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## Editorial

We're back with another issue of Total Amiga! The theme of this issue has turned out to be bringing new technologies to the Amiga. First off we have a feature on connecting to the Internet via ADSL. Although ADSL on the Amiga has always been possible the new wires only packages mean that at last you can buy and fit your own equipment so you don't need a PC or to rent a modem you don't need. Another technology which has been around for a while but which is new to the Amiga is USB. E3B have produced the first Amiga USB card in the form of the Highway Zorro card, we put it through its paces on page 22.

But before you read the rest of the mag (what do you mean you don't read my editorial first!) here are some thoughts about the future of Total Amiga, please let me know your thoughts.

If you read my editorial in a last issue you'll know that we were aiming to get this issue out two weeks early as the first step in a move to bi-monthly publication. We haven't been able to achieve that although this issue is on time (give or take a week) according to our current quarterly schedule. Rather than promise the next issue early and not make it again we've had a think about what would need to happen to enable us to publish bi-monthly. As we've said before the crux of the matter is getting more writers for the magazine. Since our last appeal for writers a couple of issues ago we've

had a number of people offer to write the occasional piece. While this is helpful and much appreciated what we really need is a number of writers (two or three would make a big difference) who are willing to write every issue, perhaps contributing a regular column and another article such as a review or tutorial related to their area of interest. While I think we cover some aspects of the Amiga scene well such as graphics and DTP we realise there are areas that currently get little coverage in Total Amiga. This is purely because no one in the current team has a great interest in them, off the top of my head I can think of music, 3D graphics and programming as cases in point. If we could recruit writers with an interest in those areas then it would be much easier to fill the mag each issue and would also take some load off the current team.

So what are we going to do to improve this situation? The first step is this editorial, if you think you could offer your services to the magazine as a regular writer please get in touch, also if you know someone who would be a good contributor please let them know we're on the lookout for writers. As a non-profit publication we can't pay writers but you will get a free copy of each issue you contribute to. Once this issue is out the door I will add these details to the Total Amiga website and we will post a "wanted" advert to Amiga websites and mailing lists to let the wider world know.

We know from our experience so far that finding reliable writers who are willing to commit

themselves to the magazine is very difficult. Especially with the Amiga market as quiet as it currently is many people have lost their enthusiasm for the platform as it stands and are in a wait and see mode. There is also the fact that the number of new product releases is currently low which makes finding enough content to fill a magazine more regularly difficult at the moment. Taking all this into account I think that it is not realistic to move to bi-monthly publication until OS4 and the AmigaOne systems have been released. Although it's hard to say exactly what effect this will have on the market it has to be positive and, at a minimum, we will have the new machines and OS to write about!

Before you thank "oh that means sometime... never then" take a look at our Amiga OS4 update on page 10, it really does sound as if OS4 is getting close and will almost certainly be out by Christmas so we shouldn't have too long to wait.

I've had a few E-Mails asking if there will be a letters page this issue but... no letters to publish! So if you would like to see a letters page please write in, letters can be commenting on the magazine, Amiga products or the general Amiga situation. We're also looking for questions for a Q&A section and to spur us on with ideas for tutorials and the Top Tips section. Please E-Mail your letters to me or write to the address in the grey bar below.

Enjoy the magazine and I hope you'll take the time to help us make it better,

Robert Williams  
editor@totalamiga.org

## About Total Amiga

Total Amiga is published quarterly by South Essex Amiga Link. For subscription details please contact us at the address below or visit our website.

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### Only Amiga Made it Possible

Total Amiga is designed and laid out using:

**Hardware:**  
Amiga 3000  
CyberStorm PPC/060  
CyberVision PPC  
128Mb RAM, about 13Gb HDD space.  
**Software:**  
Amiga OS 3.9 by Amiga  
PageStream 4.1 by Softlogik  
TypeSmith 2.5 by Softlogik  
ImageFX 4.5 by Nova Design  
Photogenics 5 by Paul Nolan

## News



Eternity have announced that the Amiga version of their Tales of Tamar game will be released on the 1st of September. Tales of Tamar is a turn based strategy game set in time similar to the middle ages, it is designed for on-line Internet play via EMail and incorporates an on-line chat facility so players can talk in real time. ToT will be released for the Amiga first but Eternity are also working on versions for Linux, Windows, Mac and Java so the potential is there for a huge base of players.

Tales of Tamar has been in development and testing for several years and by the look of the website and screenshots it will be a very professional and engrossing game. We'll have more details and possibly a review in the next issue of Total Amiga. The Tales of Tamar website is at:

<http://www.tamar.net>

# Rainboot 4

## Smarter than your average boot picture?

You may have heard of Rainboot before as a program to create very fancy boot screens, complete with system information and other effects. A new version is now in the works that will extend its capabilities so it can be used to create presentations too. The really exciting thing is that Rainboot can work on chipset and graphics card screens so it may well be the first program that can be used to make presentations and multimedia applications which can be used on all Amigas. Presentations

created will not be tied to a particular screenmode and can even run in a window on a public screen, these can even have transparent sections.

Rainboot presentations are controlled by a script file which is created in a text editor and calls separate sound and graphics files. The final presentation can then be compiled into an executable needed no special support files. Don't expect a GUI for putting the presentation together but according to the author the process should be



An example transition. This time Rainboot is running in a normal window.

quite simple for most people.

Here are some of Rainboot 4's key features:

- 100% system friendly, runs on all Amigas.
- Transition effects.
- Smooth graphics scrolling.
- Transparent graphics
- Easy monitoring of user input from keyboard and mouse
- Supports different fonts
- Use anim brushes, sound modules and samples

Rainboot is shareware and the current version (3) costs 12USD (about £8.50), we'll bring you a full review of version 4 when its released. For more information visit the Airsoft Softwair page at:

<http://www.airsoftsoftwair.com/>



The euro calculator is a Rainboot 4 presentation with a transparent background running on the Workbench screen.

## Legalese

### Fonts

The body text of Total Amiga is set in Triumvirate Normal as supplied with PageStream, the heading typeface is Forgotten Futurist by Ray Larabie. Take a look at Ray's huge range of freeware fonts at <http://www.larabiefonts.com> and his commercial foundry at <http://www.typodermic.com>.

Final Writer 5 by Softwood  
Ghostscript 6.50 from Aladdin Enterprises

There are also some essential utilities we couldn't live without: Directory Opus 5, SGrab, MCP, Turbo Print 7, MakeCD.

Our thanks to the creators of this and all the other great Amiga software out there.

Total Amiga is entirely created on the Amiga, no other machines are used at any stage of the design or layout process.

The views expressed in this magazine are those of the author of each piece, they do not necessarily reflect the views of the editor, other contributors or SEAL.

Please Note: Total Amiga is produced by SEAL members in their spare time, while we will always strive to produce the magazine on time and include all the advertised contents this is not always possible due to other commitments. The price you pay for Total Amiga covers our costs and nothing more, we don't make a profit from it.

If you wish to contact a contributor please send your message to one of the addresses in this section and we will pass it on.

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## GoldEd AIX

The final version of Dietmar Eilert's well known text editor, GoldEd Studio, is about to be released. Some time ago Dietmar announced that the development of GoldEd had been cancelled even though he had said version 7 was in development. The new version is an update on version 6 and will include the work on version 7 that had been completed, which includes an overhaul over the user interface giving it a slicker look and new icons.

The full version of GoldEd Studio costs 59.99 Euro (about £40), discounts are available for existing users. Anyone who preordered version 7 will get the upgrade free.

For further details and to download a demo visit: [golded.dietmar-eilert.de](http://golded.dietmar-eilert.de)



## PageStream 4.14

A free upgrade to PageStream 4.1 (reviewed last issue) is now available from Grasshopper. This version fixes numerous minor bugs from the 4.1 release, registered users can download it from a secure section on the Grasshopper website:

[www.grasshopperllc.com](http://www.grasshopperllc.com)

## Prometheus Development Resumes

Over the last few months there has been little news of progress on drivers for the Prometheus PCI to Zorro card which looked so promising when it was first released. Filip Dab-Mirowski from the manufacturer, Matay, recently posted to the Amiga-Prometheus mailing list that development had been delayed due to some personal issues not related to Matay but it was now in progress again. A firmware upgrade for the Prometheus has been developed which will allow DMA (Direct Memory Access) transfers between PCI cards and a programmer device will be available to allow users to upgrade their cards without returning them to Matay. The firmware upgrade will allow PCI cards which rely on DMA such as sound, TV and 100Mb/s Ethernet cards to be supported. Matay say they are currently working on drivers which will take advantage of the updated ROM and will release it when some drivers are ready.

