users off, like when they're real bad) with BBS/Twit or Right-Amiga T.

In the User Editor you want to change the defaults and replace them with your own details and an Access of 10000. Everyone who calls your BBS will have their details stored in this editor. Your name stays at the top, with users listed in chronological order going down. You don't want hackers guessing your password, so why not make it a complex 20 character, alpha-numeric affair. Impossible to crack.

If you haven't got it already, the utility to get hold of for saving loads of time is Powersnap. I'm using it all the time writing these articles. Drop it in WBStartup to load and hide in the background each time you boot. Using Powersnap you could, for instance, make a copy of the characters forming your password in Max's. They will be stored in Ram ready to be copied elsewhere, like into a wordprocessor or Max's Configure/Macros window.

CHATTING

In the Macro window you have 20 fields available ready for text. When you're next chatting to a caller, the F keys (F1, Shift F3 and the rest) bring onto screen that which is held within the macros. Their main use is in entering your name and password so you don't have to type them for each local login. Terminal programs like NComm have macros too, so should you be chatting with someone who has a couple of mates at their end, they can each type their name into a macro to press before typing so you know who said what. The same with your own macros if you have a brother who's the co-sysop.

You're not limited to the character length of these macro fields. The big discovery is the <key. Try entering this as a macro:

```
<BBS:Test.txt
```

Now load in a WP and enter some text - it can be any length - before saving it out as Test.txt in the BBS directory. Back in Max's

HyperNSI v1.07, Copyright © 1993 Mike D. Nelson

Quick: Do you want junk mail? (y/n)

Hint: Press NO for once!

Beginners: Junk mail involves messages that've been posted to all. If you do have junk mail ticked expect a couple of dozen messages in your mail sack each time you log on...

Color: Text Page:002 Set:01 1 2 3 4 5 6 7 8 9 10

"A taster of the replacement new user login ANSI you can use for yourself"

MAX

power

part 2

Jason Jordache logs on to the incredible Max's BBS!!



"The System Configure window. Use these settings and you cannot go far wrong - but we're not guaranteeing anything"

local login and make your way to the main menu. BBS/Chat Interrupt (you'll find a few spelling mistakes within Max's) or Right-Amiga I drops you into chat mode. Should a caller be on-line you can talk to him via this method, but in this case you're chatting to yourself.

Press the macro with Test.txt assigned to it. An Import Text function is initiated and Test.txt appears on-screen. BBS/Import Text (Right-Amiga R) is another method for

pulling in messages, stories and long sign-offs (signatures at the end of messages). You can use macros to save typing in sign-offs and message intros each time you write to users. As you will soon become aware, the < symbol can be used all over Max's, not just with text but with ANSI screens as well.

CONTROL

In Configure/Macros we have our first glimpse of control codes with ^M (control M). The ^ isn't printed on-screen (unless you type two side by side). Its function is equal to that of the Ctrl key. The M is one of seven

BUGS

One little bug in Max's to avoid: When editing configs and the time reaches midnight, certain fields can be jumbled or replaced with a 0. Just make sure any editable windows in Max's aren't open at this time, though it's alright to have Max running.

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ImageFX has evolved into one of the Amiga's most powerful image processing and art packages. Helped along the way by its comprehensive ARexx ports, modular design and backed up by steady updates, ImageFX deservedly gets a lot of acclaim. This latest version takes ImageFX up to 2.6 and introduces a number of all-new modules and effects along with improvements and additions to various other parts of the program.

Having been around a good few years now, ImageFX is probably one of the best regarded image processing packages on the Amiga, particularly considering that AdPro is no longer supported.

As ImageFX first evolved when AGA Amigas and graphic cards were only just appearing, the way it handled the image display was fairly unique – the actual 24-bit image data is stored in a buffer while the actual screen display gives a quickly rendered preview, scaled to fit the current screen. Earlier versions did allow previews to be viewed in a true colour 24-bit CyberGraphX window, and even AGA users could have a preview window open on the Workbench.

Currently, the biggest disadvantage with ImageFX, particularly compared to Photogenics and the recent ArtEffect, is that any drawing effects you apply to the preview image will not take effect until you let go of the mouse button. This is because ImageFX has to apply the effect to the 24-bit buffer before it will update the preview image. This makes it difficult to judge exactly what you have just done, particularly if you are attempting to create a subtle blending effect.

You can work with ImageFX on native Amiga screens where the interface lives on its own screen, tucked away at the bottom overlapping the main preview screen. Access to effects is through the many buttons that split the effects up into appropriate types. This can initially make it a little tiresome trying to find a specific effect, but after a short time you do learn where they are stored.

In the wake of yet another update, **Neil Mohr** weighs up the pros and cons of ImageFX



is all

Most effects have a good number of options, and to prevent you from being overwhelmed by the requesters, many of them have the options split into separate pages selected from cycle gadgets on the window itself. Even though the whole of ImageFX does have a GadTool feel to it, all the gadgets are actually custom. Therefore things like the cycle gadgets cannot be made pop-up using Cycle to Menus. This would make it simpler to select what you

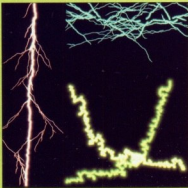
want, particularly when things like the Liquid effect have about 10 menus, and even though you can pop-up a list view of menus by double-clicking, this is not quite

THOSE NEW EFFECTS

LIGHTNING

A greatly updated version of the old Lightning effect the new modules give you much greater control over the behaviour of the main bolt and the branches that spring from it.

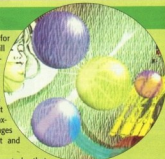
Both the way the main lightning bolt and emitted branches are drawn can be adjusted through the use of percentage probabilities. You can now adjust the end and start points of lightning bolts by moving guides on the main screen.



BUBBLE

An all-new effect for ImageFX, Bubble will place any number of ray-traced glass bubbles on the current image. Even though you cannot specify exactly how each bubble should appear, it is possible to specify maximum and minimum ranges for their size, hue, tint and brightness.

Simple animation controls that allow you to specify how the bubbles should move over the screen – adjusting the speed of how the X and Y values should change – have also been implemented.



as convenient.

When it comes to applying effects, ImageFX is quite friendly and straightforward, with most selections or values being set through either cycle gadgets or by entered values using either text gadgets or sliders. Just about all the effects have a thumbnail preview that is meant to allow you to see what the final effect will be like, but the damn thing is so small it is rendered almost useless, except for the most striking of effects.

It would help if the space taken with a thumbnail of what the original image was like was used to enlarge the effect preview, or better still if ImageFX allowed you to zoom in and out and move the preview image around.

WHAT'S NEW

This latest update comes on five disks and will update ImageFX 2.1 to 2.6. Installation is in two parts: One installer for the 'official' updated program and modules, and a second installer for modules and AREXX scripts produced by third parties. Along with the disks, a short manual addendum covers all the new additions for this and earlier versions.

A number of tweaks and additions have been made to the main program itself. Possibly one of the most important is that ImageFX now completely supports all of the CyberGraphX 24-bit screen mode, allowing 24-bit brushes to be used in all painting modes. This includes CineMorph that can now morph in full colour for your viewing pleasure.

One thing that has always made ImageFX that little bit special is its support, not only for many different paint, effect and image formats, but also for external input and output devices, primarily printers and scanners. This latest version continues the trend by adding an all-new printer module called SuperPrefs which replaces the older Prefs and PrefsII modules. The new module gives you a whole host of new options, including dithering, colour correction and how the image will be rendered. Extra support is also provided for the Fargo FotoFUN printer,



One thing that has always made ImageFX that little bit special is its support, not only for many different paint, effect and image formats, but also for external input and output devices, primarily printers and scanners

The wireless hook gives you a automated way to remove model wires. Thunderbirds will never look the same

along with the older Primera and PrimeraPro printers.

On the scanner side of things ImageFX has always offered superb support, and with its virtual memory is perfect for getting scans at high DPI that otherwise would be way out of your memory requirements. There has always been support for Epson's GT scanners, and with the 2.1a update even support for the faster SCSI models was added. Now for version 2.6, Hewlett Packard's Scanjet 3c and 4c SCSI models are also supported.

Along with updating all of the Video Toaster and Flyer modules so that the scanner, rendering and preview work with the current 4.1 release, ImageFX can load and save Flyer Clips and any single frame can be loaded and saved to the Flyer. (This is only really of importance to our NTSC friends.)

DISPLACE

A very powerful distort effect replaces the old Distort function. Along with the old Delta distort method there are also Absolute and Radial distorts that affect the image according to the brightness of pixels on the radius and both the X/Y and angle co-ordinates.

The buffer the distortion comes from can be selected from either the image itself, the alpha channel, the swap buffer, or from the brush. Grey scale values can be used for a simple brightness distort, or the R G B values can be individually adjusted.



FIRE

One of the more complex new effects - with a myriad of options to play with - allows you to produce accurate simulated fire effects, ranging from a candle flame all the way up to a large forest fire.

From the single requester, five different attributes affecting the fire can be adjusted: How the fire appears, how it's blended with the background image, where it should appear, its size, and additional wind effects.



ImageFX

this is that the compression used by the GIF format is patented by Unisys, who recently decided to start charging licensing fees for any commercial distributor whose products use its compression technique. Hey kids that's progress for ya.

So that NovaDesign does not have to pass any added expense on to you, the customer, the GIF modules have been removed from the commercial version, but are now available separately in the public domain (for which Unisys asks no fee). Therefore, if you want to get hold of the GIF modules which support the latest GIF89a features, such as interlaced and transparent GIFs, you

will have to get them from NovaDesign's BBS or FTP site.

ImageFX is still the ultimate image processing program on the Amiga, but its age is really starting to show in the user interface; particularly now with Photogenics and ArtEffects sporting scalable, font sensitive, multi-window interfaces. ImageFX's font size and position fixed requesters have that squished look about them and do seem dated.

Most of my complaints do not stop ImageFX from doing what it is best at – the batch processing of images through the use of its ARexx port. Perhaps if ImageFX version 3 appears, we will see something really special.

Bottom line

REQUIREMENTS

RED essential BLACK recommended

2 Mb RAM	Hard drive	2.04 Workbench
040/060 10 Mb RAM		CyberGraphX card

PRODUCT DETAILS

Product	ImageFX v2.6
Supplier	Wizard Developments
Price	ImageFX 2.6 – £149.99 Upgrade from 2.0 – £39.99
Tel	01322 527 800
E-mail	sales@wizard-demon.co.uk

SCORES

Ease of use	90%
Implementation	81%
Value For Money	84%
Overall	85%

THOSE NEW EFFECTS



LIQUID

An odd effect that distorts the image along a number of overlapping 'waves'. The end result is a rather odd-looking image that has the look of a funhouse mirror. There are a number of extra options that allow you to change how the edge of the image is affected, including making the waves either wrap over the screen, or stretch, pulling pixels from the edge to new positions.

SPARKLE

Another optical lens-type effect that imitates the role of a star filter or the bright flash off a disco ball or metallic object. The sparkles themselves can be based on the luminance, hue or saturation, and a minimum and maximum can be set to limit the number of sparkles on screen. To make things a little more varied the angle of the sparkles, along with the colour and size of the produced sparks can be set.



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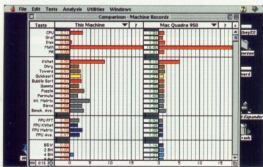
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Laser supercharge their
A2000 with the DKB
Wildfire 68060

What a scorcher



Speedometer running on Shapeshifter shows that the wildfire equipped A2000 is running as fast as a 60MHz PowerPC 603e, and three times as fast as a Quadra 950

Every time we get the opportunity to upgrade our Amigas we experience the visceral excitement of watching things that used to take what now seems all day happen in a rush.

4 MB/sec SCSI hard drives vs IDE, ST-506, or (shudder) floppy drives. v.34 modems vs v.32bis or an old 2400. Even more RAM can breathe new life into an old machine, especially when it is on a new graphics card. But nothing - NOTHING - equals the thrill you get from taking a quantum leap in CPU performance.

The current Wildfire only fits the A2000/2500 boxes, and it ships with a 50MHz MC68060, a true SCSI-2 controller, ethernet, and the ability to hold up to 128MB of DRAM. As a bonus, two PCI-like interface ports are available on the back of the card, and DKB has a Wildfire PCI graphics card in development.

The Wildfire installation is rather painless. Just shove it into your accelerator card slot and screw down the backplane bracket. It's accompanied by a disk of utilities which you'll need to install prior to using the card. But be warned - if your A2500 has one of the old Commodore 2090 or 2090A hard drive controllers and an old ST-506 drive, you won't be able to boot from that drive anymore.

You'll need to upgrade your A2000/2500 to Amiga OS 3.1 too - the Wildfire's 060 requires it, this is mentioned in the card's manual, but not on the outside of the box, where it should be.

The easiest way to describe the '060 is as an MC68040 on steroids, faster clock speeds, larger caches, and a dual-interlocked pipeline all combine to produce performance numbers 4-6x faster than a 25MHz '040. The penalty for this is that programs which don't scale well in performance or won't work with the '040, probably won't with the '060 either.

We tested the SCSI-II controller on a synchronous SCSI-II IBM hard drive and saw throughput bursts of up to 4MB/sec. If your hard drive does not support synchronous transfers, they can be shut off by a boot option on a special Wildfire screen that is accessed by holding the right mouse button down at boot time.

The ethernet port supports throughput of up to 1MB/second, and a stand-alone hub allows you to interface as many computers and devices as you might have. This allows

the Amiga to integrate into a render farm and means you can even create your own high-performance home network.

The DRAM controller is the most elegant part of the board and keeps the '060 fed - an absolute necessity for best performance. The Wildfire supports 80, 70, or 60ns DRAM using standard 72-pin SIMMs (in any combo of 4, 8, 16 or 32MEG), and supports interleaving memory if SIMMs are used in matched pairs. This is a feature NO other '060 board (of which we are aware) has, and easily gives the Wildfire a 10% or higher performance advantage on any memory bandwidth limited operation.



ation. It also runs the bus at the CPU clock rate, not at half the CPU clock rate as most of its competitors do. This helps achieve as much of a 20% throughput advantage on some programs.

Finally, the bonus slots on the back of the card allow for the insertion of pseudo-PCI cards. The slots are electrically compatible with the PCI standard, but their positioning prevents you from being able to use the form factor that will be used in other PCs. These two slots do, however, give DKB the ability to build cards based around off-the-shelf PCI chips which outperform by double anything available for the Amiga today. And what's more, they will probably cost half as much.

Some quick benchmarking showed the Wildfire to be a real brute. The standard LightWave 3.5 'texture examples' scene renders on an A1200 40MHz 030/882 in 261 seconds. The Wildfire did it in 39 seconds.

SysInfo 3.24 said: 'Call me now! AIBB tests were real jaw-droppers. The Shapeshifter Mac emulator gave us a 'Mac' that screams! - nearly three times the performance of a Quadra 950; the fastest '040 Mac Apple ever sold. Loading JPEG files into A2Pro and ImageFX was as fast as loading GIFs.

The Wildfire may not be the cheapest '060 card out there, but you must also consider that DKB is a long-time Amiga peripheral manufacturer, and its support is second-to-none. The card also includes enough extras to justify its price and push it to the head of its class.

If you crave speed, and want to truly supercharge your Amiga 2000, the DKB Wildfire is definitely what you want.

Bottom line

REQUIREMENTS

RED essential BLACK recommended



PRODUCT DETAILS

Product	Wildfire 68060
Supplier	DKB Incorporated/UK Wizard & Power
Price	\$1499.00
Tel	US810 348 3821

SCORES

Ease of use	95%
Implementation	98%
Value For Money	85%
Overall	93%

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Megachip 2000/500 185.95

Allows your A500 & A2000 series computers to have two megabytes of chip ram. A must have for people who use video, graphics and audio applications.

Included is the Megachip daughterboard with 2MB Agnus chip and an extra one megabyte of ram. (Requires A500 to have A501 ram expansion +24.95)

A1202 board (A1200 Only) 87.95

A multi-function board for the A1200 Computer that provides the maximum fast ram expansion plus a battery backed up clock/calendar. Includes two timer sockets for combinations of 1, 2, 4, 5, or 8MB of fast ram using industry standard 32 bit simms with 72 pins. Optional pool megachip can speed up math functions as much as 1000% or more.

A3128 Ram board (A3000/4000 Only) 189

Allows 32 bit ram expansion to 146 megabytes of ram using 72 pin industry standard simms. Four simms slots accept either 4, 8, 16 or 32 megabyte simms.