To keep up-to-date with Prometheus developments join the mailing list at:

[www.yahoogroups.com/group/Amiga-Prometheus](http://www.yahoogroups.com/group/Amiga-Prometheus)

You can also try the Matay website at: <http://www.matay.pl>



Prototype of the programmer device.

# Another MIRAGE

Elbox have announced another member of their growing family of Amiga tower kits, the Mirage 3000 is a sleek but undoubtedly huge tower for the A3000 desktop. Unlike the A4000 model mentioned last issue the Mirage 3000 does not include a bus board or Mediator logic card however a Mediator 3000D bus board is required to use the tower so you will need to purchase one with the Mirage. The tower has three 5.25" drive bays, a bay for the A3000's floppy drive and five internal 3.5" bays for hard disks. The whole shebang is powered by a 300W power supply. The Mirage 3000 costs 179Euro excluding VAT (£159.95 including VAT from Power Computing) and the Mediator 3000D busboard and logic card is 289.95Euro (£244.95).



Details on Elbox products can be found at: <http://www.elbox.com>

Elbox products are available in the UK from Power Computing: <http://www.powerc.com> +44 (0) 1234 851500

## WoASE Returns

After last years successful show that was attended by over 350 people several UK usergroups are again working together to stage World of Amiga South East 2002 on Saturday the 2nd of November. The show will be at the same venue as last year, Poplars Hall, near Brentwood in Essex, just a few minutes drive from the M25 and walking distance from a main line railway station. The venue has free parking and a licensed bar, sandwiches and snacks will also be available on the day.

The following exhibitors have already confirmed that they will be attending:

- Amiga (in the form of Fleecy Moss)
- Eyetech
- Forematt Home Computing
- Kicksoft
- Weird Science

We are talking to other potential exhibitors including several European retailers and developers and hope to announce more exhibitors over the next few weeks.

In addition to the exhibitors there will be many other attractions at the show. We're planning to have more demonstrations and games and there will be a strong usergroup presence offering information and friendly advice. To keep up to date with news of the show please visit the website:

<http://www.worldofamiga.com>



Right: the 2001 show was packed.

# Keep on Scanin'

IOSpirit (the new name for Innovative, the developers of fxPaint, and VHISudio) have released a new version of their all-in-one scanning package fxSCAN. Version 4 has many new and enhanced features. One of the most interesting is the improved OCR (optical character recognition) engine which now had improved accuracy and can output the scanned document as an HTML file complete with pictures. Native modules are supplied for PPC (WarpUP and PowerUP), MorphOS and Amithlon so fxSCAN gets maximum performance on these systems, this should especially benefit the OCR function. As far as we are aware fxSCAN is the first commercial application to provide direct Amithlon support, this means the module is compiled as x86 code so it does not have to run

through the 68k emulator. The author of fxSCAN says this doubles the speed on Amithlon.

With the optional IO USB module fxSCAN 4 will support USB scanners, initially most of the Epson USB range except the 1250 and 1250 are expected to work with the driver.

Here are some of the other interesting features:

- PDF Support - scans can be exported as multi-page PDF files for cross platform compatibility, Ghostscript is not required.
- Improved Photocopy Function - includes preview with brightness, contrast and gamma controls.
- Direct support for TurboPrint -



The enhanced photocopy options.

- not via graphics publisher.
- Support for automatic document feeders and transparency adaptors if they are enabled in the driver.
- PNG Saver
- New HTML and PDF documentation with illustrations.

Plus many other improvements, look out for a full review of fxSCAN 4 in the next issue of Total Amiga.

fxSCAN 4 is available now from the IOSpirit website, a downloadable version is 39.99Euro (about £26) and the CD version is 44.99Euro (£29.25). Owners of version 3 can download an upgrade for 22.99Euro (£15) or buy a new CD for 24.99Euro (£16.25). The USB module is 10Euro (£6.50) extra.

For further details and to order on-line visit:

<http://www.iospirit.com>



Using OCR (left) to convert a document into an HTML file complete with images, layout and font sizes.

# Windows Keys be Gone!

Thanks to emulators, keyboard adaptors and new systems such as the AmigaOne more and more "Amiga" systems are being used with standard "PC" keyboards usually equipped with inappropriate "Windows" function keys. Netherlands based Amiga dealer Computer City are planning a solution to this blight, official Amiga key caps to replace the Windows keys. The key caps will be sourced from Cherry and will be available separately or fitted to one of Cherry's CyBo@rd keyboards. To keep the cost

reasonable Computer City are looking for pre-orders so they can bulk order the keys caps, the pre-orders will not be charged until they are shipped.

The key caps alone, for you to fit to your own CyBo@rd will cost 16Euro (about £10.50), a complete keyboard is available for 40Euro (£26) and a wireless

keyboard and mouse is 140Euro (£90).

To place a pre-order visit: <http://www.compcity.nl/amigakeyboard>



## Radeon for CyberGraphX

Vision Factory Development have revealed that they have a working driver for ATI's Radeon range of graphics for their CyberGraphX version 5 driver system. Version 5 is part of the MorphOS system which is under development for BPlan's Pegasos PPC computer. VFD report that most of the driver work is finished and in time they expect to back port the driver for Amiga PCI busboards such as the GRex. Radeon VE and 7500 cards have been tested and the driver supports the common PC BIOS variants (as opposed to the less common Mac cards).

Further details on CyberGraphX can be found at: <http://www.vgr.com/cybergfx>

## Mediator USB

With the excitement about USB support coming to the Amiga Elbox have announced that Mediator users will not have to wait long for drivers so they can use a USB PCI card in their Mediator. Elbox are developing their own USB stack (the software that drives the USB card) but have not yet announced what type of USB devices they will support, we also wait to hear which PCI cards can be used. According to a posting on the Amiga-Mediator mailing list from Elbox the drivers should be out by the time you read this.



## Bytes...

## AWeb Now Open Source

The bad news: Yvon Rozijn has stopped development of his well know web browser, AWeb. The good news: He has opened the source code so that other developers can continue his work and improve AWeb.

A project has already been formed to continue work on AWeb and already they have released a new version which can be compiled with OS 3.5/3.9's Reaction libraries rather than ClassAct which required a commercial developer kit and is fully functional without a keyfile. Some new JPEG and GIF plug-ins have also been released.

The AWeb Open Source team are looking for more developers to help them improve AWeb, for more details and to download the latest version visit: <http://aweb.sunsite.dk>

## More Flickers Fixed

Individual Computers have added a new product to their wide range of handy Amiga expansions. The Indivision is an external flickerfixer for all Amigas, it boosts the horizontal frequency of Amiga screenmodes to 31kHz so they can be displayed on a standard SVGA monitor and also removes flicker from interlaced screens. The unique feature of the Indivision is that it can be used with video mixing equipment such as a genlock. The Indivision is available now from Individual and their resellers and costs 99Euro (about £65). Further information should be available at: <http://www.jschoenfeld.com/>

## USB Market Hots Up

Australian Amiga retailer and ISP Boing.net have announced a Zorro II USB card called the Thylacine, the card is slated to be available in August.

Interestingly the card will be supplied with the AmigaOS 4 USB stack but compiled for 68k. Prototype Thylacine cards have been used as the hardware reference for the OS 4 stack's development. Initially drivers will be supplied for printers, keyboards and scanners. Printers are said to work with the existing version of Turbo Print without modification so we expect a USB device is provided for printers. Printers are supported by a human interface device class driver, at the moment this is basic and only supports simple keyboards and mice (we expect this means no scroll wheel or "multimedia" key support).



The Thylacine prototype.

Scanners are supported by drivers for the freeware Betascan package. Several Epson USB scanners have been tested and most others (with the notable exception of the Perfection 1250 and 1250 Photo) are expected to work. An Epson Stylus 740 printer has been tested and again USB printers which have a driver in Turbo Print are expected to work.

Thylacine developer, Robert Tsien tells us that additional drivers are in the works. IOSpirit are working on digital cameras, another developer is working on mass storage

device support (which as we have seen with the Highway opens up support for some digital cameras directly and others via memory card readers) and Robert is working on Ethernet drivers.

The Thylacine card should be available by the time you read this, it costs 134.95 Australian Dollars (about £47) plus shipping and VAT direct from Boing.net. We have been promised a board for review so you should be able to read all about it in the next issue.

For now visit: <http://thylacine.boing.net> for further details.

## Stargazing from you Desktop

Digital Almanac III, the latest release of this astronomy program, came out some time ago, since its release regular updates have appeared. The latest is version 4.8 which includes experimental access to the GSC-2 catalogue of nearly half a billion stars! A beta copy of version 4.9 can be downloaded from the program's website and the list of changes and enhancements looks impressive:

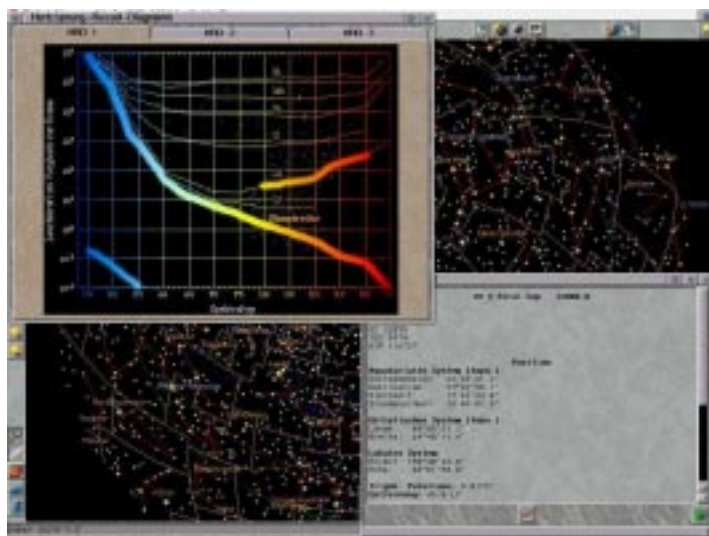
- Improved settings GUI
- Automatic star booster for field angles smaller than 20 degrees
- Dynamic star data cache to improve responsiveness
- Automatic low memory handling
- Various improvements to star data included
- Implementation of the Hertzsprung-Russel diagram with star ephemerides
- Detailed graphics of solar eclipse circumstances from the years 1900 to 2100

- Improved textures for the sun and several satellites
- Plus many more fixes and improvements (most of which I didn't understand!)

Users who want to try out Digital Almanac can now download a keyfile for the DA-III release from Aminet (misc/sci/DAlmanac\_Key.lha)

so they can try the full program free of charge. The full version of DA-III on CD-ROM costs 45Euro (about £30) including postage and can be ordered direct from the author. For more information and to download a demo of DA-III visit:

[www.soft-ware.de/dalmanac](http://www.soft-ware.de/dalmanac)



Apparently this is a Hertzsprung-Russel diagram used to determine star type!

## Audio Evolves

A new version of Audio Evolution is set to be one of the first applications released exclusively for Amiga OS 4. The program allows audio to be recorded directly to hard disk while playing back a number of other tracks. It also offers real-time effects, automation, editing and synchronisation with other applications and MIDI sequencers.

The new version is being developed on existing 68k hardware but with the power of the new PPC hardware in mind, the final application will be 100% PPC code. In a recent Interview on Amiga Arena Audio Evolution's developer revealed a few of the features which will be present in version 4:

- Non-linear, non-destructive editing on the time line including cut, copy, paste, move, split, trim and crossfade actions.
- Unlimited undo.
- Real-time effects with real-time parameter control. Parameters can also be remotely controlled by MIDI controllers and can be fully automated.

More information will be available closer to the final release of the new version. Audio Evolution is published by Computer City, pricing for the new version has not yet been confirmed but it is expected to be a bit more than the current version 3 but less than comparable PC and Mac products. For further details visit:

[www.compcity.nl](http://www.compcity.nl) and [www.audio-evolution.com](http://www.audio-evolution.com)

You can read the full interview at: [www.online-club.de/~ARENA](http://www.online-club.de/~ARENA)



The mixer from AE 3.

## Frogger NG Preview

The new version of Frogger promises to be one of the first multi-format media players on the Amiga, Michael Carrillo takes a first look.

It's not often I feel the urge to review a piece of software, I prefer to bore people with my pompous opinions, still, every now and then something comes along that just grabs me by the proverbials. So why has FroggerNG caught my attention you may be thinking to yourself?

Well although it is in beta, FroggerNG now supports AVI, MOV and more interestingly, RealMedia files, including RealMedia audio. The list of video and audio formats Frogger play is very impressive with the supported audio formats list being as extensive as the video formats. As you would expect, FroggerNG still plays MPEG files, although in this release not as well as it's earlier incarnation. Bear in mind though that it is still in beta and Sebastian Jedruszkiewicz, the author of FroggerNG acknowledges that there are still some issues to be addressed. Finally though, Amiga owners are able to access media formats that have been around on other platforms for ages with the obvious exception being Microsoft media files. This isn't really a major pain since the amount of WM files is small by comparison to the other media formats.

So how does it play you are no doubt wanting to know, well, the version being tested is the WarpOS version downloaded from the Frogger download area, running on an A1200 with a Blizzard PPC603@240mhz and a BVision.

MPEG's - Pretty poor, as previously mentioned, the code is un-optimised but should be fixed in the next release.

AVI & MOV files - Pretty good, plays all pop videos found on a music CD single, with only a slight, barely noticeable jerk every few seconds. However, a



This AVI file played back perfectly.

few hiccups were noticed on the AVI side on an internet download of a Cinema movie, with the images and audio being a few seconds out of sync. Whether this is the fault of FroggerNG or my slow PPC603 is unclear at this time.

Real Media - At the time of this mini preview, the real media side had not been tested however various reports on the Frogger mailing list and elsewhere have, overall given the RealMedia a thumbs up as well.

VideoCD - Unsure, the files used to test this function were all all jerky and often would have large pixels all over the FroggerNG window but again this could be because of the Amiga's IDE bus limitations.

## What's Missing?

This version is stripped down and by that I mean there is no menu options. CLI or Icon tooltype are the only means available at the moment, the menu option should be re-enabled by the next update, also glaringly missing is the open FroggerNG on own screen function, which generally speeds up the display of a video file.

Overall this is a very positive step in the right direction,

Sebastian should be congratulated on the hard work he has put in to this. I eagerly look forward to the next release of FroggerNG and despite it's beta limitations there is nothing better on the Amiga at the moment. Despite it's beta limitations I cannot recommend it enough.

Lastly, I hope Sebastian implements some form of play list so that I can play all 20 odd pop videos on my Amiga next time I have a party.

## Stop Press!

Since writing this article, Frogger202 beta for WarpOS was released as well as versions for 68k, PowerUp and MOS. There have been some improvements since the last beta, amongst them support for .MP4 files produced in Quicktime 6 as well as support for motion JPEG, MJPA and MPJP amongst many others, plus of course more bug fixes. Still not quite good enough for a full commercial release, but if the updates continue at this pace it won't belong before the Amiga community has a product that it can show off with the best.

Check it out at <http://www.frogger.rules.pl>

# Amiga One Update

*Eyetech's MD, Alan Redhouse updates us on the most anticipated Amiga hardware for years.*

What a busy two months this has been! Whilst OS4 continues its development - now with most of the planned OS4.2 features built-in - we have shipped AmigaOne G3-SE boards with (Linux/UAE-PPC) to developers, and the AmigaOne has itself made several public appearances - including at the AmiWest show in Sacramento at the end of July.

We initially shipped these boards to a group of development experts to thoroughly test out the hardware and to port modern Linux distributions - and UAE - to the AmigaOne board. They did an outstanding job, porting five modern Linux-PPC distributions in a matter of weeks. However it soon became apparent that the BIOS that we had originally specified (i.e. the code in ROM

which initialises the hardware and loads the OS) had several limitations. Accordingly, and in parallel with OS4 development, we and Hyperion have put together a team to port the PPCboot firmware to the AmigaOne. This has actually proceeded much more quickly than we originally expected

and so we now expect to ship the remaining developer boards - with the new firmware - at the beginning of September.

Having brought the BIOS development 'in-house' means that we/Hyperion are able to add in some significant 'Amiga-like' features to the boot

process as well as maintaining full compatibility with Linux-only and dual-boot systems. It also means that we should be able to ship end-user systems - initially with Linux, but with a free upgrade to OS4 - at the start of October. This will not suit everybody - for example those that want a load-and-go, ready built OS4/A1 system, but sufficient people have requested it to make it a worthwhile option. For those who want a complete ready-to-go OS4/A1 system both us and Hyperion are on track to have these available in time for Christmas - i.e. by the end of November 2002.