A2632 Ram board (A2630) 189 w/4mb

Allows 32 bit ram expansion onboard of 112mb of ram using industry standard 72pin simms. Has four sockets allowing use of 4, 8, 16 or 32mb simms. Allows full burst mode support.

DKB's WILDFIRE 060 w/FAST SCSI II & 64bit ramboard \$1399

Upgrade rebates available for owners of other 4MB - 29 8MB - 59 accelerator boards & ram through DeVine. 16MB - 119 32MB - 225

- True 68060 50MHz Design - NOT A MODIFIED 68040 BOARD!
- Lightning High Speed Local 68060 Memory, supports interleaved memory
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From a company that listens to what the public wants! This is the FASTEST accelerator available for the Amiga 2000!! MADE IN THE USA!

OVERNIGHT DELIVERY ONLY 9.95!*

*up to five pounds actual weight & dimensional weight, call for other details. Shipped Airborne Express SDA.

DKB

Kwikstart II (A1000) 54.95

41000 owners can now add Kwikstart roms to their machines with this device! Supports two different revision roms & allows access to more system ram.

Multistart II 6a (A500, 600, 2000) 29.95

You can now more than one kickstart rom with this device! Switchable by resetting the machine for a few seconds.

Monbra 33MHz w/MMU & FPU 149.00

Accelerator for A1200 computer with 68060 @ 40MHz, 68882 @ 40MHz math co-processor, and battery backed real time clock. Expandable to 128MB of fast ram using industry standard 72 pin simms. Increase in speed up to 600% SCSI II/I controller can be added \$89.00.

Rapidfire SCSI I & II controller 139.00

Specifications are unsurpassed in speed, power, compatibility & raw performance. Ram expansion up to eight megabytes of 72pin industry standard ram. Hard drive can attach to card, & includes d25 external connector

EXPANSION SYSTEMS

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INCLUDES Power Supply
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- SCSI Controller card supports up to seven devices internally, can add external port later

Datallyer SCSI card 4000SX-25 89.00

- SCSI controller card with DB25 external connector for external devices

Datallyer SCSI-A4000 99.00

- converts IDE header into SCSI port for up to five devices with this then to work with original IDE drives you already own

Datallyer SCSI-A1200 99.00

- converts IDE header into SCSI port with original IDE still functional! Control up to seven devices total

Datallyer 1200/600 XDS 69.00

- external case supports 3.5" IDE hard drive & allows use of internal 2.5" hard drive. Includes pass thru cable for using two hard drives at once.

Datallyer RAMBOARD w/MB 89.00

- ramboard expandable to eight megabytes of ram using 1x8 or 1x9 simms modules.

Datallyer SCSI controller (2000/3000) 89.00

- SCSI Controller card, controls up to seven devices at once. Optional DB25 connector available for 9.95.

Datallyer IDE controller (2000/3000) 79.00

- IDE Controller card, controls up to two IDE devices at once.

Datallyer SCSI & IDE controller (2000) 95.00

- IDE Controller card, controls up to two IDE devices at once. SCSI controller port controls up to seven SCSI devices at one time on the same card.

Datallyer SCSI A500 149.00

External enclosure, allows internal mounting of 3.5" SCSI device. Ramboard can be added to expand memory to eight meg. DB25 external connector purchased separately for 9.95. Up to seven devices can be controlled.

Datallyer IDE A500 149.00

External enclosure, allows internal mounting of 3.5" IDE device. Two devices can be controlled. Datallyer RAM-C Ramboard can be added to expand memory to eight MB.

Datallyer SCSI & IDE A500 179.00

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Ramboard with one megabyte of ram for an additional megabyte of chip memory for the Amiga 600 computer system. Included also is a battery backed real time clock.

Expansion Systems is an American owned & operated company. Its products carry a one year manufacture warranty.

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F Gives the user the power to add additional cards like the DPS Vector Scopes to extra PC slots.

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FREE MATH CO PROCESSOR with purchase of 33MHz version

2000/500 ACCELERATOR

A1200 CSA Accelerators

68030/33 Mhz w/MMU, 68882

RC33 math co-processor, AND

SCSI I & II controller card built

in w/ external port expandable

to 32Mb of ram 399.00

68030 running at 50Mhz w/MMU

AND SCSI I & II controller card

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Low profile, power & heat simms for maximum performance.

Upgrade rebates for A2000 owners with other CPU cards!

Trade in that old 15bit ram while you're at it!

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- faster than an Amiga 4000T @ 25MHz
- uses standard 72pin simms expandable to 128Mb of memory
- 33 Mhz & 40Mhz AVAILABLE! \$649.00 & 749.00!
- Extra SCSI Port Option Available

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GVP-M TREX-2 68060 @ 50MHz

- FOUR SIMM SOCKETS MAKE IT EXPANDABLE TO 128MB
- BUILT IN SCSI II CONTROLLER CARD
- 4000/4000T/3000/3000T/2000 VERSIONS AVAILABLE
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- ADIDE II CONTROLLER CARD 69
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Storm

In a C-cup

Probably the single most important program for any computer system is a compiler. After all, how else are programmers expected to produce new software? For years on the Amiga this spot was very well filled by SAS/C, but with SAS Institute having dropped its support for the machine a few years back, there is a bit of a hole left in the market. Enter StormC.

The package comes on five disks and is accompanied by a 200-page manual. Installation is made very straightforward (as it should be), thanks to the normal Amiga installer, which copies all the StormC programs along with the 'Include' files, a number of example projects, an on-line manual and help files. StormC itself only takes up four disks, the fifth playing host to a demo of the StormWIZARD GUI development system which, coincidentally, was used to create all of StormC's front ends.

The manual does a very good job of explaining how to set up and use each part of StormC, and has useful information and warning snippets in the margin. For beginners, the manual takes you through the basics of setting up a new C project. The only problem with the current manual is that it is a translation of the original German one and could have done with a second reading before this release. The manual may be a little 'quirky', but this does not make it any less informative; it's just that the use of English is a little amusing now and again. If this still

Neil Mohr checks out the compiler the Amiga world has been waiting for

worries you, I have been told by Haage & Partner that a new version is in the works.

There are five main sections to StormC: its project manager, editor, compiler, linker and debugger. In the manual the StormC package is referred to as a complete 'development system', not just simply as a compiler. The reason for this is that the StormC package has been designed and written with modern program

design and development techniques in mind. Over the years the way projects have been approached and executed has slowly evolved and developed.

At one time the usual way of producing a program would be to load the code into a text editor, make any necessary changes, save the code off and then run the compiler and linker to produce the

executable. This process could be automated with batch files, but as computer systems and the programs running on them grew in size, so did the complexity of programming projects. With the advent of modular programming and C++ classes, a single program is made up of many smaller sections of code. It therefore becomes unnecessary and ineffi-

cient to have to recompile every piece of code to produce the finished executable.

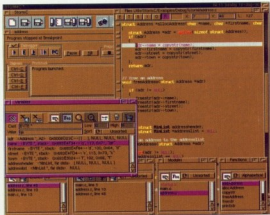
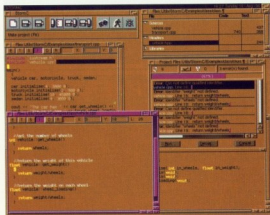
Management of all the possible sections of a project is handled by StormC's project manager. This not only refers to the code you have written, but also to things like AmigaGuide documents, ARExx scripts and graphics. The project manager is there to handle all the different sections of your program and keep track of all the dependencies; and simply to make access to them quicker.

The project manager has two main windows, consisting of the tool bar and any project windows that are open. StormC is started by double-clicking on any of the project icons, which have a few tool types in them allowing you to adjust the start up. Most importantly the SaveMem tool type will force StormC to load each section of the StormC environment only as it is needed, thereby saving a lot of memory. This comes in very handy, as even on a 6MB system you can easily run out of your 4MB of fast RAM and slip into using much slower chip RAM. You can also specify using the GoldED text editor instead of StormC's built-in equivalent, so if you have grown accustomed to GoldED it will be invisibly used by the other StormC programs thanks to good old ARExx.

USEFUL TOOL

One other useful tool type, PubScreen, lets you specify which public screen StormC should work from. As you cannot define a screen mode from within StormC, it will not automatically open this screen, but the provided commodity Storm Screen Manager will open the window. It may seem a bit around the houses, but it works. Strangely, the public screen name defined in the project icons is 'STORMC', while in Storm Screen Manager the set up screen is 'StormC', and as screen names are case sensitive, you must make sure you change the name in Storm Screen Manager before you start.

For each program you want to write you will create a new project - every part of this program will be listed in the project window. This includes the source code, headers, assembly code and headers, locale catalogues, compiled executables and any docu-



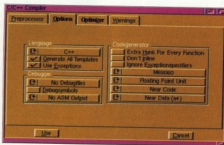
mentation, AmigaGuide and Arexx scripts. If you want to create a new section of code you must first add a new text section from the menu. You then enter the name of the source section and a new file will be made for you to edit. It is also possible to add multiple files - quite handy if dealing with C++ code that uses pre-written classes. Accessing any of the project sections is just a matter of double-clicking in the project window.

The part of StormC that you will potentially be using the most is the editor. If you cannot get along with the integrated editor, the whole point of StormC being a complete environment is lost. Fortunately, I can say that StormED is very nice to use. Providing Mac-style editing allowing you to cut and paste into block-marked areas, the editor is quick and easy to use and does not slow down with large files.

CONTEXT COLOURING

As with other recent text editors, StormED has context colouring of the program code. So, as you type out code, specific types of C and C++ symbols and commands will be highlighted in a colour. This allows you to quickly spot C/C++ commands, comments, constants and AmigaDOS types. Of course you can specify what colours and which types should be highlighted, if any at all. The editor also features automatic formatting of your code as you type it in - it can add tabs each time a new open bracket and the following code is added, saving you the trouble. On top of all this there is an unlimited undo/redo buffer, and for every source the window's position and size are remembered.

As I mentioned earlier you can opt to use GoldED as a replacement editor using the tool type in the project icon. So, when you run StormC, GoldED is automatically run and you can make it appear on StormC's public screen. It would be nice to see a similar option for other widely used editors such as CynusED and Turbo Text, but I suppose if there was a



standardised set of Arexx commands you could have just told StormC which port to use.

StormC's compiler can handle both standard ANSI-C code and code containing C++ extensions, so before you try to compile code you need to make sure you have the right settings in the compiler preferences from the main project tool bar. There are options to produce code specifically for the 020/030 and 040/060 processors, allowing you to take advantage of the 'new' commands found in these more modern devices. The 040 and 060 modes will replace any floating point operations which these processors' built-in FPUs cannot handle with emulated code, thereby making sure 060 users will not experience the huge drop in performance exhibited by certain FPU intensive programs.

FASTER ADDRESSING

The compiler also offers the usual large and small code models so you can take advantage of the faster addressing of a small data model. Seven levels of optimisation are available, starting from the removal of redundant code and variables, to greater and more effective usage of CPU and FPU registers. Along with the linker being compatible with SAS/C and MaxonC libraries, the compiler claims to be very compatible with SAS/C,

DICE, ArtecC and GCC code.

The stage of a project that takes up the most time and resources is usually the debugging stage. StormC helps to make this easier by implementing an excellent debugger. If at any stage when you compile and run a program it crashes, StormShell will close the program down and reclaim all the system resources the program was using.

As with most debuggers, the usual controls over a running program are available, including single step, pause, skip and kill the program. Break points, which are shown down the side of the editor window, can also be added.

Additional information is shown through a number of other windows, such as the status of all the current locale and global variables, program modules, functions in modules and the current list of breakpoints.

The manual says that in writing StormC, Haage and Partner have paid close attention to how other compilers, such as BorlandC and CodeWarrior work, and tied to implement their findings under the superior Amiga work environment. And they do seem to have achieved their goal. Thanks to the project window, working with multiple source code is straightforward, and your screen never need be cluttered again. If you want to edit some code just double-click on the one you want in the project window and the editor appears with the code.

If you want a highly polished C/C++ compiler you cannot go wrong with StormC. It may seem pricey, but it's no more expensive than SAS/C, which is now no longer being supported. A couple of options you may want to consider are StormC lite, which is a cut down version with no debugger and a few other bits and pieces removed, and an upgrade offer - if you already own a C compiler - to entice you to StormC.



Bottom line

REQUIREMENTS

RED essential BLACK recommended

3 Mb

RAM

100Mb hard

drive space

2.04

Kickstart

6 Mb

RAM or

discs

PRODUCT DETAILS

Product	StormC
Supplier	Blittersoft
Price	StormC £269.95; Upgrade £179.95; StormC Lite £119
Tel	01908 261466
E-Mail	bsoft@mag-net.co.uk
WWW	http://blittersoft.wildnet.co.uk
WWW	http://ourworld.compuserve.com: 80/homepages/haage_partner/

SCORES

Ease of use	93%
Implementation	90%
Value For Money	80%
Overall	92%

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FOR AMIGA 1500/2000/4000
 Active 8 port high speed serial card. Multiboard Support 57600 Baud rate on all channels simultaneously. Output through 8DB25 plugs. Electromagnetic interference suppression. Suitable for Chatline operations, Internet (SLIP/PPP/Dial up). Remote terminals, Barcode readers, Serial Printers. Improve the efficiency and productivity of your Amiga with SPIDER £299

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Specially made hardware and software. Allows 4 ATAPI devices, ie, 2 IDE hard disk & 2 IDE CD Rom to Amiga 4000 internal IDE controller, through AlfaPower on Amiga 500/500+ and possibly Amiga 1200 comes, with full IDE Fix software £59

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- Autoboot via Netzwerk - integrated BOOT-ROM/BOOTSERVER for AMIGA/DOS - WIN/OS/2 AND NOVELL
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A-Grade Double Density box of 50 disks including colourful labels	£13.00



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AlfaPower-120 120Mb hard drive	£159.00
AlfaPower-250 250Mb hard drive	£179.00
AlfaPower-420 420Mb hard drive	£199.00
AlfaPower-540 540Mb hard drive	£209.00
AlfaPower-850 850Mb hard drive	£229.00
AlfaPower-1.0G 1.0Gig hard drive	£249.00
AlfaPower-1.2G 1.2Gig hard drive	£269.00



Memory for AlfaPower-Plus (new) marked AlfaPower-Plus

2Mb SIMMS	£30.00
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Memory for AlfaPower (old)

Every 2Mb Zip-Rams	£89.95
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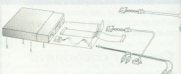
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Ever since I started using an Amiga I have only ever had the need for one piece of software - OctaMED.

I can remember when the very first versions were released as Public Domain, and I personally remember filling an entire 500Mb hard drive with sampled breakbeats just to mix over the top of existing chart music. What on earth was I doing?

I used to put two channels from a CD running through a stereo mixer while I ran only two channels from the Amiga. Okay, so it was a little limited, but it was more fun than writing a tune over a period of what seems like days or sampling everything and then just piecing it together. Basically I used one channel to enhance the drumbeat and the other for a synth or keyboard to vary the melody. I could then output the whole thing to a decent tape recorder which actually presented me with some pretty good results.

Anyway, as you can tell, I'm not the most experienced MED user on the planet, but the main point was that I had loads of fun and managed to produce something worthwhile.

PREFERENCE

Throughout this period I was mainly using OctaMED V5. When version six arrived I tinkered around with it for a few weeks but, although it was technically superior, I always resorted back to version five, mainly because I preferred the feel of it. Even though I knew I should've switched to the latest version, I never did.

The CD, OctaMED SoundStudio, is a must for all existing MED owners. It provides an opportunity for them to upgrade their previous copy while also taking advantage of all the new features, such as the sample mixing routines which allow you to use 64 audio channels, and the support of eight and 16-bit samples.

You can now make up your own samples by playing eight channels, say of bass drums and hi-hats, to be saved as one sample taking up only one channel. Although this all depends on the kind of machine and memory specifications, a standard A1200 will be just fine at minimum. Obviously, the better set-up you have the more memory and options you are given to play around with.

Another advantage with the CD is that vital

Studio sound



hard drive space is not required - there are literally hundreds of directories of samples on the CD itself.

There is a wide selection of drums, bass, synth, keyboard and piano, as well as some bizarre noises. The CD comes with an on-line help, although the printed manual is by far the best bet, as you can refer to it as

"Another advantage with the CD is that vital hard drive space is not required - there are literally hundreds of directories of samples on the CD itself"

Last month we looked at **OctaMED** sound studio in detail. This month it's on CD, so it's time for a reprise

much as is needed.