Of course this PPCboot development also benefits MAI Logic, the manufacturers of the Articia 'S' chipset used in the AmigaOne, by allowing them to offer a compatible version of PPCboot to developers of set-top boxes etc. who want to use



*A prototype of the AmigaOne XE motherboard. Notice the removeable CPU module above the two DIMM slots.*

## UK Usergroup Listing

*Looking for some hands-on help with your Amiga or somewhere to meet other Amigans?*

*Why not contact one of these fine usergroups and visit <http://www.amigroups.co.uk>.*

### London

**West London Computer Club**  
Based in West London  
Contact: Alan Paynter  
Phone: 07951 909262

**ANT - Amiga North Thames**  
Based in North East London  
Website: [www.amiganorththames.co.uk](http://www.amiganorththames.co.uk)  
Contact: Michael Carrillo  
Phone: 07956 867223

### South East England

**AmiSEK**  
Based in Kent  
Website: [http://uk.geocities.com/pagan\\_johnuk](http://uk.geocities.com/pagan_johnuk)  
Contact: John Worthington  
Email: pagan@amiga.ca

### Amiga Support Association

[www.amigasupport.org.uk](http://www.amigasupport.org.uk)  
Contact: Paul Qureshi  
Email: paul@world3.net

### Kickstart Amiga

Based in Surrey  
[www.kickstart-amiga.co.uk](http://www.kickstart-amiga.co.uk)

### Only Amiga User Group

This is a new group just starting. Based around the Berkshire/Hampshire border.  
Website: [www.onlyamiga.all.at](http://www.onlyamiga.all.at)  
Contact: Kelvin  
Email: jumpship@amiga.org  
Mobile: 07811 270792

### SEAL - (South Essex Amiga Link)

Based in Essex  
Website: [www.seal-amiga.co.uk](http://www.seal-amiga.co.uk)  
Contact: Mick Sutton.  
Phone: 07710 039664

### East England

#### Felbrigg Amiga Group

Based in East Anglia  
Contact: Andrew Beeson  
Email: andrew.beeson@ukonline.co.uk

### South West England

#### Gloucestershire Amiga Group

Based in Cirencester  
Website: [www.glosamigagroup.co.uk](http://www.glosamigagroup.co.uk)  
Contact: Nick Darley-Jones  
Phone: 07779 365155

#### South West Amiga Group

Meets in Bristol  
Website: <http://www.swag.org.uk>  
Contact: Andy Mills  
Phone: 01275 830703

### Wales

#### Cymru Amiga User Group

Meet in Cardiff  
Website: [www.caug.org.uk](http://www.caug.org.uk)  
Contact: Simon Eastop  
Phone: 07788 137560

### Scotland

#### AGNES (Amiga Group North East Scotland)

Website: <http://clix.to/agnes>

#### GAUG - Glasgow Amiga User Group

Based in Glasgow  
Website: [www.gaug.cjb.net](http://www.gaug.cjb.net)  
or: <http://web.ukonline.co.uk/donaldwm>  
Mailing List: [gaug-subscribe@yahoogroups.com](mailto:gaug-subscribe@yahoogroups.com)  
Contact: Duncan Gow  
Phone: 01436 679226



their chipset. In fact one spin-off of this that I am particularly proud of is that MAI and Eyetech have formed a long term business partnership outside of the AmigaOne project.

Finally I would like to say a big thank you to all those who joined the 'I am Amiga' club in June/July. Although neither Eyetech nor Hyperion benefit financially from this scheme it does give us a much firmer basis to estimate initial production volumes, and may even allow us to make some small - but no doubt welcome - price reductions to end-user boards (subject, as always, to exchange rate variations).

So - if you haven't done so already - now is the time to start saving for your new AmigaOne, and quickly!

That's all for now,  
Alan



### North England

#### BAC - Blackpool Amiga Club

Website: [www.blackpoolamigaclub.co.uk](http://www.blackpoolamigaclub.co.uk)  
Contact: Barry Riddiford  
Phone: 01253 397339

#### Huddersfield Amiga User Group

Website: [www.alt-woa.org](http://www.alt-woa.org)  
Contact: Geoff Milnes  
Phone: 01484 322101

#### SSAmiga

Based in Wigan and West Lancashire  
Website: [www.ssamiga.co.uk](http://www.ssamiga.co.uk)  
Contact: Wesley Potter  
Phone: 01942 863798  
Mobile: 07775 747429

# Fleecy Speaks

*Amiga's Chief Technology Officer gives us a taste of what to expect in AmigaOS 4.*

There has been a lot of debate on various Amiga forums relating to our announcement of both a certification program for hardware to run AmigaOS4.0 and the inclusion of authentication code in the boot ROMs that will ship in such hardware. Whilst much of the argument has been reasoned, much has been absolutely rot (the best one being the all existing Amigas were open hardware platforms - hello, can anyone say custom chipset?), and a small amount has been pure mischief, its aim apparently to force us to drop this plan so that pirated copies of AmigaOS4.0 can then run on non certified hardware.

The purpose of the hardware certification program is to ensure that consumers know when they are buying a machine that will run AmigaOS at its optimum efficiency. Many reputable dealers in the past have been tarnished with a brush made black by a few rogue dealers and companies that have singularly failed to provide the service they advertised, whether that be shoddy components, badly installed software or worse, just disappearing entirely with hard earned pre payment money.

Whilst that is the primary aim of the certification program, it also has a wider agenda, namely to ensure that as we begin to move the Amiga platform back into the mainstream markets, existing and new consumers can be guaranteed a quality experience, from first contact with a developer all the way through to post purchase support, something that has been notoriously lacking

in the past; and again with just one or two companies blighting the reputations of the rest of the community.

The second issue raised is the inclusion of an authentication mechanism in AmigaOS4.0, namely the infamous 'dongle code'. In short it is a section of code inserted into the boot ROM which the OS refers to at various times during an AmigaOS session to ensure that it is on a certified and authentic AmigaOne machine. The single reason for this is to prevent piracy of AmigaOS.

Whilst we have all heard the stories of piracy in the past, we have to ensure that from the start of the rebirth of the AmigaOS, we are actively promoting anti-piracy measures. Firstly, we will be glad if we can get 10k users of AmigaOS4.0 in the first 12 months, not just from a user base perspective but also from the revenue that that will bring in, going directly to those who have worked on AmigaOS4.0. Secondly, if we are to attract developers back to such a small platform, they have to see evidence that Amiga is serious about protecting not just its property but also the property and potential sales of the developer itself. Nothing can demonstrate the curse of piracy on our platform so much as the Freespace situation, where Hyperion's actual sales of the product were four times less than the number of product registrations for the updates.

People such as Davy Wentzler (Audio Evolution), Ron of Computer City (Inga, Mediapoint) and Stefan Burstroem (Ibrowse) have not just stuck by our platform and created product that we all



use, but they are at this very moment working hard on product for OS4.0. We as a community owe it to them to do everything possible to ensure that they are rewarded. Without that reward, there will be no new products, and the Amiga rebirth will falter and die.

I want to end on a high note though. The Amiwest show in Sacramento showed that there is still huge interest in Amiga, and Bill McEwen said that he could have sold an AmigaOne and OS4.0 to everyone there if it had been ready. Sore point I know, but Bill also reiterated our policy of announcing only progress and not giving a final ship date until we have the product working in front of us, and most people seem to be happy with this method.

Progress is being made. There are more screenshots of the new interface up on the Amiga website, almost all of the AmigaOS4.0 modules have been completed, ExecSG is booting on CSPPC boards, and the AmigaOnes are now running Linux and UAE - one was demonstrated by Randir of Compuquick. Slowly but surely the Amiga rebirth is occurring.

# AmigaOS 4 Update

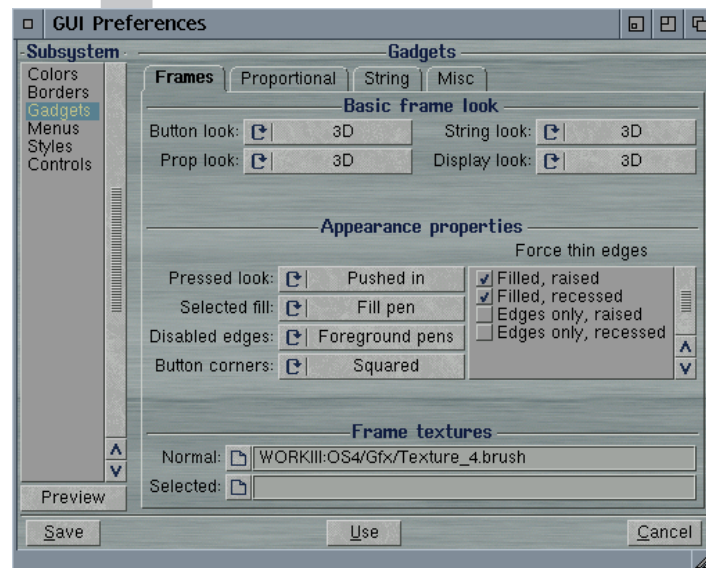
Loads more news and a bunch of new screenshots, Robert Williams gets his teeth into the latest OS 4 information.