It has been said before, and I shall say it again: OctaMED is the best tracker on the Amiga, and any music fan should purchase this CD right now. And there's no better time, as between now and December 20, you can get money off by sending the coupon on page 34.

Bottom line

REQUIREMENTS

RED essential **BLACK recommended**



Workbench



CD drive



68020

PRODUCT DETAILS

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Supplier RBF Software
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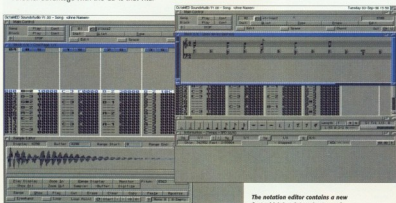
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SCORES

Ease of use	95%
Implementation	95%
Value For Money	92%
Overall	94%



The notation editor contains a new font which is a lot easier to read

Worthy of a mention but unable to be crammed into this month's packed PD pages is the latest in the Vark series of utilities compilations. Amongst the highlights of Vark 14 (available from Roberta Smith DTP for 90p plus 75p P&P) are WBstars, which gives your Workbench that authentic Star Trek warp flavour; WhirlGif, which joins together several separate GIFs into one file, allowing you to create GIF animations to stick on the Web and view with IBrowse; and a whole load of patches, clock programs and other assorted gubbins. Also, available now on Aminet, but presumably soon from PD Libraries, is EasyFind, a MUI-based file finder with a typically beautiful interface and plenty of useful features.

Public Sector

Outside the weather is practically perfect, but inside **Dave Cusick** is chained to his Amiga, picking out the best of this month's PD and shareware

I NEED YOU

You may recall that last issue I started this column by plugging the Public Sector Web pages. Somewhat ironically (and rather in keeping with the constantly changing nature of the Internet), within a few days circumstances had changed and my Web site has now leapt onto another server with an entirely different URL. The new address is <http://www.dcus.demon.co.uk/sector/sector.html>. Here you will be able to find complete listings of everything I've reviewed in my time at Public Sector, along with links to Aminet allowing you to quickly download many of these programs. Apologies for the change of URL, but the new location will enable far more frequent updates to what I hope will develop into a valuable on-line resource.

CHARLIE CAT: QUICKIES #2

Produced by: Anthony Whitaker
Available from: Roberta Smith DTP
(£1.40 plus 50p P&P)

Charlie Cat animations might not be the most technically advanced series of demos ever to grace an Amiga screen, but they are certainly amongst the most consistently entertaining. The new range of Quickie cartoons is designed to run on a standard 2Mb A1200, so if you were unable to take a look at Charlie's antics before, now you too can check out what can be achieved with a basic paint package, a little imagination and a lot of talent and effort.

I won't spoil things by giving away the plot - after all, the Quickies are not particularly long cartoons. Suffice to say that Charlie is having some trouble coping with the summer heat and he's desperate to get himself something to quench his thirst. The

standard of the animation is as high as ever, the sound effects are suitably silly, and the story offers a few giggles. As a consequence this two-disk mini-cartoon is well worth a look. Two disk drives, or better still, a hard drive, are definitely recommended.

That lovable feline is back for more animated antics



YAM 1.3

Programmed by: Marcel Beck
Available from: Aminet (as
 comm/mail/YAM13_1.haj)

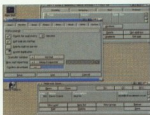
Since its appearance a few months ago and subsequent review in these very pages, Yet Another Mailer has proved to be rather more than simply that. By virtue of its ease of use and comprehensive range of features, YAM has acquired a large following in Net circles. Unfortunately, owing to the nature of some Internet Service Providers, not everyone can use YAM (I am rather jealous, falling into this category myself - but there's always the excellent MetaTool...). However, if your ISP handles mail using SMTP to send and POP3 to receive, there's simply no better mailer around - possibly on any computer.

For those unfamiliar with earlier incarnations of YAM, it offers a gorgeous MUI inter-

face and an ARexx port allowing it to interface with, for instance, Web browsers (adding MailTo: support to them - there are a multitude of scripts on Aminet for this purpose). There are Incoming, Outgoing and Sent folders for your mail, as well as up to 16 mail archives. E-mail addresses can be stored in a handy address book, and if you receive an e-mail from someone who isn't in your book, you can add their address with a simple mouse click.

YAM also offers built in UUencoding and now full MIME support (the latter, to my knowledge, formerly the exclusive territory of Metatool and Voodoo). These enable graphics, binary files and suchlike to be included in e-mail messages in addition to plain ASCII files.

In short, YAM is a superb program which comes highly recommended. It's the easiest



Yet Another Mailer: but the best of the lot

e-mail package in the world to use, because it requires so little setting up and it disguises most of the technical stuff from the user. It looks good, is fast and efficient in use, and boasts everything you could ever want from a mail program. Now if only Marcel would rethink his attitude to SMTP mail receiving, I'd be a happier man...

WORD PERFECT

GOLDED 4.0.6

Programmed by: Dietmar Eiler
Available from: GoldEd homepage
 (http://www.clearlight.com/~dietmar/) or
 PD libraries

EDWORD PRO 5.6 DEMO

Programmed by: Martin Reddy
Available from: F1 Licenceware

GoldEd is, quite literally, the most powerful text editor in existence on the Amiga. It is principally designed for software programmers but also invaluable to anybody who processes large ASCII files, such as HTML authors and diskmag writers for instance. The feature list is, to put it mildly, intimidating. If GoldEd cannot perform a function, it is probably not worth performing.

The program is incredibly versatile, with almost every aspect being configurable. It can, at a simple level, be controlled either using the menu system, keyboard hotkeys or the ARexx interface. If you choose menu control, you may wish to configure the menus to suit your tastes. You can also mess around with the toolbar and even the mouse control. On the other hand, if you opt for ARexx control there are over 250 commands at your disposal - and if you aren't familiar with the language itself, you can simply record sequences of commands instead.

Drag and drop editing is supported, and programmers will be pleased to know that folding is also possible. Folding is where a section of text is replaced on screen by a single line - for example, suppose a routine has been completed within a program structure; that routine can simply be folded up so as not to get in the way whilst editing continues on the rest of the source code. Blocks of text can also be indented either manually or automatically, making the whole document more legible.

There is a built-in quick reference function offering details about the word over which

the cursor is located. There's word completion, using the currently loaded dictionary, and context completion which scans the current text for a sentence beginning with the same letters and then completes the current sentence accordingly.

Word wrap can be toggled on and off, automatic backups can be made, and there is built in XPX crunching support when loading and saving. There's an ASCII character table for getting at more obscure characters, and character set remapping - ideal for converting text between MS-DOS and Amiga formats. It's hard to think of a single useful feature that GoldEd lacks.

Of course, if all the above means nothing to you, then GoldEd would probably be overkill. But if there's more to your text editing needs than simply writing the odd ReadMe.doc or e-mail message, simplistic editors like GEditor and MEMacs probably won't suffice. A happy medium would be rather handy - and that's just what EdWord Pro offers.

Although there's an earlier version of EdWord knocking around as shareware (v4.1 if I'm not mistaken), v5.6 offers a wealth of powerful new options. Many features offered by GoldEd are also present here - multiple documents can be edited, macros can be recorded then played back to automate repetitive jobs, there's an ARexx port, and so on. Again there is support for file packing - in Powerpacker format here - and automatic backups are available. There's an ASCII table, text indenting, and on-line help too.



... whilst EdWord is rather more intuitive

GoldEd bristles with powerful features...

EdWord also offers some interesting features of its own. Blocks can be sorted alphabetically - ideal for indexing or arranging lists of items. Certain words can be forced into upper or lower case, and an Auto Suggest function enables misspelt filenames to be magically corrected when loading new documents. EdWord even boasts a calculator module capable of converting between different bases, including decimal, hexadecimal, octal and binary.

In terms of user-friendliness, EdWord has the edge over GoldEd. It's much more intuitive, and indeed more pleasing visually. Alternatively, if it's raw power you need, GoldEd can offer more features and is far more flexible.

If you hanker after the Amiga's ultimate text cruncher, GoldEd is for you. To try it out for yourself, get hold of the free trial version which should be available from most PD Libraries. Registering with the author to obtain a keyfile costs between 25DM and 39.90DM depending on the version of the package you require. If you don't think you will be able to get to grips with the occasionally confusing nature of GoldEd, try the EdWord Pro demo.

Registration will set you back £15.00, and can be achieved by contacting F1 Licenceware. (Since EdWord Pro 6.5 requires at least Workbench 2, F1 Licenceware is also selling registered copies of v4.1 for the tenure for the benefit of WB1.3 users). The choice between features and friendliness is, as they say, yours.



ABOVE TOP SECRET

Programmed by:

Paul Nordovics/Mike Richmond

Available from: FI Licenseware

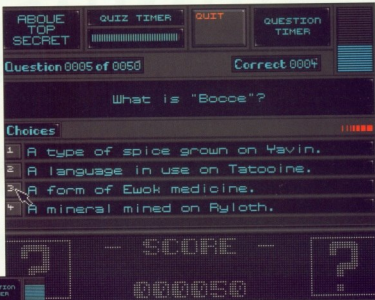
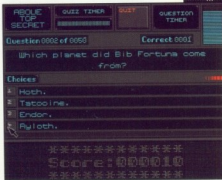
Disk No: FI-148 (£3.99)

Since the release of the Q:Wiz quiz creator a few months ago, a steady stream of quizzes have tumbled through the Public Sector letterbox. One of the best so far, and also one of the toughest, is Above Top Secret.

Questions are offered on a variety of Sci-Fi subjects, specifically Star Wars, Alien, BladeRunner, Red Dwarf, The X-Files and Doctor Who. I had considered myself something of a Star Wars expert, but clearly my knowledge is not on a par with that of the creators of this quiz. Fortunately I was able to rebuild my shattered pride with a blinding performance on the Red Dwarf questions.

The Q:Wiz interface is intuitive

Quiz games: entertaining, but not as much fun as watching Newcastle lose 4-0 to the mighty Reds...



...or watching Andy Madscock being disembowelled with spears by angry natives enraged at his brutal treatment of their island's indigenous flora

although rather unspectacular graphically. Every question is presented with four possible solutions, the correct one of which must be selected within a strict time limit by clicking the mouse in the appropriate box. At times the pace of the quiz can be slowed by the pointless scorebar animations which accompany most actions, but this aside there really isn't too much to gripe about in terms of presentation. There is some background music, but after a few moments the option to toggle it

off becomes an extremely valuable inclusion.

Whilst Above Top Secret has a limited lifespan by virtue of the fact that the questions will eventually start repeating themselves, there are enough posers included on the disk to keep even the most avid Sci-Fi fan amused for many hours.

THE GOOD SLEEP GUIDE

Programmed by: Derek Brockhouse

Available from: Classic Amiga Software

(£1 plus 75p P&P)

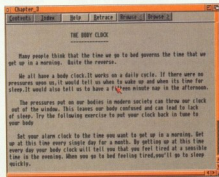
We all at times have sleepless nights, claims Derek in the letter accompanying The Good Sleep Guide. This disk attempts to identify some of the factors that might prevent people getting a decent night's sleep and makes some helpful suggestions as to how to avoid them.

In essence this is simply an Amigaguide file on a disk. However, it is well worth a look because Mr Brockhouse discusses an interesting and relevant subject in a refreshing manner, offering sensible, considered advice. You'll likely have come across some of it before - warm, milky drinks before bedtime, a gentle stroll around the block,

If you can't sleep, try writing captions for Public Sector - you'll be snoring away in no time

and so on - but there are also some ideas that I certainly hadn't heard about previously.

The guide is divided into eight short 'Chapters', tackling subjects such as Good And Bad Habits, Sleeping Pills, Snoring, and Sex And Relaxation. If all else fails, there's even a



little sliding puzzle (presumably included to prove the statement that boredom can induce sleep, or something...).

KEITH'S QUEST

Programmed by: Jasper Byrne
Available from: F1
Licenceware
Disk No: F1-145
(4 disks - £6.99)



Keith's Quest:
being a
Fishmonger's
apprentice has
never been so
much fun

Three or four years ago when the Amiga was the world's leading games machine (in addition to being just a marvellous machine to use), graphic adventures were being churned out by the larger companies as if their future depended on it. (Clearly it didn't - Amiga fans lapped up these adventures but their manufacturers still deserted the machine for the PC and consoles... but that's another story). LucasArts probably popularised the genre with its superb Monkey Island games, which combined testing puzzles with beautiful graphics and supremely intuitive interfaces.

With the departure of companies like

LucasArts from the Amiga scene, a veritable dearth of adventure games ensued, which has only really begun to be addressed in the last few months with the release of some excellent PD and licenceware offerings. Keith's Quest, originally available on six disks, but compressed onto four for this release, is just sort of point-and-click perfection that adventure fans everywhere have been craving for so long.

The storyline is suitably convoluted -

Keith, a 19-year old fishmonger's apprentice, has his friend Bob whisked away by the local evil magician and scientist, Minto. Keith decides to leave behind the quiet village of Morleigh and explore the land of Mystral to find his chum. Along the way, Keith inevitably becomes involved in numerous sub-plots as a result of his interaction with other characters in the land of Mystral.

Keith is controlled using the mouse. Clicking with the left button will move Keith around, while clicking the right button makes him carry out the currently selected action, whether it be taking an object, opening a door, or talking to someone. Conversations are carried out by selecting one of several phrases, in true Monkey Island style.

With the exception of the truly dreadful music that warbles away while our hero saunters around Mystral, Keith's Quest is a brilliant game. It offers hours of absorbing entertainment, and at £6.99 it also represents great value for money.

THE ROCK DISK

Compiled by: Whirligig Software
Available from: OnLine PD
(75p plus 75p P&P)



Oh stop it, it's
not clever you
know...

Most teenagers seem to go through a stage of loving 'Rawk' music. It generally seems to occur around the 13-14 year mark, whereupon the troubled child barricades him or her self in a room, replaces their entire wardrobe with black jeans and AC/DC T-shirts, and listens to loud noise until extremely unsociable hours. This phase usually lasts for anywhere between one and four years. Fortunately it's a stage I somehow managed to bypass almost completely (other than a foolish and brief Bon Jovi spell in the mid 1980s when Living On A Prayer rode high in the charts), but it can seriously affect some people - so much so that a few poor souls never emerge from the phase and continue as Rawkers well into their twenties or even thirties. By this stage, body piercing can also be a symptom, as can hanging around shady pubs in towns like Macclesfield.

Former Metal fans who have since seen the error of their ways could derive much mirth from this disk. If you're still a Rawk fan - and you have my heartfelt sympathies if you are - you may not be amused. Here for your listening pleasure (allegedly) are seven Rawk classics from the likes of Metallica, Bon Jovi, Guns 'n' Roses, and even those lovable grunge funsters Nirvana. (That's worrying, because I actually own three Nirvana albums...)

Anyway, the truth is that without those enraged guitar licks and Kurt Cobain's strained wails, Come As You Are and Smells Like Teen Spirit lack that cutting edge. The panpipe

melody sitting atop the former track also contrasts somewhat with that which is quintessential grunge.

Indeed, faithful though the modules attempt to be to their original versions, the inherent limitations of the tracker format mean that Rawk record collections are hardly going to be disk reviewed in favour of this particular disk. Nevertheless, if you want to relive a troubled teenhood or just fancy a laugh at mutilated Rawk classics like Sweet Child O' Mine or Living On A Prayer, you'll love this disk.

TELL ME WHAT YOU SEE

If you wanna be my lover, you gotta get with my friends. And if you want to see your program starring in Public Sector, you need to send it in with all haste. Whether it be freely distributable public domain, shareware or licenceware, if you feel it's of sufficient quality to merit coverage, stick it in a jiffy bag or padded envelope and pop it in the post. Although Public Sector receives too many submissions to cover them all, I promise I'll at least look at your work - even if it's yet another Lottery program or Klondike cardset. Just one thing to bear in mind: It does make my job a lot easier if disks are clearly labelled. Please also include a covering letter detailing the disk contents and price, and giving some basic instructions. If you oblige, I promise I'll never quote Spice Girls lyrics again. The magic address is:

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

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Everybody knows how important backing up a hard drive can be. When the unthinkable happens, as it has a tendency to do at the most inopportune of moments, anything on that drive which isn't safely backed up will be lost forever to that great program directory in the sky. Backing up hard drives has never really been a problem in principle - everyone recognises that it's an extremely wise thing to do - but it has in practice. In reality, few people can be bothered to go through the hassle of creating a backup, because it's a tedious and time consuming process.

The primary reason backing up is such a chore is that even a relatively small hard drive (60Mb for instance) will take well over an hour to back up to floppies. And with only 880k fitting on each disk, a fair few floppies are required.

Consequently, various backing up techniques have evolved to make life easier. Some people buy huge hard drives and simply use one partition to copy the others onto at regular intervals. Some prefer buying tape streamers, removable media and so on instead, although this can be a rather expensive solution. Some persevere with floppy disks, but approach the situation by making incremental backups. This involves performing a complete backup once, then subsequently storing only those files which have appeared since the initial backup.

BACKING UP

Various public domain programs (most notably DailyBackup) have offered incremental backup to the masses, but the Quarterback Suite goes one further. Always the king of Amiga backup systems, version 6.1 of Quarterback now comes complete with Schedule Pro. At a basic level, Schedule Pro enables you to perform automatic backups on a regular basis, but it also doubles as a complete reminder system which can even run other AmigaDOS programs at specified times. Schedule Pro uses the same custom interface as Quarterback, which differs slightly in appearance from the standard Gadtools look.

Quarterback itself hasn't changed much for some time, but that's small wonder considering it has long been recognised as the best in its field. The intuitive interface means that tagging the files you wish to backup is a simple process, and it's made even easier by the powerful wildcard options. Files can also be included or excluded depending on the date on which they were last modified. Backups can be protected by passwords and encryption



The combination of Quarterback and Schedule Pro is easily the most powerful backing up system on the Amiga



Preparing to defragment a hard drive with QB Tools. You should always make a backup before attempting this

Back For Good

Dave Cusick

welcomes back
an old friend

tion to stop files being seen by unwanted eyes, and a full ARexx interface allows for the creation of macros and the control of Quarterback from within other programs.

With the compression option turned on, Quarterback is capable of compressing data as quickly as your Amiga can save it to floppy. It is possible to save up to 50% of storage space depending on the data being compressed. Power users can back up a large drive to several smaller ones, and advanced tape drive features, including hardware-based compression and quick erase, are also supported.

The accompanying manual is clear and well written, covering all aspects of usage in sufficient detail for beginners without being patronising for experienced Amiga owners. Running to 86 pages and with a chapter dedicated to Schedule Pro, it's a nicely produced spiral bound book which is easy to refer to whilst sat at the keyboard.

Also included in the package at no extra

cost is the Quarterback Tools Deluxe package, formerly available separately. This utility is able to undelete files, repair damaged partitions and generally help save the day when something goes tragically wrong. There is no documentation supplied for QB Tools, but using it is fairly straightforward and its inclusion adds still further to the value of the pack.



Bottom line

PRODUCT DETAILS

Product	Quarterback
Supplier	Wizard Developments
Price	£34.99 at launch price, then £79.99
Tel	01322 527800
E-mail	sales@wizard-demon.co.uk

SCORES

Ease of use	83%
Implementation	87%
Value For Money	85%
Overall	90%

THE PRICE IS RIGHT

There's no doubt about it, Quarterback is simply the best program in its field. At the launch price it represents superb value for money. Admittedly, at the usual price of nearly £80 it is somewhat harder to justify for the home user, especially when there are (admittedly inferior) Public Domain and Shareware alternatives around. Indeed, for casual users with smaller hard drives, these other programs might suffice. However, these days I don't think there is any such thing as a casual Amiga user (it takes loyalty to stick by a machine that's been through troubled times), and most hard drive owners have a few extremely important files they couldn't bear losing. If you want complete peace of mind, there's simply no better package available for the Amiga. At any price.

For over a year now, since it became apparent that Netscape Corporation had no intention of allowing its Navigator software to appear on the Amiga, the hopes of the Web-using world have rested on the shoulders of one Stefan Burstrom and his trustworthy team of coders. From the ashes of the now severely dated AMosaic has risen a browser which, its authors claim, will offer Amiga owners the chance to view the Web as PC compatible-owning Netscape and Internet Explorer users have been doing seemingly since the dawn of time - that is, with tables.

Over the course of the last year, iBrowse has been taking shape slowly but surely. Several demonstration versions appeared on the Omnipresence Web site, allowing curious surfers to sample the delights of power browsing. Early demos earned much praise, but the software came under fire from some quarters for its support of the ever-controversial Magic User Interface, renowned for its configurability but much maligned for its sluggishness in certain departments. Worse still, initial releases were extremely unstable, and owners of faster Amigas in particular experienced many problems.

RAPID GROWTH

Fortunately, as the authors received feedback from iBrowse demo users, the program became considerably more stable, and the features list began to grow at an increasingly rapid rate. By the final demonstration version, unleashed onto the Internet in July, iBrowse had won over many. And now, over a year since the Omnipresence Web site first announced the project's existence, iBrowse is available to the world at large.

There are few programs which represent HTML more accurately, on any system. On the Web these days, HTML development is effectively no longer in the hands of the World Wide Web Consortium, but rather those of Netscape itself. It was the one responsible for introducing the proliferation of text layout commands and page enhancement features such as background graphics and tables. Until recently many Web pages looked horrific on the Amiga, simply because the browsers could not handle these features. iBrowse, on the other hand, displays the vast majority of HTML more accurately (or certainly more pre-

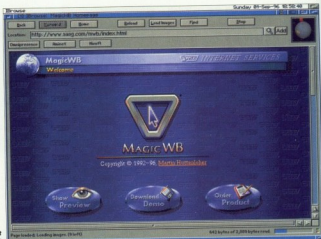


PLUG-IN PLAZA

Users of browsers such as Netscape and Microsoft Internet Explorer are forever being commanded by the producers of Web pages to download fancy extras called "plug-ins." These extend the power of the browser software, enabling the user to hear a multitude of audio formats, view animations, and so on.

Whilst two of the most widely supported extras on the Internet, namely RealAudio and Shockwave, show no sign of making an appearance on the Amiga, there are nevertheless a range of extremely useful extras which no self-respecting iBrowse user can afford to be without. An unofficial iBrowse plug-in page has recently materialised on the Web, maintained by the same chap responsible for designing the attractive iBrowse Now animated GIFs. It is located at <http://home.eznet.net/~wingell/iBrowse/> and includes details of where to download these goodies and how to install them.

Isn't it gorgeous?



Noel's iBrowse

Dave Cusick looks at this new browser for the Amiga and asks is it what Amiga surfers have been waiting for

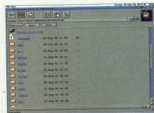
dictably) than Navigator itself. The one notable absence is support for frames. Frames are, in this writer's humble opinion, a pointless overcomplexity which, far from making Web sites easier to navigate, create unnecessary confusion. Fortunately many sites which had switched to frame-based lay-

outs are now returning to more conventional ones. Still, it would be nice to be able to view framed sites on the Amiga, and future versions of iBrowse should enable this.

There might not be any fancy features on offer in iBrowse. It's the only Amiga browser



With the new FTP plug-in, you can visit Aminet without having to load up an external FTP client



Netscape's site; definitely not one to add to the impressive iBrowse bookmark feature with its drag-and-drop organisation

that can show Animated GIFs. These are the animated buttons such as those Microsoft 'Internet Explorer Now!' ones, which you may have noticed if you've used an IBrowse demo or Netscape on a PC compatible or Macintosh. One enterprising Amiga surfer copied these to produce the 'IBrowse Now' animated button which Omnipresence now uses. Animated GIFs eat a lot of memory, but they look extremely impressive.

Although IBrowse can make full use of the new v43 Picture Decotypes, it also has an internal image decoder which displays transparent and progressive images quickly and accurately. After frequent crashes in early demo releases, this is now totally stable.

The one aspect of image handling which lets IBrowse down is the colour dithering. Many Web pages are designed to be viewed on screens with at least 256 colours available, but in reality few actually use all these shades. It's therefore disappointing that when running in 64 colours - which is really a necessity on 020 Amigas, because in 256 colours things crawl along - IBrowse manages to make some images look particularly unattractive. The same colourful Web page will look a great deal more fetching in a 64 colour Voyager screen than in the same number of colours in IBrowse.

FULL SUPPORT

Returning to the impressive features list, the Mailto protocol is now fully supported. This means that wherever a Web page displays an e-mail address, clicking on the link will call up an e-mail editing window with the intended recipient's address automatically entered. IBrowse will then happily send the mail itself, but if you prefer to use an external e-mail client or a special mailing command, the program can be configured to handle these too. The whole Mailto interface makes it much easier to give feedback to Webmasters, and it is a step towards the total Net application integration which PC companies seem increasingly intent upon achieving.

Also fully implemented now is File Transfer Protocol support. This enables you to connect to FTP sites and download software from the comfort of your browser, without having to start an external FTP client such as AmFTP. IBrowse can even deal with Gopher sites.

Since IBrowse is one of the multitude of Amiga Web applications which make use of Magic User Interface, the package includes a copy of MUI 3.5. As mentioned above, MUI has its enemies because at times it can seem painfully slow. Alarmingly, in my personal experience, MUI 3.5 (and even 3.6, now avail-



In a 256 colour screenmode, sites such as the superb Amiga Web Directory look absolutely stunning

THE COMPETITION

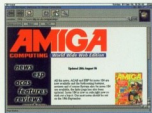
Assuming we discount AMosaic (probably a wise move, since it's now so outdated only a masochist would use it), there are essentially two rivals to IBrowse, both of which have their strengths but neither of which come close in the final analysis.

Voyager - a freeware browser which also uses MUI. Supports most of the Netscape HTML enhancements of IBrowse, including backgrounds and text centering, but cannot handle tables or animated GIFs. Also supports news. Version 2 is supposedly in beta testing.

with the appalling working title of 'Voyager - Next Generation'. It promises to handle everything IBrowse 1.0 can, plus frames, but this second version won't be free.

AWeb - early versions were freeware, but now AWeb is a fully blown commercial browser. Version 2 apparently supports everything right up to primitive frames, but here at AC we've yet to lay eyes on newer versions. Uses ClassAct instead of MUI for its user interface, resulting in an impressive turn of speed.

"The one aspect of image handling which lets IBrowse down is the colour dithering"



The AC Web page, a prime example of the sort of tables-based site that only IBrowse can really do justice to

able on Amintet) is significantly less stable than 3.3. Strange MUI-pubscreen crashes seem worryingly common. However, this is not the fault of IBrowse (which now seems to be as solid as a rock), and hopefully future revisions of MUI will address these reliability problems.

At any rate, the use of MUI is entirely justifiable because it has become something of an Amiga standard in recent times. It allows virtually every aspect of the IBrowse user interface to be adjusted, making it possibly the most configurable Web client available for any computer system. MUI allows such visually pleasing effects as Magic Workbench-style backdrops for windows and gadgets, which can help make the IBrowse interface look truly gorgeous.

IBrowse is also the only browser I've ever seen which allows you to move around certain elements of the interface. The navigation bar, the quicklink buttons and the Web location bar can all be dragged around the screen to one of several positions. Admittedly it's not the most useful of features (and most people will simply leave things as they are, because the default layout is probably the most practical), but it's a nice touch.

A further innovative feature is the use of 'FAB' menus, or Fast Action Buttons. Whilst surfing, positioning the mouse pointer over an image or link and then pressing the right button will bring up a special context-sensitive options menu. An image could, for instance, be saved to disk, or displayed using an external viewer.

The accompanying manual is attractively presented and entertainingly written. It runs to 64 pages and covers every aspect of IBrowse in painstaking detail. This is the icing on the cake of the already delicious IBrowse package.

To make the most of IBrowse, a powerful

Amiga is an absolute essential. But this shouldn't be a problem, since the majority of Amiga owners these days have vastly upgraded machines. Still, even running on an 020 machine, IBrowse is a stunning piece of software which offers good value for money. It is quite simply the best browser available for the Amiga.

Bottom line

REQUIREMENTS

RED essential BLACK recommended

68020	3.0 Workbench	3 Mb RAM or above
TCPIP software and modem	3.5 Mb hard drive	6 Mb RAM
10 Mb hard drive	Fast Amiga	RTG card

PRODUCT DETAILS

Product	IBrowse 1.0
Supplier	HiSoft
Price	£29.95
Tel	Tel: 01525 718181

SCORES

Ease of use	89%
Implementation	94%
Value For Money	90%
Overall	92%

CAPITAL PUNISHMENT

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CORBEN WEDGE

Killed in 1996.

In this instalment we're going to see how the BoxPrice() function developed last month can be used to create a macro that reads the required function arguments directly from a document being edited - and inserts the calculated price back into the same document.

Of course it's at this stage that things get application specific because, in order to use our function with a particular applications program, we need to know about the interface commands supported by that program. As with earlier instalments the ED editor provides a good place to start (simply because everyone has a copy!).

To allow ARExx scripts to collect various characteristics of the file being edited, ED includes a command called RV. The only snag is that this information is provided as something called a compound variable set. Needless to say then, that a small detour is in order at this point...

Compound Variables

Let's begin with some naming conventions: A compound variable is an entity whose name contains at least one period and at least two other characters. The name may not start with a digit or a period, and if there is only one period, it may not be the terminal character. So...

```
x.1
computer.saign
computer.ps
```

are all valid compound variable symbols, but... 1.x.1 is not!

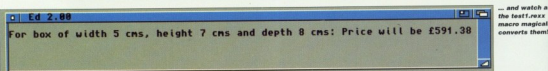
The first part of a compound variable name (ie the portion up to and including the initial period) is called the 'stem', and so the stems associated with the examples shown above are x., computer. The remainder of the name (called the 'tail') may contain constants or variable names and, in the latter case, ARExx will replace references to variables with their respective values.

What's so great about all this? Well, the ARExx variables we've used up until now have only been able to store discrete (ie individual) items. For example...

```
box_price=0
```

declares a variable called box_price and initialises it to the value zero. So far so good, but imagine the same situation with half a dozen box prices involved - we would need

Enter some width, height and depth figures into a test file...



... and watch as the test1.rexx macro magically converts them!

There's more help in store for you this month as

ARExx
for beginners
Part 5

Paul Overaa gives

you a further taste of what ARExx macro programming is all about...

Command performance

six separate initialisation statements...

```
box_price1=0
box_price2=0
box_price3=0
box_price4=0
box_price5=0
box_price6=0
```

And if our BoxPrice() routine was then to be used to generate these box prices we'd have to do it using this sort of scheme...

```
box_price1=BoxPrice(some function arguments)
box_price2=BoxPrice(ditto)
box_price3=BoxPrice(ditto)
box_price4=BoxPrice(ditto)
box_price5=BoxPrice(ditto)
box_price6=BoxPrice(ditto)
```

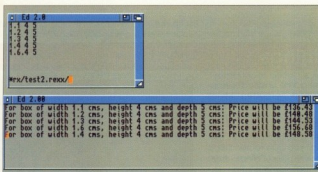
Try these approaches with a few hundred boxes and you'll soon realise that there's got to be a better way of handling these types of situations. Ideally we'd like to be able to use statements which allow us to identify items by a number. If, say, we were dealing with a thousand boxes, it would be convenient to be able to write loops such as...

```
do i=1 to 1000
    perform some operation
on the i'th box
end
```

This need was solved many years ago by developing the idea of a 'subscripted variable', and in languages such as Basic, Pascal and C (and most other high-level languages), subscripted variables which allow this are provided. They're called arrays because they deal with collections of similar objects, sets of boxes, sets of numbers etc. With ARExx, such arrays are easily set up by defining a stem variable along with tails that consists of suitable item numbers. For example, a stem called box_price could be used to collect and then display one thousand box prices by using a loop like this...

```
do i=1 to 1000
    box_price.i=BoxPrice(some function arguments)
    say box_price.i
end
```

And Now Back To ED



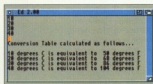
test2.rexx is an alternative macro that will work on every line in the file

With compound variables and arrays now safely under our belt, we can get back to the real topic in hand, namely ED's RV command. This provides a set of data items (see table 1) as a compound variable set based on a script-specified stem. So, in short, you issue an RV command using your chosen stem, and from that point on the pre-defined compound variable names can be used to extract any required information. If, for instance, we used this statement...

```
'Rv/s'
```

ED would set up a compound variable set with stem x that would enable the current line to be read as x.current, it's line number as x.line, and so on.