I would have liked to be able to start this article by saying that OS 4 is out there for all of us to buy, however although this isn't the case things are far from gloomy, Hyperion have been keeping us up to date with their progress, most recently with a number of interviews held at the AmiWest show. So once again here are the nuggets of information I've been able to find from various sources.

Although delays are never pleasant one of the reasons for OS 4's longer than planned development period is that many more aspects of the OS are being ported to PPC than was originally intended for the first release. Thomas Freiden (one of the OS4 developers) said that they found that having large parts of the OS emulated meant that some of the Amiga's legendary performance and quick interface response was lost. On a similar note Ben Hermans (Hyperion's manager) pointed out that after waiting so long it would be silly to rush out the product with known bugs or inadequate testing, he said they would rather wait a little longer and release the best product they can.

Development of the enhanced kernel, known as Exec SG, has been completed to the level Hyperion originally planned for

OS 4 however they have decided to implement a more complex memory system than was planned. This will include a full virtual addressing model, which means that rather than an application being allocated a particular area of physical memory it is given a virtual area which the OS then relates to physical memory. The advantage of this model is that the OS is in control of what memory is used, fragmentation is eliminated and it becomes possible to implement various schemes to protect the system from crashes. One direct benefit that Ben Hermans mentioned is that this system will allow program's stack allocations to be dynamically increased, he estimated that 30% of Amiga crashes are due to applications running out of stack space so this would be a major boon. When virtual memory has been mentioned in the past many knowledgeable Amiga programmer have commented that it would not be possible to implement it without breaking existing applications, it remains to be seen how Hyperion will handle this, perhaps some features will only be available to new OS 4 applications. Ben stated that although this improved system would add about three weeks to the development it was justified by the extra functionality and improved stability.



The new GUI preferences editor looks like it will take the configurability of both Intuition and Reaction to new levels.

Most of the OS 4 modules have been developed on Classic Amiga systems with CyberStorm PPC accelerators so far. The new OS uses a hardware abstraction layer (HAL), this is the part of the OS code which is specific to a particular PPC hardware platform, currently this is being perfected on the CyberStorm PPC and once it is complete it can be quickly ported to another platform such as the AmigaOne. Hyperion are making sure they have the HAL specification complete and debugged before they start on the HAL for the AmigaOne hardware to prevent having two code bases in development. Once the HAL is complete it is expected to take about one and a half to two weeks to port it over to a new hardware platform. That said Ben Hermans and Bill McEwan have both confirmed that the new Exec kernel (the heart of the OS) is already booting on the AmigaOne and that the boot sequence is finalised. Support for Blizzard PPC cards now seems to be confirmed but it will not be ready until after the CyberStorm because

drivers have to be developed for the on-board SCSI (which uses a different chip to the CyberStorm) and the OS needs to support A1200 specific ports (clock port etc.).

Hyperion are now working on the BIOS (Basic Input Output System) for the AmigaOne, this was to be provided by a third party who failed to deliver. The BIOS is stored in ROM and initialises the basic motherboard devices such as memory and the North and South bridges and gets the OS loading from disk. The Hyperion BIOS will be based on the open source PPCboot BIOS. If the user desires it will be possible to dual boot AmigaOS 4 and another OS such as one of the Linux distributions which have already been prepared for the AmigaOne. Note that the BIOS is not the same as the Amiga's Kickstart ROM which performs BIOS tasks and much more. For OS 4 much more of the OS will be stored on disk including the early start-up screen. On that subject Hyperion expect the early start-up screen to be largely unchanged for OS 4,

possibly some options specific to certain hardware will be added (memory timing options were mentioned so I think this may be similar to the CyberStorm PPC's early start-up screen).

Several options are being evaluated for how the new OS will be booted on existing Amiga hardware (with a PPC accelerator). A third party has suggested producing a plug-in card which would contain a ROM to boot the new OS, this would obviously add significant cost and several models might be needed to suit different Amigas. Another option would be to have a program which ran in classic Amiga mode then re-booted the Amiga to load the new kernel, this is how current Amiga Linux distributions work. Obviously this method would require the existing AmigaOS to boot and then re-boot into OS 4 slowing the boot process. The final option and the one that seems to be favoured by Hyperion is a custom boot loader installed on the hard disk, this would still require a re-boot but it could happen very early in the start-up process and so should only add a few seconds to boot time.

Some more of the utility programs that will be included with OS 4 have been announced. The first being a new PPC native version of the media player Action, this will support more modern codecs including DivX and MPEG 4, in combination with the processor power offered by the AmigaOne these should open up lots more Internet content to Amiga users. A new PDF document viewer will be included, again this will be PPC native and include print and search functions. The familiar Commodore Installer utility will be replaced by InstallerNG which adds features while remaining compatible with existing scripts.

On a slightly less happy note fans of dragable screens (I know many people don't really care) will be disappointed to hear that this feature will not be in OS4, the problem is that

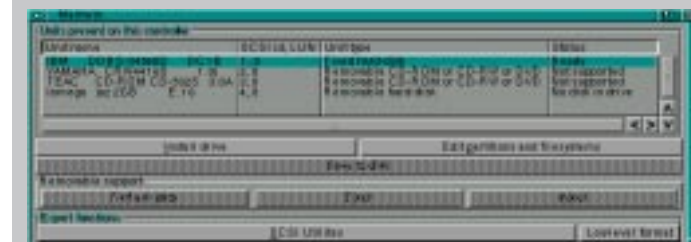
modern graphics chip sets just don't support this feature (before anyone says that CyberGraphX does support dragable screens note that it does not on Permedia based cards, the most recent type to have a driver). It is possible that a software emulation will be added in a future OS4 version but it will require significant work to make it work smoothly. I will just point out that OS 4 will support multiple screens, just not dragging down one to reveal another.

I've mentioned OS4's USB stack before, now we know it is the same one that will be shipped with the forthcoming Thylacine Zorro card (see news) and it will have basic scanner, printer, mouse and keyboard support. The stack will also support the Highway Zorro (reviewed in this issue) and Subway clock port USB cards so CyberStorm and BlizzardPPC owners will have the option of USB in OS4.

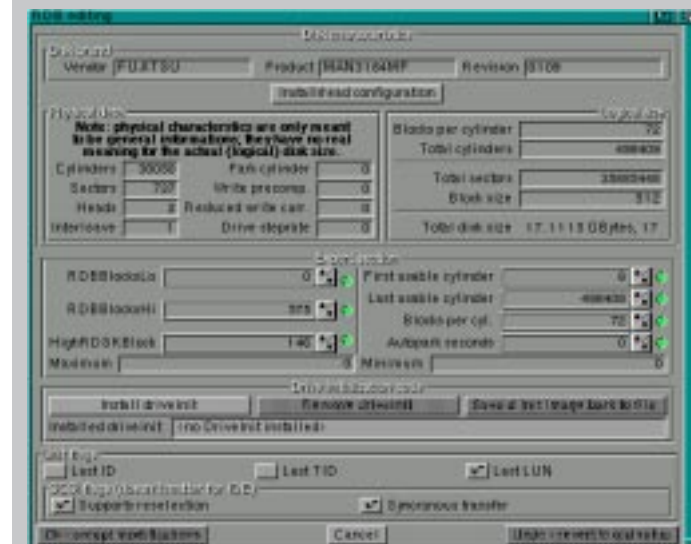
Since the last issue several batches of new screenshots of OS components have been released on the Amiga website. These have included a snap of the new Palette preferences editor which looks very similar to the Full Palette utility, offering the option to lock certain colours to make the most of low colour screens and to solve problems with palette mapped icons such as those supplied with Magic Workbench. The first grabs of the preferences for the new TCP/IP stack have been shown, this looks similar to Genesis or Miami as you would expect but it's nice to see it will have easy configuration in addition to its claimed speed. Another interesting new preferences program is the GUI preferences which seems to include options for both Intuition (menus, window borders etc.) and Reaction applications. In the first release of OS4 the options for the look of windows is expected to be similar to Visual Prefs, the aim is to offer a fully skinable look similar to some Linux window managers. This looks much more comprehensive than the current preferences and it

## The New HDToolbox

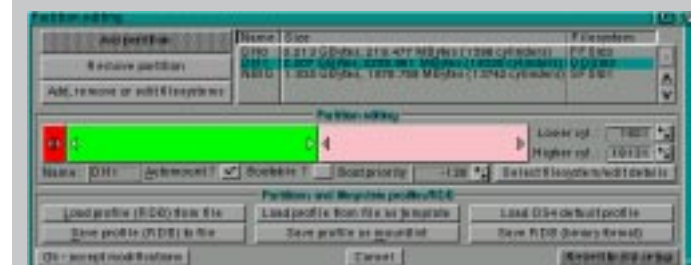
These screenshots show that AmigaOS's venerable hard drive preparation tool has had a real make over.