Let's suppose now that all box measurements are always given in centimetres and that the prices of the hinges and the metal of our hypothetical boxes, and the company profit margins, are only altered occasionally. These values can then actually be written into the macro as fixed values. They will of course need to be changed sometimes, so rather than embed the actual values in the main macro code, I'm going to set up variables called METAL, HINGE and PROFIT for representing metal/hinge prices and the profit margin (defining them in upper case is just my way of reminding myself that they represent constants whose values will not change - the important point is that having the variable initialisation statements near the start of the script makes them easy to find).



Let's also imagine, being a little on the lazy side, that it's not just the price of these boxes that we want to calculate. We want to be able to quickly enter width, length and depth figures on a line like this... 2 4 2, and have the macro convert it to something which reads...

```
For box of width 2 cms, height 4 cms and depth 2 cms: Price will be £73.88
```

Luckily there is a built-in ARexx function called Word() that lets us pick out the 1st, 2nd and 3rd words from a text string. The dimension details we need can therefore be obtained using these three statements...

```
wWord(s.current,1)
hWord(s.current,2)
dWord(s.current,3)
```

With this we're laughing, because the box price can now be found by...

```
price=BoxPrice(w,h,d,METAL,HINGE,PROFIT)
```

Having done this we can, after deleting the

```
/* ----- */
/* test1.rexx */
/* ----- */
METAL=1.00; HINGE=0.75; PROFIT=25 /* just example values */
'Rv/s' /* get details using a stem called s */
wWord(s.current,1)
hWord(s.current,2)
dWord(s.current,3)
price=BoxPrice(w,h,d,METAL,HINGE,PROFIT)
/* delete current line and then insert new text */
/* If box of width 'w' cms, height 'h' cms and depth 'd' cms,
'Price will be $price'
exit
/* ----- */
```

Listing 1: This is the part of the test1.rexx macro that collects information from, and returns it to, the file being edited

original text line using ED's 'D' command, use an 'I' (Insert) statement to install the replacement text. Because the string is quite long I've split it over two lines by placing a comma at the very end of the first line - ARexx allows this - so the final code ends up taking this form...

```
'I'For box of width 'w' cms,
height 'h' cms and depth 'd' cms',
'Price will be $price'
```

And that's basically all the hard work done. To produce the macro it's now just a matter of putting the various statements together. You'll see how this has been done in the script fragment shown in listing 1. Bear in mind, however, that in a runnable version, the BoxPrice() function provided last month also needs to be present (you'll find this present in the coverdisk version).

In order to see the macro in action, first copy it to your rexx: directory (normally assigned to s:) and then use ED to open or create the file you wish to experiment with. To start with, just enter a single line with three numbers in it (representing the width, height and depth of a box), and with this text file still open, hit the ESCape key. When ED's asterisk prompt appears, enter this command...

```
rs/test1.rexx
```

The macro will then examine the line that the cursor is on, make the required changes and return you to ED's Immediate mode in readiness for saving the file or performing further editing!



AND STILL YOU CAN DO MORE

Whilst still on the box price theme, we might as well move a little further down the trail by considering how we could modify the macro to analyse a file containing a whole list of box dimensions. Think back to the ED commands we used earlier in the series. To produce a macro that acted on every line of the file, we'd move to the bottom of the text file, get a line count, move back to the top of the file and then enter a loop which read each line of text, calculated the price using the details provided, deleted the original line, and then inserted the replacement text before moving onto the next line.

You'll find a second script, test2.rexx, for this 'all lines' version on the coverdisk. One thing you should notice about both examples is that the BoxPrice() function itself has been used unchanged. This is possible because it's pure ARexx code that doesn't rely on any ED specific commands. Of course this means it's easy to re-use this function in macros aimed at other ARexx controllable wordprocessors or text editors. When you write your own functions this sort of 'portable portability' is something you should always bear in mind. Anyway, that's enough of boxes and hinges - next month I've got some rather more interesting routines to show you as I round off the series!

s.BASE	window base
s.CURRENT	text of current line
s.EXTEND	extended margin value
s.FILENAME	file being edited
s.FORCECASE	case sensitivity flag
s.LASTCMD	last extended command issued
s.LEFT	left margin
s.LINE	current line number
s.LMAX	max visible line
s.RIGHT	right margin
s.SEARCH	last search string
s.TABSTOP	current tab stop
s.WIDTH	screen character width
s.X	x position
s.Y	y position

Table 1: Information that can be made available using ED's RV command.

by Andy Maddock

Nuts and things

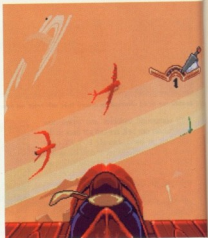
Wingnuts is a new flying game under development by a team called Forgotten Myths Software. This group of programmers has been together for around a year now, and Wingnuts is its first attempt.

The game is basically a flight simulation with some added touches. If you can remember a game from a while back entitled 'Wings', then you'll have an idea of what it's like.

There's quite a big story/plot involved, but I'm not going to bother explaining it because you can find out more when we get around to writing a review or something.

A Wingnut is a bloke whose first task is to skydive down to his flying contraption before beginning a mad dog-fight where he must try to blow his opponents out of the sky.

The characters (or Wingnuts) are Dicky Dastardly, Captain Cheesy, Dan Napalm and the King (Elvis). There are loads of different flying machines to choose from too, such as The Weather Balloon, The Flash, and the Hopper Chopper.



Wingnuts looks as though it's going to be a bit like the old classic Wings with the cartoon 'Stey The Pigeon' thrown in.

The game sounds original and could be the breath of fresh air Amiga owners are looking for. Here's some screenshots to keep you interested until it finally comes out.

Big Pub Quiz

BPM Promotions, the company behind the new 'Reality' games construction kit is developing a new football trivia quiz based on Sensible Soccer - the game is

actually called 'Soccer Sensible'. Hmm, potential lawsuit? Who knows?

The title screen suggests quite a come-dy feel, depicting

three cartoon-esque pictures of current footballers, Alan Shearer (in his Newcastle shirt), Robbie Fowler and Eric Cantona.

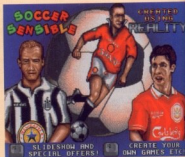
The whole point of the game is to answer as many football-related questions as possible. When you get one right your little 'Sensible' bloke will hoof the ball from the penalty spot into the goal. Occasionally, the taker will take an enormous run-up. Treat.

We were told about some potential features which

BPM is hoping to slide into the game: features such as corners, free-kicks, camera men, bonus rounds, sub-games, and police officers, not to mention bizarre incidents like runaway lawnmowers, streakers and crowd violence. Sounds good? We'll have more on it soon.

Call 01232 626694 if you'd like to get in contact with BPM Promotions to give some ideas or feedback.

The titles screen shows a cartoon picture of various footy players



Pelé Soccer Simulation

A few weeks ago we received an e-mail all the way from Brazil concerning a new soccer game entitled 'Super Soccer Simulation'. When we asked if we could be sent a preview version, the developer said it hadn't got one. When I enquired why, all I got was muttered somethings about not actually having started

it yet. So anyway, in about the year 2030 when we're all living on Mars and wearing oxygen masks, get down to your local Martian Space Store and ask for Super Soccer Simulation. If they can't help, try travelling to Neptune or look up Uranus. It'll be there somewhere.

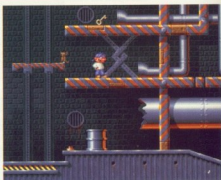
Dirk Wilton's Gnomes are alive!

Last month we reported that a game by the name of Enigma is to arrive on the Amiga shortly courtesy of OTM. There is a second release in the pipeline

called Gnomes. It's basically a sort of Humans/Lemmings clone whereby you take control of a main character to try and lead the Gnomes to safety. If you read the review on Bograts in this issue, you'll get more of an idea.

If you want to know more, give OTM a call on 01827 312302. You'll be able to get more information as to whether or not this is your kinda' thang. Here's some screenshots anyway.

...or you can always come back at midnight and throw bricks at them



Your job is to help those Gnomes...

Another compo!

About a year ago we reviewed one of these interactive vests which were used to transfer the noises from an Amiga monitor to your back.

If you're wondering why on Earth they were developed, it's because the company behind the whole thing, Aura, wanted to create something which gave the gameplayer much more involvement.

Basically, you strap it onto your back and plug it into your monitor via the included power pack and then all the sounds are transferred into vibrations, which will take effect on your back.

If you're thinking of getting one you don't have to shell out the current retail price. You can win one right here. All you have to do is answer three simple questions and fill in the tie-breaker.

Aura have been absolutely marvellous and have given us eight to give away. And believe me, the competition is worth entering as the prizes are worth \$70 each. All you have to do is send your coupons to 'The Aura Interactor Competition' to:

Amiga Computing, Media House, Adlington Park, Macclesfield, SK10 4NP



Question 1: You can buy an Aura Interactor in the shops for?

- ☐ A: \$200
☐ B: \$100
☐ C: \$69.99

Question 2: Which are the best games to for use with an Aura Interactor?

- ☐ A: Football games
☐ B: Platform games
☐ C: Fighting games

Question 3: The Aura Interactor was based upon:

- ☐ A: A NASA space experiment
☐ B: A bullet-proof vest
☐ C: A ramblers back pack

Tie Breaker: In no more than one word. Would you like an Aura Interactor?

Name: _____

Address: _____

Postcode: _____

Age: _____

All entries must be in before November 5

☐ Tick this if you don't want loads of junk coming through your letterbox



See, they even managed to squeeze a semi-naked bird into the game too!



Avoiding enemies and obstacles is the hardest part of Kang Fu

Kang Fu

Reviewed by Andy Maddock

GRAPHICS

83%

SOUND

81%

GAMEPLAY

79%

OVERALL

80%

When I first saw *Kang Fu* there was something special about it. Okay, so the first demo wasn't particularly brilliant, but there was something there, even though I couldn't quite put my finger on it. It wasn't the graphics, sound or even the playability... Oh yes, I remember now! It came on a CD! *Kang Fu* must be the first proper CD game since *Cannon Fodder*. Nobody took much notice of the CD32 so developers avoided it like the plague. However, a new software house called 'GREED', or Great Effects Development, from Holland is here with a bouncy-like platform game.

The actual game is all about kangaroos. I have no idea why, so don't ask. The object of the game is to travel around the world rescuing all the baby kangaroos who have managed to get lost. However, there are many evil animals trying to stop you. These range from cockerels, wasps and crocodiles to lots of bizarre things like flying umbrellas and sticks of rock.

There are loads of power-ups and bonuses lying around, such as pop-guns, eggs, bombs, and bottles of Coca Cola with which to replenish your energy. You can also just wander about collecting diamonds to boost your points total if you wish, although the main objective is to rescue the baby kangaroos.

At the end of each stage you will encounter a huge end-of-level guardian, which takes too many hits to dispose of. This is a great feature which has been sadly lacking since the old console days. It will really give you a sense of satisfaction when you finish the level.

Overall, the graphics and

Rolf Harris

If you fancy getting your hands on *Kang Fu*, you'll need the following address:

ALTER Interservice, Hagegracht 68, 7607 EE, Almelo, The Netherlands

You can fax them on (+31)546 817727, or mail them on rmpeit@a1.nl if you need any information.

the animation in particular are really good. From the main movement of the kangaroo sprites to the animation of drinking and picking up objects, you will be really impressed. The enemies are equally as good.

The presentation is excellent, and there are a great number of options available. The introduction sequence explains the game well, and is accompanied by lots of gratuitous pictures of kangaroos in various fields. Which is nice.

The only problem is the playability. It's certainly not as good as it should be, although the graphics more than make up for the slight glitches. At times there can be too much on-screen at once,

causing major confusion, and it's very challenging. You'll have to be a platform master to finish this one.

If you fancy giving your CD32 a new lease of life, you won't go far wrong with *Kang Fu*. It's certainly one of the better platform games to come out over the last six months.

Kang Fu isn't really a hard game; it's just very difficult to master



PUBLISHER

Greedy

DEVELOPER

In House

PRICE

£24.99

DISKS

CD

HD INSTALL

N/A

SUPPORTS

CD ROM/CD32

preview



The idea is to rescue your little kids from the evil Castle of Bog



Vulcan Software has always been known for producing quality games - Bograts will be no exception

Bograts

Reviewed by Andy Maddock

It's about three or four months since we reviewed a fairly simple platform game by the name of 'Penguins'. I seem to remember it was basically a Lemmings clone with a few twists. Well, Vulcan Software must've seen something we didn't, because it happily bought the game from programmer Scott Hayne, changed the graphics and altered the gameplay to add a spice of professionalism - which is what we'd expect from a full-time software developer.

The game is now going under the title of 'Bograts' and should be complete within a month. After a recent barrage of boring games let's hope that Bograts is going to be a fairly decent platformer.

As I mentioned before, Bograts is pretty similar to Lemmings in terms of ideas and origins, and the whole point of the game is to guide these small, two-legged rat-things to an exit. There's no real plot or anything, just basically get these rodents home nice and safe. Of course there are various puzzles to solve on the way, and you... Oh hang on, I've just found the plot.

You are the Bograts' parent and they have decided to run away from your nagging, as children often do. Your job is to get your offspring home while making sure they come to no harm.

Your sprogs have gone to visit a very dangerous place called the Castle of Bog in order to locate some magical eggs which exist according to a famous legend. And er, that's it. Go and find them.

There are 60 levels for you to battle through, and negotiate, and as the game progresses you will be able to pick up objects such as bombs and other explosive devices with which to blow down doors. Wait a minute: I thought the whole idea of this game was to make sure your children are safe and well, not to set off bombs right next to them! Oh well.

As the game goes on it gets harder and harder. There are more puzzles to solve, more little rats, and less time to complete the task. It should offer more than a tough challenge and stretch

any expert gamer's ability to the extreme.

So far the graphics, and in particular the animation, are the game's best point. The smooth animation of the parent Bograt shows yet another quality product which should keep the Amiga games market moving for a while.

We can't escape the fact that the Amiga games market is dying very quickly, and the chances of keeping it alive without the support of the big software houses are very slim. But if smaller developers such as Vulcan can keep bringing out quality releases, we may see the Amiga market dominate more space in the shops riddled with PC and PlayStation games. Realistically, however, the Amiga scene just can't continue - it's unfortunate, but there's nothing much anyone can do at this late stage.

But it has to be said that a game like Bograts provides a definite ray of sunshine, as we are given reassurance that there are still committed developers out there wanting to use the Amiga right up until the final day. Vulcan may well have got its hands on a winner, but we'll have to wait a couple of months before we can say for sure.

The game will come on two disks and will be HD installable. There may be a box and everything too!



Vulcan's on the Web

If you want to find out more about Vulcan's past, present or future releases, check out its brand new Web site.

It features in-depth coverage of all Vulcan's major titles, as well as quotes from various magazines like ours in a 'What The Press Said' section.

The whole site is polished off with plenty of decent graphics, which is rare for the Amiga on the Internet. The address is <http://www.vulcan.co.uk>. I advise you to visit as much as possible and send e-mails to show your appreciation for Vulcan's support.

Alien Breed 3D 2 - The Killing

4MB VERSION

GRAPHICS

89%

SOUND

78%

GAMEPLAY

76%

OVERALL

77%



You must notice the energy bar in the bottom-left corner. We'll tell you how to get infinite energy soon



Right, this grab does look excellent. However, you will not believe how jerky it is! It hardly moves!

2MB VERSION

GRAPHICS

74%

SOUND

72%

GAMEPLAY

82%

OVERALL

80%

Reviewed by Andy Maddock

It's been a long wait, but now it's finally here. The Killing Grounds must be the biggest Amiga game to come out since, ooh, Sensible World of Soccer? It's been hyped quite a bit, with claims flying about that it will be so much better than its competitors. The whole Amiga Doom scene now seems to have died down, and the fuss around Gloom, Fears and Breathless has pretty much dispersed. This may explain why The Killing Grounds was delayed for around three or four months.

I was quick to install AB3D 2, but as the game began I did feel unbelievably disappointed. However, this was almost entirely due to the fact that I had just played Alien Trilogy on the PlayStation, and unfortunately this only made Team 17's little baby look pretty bad and unplayable. But there wasn't much I could do about that.

Even though the PC and the PlayStation are technically superior, I still think they should be compared with the Amiga - they are in direct competition after all.

If a home computer is needed, it's a usually a tug-of-war between the Amiga and PC, but even as a games machine the Amiga would unfortunately be the last choice. Clearly the Amiga cannot match the PC graphically, but other aspects should not present so much of a problem. In terms of playability, for example, Amiga games should be as good - if not better - than their PC equivalents. There can be

no excuses for meeting these standards.

The Amiga games scene has been at its worst recently, and there's no escaping the fact that it has affected me personally. I have become very sceptical about any game that comes into the office for review - some of them even end up in the bin, as they are not even worthy of inclusion in the magazine. This has been the story for quite a few months, although admittedly there have been one or two decent footy games which have managed to hold my attention recently.

Anyway, enough of the ranting. The question on everyone's lips is: "Is AB3D 2 the best Doom clone on the Amiga?" Well, let's find out.

The game comes on five disks, with one disk for either the 2MB or 4MB version. So, if you do want to upgrade to 4MB, Alien Breed 3D 2 will happily comply without you having to incur any unnecessary expense. The other disks are for the levels, sound effects and the level editor, which allows you to design your own custom level and maybe upload it to Team 17's Web page for others to play. Unfortunately, at the time of writing, there is a problem with the game editor, which is apparently missing a file. To get your hands on this missing piece of software you can either ring Team 17 and explain the situation, or download the file from its Web site.

The major problem for unexpanded or, if you like, 2MB owners, is that you won't be able to use the editor. At least that might give you the

PUBLISHER

Team 17

DEVELOPER

Andy Clitheroe

PRICE

\$29.99

DISKS

5

HD INSTALL

Yes

SUPPORTS

A1200 - 2MB or 4MB



Another problem with AB3D2 is the fact it's just too darn dark. You can't see a thing



Prepare yourself when you release a bullet from one of these weapons.



This is the screen we used to play the game. Even on an O60 - not what we expected

Grounds

push you need to purchase more memory or an accelerator. Having said that, this version is much faster, and I'd rather have speed than graphics anyway.

Also, with the unexpanded version, you have to concede all the floor textures, weapon graphics and just about all the graphical atmosphere, so it ends up looking like a very bad version of Gloom. However, the same game is hiding behind the dre look, and it is more playable than the 4MB version, which is littered with good graphics and no speed. In fact it's no better than the first Alien Breed 3D, and here's me thinking this is supposed to be a sequel.

At first I tried the 4MB version of Alien Breed 3D 2 on a O60 with 6MB, but found I couldn't play it full-screen. It was far too jerky, so I resorted to playing it half-screen turn with the lighting effects turned off. I still have no idea why a full-screen mode was included, as its pointless unless you want to see what the game's like when it's unplayable.

To be honest, everyone in the office agreed that it wasn't as good as we had imagined. Don't get me wrong: it's not a bad game, it still presents a really good challenge, and will have any Doom fan going ecstatic, although



This is another screenshot which makes the game look better than it is. It really is unplayable

there are too many minor problems to attain a commendable score of around 90%.

The HD installation for the 4MB version refused to work on our A1200 and A4000, although the 2MB version was fine.

The monsters are supposed to have some intelligence, that is if you call being cornered and continually blasted from all angles by about 10 dense robots intelligent. They're not even clever enough to work out how to open doors.

Overall the game is just about above average. The graphics do not make up for the speed in any way, and when you turn off the lighting effects and shading you end up with a fast game with absolutely no atmosphere.

‘To be honest, everyone in the office agreed that **it wasn't as good as we had imagined.** Don't get me wrong; **it's not a bad game,** it still presents a really good challenge ...’



The enemies are the most annoying in any game even. The gang up on you and it's game over

Final word

I know there'll be Amiga gamers everywhere who will disagree with me, but nothing will make me forget the smirks I received from the PC department as they loaded up Quake and Duke Nukem - the two games just overshadowed it completely. Can the Amiga compete with the PC? I don't think so. Not now.



The graphics and in particular the shadows is Capital Punishment's best feature



The first boss appears to be solid, although after around three bouts it'll be no problem

Capital Punishment

Reviewed by Andy Maddock

GRAPHICS

96%

SOUND

95%

GAMEPLAY

93%

OVERALL

95%

Around five or six months ago I remember someone telling me about this brand new fighting game called "Capital Punishment". After around two weeks it was on our coverdisk, but I had yet to see what the game was all about and why it was attracting so much attention. Being naturally sceptical about "good" fighting games on the Amiga, I just carried on playing Sensi Soccer as usual.

When I finally got around to looking at the first demo version of the game and read the document included on the disk, I was pretty much laughing. There was a list of future ideas which clickBOOM, the Canadian development team, wanted to incorporate into the game. It almost sounded like a joke, because the Amiga had never produced anything like what these people had in mind. Anyway, I loaded up the demo and after a few bouts of fighting action between two identical characters I was really surprised. The graphics were its strong point and they really stood out, but the most important aspect was that it actually played

really well. Okay, so there were a few bugs and glitches knocking around, but they were forgiven; it was only the first demo after all.

My main reservation was that I had seen many companies start off with a decent demo of a game then inevitably get bored, or run out of money, and bring out an absolutely poor version with no extra additions. I immediately got into contact with the game's producer, Alex Petrovic, basically to ask him how he managed it and why he hasn't produced anything on the Amiga before. Within a few months the whole clickBOOM story was printed in the May issue of Amiga Computing.

The next step was to see Alex personally in London at the World of Amiga Show, where he showed me a version of the game that was almost finished. I was shocked by the amount of interest it

PUBLISHER
Clickboom

DEVELOPER
In house

PRICE
\$29.99

DISKS
N/A

HD INSTALL
HD Required

SUPPORTS
A1200/A4000

The spikes on the left will appear when your energy begins to run low. Try to stay on the right



The fatigue option allows you to finish off your opponents in a spectacular fashion



generated. There were hundreds of kids approaching him asking when and where they could buy it.

After the show, interest was shown by various publishers, including Ocean, Team 17 and Time Warner amongst others, but I was genuinely surprised when they decided the PC market would be a far better option. And unfortunately that will be, without doubt, their loss.

It was finally decided that clickBOOM would publish the game itself and that was the last I heard about it until it was announced that the game was finished and would be out on September 13.

I think the first point I should mention is that the game requires a hard drive with around 15MB free to install it. It will not run off the floppy disks, so save yourself a lot of time by only buying the game if you have a hard drive. Also, Capital Punishment will run on an unexpanded A1200, but FastRAM is recommended. It just means you won't be able to run it from Workbench. Right, so that's the technical bit out of the way.

When the title screen appears amidst a booming dance track, you get to see the amount of options which are at your disposal. Firstly, there are the usual Player versus Amiga or Player versus Player modes

ment

which come with all fighting games, although as you toggle between the game modes there are leagues and tournaments as well as a huge Epic story battle mode.

The Epic mode lies in with a plot which has been written specifically for the game. There is an evil emperor by the name of Qwesul who wants to take over the skies from the Gods. Just before Qwesul was to take over the Earth, the Gods reincarnated you, the great warrior, to put an end to his evil tricks. The only problem is that Qwesul is protected by his guards, who are also great warriors and have been reincarnated to stop you. Your job is to dispose of these characters before reaching Qwesul himself. It's a job that only the most skilful, agile and powerful of warriors can even attempt. And you have been chosen.

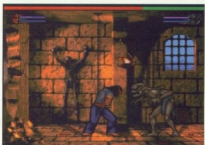
The hook is by far the most lethal way of disposing of an opponent. You can kill straight from the start



The factory level contains bolts of electricity as well as a hook which moves from side to side



The electricity will sap your energy quicker than any punch, kick or throw



The sewer level allows you to break through the wall into a smaller room

“After the show, interest was shown by various publishers, including Ocean, Team 17 and Time Warner. I was surprised when they decided to opt for the PC”



As the game goes on you will find the bosses get increasingly more difficult. The last is damn near impossible

Capital Punishment

‘The game itself is packed full of playability and presents enough challenge for expert gamesplayers. The graphics and presentation are outstanding’

The Tournament mode is split up into rounds, with the winner progressing to the next round until there is only one player left. Eight human players can take part, each one controlling their chosen character in each bout.

The League mode is pretty much the same, although you gain points for each win. At the end, your points are tallied up and the one with the most points wins. Simple.

To add some variety to the game there is what's called a 'Posse' mode, which is basically a tag-team mode. For example, two human players can select two characters each and toggle between the two when their energy rating begins to run low.

There are many different stages to fight in, each with their own graphics, special features and music. The first is the Sewer, where the sound of running water accompanies the action. A number of rather dangerous spikes situated in one corner make this one of the most exciting arenas, as both players tend to stay as far to the right as possible. The spikes only tend to make an appearance when one of your energy is low,



and it always looks good if you can finish your opponent off with an uppercut which sends him into the air only to be impaled on the way down.

The Factory level has bolts of electricity frazzling anything that gets near it, and a hook which continually moves from side to side and can be landed on if the timing is correct. It's always there too; as soon the level starts one swift uppercut via the hook can win the match.

The other levels are graphically outstanding, with either fog, mist, or thunder and lightning effects. The work that has gone into the graphics is certainly committed, and this is partly what makes Capital Punishment a great game. It has been developed by a team who are greatly devoted to the Amiga.

The game itself is packed full of playability and, presents enough challenge for expert gamesplayers. The first Alien-like beast seems absolutely impossible to beat, although when you work out a strategy to win, you will be able to frounce the enemy into oblivion every time you begin.

There are a variety of options too. You



The moves are very simple to carry out. It just requires a few nudges in the right direction



Demons the evil woman will easily kill you with her whip so keep your distance



The shadow effect wobbles and wobbles as if it's really swaying in the light



The Characters

Each character has his own history and personality, but you can probably work that out just by looking at them. All four of them were killed under suspicious and unexplained circumstances, but they have been brought back to life to dispose of Qwesul and put an end to his evil plans.

Corben Wedge - killed 1996

This big, muscle-bound character uses a strange combination of martial-arts, street-fighting, kick-boxing and Thai boxing. He is the winner of numerous illegal tournaments of death where only one fighter can survive.



Demonia - killed 2003

Demonia, the rather popular female character, is the only warrior to use a weapon. Nobody knows her real name, but she received her rather apt nickname purely because of her volatile temper. She likes to dispose of her opponents using a very large whip.



Wakantanka - killed 1356

The biggest warrior in the game hails from an ancient Indian tribe and is easily the strongest fighter. He was the first warrior chosen by the Gods, solely because of his extreme power.



Sarmon - killed 1822

Sarmon looks like and used to be a sailor. By travelling all over the world he learned many new combat techniques. He was granted immortality soon after Wakantanka was killed.



can configure the game to something similar to either Body Blows or Mortal Kombat if you so wish. Fans of both these games cannot fail to be impressed with Capital Punishment's overall quality.

You can alter the game so that the two opponents can pass each other, the characters face each other when one of them is fatigued, and create a screen limit so the characters cannot wander from out of view. You can also change basic things such as time limits and how many bouts you want to fight.

The energy system is quite complicated, as there are three different types. You can either use energy like in any other beat-em-up, such as Mortal Kombat, whereby when you get hit your own energy reduces, or you can have a tug of war where you have to fight to win back energy you lose, or finally there's a mix of the two.

Capital Punishment is one of the finest games on the Amiga. The graphics and presentation are outstanding and the playability is second to none. Bearing in mind the current state of the Amiga games market, a product like this is unbelievable. At a time where the majority of games are well below average, it seems ironic that one of the best games of all time should be released. Roll on Capital Punishment 2!

‘Fans of Body Blows cannot fail to be impressed with Capital Punishment's overall quality’



Sarmon the sailor is most lethal with his flying kicks, so remember to keep your head down

Final word

When you buy Capital Punishment, you will never ever need to purchase another fighting game. It contains everything and more and wipes the floor with the likes of Body Blows, Shadow Fighter and Mortal Kombat. Buy it now.



The options screen allows you to configure the match settings. You can even change the team names



You can select between 20 or infinite overs. If you select 20 you are limited to 4 per bowler

GRAPHICS

81%

SOUND

79%

GAMEPLAY

84%

OVERALL

82%

Brian Lara's Cricket '96

Reviewed by Andy Maddock

Cricket games on the Amiga always appear to be hit and miss affairs (pun intended). It's not the fact that cricket is a minority sport when compared to the likes of football and rugby, it's just that the games generally take the form of simulations, which narrows down the appeal (pun intended) by a tremendous amount, as the game is only going to attract Amiga owners with an interest in the game of cricket itself. You can't just pick up a bat and slog some balls about -

you've got to get into the 'boring' bit too.

By a general consensus of opinion in the office, real cricket ultimately receives the 'yawn' treatment, although having said that, the chances of an office worker being able to settle down at a cricket match while being covered from head-to-toe in sun-cream and supping a pint of bitter are pretty remote these days. You either have to be unemployed or retired, and as the unemployed shouldn't be wasting their benefits on cricket, it all boils down to being old and wrinkly. Now, how many of your granddads own Amigas? Hmm.

Cricket is, and always will be, the best alternative to football and rugby. While the latter two are settled in just under an hour and a half, cricket takes at least a day to finish. And while the excitement is non-stop during a football match, often leaving you unbelievably drained as you leave the ground at the final whistle, cricket is a nice relaxing sport where you have to do absolutely nothing apart from applaud after the occasional over. It's a treat.

It's quite easy to confuse Brian Lara's Cricket with another game by Audiogenic - if you can remember Graham Gooch's World

PUBLISHER
AudiogenicDEVELOPER
In-housePRICE
\$29.99DISKS
2HD INSTALL
NoSUPPORTS
All Amigas

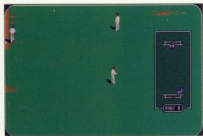
The averages on the right side of the screen will determine the players ability

Class Cricket, you'll know this is the same game. With Goochie recently having retired from test cricket, a new endorsement was needed, and after Brian Lara notched up his memorable 500-something runs against England, and consequently joined Warwickshire, he must have seemed a very likely candidate to star in his own game.

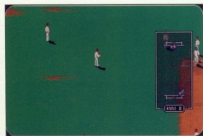
Actually, I now remember where this game came from. About four months ago we heard about a new Audiogenic cricket release which would be the sequel to Goochie's, and to be honest we were all expecting something completely different. However, when the preview version finally made its way to us - it was provisionally going to be called 'Imran Kahn's Cricket', we noticed that the number of changes were very slight, and apart from the updated team and player names, were almost unnoticeable. At the preview stage there is always plenty of room for improvement and change, although when we got this version we were surprised to say the least.

The first noticeable aspect was of course the game's title. As it's called Brian Lara's Cricket we expected to see him make an appearance. Nope, the manual clearly states that due to technical problems, skin colour was to be predominantly white. Bit of a shame that as many cricket players are indeed coloured, including the entire West Indian side.

When it loaded up I couldn't see any changes whatsoever. There were no graphical changes, but at least the game had been made harder. The computer opponent got me all out for about 15, and consequently bettered my innings in the first over,



You can now select which wicket to throw the ball to, unlike Graham Gooch's World Class Cricket



It is much easier to place the ball over the fielders, although the chances of being caught are increased



There is now a time limit on placing the bowlers cross-hair - it's also much faster too



You can toggle between LBW on or off. Personally, I prefer it to be the latter. The umpires are useless

although I'm probably just a bit rubbish... er, rusty, that's the word.

Overall, Brian Lara's offer at least a few changes for the better. Firstly, there is the option to change fielding to manual control so you can finally run after the ball and choose which wicket to throw it to.

The batting has also improved and it's now possible to place the ball where you actually want it to go. And, by holding the fire button you can add height to your shot, thereby adding a further degree of realism.

There is an arcade mode, so all the bland averages don't take effect, and your chances of having a 'good knock' are increased as the players are all given the same rating. All the test and county sides are on disk together, although you do have to go through a bizarre ritual before you can use them.

The last change is simply that it's a bit faster at loading during overs and things, although to be honest, I didn't notice.

If you've played Goochie's Cricket and felt there were a few bugs worth ironing out, it may be time to 'upgrade' to Brian Lara's. The word 'upgrade' is probably a little misleading, however, as you will have to shell out \$30 for the privilege. I feel a data disk would've been a much more realistic option.

Final word

So, if you enjoyed the first version, my advice is to purchase the new one right away. It's still the best cricket game on the Amiga and will be for some time.

“You can't just pick up a bat and slog some balls about - you've got to get into the boring bit too,”

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REVIEW IN AMIGA SHOPPER ISSUE 54

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Dave Cusick
peruses the
Amiga Library
system



Silence Please

Libraries are one of the most impressive parts of the Amiga's superb Workbench operating system. Programs will often only require a couple of external files located in directories such as C and Libs. If a program doesn't work when clicked on from the Workbench, more often than not it's because an essential file is missing from Libs - a situation which can be rectified by simply copying the file across.