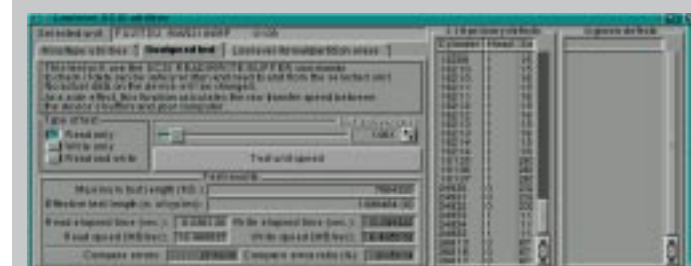
The main window is similar to the OS3.9 version but note the removeable media control and SCSI Utilities buttons.



The install window allows many more RDB options to be changed directly. This is the expert version, a simplified interface is available if you just want to get a drive installed!



The partitioning window now lists partitions with their details as well as showing them graphically. Note the options to load and save RDB's for easier drive recovery.



The SCSI utilities window looks powerful.

seems to be getting close to the options offered by MUI with many different border styles and independent control over different gadget types. It also

has options labelled Controls and Menus which we assume will cover the menu and window configuration options shown in the first OS 4

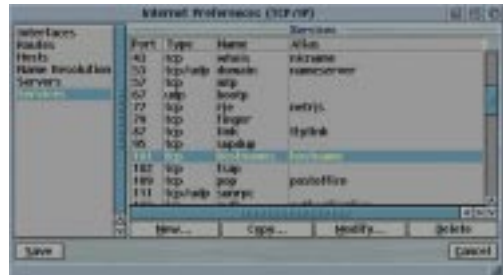
## Hot Links

Download the announcements from the recent AmiWest show in mp3 format (Ben Hermans' and Thomas Frieden's interviews are particularly interesting from an OS 4 point of view:

<http://aurora.merseine.nu/amiga>

The latest screen grabs from OS 4 are linked from Amiga's site at:

<http://os.amiga.com>



The new TCP/IP stack gets a nice preferences editor too.

screenshots that we printed last issue. The final screenshots are of the replacement for HDToolBox, this seems to be improved in every way and looks extremely comprehensive.

Again real progress is being made, according to announcements most of the OS components are now complete and being separately tested. Apart from the additional work on Exec SG

the Intuition and Reaction interfaces are still being improved but work on them is coming to an end. The big jobs that remain are to integrate the disparate parts and as this involves the new PPC parts, existing OS components and the 68k emulator there is certainly room for unexpected complications although Hyperion don't expect too many (that sounds a bit like Yes Prime Minister but you know what I mean). Once the

integration and test are done the OS should be ready for release on the CyberStorm. For the AmigaOne some additional work has to be done to remove chipset dependencies from the OS components.

So now we come to the big question, when will it be released? Unsurprisingly after previous delays and missed deadlines no one from Hyperion was willing to give a firm date, they did say that there would have to be a real "cataclysm" (Ben Herman's word) to push it past the end of the year and they seem to be hopeful that it will be much before that. Another clue is that the Italian Pianeta Amiga show is advertising that both the AmigaOne and OS 4 will be on

show there on the 21st and 22nd of September (whether OS 4 will be running on the AmigaOne is not stated). The order in which the OS will be released is much clearer, everyone says the version for classic hardware with a CyberStorm PPC accelerator will be released first because development started on these boards so naturally they are ahead. Release on the Blizzard PPC and AmigaOne is then expected at about the same time, both requiring some additional work for their unique hardware. Other PPC platforms like Elbox's Shark PPC will come afterwards, although if Hyperion are right with their estimate of the time to port the HAL it needn't be a long wait.

Amiga operating system, combining the advantages of cheap hardware with the stable operating system we all know and love. Anybody wishing to help fund the project can do so by joining the SolarNavigator club, allowing you to purchase merchandise such as SolarNavigator branded

clothing, mugs and even ship hull space on which to display your own name or message. Corporate sponsorship is also, of course, possible. Perhaps most interestingly of all, SolarNavigator are doing a "Back for the Future" and creating an album of music, based on an environmental

theme, which will raise money for the project. Anybody interested in getting a break and putting themselves forward for the album should check out the website. The site also features pictures showing the building and testing of the SolarNavigator scale models and early concepts, as well as

general links to other sites on solar vehicles and renewable energy sources and the technology used in the ship. MDR Interfaces: <http://www.mdr.co.uk> SolarNavigator: <http://www.solarnavigator.org.uk>

# InetDial & SolarNavigator

Not satisfied with providing the Amiga's premier home automation system MDR Interfaces is about to set sail and they're taking AmigaOS with them! Philip Corner finds out more.

Sussex based company MDR Interfaces Ltd. have enhanced the functionality of their home server system Inet Dial (ID) with the addition of dynamic remote web access. Some ISPs, such as Demon, provide static IP addresses to their users as standard, but most ISPs use dynamic IP addresses, where users are allocated an IP address each time they dial in. This has traditionally presented a problem when connecting to a home server, but ID now resolves this problem by providing a dynamic link service.

Richard de Rivaz is the director of MDR interfaces, and readers may recall ID from an article in Amiga Active some time ago, as well as appearances by Richard at a number of Amiga shows, including World of Amiga South East as a visitor, and Kickstart 4 at which he exhibited an earlier version of ID. Originally designed solely for remote home automation, ID can be used to control lights and other attached devices from another computer, either through direct dial, e-mail command or a web based interface. It supports the X-10 protocol, which allows devices to be sent control signals

through the mains ring, removing the need for a radio or line-of sight IR system. When accessing an ID server remotely via its web based interface, it is possible to see the current status of devices, review and alter timed events and even give commands to turn devices on or off immediately. The system can also be configured to download e-mail at preset times, which are sorted into separate mail boxes and can be accessed remotely, and it can also be instructed to go on-line with an e-mail command.

Its repetoir has recently been expanded to acting as a wireless server, allowing browser equipped PDAs or other devices to access the Web or download e-mail remotely when in range, without the user having to use the computer directly or use expensive cellular communication. The system can also support web cams, allowing you to verify the results of your remote controlling from wherever you may be in the world.



Now this looks like a good place for a "Powered by Amiga" logo!

MDR are also responsible for the control system of the record attempting boat SolarNavigator. SolarNavigator hopes to be the first solar powered boat to circumnavigate the globe, and would incorporate a wireless LAN to allow all the on-board crew to be kept constantly up to date with the ship's status, as well as to interact with it remotely. The events of September the 11th caused the programme to be temporarily halted, but it is now underway again, and work is progressing well on a 1/10 scale solar powered model. The programme has been helped somewhat by features in local press and television. The current plans call for the on-board computer systems to be PCs running the Amithlon



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## buzzword...

Bringing you the latest news and comment from the Amiga world.

On Saturday 27th of July 2002, our last hope to end a world of Microsoft damnation, Amiga President Bill McEwen, attended a computer show at the Holiday Inn in Sacramento, California, USA.

AmiWest 2002 may finally prove to be a turning point in Amiga's fortunes after many years of poverty and belt tightening. It was very refreshing to hear Bill McEwen in his speech at AmiWest, owning up to mistakes made by the current Amiga owners after acquiring Amiga from Gateway in January 2000.

Bill Admitted that they were 18 months behind schedule, effectively meaning that for most of their tenure as owners of the Amiga name, pretty much went down the toilet. Good also was that finally, Bill McEwen seems to have taken a leaf out of the Alan Redhouse school of press releases, and actually gave a speech that was straight and to the point. Gone was the glossy, overhyped, rose tinted vision of the future, instead Bill shot straight from the hip and laid the facts down, something many an Amiga user has been wanting to see.