Libraries can be shared between several programs. For instance, those relevant to the Magic User Interface can be called by a number of MUI-based utilities simultaneously. This is really an essential requirement for a multitasking computer. If every MUI program had to have MUI's technical details contained within its code, instead of a in a single library file using a couple of hundred kilobytes, every program would use this much memory and large amounts of system memory would be wasted storing the same information several times.

Once they have been called, libraries remain in memory, therefore a situation can arise where a significant amount of memory is simply not being returned to the system, even when the pro-

LAYING DOWN THE LIBRARY LAW

Many newer applications, including Browse and ADPro, store their library files within the program directory. This is actually recommended in the new Amiga installer style guide, and makes life much easier. No files need copying to the Workbench partition, upgrading the software is much easier, and things are generally much tidier.

Whilst in theory it might seem nicer to have all library files together in one directory, in practice this can break down. Libs directories can swell to the size of a Fonts drawer, it becomes hard to trace certain libraries back to the programs they belong to, and so on. The Libs: directory is best left for important libraries which are going to be utilised by several programs. Libraries which are program-specific cause a lot less hassle when they are contained within the program's own directory. Along with the concept of Assigns, a single Libs directory is a nice idea which has become commonplace at the expense of user/inconvenience.

gram using the library has terminated. This is so that the next time a program calls the library it won't have to be reloaded, because it's sitting there ready and waiting. This can be rather irritating if your Amiga doesn't have huge amounts of RAM. If you find your system memory is getting worryingly low, you might want to use the Flush command to remove libraries from memory and free up some space. For instance, on quitting a MUI program, using the Flush command will result in a few hundred kilobytes suddenly reappearing.

Photogenics is another program guilty of handling its libraries poorly. It stores all its effects as libraries, and when started it proceeds to load them all into memory. By running the program and then flushing out all libraries, it's possible to free up around half a megabyte.

Having various bits of important information in external files also makes it easier to upgrade programs. Again using MUI as an example, if each MUI application contained the layout code, whenever a new release of MUI appeared, every single application would have to be recompiled to include the new code. Because that data is contained in a library, once the MUI library has been updated, any applications calling that

library will benefit from the improvements.

Because libraries can be updated, it's important to make sure when installing new software that the required version of a particular library is present in your Libs directory. The software might require a more recent version of a library you have installed. On the other hand it might attempt to overwrite a nice new version of a library with an inferior older one contained within its distribution archive. Some installation scripts compare the version of a library you already have installed with the version included with the software, and then offer you the choice of overwriting the existing library with the archived version. Unfortunately, not all installation scripts do this. If you are in doubt, use the `Version command` from the library itself as the argument. For instance, typing: `'Version Powerpacker.library'` should produce a message along the lines of: `'Powerpacker.library 35.26'.`

If you find your Workbench partition is getting a little full, it's often a good idea to take a look at your `libs` directory and find out just what is there. Some programs you tried once and discarded may have their own libraries installed there, and these can safely be deleted to free up hard drive space.

[illegible]

Paul Overaa completes his re-entrant code discussions with that all-important example program



Resident code

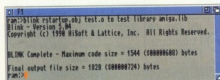
part 2

The principle requirement for producing pure code is that a program should consist of instruction code and read-only (ie constant) data alone, with all other variables being allocated on the stack. Last month I looked at the most commonly used approach for doing this, namely the use Link/Unlink instructions, and for this instalment I've written a re-entrant version of some intuition window opening code to illustrate the ideas.

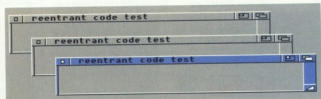
The program begins by opening the intuition and gadtool libraries using a loop arrangement. It then performs a series of subroutine calls which lock the Workbench screen, get the VisualInfo data, open a window and set up a menu before passing control to an event handling routine. The general structure of the code will be familiar to regular readers, since similar allocation/deallocation schemes have been used many times in the past. One important difference, however, is that the space used to store the pointers to the deallocation routines (normally defined using `dsl` statements) now has to be provided as part of the Link generated local data space, and that's why the structure shown in listing 1 contains a `ld_FStack` definition. In this month's example I'm using register `a4` as the frame pointer. Space for the variables is therefore being allocated using the `LocalData_SIZEOF` label like this...

```
Link a4,LocalData_SIZEOF
```

Having done that, the rest is easy - we just make sure that the appropriate indirect references are



Don't forget that it's necessary to link this month's example with re-entrant startup code



Resident, running in triplicate, and not a glitch in sight!

used when accessing the variables. The event handler, for example, gets called by retrieving the local window pointer from the stack and extracting the user port-address like this...

```
move.l id_window_ptr(a4),d1 window address
move.l wd_userPort(a1),a2 user port address
jsr EventHandler handle user actions
```

You notice incidentally that the routines which handle resource allocation and deallocation use locally defined library bases, and store their results in the appropriate local variables. So the corresponding CALLSYS statements now take this indirect form...

```
CALLSYS CreateNewDisk,ld_SadToolBase(a4)
move.l d0,ld_menu_ptr(a4)
jsr g - .FFFF
```

Strictly speaking, the use of local library bases is unnecessary, since the base pointers do not change once a library has been opened. To my mind it just seems better to keep all of the variable definitions together, hence their inclusion in the `LocalData` structure!

LINKING AND TESTING

In order for the example to run from the Workbench, it does of course have to be linked with one of the re-entrant versions of the standard startup code (I used `rtstartup.obj`). Once this has

been done you can make the runnable version (which I've called `test`) resident using the AmigaDOS `Resident` command. If a program is going to be used regularly one would normally use the `Protect` command to set the pure bit, but for experimental purposes it is just as good to use the 'pure' option to force the program to be added to the resident list like this...

```
> Resident test pure
```

If, like me, you've decided to add an icon to your executable, you'll then be able to open as many windows as you like by continually double-clicking. Alternatively you can multi-run the program by typing its name in several different Shell windows. The thing to remember when you do this is that even with a dozen windows open there will still only be one copy of the code in memory!

```
STRUCTURE LocalData,0
LABEL ld_lib_base_start
ULONG ld_intuitionbase
ULONG ld_SadToolBase
LABEL ld_lib_base_end
ULONG ld_window_ptr
ULONG ld_visual_info_ptr
ULONG ld_menu_ptr
STRUCT ld_FStack,ld_FStack_SIZEOF
LABEL LocalData_SIZEOF
```

Listing 1: The structure used to define the variables for this month's example code



You'll also find a new version of EasyBaseAC on the coverdisk that, amongst other things, now allows you to merge the files of function definitions provided with this column!

EASYBASE AC UPDATE

Those of you who followed the EasyBaseAC database series earlier in the year will remember that one of the reasons the program was written was to allow function usage details to be provided on disk. Although I've been pretty busy of late I have now added basic record marking facilities which allow a selected subset of records to be exported (in both print-file and database file form) and more importantly allow new database files to be merged with an existing database. You'll find the new version

(v0.20) also on the coverdisk.

So far only one file (functions `aug96.eb` provided with the August issue) has been given, but there is a second 'functions `nov96.eb`' file on this month's coverdisk (along with an updated help file). To merge the function detail files just select EasyBaseAC's 'Load Database' option, then use the 'Import Database' to select and read in the other file. Having done that use the Project menu's 'Save As' option to save the new file under a different name!

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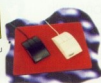
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For the benefit of Net Newcomers, Dave Cusick picks the best Net software around



The Dream Team

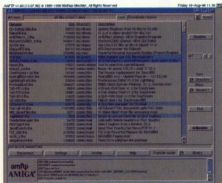
So you've finally taken the plunge. After months of listening to the converted preach about the joys of the Net, reading magazines which continually extol the virtues of this brave new world, and experienced ever-increasing curiosity as to just what you were missing, you've finally decided to cough up a handful of banknotes to one of the many Internet Service Providers. But what's the next step? What else will you need to really make the most of the on-line world?

Well, contrary to what PC and Macintosh owners might tell you, there are some extremely impressive pieces of Internet software on the Amiga these days. Over the next couple of issues I'll be taking a look at the many Amiga Net applications and picking out the cream of the crop. This issue - the absolute essentials.

The most logical place to start our overview is with the TCP/IP stack itself. AmiTCP has long ruled the roost here, but the cocky newcomer Miami is now threatening to wrest the crown from its grip. AmiTCP, powerful as it is, has a reputation for being rather awkward to install and configure. Miami, on the other hand, uses a GUI interface and is designed to vastly simplify the process of getting on the Net with your Amiga. And compatibility shouldn't be a problem - most programs which run under AmiTCP should run under Miami too.

COLOSSAL

Since the Web receives colossal coverage in the media these days, next on the list is a good Web browser. For me, Browse is the best of the bunch. Through its support of tables, animated GIFs and suchlike, it leaves the other Amiga



The Amiga's greatest FTP client...

browsers standing. Over the past year there have been plenty of Browse demos available free of charge, but now HiSoft is selling the completed program commercially and bundling it with the latest version of MUI.

Easily configurable and simple to use, Browse has but one failing; it's not very fast. It is capable of asynchronous connections, but it still seems to crawl at times compared to AWeb. To get the most out of Browse you will need lots of memory and a fast Amiga. If you don't have these, take your pick between Voyager and AWeb, the former boasting better HTML support, and the latter being faster and more stable. Future versions of Browse and Voyager are both apparently going to feature all Netscapisms, most notably frames - hideous and confusing, but rather common on the Web these days.

Probably close behind a browser on most Internet shopping lists is a powerful e-mail client. My vote goes to YAM1.3, which boasts MIME and UUencode support, a beautiful interface and a handy ARexx port (and it's reviewed in Public Sector this month). Voodoo, the client Amiga Technologies preferred for its Surfer Pack, is powerful and flexible too, but will burn a large hole in your wallet. If, like me, you use an ISP that doesn't support POP3 mail retrieval, Metatool is the client of choice. It does every-

SURFER'S SHIPPING LIST

Miami (Shareware - registration US\$35)
ftp://ftp.vapor.com/Miami/Miami10.3.lha

IBrowse (£29.95)
HiSoft, 0500 223 660

YAM (Freeware)
Aminet: comm/mail/YAM13.1.lha

AmFTP (Shareware - registration £18)
ftp://ftp.vapor.com/support/amftp/

thing YAM does with the exception of UUencoding, which is promised for a future version.

The final essential is an FTP client. These days all but the most ardent Shell fans use friendly FTP clients, and of these the king must surely be AmFTP. Another MUI masterpiece from the Vapor team, this is one of the best programs of its type on any platform. With a server address book and dozens of thoughtful features, it is infinitely more usable than the ancient command line programs. AmiFTP and DaFTP are also worth a look if for some reason AmFTP isn't to your taste.

Next month we'll conclude our brief tour with a look at some of the other Net programs around, including IRC clients, Telnet clients, AmiTrack, AmiPhone and AmiSlate.

FREE WEB SPACE!

Yes, contrary to the saying that there's no such thing as a free lunch, Demon Internet announced in August that all its tenner-a-month customers have been allocated 5mb of free Web space, complete with a snazzy virtual domain name. Several other ISPs provide Web space for their customers, but Demon believes this generous space allocation combined with existing low cost service offers exceptional value for money (it works out at around £140 a year including VAT). And as a Demon customer myself, I'm inclined to agree. For more information, check out <http://www.demon.co.uk/>.



... and the King of Browsers

CONTACT

If you wish to contact me, my e-mail address is dave@dcs.demon.co.uk. Questions, suggestions and feedback are all more than welcome. I also have a homepage, which is now at <http://www.dcs.demon.co.uk/>.

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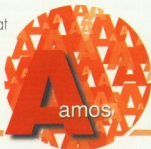
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Phil South looks at the fun you can have with colour cycling



Special Light FX

must share this one with you. I was rummaging through my old Amos notebooks the other day when I found this faded photocopy folded up inside one of them. It was a page from some kind of magazine, and I think it might even have been Peter Hickman's 'All About AMOS'. Remember that?

Anyway, there were a couple routines on the page, and out of interest I tapped them in. Nice. The routines were short, powerful and useful, so I would have to guess that Pete did them himself, as his stuff was always like that. So with a brief raise of the glass to Pete, wherever he is, and with a few tiny modifications of my own, let's do some colour cycling.

BY-CYCLES

Okay, cycling colours is very easy. You use the SHIFT command to move the colour registers along, and the first example points this out beautifully. Type a row of O's and cycle the colours, but make only one white and all the others black. Or, like in my example, allow a fade out by making a trailing colour of grey.

Example 1

First we set the screen up:

Screen Open 0,320,200,16,Lowres
Flash Off : Els 0 : Curs Off

Then we make the all-important palette assignments:

Palette
\$666,\$FFF,\$0,\$0,\$0,\$0,\$0,\$0,\$0,\$0,\$0,\$0,\$0,\$0,\$0,\$0

The \$FFF is the white one, and the \$666 is the

grey one following it. Next we draw a row of O's to represent the bulbs, using a different colour pen each time (using a FOR NEXT loop):

```

Paper @
For LSP=1 To 15
Pen LSP
Wait Wbl
Print "0";
Next LSP

```

And finally, we cycle the colours of the O's to make the 'chase lights' effect using a SHIFT command:

Shift Up 2,1,15,1
Direct

Cool, huh? You presumably know enough about RGB colour values to make these those lights go round and around. How about 32 colours? You could make some killer game displays, like cockpit lights etc, with this effect. Let's see some of your designs, eh?

Example 2

Okay, taking what we know from that last example, we can get a bit more fancy. Start the same way by opening a screen:

Screen Open 0,320,200,16,Lowres
Flash Off : Cls 0

And make a faded blue palette, a sort of spread:

Palette 10, 15, 16, 18, 19, 20, 21, 22, 23

Now we read in the data. It's a lot of data, so perhaps you'd be better off reading in the file

from the cover disk:

```
For Y=0 To 15
For X=0 To 15
Read SPOT
Ink SPOT
Plot X,Y
Next X
Next Y
```

Next we cut and paste the BOB we made with the data all over the screen using the GET BOB and PASTE BOB commands:

```
Get Bob 1,0,0 To 16,16
For Y=0 To 11
For X=0 To 19
Paste Bob X*16, Y*16,1
Next X
Next Y
```

Okay, now we're ready to set the thing in motion. Use the **SHIFT** command again, and voila:

Shift Up 4,1,8,1
Do : Loop

The Loop at the end makes it go on forever without stopping, unless you break out of it with CTRL-C. Finally the data – check it carefully or it won't work, see listing 1 below.

There it is. Hypnotic, eh? This is a great technique and one which has a gerzillion uses in your game programs. If you come up with any good routines, why don't you send them to me, bearing in mind the guidelines in the panel called Write Stuff.

Cycled colours can make all kinds of animation very cheaply, and it incurs no processor overheads as there is no graphics shifting going on. People used to use this kind of thing all the time – remember Defender in the arcades? Nobody used to use sprite animation when they could get away with colour cycling in the old days, and there's no reason why you should use a sledgehammer to crack a nut when you can just as easily use a nutcracker. know what I mean?

That's it. See you next time for some more groovy graphics. TTFN!

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, ie no more than about 30-40 lines of code. If possible make them use no external graphics, but if they can't be used without them, be sure to provide them on the disk in native IFF format. The same goes for sound files.



Example 1



Example 2

1874	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	100
1875	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	100
1876	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	100
1877	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	100
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1879	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79																					

Listing 1

Paul Overaa looks at some useful new scripts that have appeared for Music-X

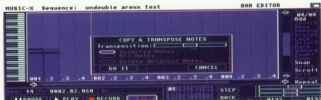


Getting crafty with MusicX

Although I'm basically a long-term Dr T's KCS sequencer fan, I do occasionally make use of both Music-X and Notator-X, the notation software [especially the latter package since it's far easier to use than the more powerful Dr T's Copyist program]. One area where, in principle, Music-X wins hands down over KCS is the fact that it offers an ARexx interface. Yet, although this could be used for automating all manner of editing operations, surprisingly few Music-X users seem keen on getting involved. Music-X V2.0 did in fact come bundled with live ARexx macros for manipulating Midi data (CopyTranspose, InterpolateSlope, TimeStretcher, TrimEnd and V-Scaler), but although these pointed the way to the possibilities, only users with knowledge of ARexx could take things further.

One solution, if you're not particularly happy about ARexx itself, is simply to use scripts written by others, and it just so happens that a couple of Music-X based musicians, namely Gareth and Kevan Craft of 'Midicraft' fame, have released a disk of 18 Music-X macros along with some substantial documentation in both text and amiguide form.