Some of the biggest disappointments that Bill mentioned were the Nokia media terminal, a project that Nokia were cancelling at the same time they were signing a contract with Amiga. The Sharp Zaurus not shipping with Intent/Amiga DE was

another disappointment, happily Sharp have promised that the Zaurus will start shipping Intent/AmigaDE sometime this year with upgrades for existing owners being made available too. Another major unknown deal that got canned was with MTV Europe for a set-top device being planned, a deal that would have given Amiga a wide exposure in Europe.

On the plus side, Amiga have signed new deals with Sendo a mobile phone manufacturer in the UK as well as with O2, the fifth biggest mobile phone operator in the world. Deals like this are a must for Amiga because they need to bring in the revenue in order to keep themselves afloat. Whilst the Amiga desktop platform is what we really all care about, Amiga need to generate revenue to satisfy investors and most importantly, keep themselves afloat which is the single most important thing anyhow.

Bill McEwen also said that he will no longer announce products or deals until they are about to ship or shipping, this is a good strategy because it will stop Amiga looking foolish in the broader IT world.

Dixons, one of the largest, if not the largest retailers of electronic goods in Europe and the UK will be selling AmigaAnywhere products later this year. This is a great coop for Amiga, as they will finally return to having a major presence in the High Street

and Shopping Malls once again.

Buzzword has also learned that Amiga are currently in negotiations with a big name in portable/mobile devices, if they secure the deal will mean their financial future should be secured for some time. We know the name of the party but are at this time unable to release the name.

Bill McEwen also revealed that the last 6 months he has spent concentrating mainly on securing finance for Amiga from investors, leaving the day

to day running on other matters including the Amiga desktop/Amiga Anywhere to other parties.

Buzzword has uncovered unconfirmed reports that AmigaOS4 is in separate near complete modules and is currently awaiting to be integrated or "bolted" together. If there are no complications, the first AmigaOS for the PPC platform could be released in September 2002 first to CSPPC owners followed thereafter by releases for the AmiaOne and Blizzard PPC owners.



Sendo's Z100 smart phone, the latest host for Amiga Anywhere.

# ADSL Broadband Internet

Robert Williams and Mick Sutton find that Broadband Internet access is now within the reach of many more Amiga users. But just what do you need to get into the fast lane?

Whatever it says on the box modems are slow, even 56k ones. Everybody wants faster internet access, but until recently there were no affordable options. A couple of years ago some of the cable TV companies introduced a broadband service (starting at around ten times faster than 56k modems) for their customers, obviously this is limited to areas where cable networks have been installed and a PC or possibly Mac is required for installation. British Telecom at around the same time introduced ADSL (Asymmetric Digital Subscriber Line) which gives a broadband internet connection over existing telephone wires. Initially the only service aimed at home users included a USB ADSL modem that had to be installed by an engineer. This excluded Amiga users on several fronts the first being we didn't have USB (and we still don't have drivers for ADSL modems) and secondly the engineer would only install on a PC (or Mac if you were lucky). You could then buy an Amiga compatible modem and use the service but that is against the terms and conditions and you're paying for a USB modem you can't use.

Earlier this year things changed for the better, BT introduced a wires only option. This means that you can have your telephone line ADSL enabled and then purchase your own hardware which of course you can make sure is Amiga compatible. Another significant advantage of the wires only option is that it is cheaper because you don't

have to "rent" the hardware or have an engineer visit. What ADSL is and how it works ADSL uses frequencies above those used by normal voice telephone to give you high speed data transfers without interrupting the telephone service. A special splitter called a micro-filter is used to separate the two frequency bands and stop the two services interfering with each other. ADSL connects you permanently to the Internet so you don't have to dial up a connection when you need it, ISPs charge a flat fee for your connection, there are no "call" charges. The standard home user services offer 576Kb/s (Kilo bits per second) download speed and 288Kb/s upload speed (that's why it's called asynchronous). This is more than 10 times the speed a 56k analogue modem typically achieves (on most telephone lines a connection speed on 50k is typical). For example a 20Mb compressed file (for instance an archive, movie or mp3) would take nearly an hour on a good 56k connection, on ADSL it would take about 5 minutes to download.

### What do you need for ADSL to work?

To use ADSL in the UK you need a BT line (in other countries you'll have to talk to your local telephone supplier) connected to an exchange which has ADSL equipment installed. The length of the line to your exchange (not the direct distance) must be less than 5.5km and the line must be of sufficient quality and not



A typical microfilter with sockets for the ADSL modem (left) and telephones (right).

contain any optical fibre. If you have an ISDN service such as Home Highway it must be removed before ADSL can be installed but we understand an upgrade option may be available in the future. ADSL services are sold by a number of Internet Service Providers (ISPs), when you place your order they will ask BT to activate your line, there is normally a fee for this setup and it takes about ten days.

You can get a good idea of whether your line is suitable and if your exchange has been enabled using the availability checker at all ADSL ISPs and linked from the excellent <http://www.adslguide.org.uk/>. To use the checker you just need to enter your full telephone number. You can also find your local BT exchange using this handy web page Exchange Finder: [http://www.nothing-on.tv/adsl/std\\_query.html](http://www.nothing-on.tv/adsl/std_query.html), if it hasn't been enabled you can keep an eye on ADSL Guide to see if it appears on the lists of upgraded exchanges that BT publishes periodically. As we write this BT have just announced that they will be surveying interest in ADSL to see which exchanges should be upgraded next, this will

probably mean registering your interest with an ISP.

### What happens when ADSL is installed?

When your line has been ADSL enabled initially you should not notice any difference unless you have an ADSL modem installed, the telephone can still be used normally. If you connect an ADSL modem and configure it correctly you should see an ADSL connection light about 30 seconds after it is switched on (this light is labelled "SHOWTIME" on the Conexant router reviewed in this issue). To use ADSL and your telephone at the same time you need at least one micro-filter. This is a device that plugs into a telephone socket and has an RJ11 socket for the ADSL modem and a normal BT phone socket for your phone or any other equipment that uses a telephone line (fax machine, satellite TV boxes, burglar alarms or even a dial up modem should you need it). All telephone equipment has to be connected through the filter for it to work, this can be achieved in two ways, a separate micro-filter on each phone socket or one filter on the master socket with all the extensions plugged into the filter. An advantage of having a filter on each socket is that you can use your ADSL modem on any socket and also it avoids changing any phone cabling.

Whatever system you have, you will need the ADSL router, an RJ11 cable to connect it to the micro-filter, an Ethernet cable to connect the Amiga and at least one micro-filter.

Ethernet. In the UK you need to get a combined ADSL modem and Ethernet router. These devices connect to your ISP via ADSL and allow computers connected to them via Ethernet to access the internet. The ADSL connection is taken care of by the firmware on the router which is usually configured using a web browser so you don't need any proprietary software on your Amiga. What you do need is a TCP/IP stack such as Miami or Genesis and an Ethernet card.

The other good thing about having an Ethernet router is that you can share your internet connection with several computers as long as they are on your Ethernet network (often called a LAN, Local Area Network).....neat! All each computer needs is Ethernet and a TCP/IP stack which most platforms have. For example Mick has his A1200 and his wife's iMac connected to his router and Robert has his A3000 and his family's Windows PC. Of course if you decide to get a new computer say for example an AmigaONE or Pegasos as long as it has Ethernet and a TCP/IP stack (and both of those machines will do) then you're in business.

"So how much will all this cost me?" I hear you ask. The exact answer to this will depend on what Amiga you have, which ISP you choose and what equipment you have already. Below we have tried to estimate the costs for different Amiga set-ups.

On top of these costs you will have to add an Ethernet card to your Amiga :



An RJ11 cable like this is used to connect the ADSL modem to the filter.

### A1200

On an A1200 without a busboard (Zorro or PCI) you can add a PCMCIA Ethernet card designed for laptop PC's. You can either buy a generic card that is compatible with the freeware cnet.device or buy a bundled card and driver from an Amiga dealer. However you get your card you will need to fix the CC\_reset line on the A1200 motherboard, this can be easily achieved with a plug on fix that fits over the Gayle chip (easiest, no soldering required) or by soldering a couple of components onto the motherboard (you will need good soldering skills, the instructions are in the Cnet archive). If your A1200 is mounted in a tower where the PCMCIA slot is at the bottom you will require a PCMCIA right angle adapter so the card will fit.

Ethernet Card	£35
Reset Fix	£10

Angle adaptor	£20
(if in non-Eyetech EZ Tower)	
Total	£65

### Zorro Based Amiga

If your Amiga has Zorro slots (either as standard like the A4000 or on a bus board) you can buy a Zorro Ethernet card such as the X-Surf from Individual Computers. If you decide to buy a card second hand it will make life easier if it has an RJ45 socket (rather than a BNC or AUI connector) as this will allow direct connection to a router. Take a look at our networking feature in issue 8 for more information on different Ethernet types and the Zorro cards available.