There's quite a range provided: CopyTransposeAuto, a modification of the original CopyTranspose macro, can be used to copy and transpose note events, with the difference between this macro and the original being that the new form automatically retains note channel



Following the demise of Bars&Pipes, Music-X is now the only sequencer that offers ARexx control

assignments (this, can be more efficiently when continually transposing the same Music-X sequence track several times). Also available are a C_Maj7InversionShifter macro, which can be used to shift note events in C Major7 chords up or down, C_Maj7 and C_Min7 note filtering macros, and a GM_Instrument_Request script. This last macro reports the GM (General Midi) instrument patch name for a given preset or GM bank number from a specified GM voice table embedded within the macro itself.

In addition to these there are a couple of new button-based transposition macros and a 'Mixer' script which provides a virtual mixing console (the software equivalent of an analogue multi-channel mixing desk) for editing. MX-to-MIDI is a simple script to call the MX-to-MIDI (Music-X-to-MIDI) converter utility in the background on the Workbench environment. This is useful for launching the Music-X-to-MIDI converter utility from within Music-X itself because, by the time you temporarily exit Music-X, the utility is already loaded on the Amiga's Workbench screen waiting for you.

There's also PgmPage - a macro that writes an ASCII text file from a single Music-X sequence track to the RAM disk. The output file, specified as [prog.txt], contains information identifying various Midi channels (1-16), patch numbers and individual instrument names. Other macros provide include a StepTime, a Velocity Flattener, and V-Scaler, which is a velocity changer that globally increases or decreases note attack velocities.

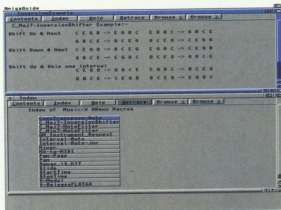
INSTALLATION

For ease of use, the best idea is to install these macros in the relevant rexx sub-directory within the Music-X drawer on your hard drive (or the rexx directory on the Music-X 2.0 floppy disk). Obviously, they will work more efficiently on a hard disk system with more than 1Mb of RAM, but they should work fine from floppy. You could even powerpack (crunch) some of the files on the floppy disk to make additional room for macros.

AND THE BEST NEWS OF ALL...

It's the price! Since these macros had to be written for Midicraft using any-way, the Craft brothers have decided to release them as Freeware. This means that if you telephone SeaSoft Computing on 01903-850378, you can order your disk for just 75 pence (plus 50p postage). Let's face it, at this price this is good value, even if you only ever use three or four of the macros. And who knows, this disk might just make your Music-X life a little easier.

Another point worth mentioning is that whilst some of the macros are large (mixer.mxe is about 35K), there are a few small enough to be easily understandable. By seeing these scripts first hand you might well feel tempted to do a little experimenting with some musical applications of ARexx yourself!



The documentation with the new Midicraft disk also includes installation and general ARexx help!

Paul Overaa shows
how to make your
macros less
dependent on
applications



ARexx Macro Portability

Let's face it, macro programming (like any other programming chore) takes time. So, it stands to reason that when writing macros likely to be of potential long term use, it is done in as 'portable' a fashion as possible. Now, whilst macros will always be non-portable in the sense that they'll always contain commands that are specific to a particular applications program, this doesn't mean you should give up on the portability effort completely.

Why? Because in the long run it'll save you time and effort. Suppose for example that over the years you build up a library of macros for your favourite wordprocessor which cater for your (possibly specialised) needs. Then, all of a sudden, a new package arrives that suits your purposes far better. You go out, buy it, and suddenly the bombshell drops - you realise that all the macros written for the first w/p package are going to have to be re-written because, although the ARexx language is standardised, the command interfaces of most applications programs are most certainly not!

As for moving macros between related types of applications programs is concerned, it's fairly easy to eliminate one of the biggest stumbling blocks - you just remove the external interface commands from the bulk of the macro code and write the main sections of the macro using application-independent function calls. By collecting the 'applications program specific' code into a set of separated 'interface routines', it then becomes possible to move the macro to another

application by just re-writing the interface section of the code.

Let's imagine, for example, that we were writing a macro that collected lines of text from a w/p or text editor package and did something with them. We'd need to get starting and finishing line numbers, be able to collect and replace lines of text, move to the start of a marked block and so on. What you do is simply write the macro as though all these functions exist - listing 1 shows an example fragment. The important thing about this code is that there is not one application-specific reference present!

INTERFACE ROUTINES

So far so good, but the macro will not work unless a suitable set of interface routines are available - these are obviously 'applications program' specific. To get the starting line number of a marked block of text with Final Copy for instance, you'd issue a 'status position' command and collect the first of the four numbers returned. By taking all of the function calls and writing them in terms of Final Copy commands, you can therefore build up a set of interface commands (see listing 2 for some examples) that could be placed at the end of the main application independent macro code.

In a sense the macro can be seen to consist of two distinct sections - the main 'guts' of the script, and a set of 'application-specific' interface routines. To get the macro up and running with

another package, all that should ever need to be changed is that second section.

Now I don't want to kid you that this technique is a general panacea for all portability problems. The extra layer of function calls will always make the code run a little slower than a directly coded version, for example, but offset against this is the very real advantage of easier code-reusability, the benefits of which become more important as the size of the macros being written become larger.

The important thing is to be aware of the overall principles. After all, you don't want to end up writing masses of ARexx code that may, at a later date, have to be completely re-written before it can be used with another ARexx-oriented package. At least then you have the option to program for portability if you need it!

```
/* example.rexx */
startInterfaceLineNumber()
finishGetEndLineNumber()
call MoveToBlockStart(start finish)
do i start to finish
  text:=GetTextLine()
  call DeleteText()
  if i=finish then call
    MoveToNextLine()
end
call MoveToBlockStart(start finish)
do i start to finish
  /*do something with current line*/
  call InsertTextLine(new_line)
  call MoveToNextLine()
end
exit rc
```

Listing 1: Write the macro assuming that all the functions you need exist

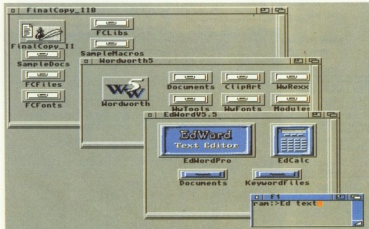
```
/* ===== */
/* Example interface routines for Final Copy */
/* ===== */

GetStartLineNumbers:
options results
'status position'
return Word(result,1)
/* ===== */

GetEndLineNumbers:
options results
'status position'
return Word(result,3)
/* ===== */

GetTextLine:
/* ===== */
'CtrlDown'; 'AltDown'; 'Cursor Left'
/* start of line */
'ShiftDown'; 'Cursor Right'
/* end of line */
options results; 'extract'; options
'CtrlUp'; 'AltUp'; 'ShiftUp' /* release keys */
return result
/* ===== */
```

Listing 2: By isolating the application-specific code it's possible to greatly reduce macro portability problems.



Needless to say that if a macro is going to be potentially useful with a number of different applications, portability considerations become particularly important!

Steve White adds
meet to BOOTIt and
explains routines
and fulfilling
event requests



The Basic Selection

The window event, basically a close window event, was described last issue, so sticking with the event loop (loop) we'll move onto the gadgets. Now explaining what each gadgetHit function does would be pretty meaningless without the routines they call. So, to make things easier - it does get complicated from here, so take your time - we'll take a look at the first three gadgets and routines; the ones which basically toggle the status of each program in the WBStartup list on the interface.

The first one checks for a selection within the list and either selects or de-selects it depending on its initial setting; the second selects all the programs in the list and the third de-selects all the programs in the list. These first three events are checked with the following code (you'll find them under the line `if ev=$40` in the loop code shown last month):

```

If GadgetHit(gadgetid=1)
  Pop Repeat
  Let ev=EventCode
  Goto togglestatus
EndIf

If GadgetHit(gadgetid=2)
  Pop Repeat
  If selected=0
    Let selected=1
    Goto allstatus
  Else
    Let selected=0
    Goto nonstatus
  EndIf
EndIf

```

Now you may be wondering why I said three events when in fact there are only two. Well, there are only two gadgetHit events but the second one runs two different functions (allstatus and nonstatus) depending on the result of your selection. Let's take a closer look at the first one.

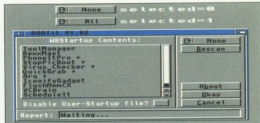
If the Gadget with ID `gadgetid=1` is selected (this is the `GTKViewGadget`), the Repeat is popped (prematurely exiting a Repeat loop - last issue) and the variable `ev` is set to the value of the `EventCode`. The `EventCode` returns the value of the `GadgetHit` that was hit. In this case it will return the selected program number in the `WBStartup` list (0

CODE CORRECTIONS

In last month's issue there was a mistake in the section of code labelled `main` on page 94. You should remove the `@` and the `l = 1` that begins the line:

```
AttachGTKList 0,0
```

If in the future you see any more of these characters before a line, please remove them.



Splitting your program into routines, or modules, will make debugging your code a great deal easier. You could even have two functions accessing one routine, thereby saving memory

onwards). We now know which program in the `WBStartup` list has been selected. The routine called `togglestatus` is then called.

The second event detects whether all the programs in the `WBStartup` list have been selected or de-selected. If the Gadget with ID `gadgetid=2` is selected (this is the `CTCycleGadget`) the Repeat is popped and the variable called `selected` is tested. This variable is initially set to 0 and indicates the setting of the `CTCycleGadget` which is initially set to None. If selected equals 0 we know it must be set to 1 because the `CTCycleGadget` has been pressed and moved to All. So we change the variable `selected` to 1 (All) and jump to the routine called `allstatus`, which selects all the programs in the list to selected.

However, if selected does not equal 0, we know that it must already be 1. So, underneath the else we change it to 0 (the `CTCycleGadget` was originally 1 or All and has now been set to 0 or None). The routine that de-selects all the programs in the list is then called (`nonstatus`).

To summarise, the second `GadgetHit` event reads as if `gadgetid=2` is pressed and selected equals 0. Therefore the gadget has been cycled from None to All, selected must be changed to 1, and the `allstatus` routine run. If selected already equals 1, the gadget has been cycled from All to None, therefore selected must be changed to 0 and the `nonstatus` routine run instead.

Okay, at first it seems very complicated, but it will make sense eventually - take your time and read it through. The most important thing to remember is the variable called `selected`. We can simply test this to see what the `CTCycleGadget` indicates on the basis that it originally equalled 0 or None.

Unfortunately, there isn't enough time this issue to fully explain the three functions: `togglestatus`, `allstatus` and `nonstatus`, but here is the code to get you started. Next month I'll explain these functions and provide the `readWBStartup` routine disabled earlier so that you can start to test run `BOOTIt` properly.

```

.togglestatus
ResetList contents()
For i=0 To ac
  If NextItem(contents())
    EndIf
  Next i
  Let stat=contents()status
  If stat=0
    GChangeList 0,gadgetid=1
    Let contents()status=1
    GChangeList 0,gadgetid=1,contents()
  EndIf
  If stat=1
    GChangeList 0,gadgetid=1
    Let contents()status=0
    Let
      contents()name=Left$(contents()name,Len(
        contents()name)-2)
    GChangeList 0,gadgetid=1,contents()
  EndIf
  Goto loop

.allstatus
GChangeList 0,gadgetid=1
ResetList contents()
For i=0 To amount
  If NextItem(contents())
    Let stat=contents()status
    If stat=0
      Let contents()status=1
      Let contents()name=contents()name+"*
    EndIf
    EndIf
  Next i
  GChangeList 0,gadgetid=1,contents()
  Goto loop

.nonstatus
GChangeList 0,gadgetid=1
ResetList contents()
For i=0 To amount
  If NextItem(contents())
    Let stat=contents()status
    If stat=1
      Let contents()status=0
      Let
        contents()name=Left$(contents()name,Len(
          contents()name)-2)
      EndIf
      EndIf
    Next i
    GChangeList 0,gadgetid=1,contents()
    Goto loop

```

Paul Austin explains
the finer points
of cross-platform
communication



3D graphics

Crossing the great divide

As bizarre as it may sound, the Amigas, PCs and Macs of this world have never been too good at sharing ideas, especially when it comes to bulk transfer, whether it be objects or images.

To be fair, the problems are usually encountered at a hardware level, with the seemingly warring parties determined to ignore any file system other than their own.

However, it must be said that the Amiga has done more than its fair share to bridge the gap with the aid of programs such as CrossMac and CrossPC on the hardware recognition side, and powerful bulk conversion packages such as ProControl and AutoFX for the files themselves.

Strangely enough, when it comes to the conversion and sharing of graphics and animation, the biggest problems are likely to be incurred on the Mac rather than the PC.

Although the Mac only holds 10% of the total commercial computer market, it's invariably the platform chosen for creative work, and especially multimedia authoring. Fortunately for the Amiga 3D, animation on the Mac is somewhat lacking.

Consequently there's a real opening in the authoring market for Amiga animators. The only problem is getting the files onto the Mac in the first place.

Needless to say, transportation is the first and most important hurdle to negotiate. The cleanest solution is of course a dedicated Mac formatted external drive which can be plugged directly into the Amiga via CrossMac.

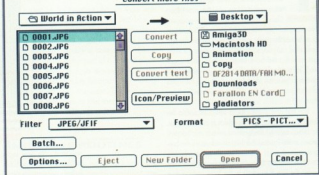
problem which often occurs when converting an object from a double to a single-sided rendering platform.

Often, after conversion, it may appear that every other polygon in a model is missing. This is because one of the two polygon pairs is removed, which if then viewed from the wrong side gives the impression of a hole.

This particular problem is most common within Lightwave, but fortunately the solution is simple. First, align all polygons. This will either be an instant cure, or alternatively the model will disappear entirely. If so, don't panic. Simply flip all polygons and with any luck your latest import will be perfect.

Lastly, always keep an open mind when looking for or exchanging models. Most of the major 3D systems offer at least limited support for other formats, with DXF files being the most widely supported on both the Amiga and PC. It could therefore be possible to share resources without needing to invest in either of the aforementioned packages.

Convert more files



DConvert.plt: An instant and cheap solution to the problem of batch file conversion on the Mac

The only limitation is of course whether you can afford the drive and/or available space. If not, there are some alternatives. The first and most obvious is floppies – again via CrossMac or alternatively PC formatted disks – which Macs can read.

Obviously this has serious limitations, especially for larger animations. The only other alternative is a direct serial link between the two machines. All you'll need is a standard null modem cable and

some kind of terminal software on both machines.

On the Amiga side I'd recommend either Term or Termite, although any shareware alternative should be up to the job. On the Mac side ZTerm is by far the best option.

The only problem with this approach is initial set-up, which may require the assistance of a friend if you don't have much experience of comms software.

Assuming you've made the connection, all you then have to do is sit back while the transfer takes place – but be warned, direct serial links are slow.

3D CONVERSION KINGS

The solution to the sticky problem of sharing 3D models with other platforms comes in the form of InterChange Plus and the Pixel Pro v2. In an ideal world you'd have a copy of both, but in reality the choice boils down to whether you require the unrivalled conversion skill and format variety of IP, or the added extras and superior interface and control of PPv2.

In my experience, straightforward conversion from one format to the next is best achieved using IP. However, PPv2 does offer the unique option of full PostScript font support, as well as 3D conversion for EPS files – alias Encapsulated PostScript.

If you take a quick glance around AC you'll come across hundreds of EPS files in the form of logos and types such as ESP, ACAS and so on. It doesn't take a genius to imagine how important it could be to any 3D designer to have near instant access to three dimensional replications of a client's corporate ID or marketing material.

But regardless of the conversion program you choose, you could well come across a common

WHICH FORMAT

As for the files themselves, I'd recommend LHA to create an initial archive, as the Mac has its own version – namely MacLHA – to unpack things at the other end.

As for the individual files I'd always opt for jpeg or Pict – jpeg being particularly favoured for larger transfers. Pict could be a sensible choice if the files in question are heading directly for Adobe Premier or a similar QuickTime movies generator, which for some strange reason rarely support jpeg.

However, if you want a combination of good transfer speed and optimum image quality, I'd recommend jpeg. The downside will be the need to run some batch processing on the Mac side.

When it comes to batch conversion, always opt for the excellent Graphics Converter, which offers full batch conversion facilities even in its unregistered shareware form.

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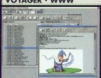
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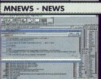
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