Zorro Ethernet card	£80
---------------------	-----

### PCI based "Amiga"

If you own either a PCI busboard (Mediator, GRex or Prometheus) or run Amithlon on X86 hardware you can purchase an inexpensive PCI Ethernet card. As with Zorro cards make sure it has an RJ45 connector and is based on a chipset supported by the Ethernet drivers supplied with your busboard or Amithlon. Currently boards based on the Realtek 8029 are supported by all the busboards and Amithlon, Mediator users can also use Realtek 8139 cards if they have the Mediator Multimedia CD.

Compatible PCI Network Card	£10
-----------------------------	-----

### Hardware Setup

Each computer you want to be able to access the Internet needs to be on the same network as the router, usually this means connecting the computer directly to the router using a patch cable. A patch cable has RJ45 connectors that look a bit like telephone plugs on each end and is wired straight through, they are widely available from computer stores. You can buy a router with one Ethernet connection or one with a built-in hub or switch which provides several connections (usually 4). If your router only has one port you can add a separate hub or switch allowing more computers to be connected.

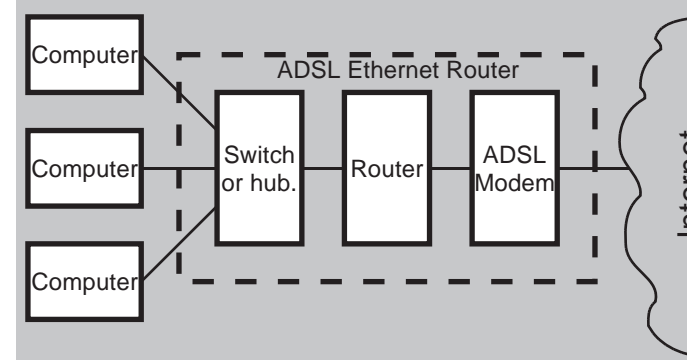
The ADSL side of the router (usually referred to as WAN, Wide Area Network) is usually connected to a micro-filter using an RJ11 cable (these are American style telephone cables and in the UK are often used to connect the telephone handset to the base). If you are not using any telephones on the line (including on any extensions) you can connect most ADSL modems and routers directly to a telephone socket without a micro-filter using a suitable cable.

### What Software and Setup?

On your Amiga you only need two pieces of software to connect to the Internet via the Ethernet router, a TCP/IP stack and a driver for your Ethernet card. Anyone who is already connected to the Internet via a dial-up modem will already have a TCP/IP stack such as Miami or Genesis which are also suitable for ADSL. You don't need Miami Deluxe (although it will work just as well) because you only need one interface connected. Most Amiga specific Ethernet cards come with a SANA II (Standard Amiga Network Architecture) driver which works with all TCP/IP stacks and there are SANA II drivers available for generic Ethernet cards including some PCMCIA cards for the A1200 and PCI cards

## ADSL Sharing Network

This diagram shows a standalone ADSL Ethernet Router as part of a network installation. This single device performs the functions of the three components (switch, router and modem) in the dashed box.



for the various PCI busboards and Amithlon.

Once your Amiga and router are connected to the network you need to configure the router to make the ADSL connection. Most routers are configured using a web browser to access their built-in configuration pages. In the router manual it should tell you the default IP address and how to access the built in web pages. Before you can do this you need to setup your TCP/IP stack.

Select SANA II Interface

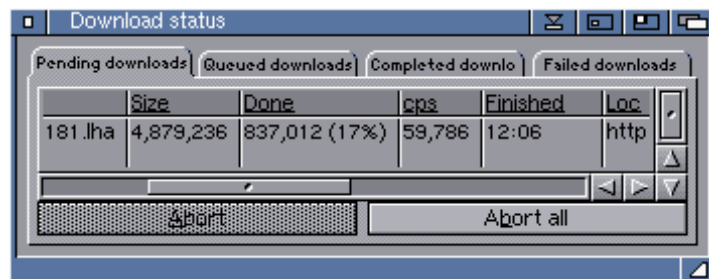
Choose appropriate device

Set your IP address to the same subnet as the router e.g. if the router is 10.0.0.2 your Amiga's IP address must be 10.0.0.n where n is any number from 1 to 254 except 2 (e.g. 10.0.0.1!). If your router uses a 10.n.n.n type address then set the netmask to 255.0.0.0, if it uses 192.168.n.n then the netmask should be 255.255.255.0. The gateway should be the address of the router, in this example 10.0.0.2.

With the setup done you should now be able to put the TCP/IP stack online, as a first test you can now 'ping' the router to check it can be accessed over the network. To do this enter the following command in a shell:

Miami Users:

Miami:miamiping <ip address of router>



The end result... much faster downloads!

Genesis:

ping <ip address of router>

If the test is successful you should see lines ending with a time in milliseconds scrolling down the screen, to stop the test press Ctrl+C and you should see a report saying "x packets transmitted, y packets received, n% packet loss" at most one packet should not have been received and the percentage packet loss should be very low, normally 0%.

If the ping test works you are now ready to access the configuration pages of the router, load up a web browser (any browser should do although it may depend on your router) and enter the IP address of the router into the location field. You will probably be prompted for a username and password, the defaults should be in the router documentation. Now you need to find the following settings in the routers configuration:

VPI = 0  
VCI = 38

ADSL Modulation = Auto, then try G.DMT, then try ANSI T1.413  
Encapsulation Mode = PPP



http://www.adslguide.org.uk is an excellent source of information on ISPs and ADSL hardware. It also carries the latest news and has checks to find out if your line has been enabled.

over ATM (PPPoA - RFC2364) VC-MUX  
Authentication = CHAP

Then you will need to enter the username and password provided by your ISP.

Once you have made these settings they can be saved into the router's flash ROM and it will usually need to be reset before they take effect. If ADSL has been activated on your line after around 30 seconds you should see a light confirming your ADSL connection. The router then automatically logs on to your ISP and you're ready to rumble!

So enter a web address (preferably a site with plenty of big graphics!) and watch in bewilderment as the page loads in a fraction of the time (in fact your browser probably won't be able to decode the image quick enough!).

## Service Providers

ADSL is available from a number of UK Internet Service Providers however in all cases the ADSL connection from the local exchange to your home is handled by BT. This doesn't mean that the service provided by all ADSL ISPs is the same, because the speed of your Internet connection will rely, in part, on the quality of your ISP's network. Different providers also give you different services included in the cost of the subscription, for example several e-mail addresses, free web space, free software (mostly of interest to Windows users), or a news server. Some ISPs can provide you with a static IP address (sometimes they charge an extra monthly fee), this means the address of your computer (or router) on the Internet remains the same

allowing you to more easily run servers on your computer. Most ISPs give you a dynamic address that can change over time (although on ADSL you will often keep the same address for days at a time). Although a static IP can be useful ADSL is not ideal for servers as the upload speed is slower than download and the service has no guaranteed availability.

When comparing the cost of ISPs it is worth taking note of the setup fees (to ADSL enable your telephone line) and the hardware cost (ADSL modem or router and micro-filters) in addition to the monthly charge (which varies from £23 to £30 per month including VAT depending on ISP). Keep a look out for special offers because you may be able to get free setup (which usually costs about £50) and even free hardware.

Comparing the quality of service and support provided by the ADSL ISPs is more difficult than comparing their prices and services. You can get a good feel for the level of satisfaction with each ISP from the "Rate Your ISP" and "forum" sections on the ADSL Guide website.

All ADSL ISPs allow you to sign up using an on-line form on their website, the process includes a basic check on your line for ADSL availability. You may have problems filling in the on-line forms using Amiga web browsers (although you should have no problems using the actual service!) if so you should be able to setup an account over the phone with the ISP. Once your order has been accepted BT perform a more complex set of tests to ensure your line is suitable for ADSL. Once the ISP receive confirmation from BT they will inform you of the date when your line should be activated. Before your activation date your ISP should send you the log-on details (username and password) you need to use the service, they will also supply information such as DNS, e-mail and News server addresses.

# NTL Broadband on Amithlon and Amiga

Most cable TV companies offer a broadband access package. Geoff Milnes share his experiences with NTL.

A word of warning first - NTL use dynamic IP addresses whereas some ISPs use static. This means that your IP address can change if you turn off the modem - apparently these addresses are assigned approximately every 6 hours - and, whereas your PC will pick up these settings when you boot, you would have to run Miamiinit every time on the Amiga. I've found it easier to just leave the modem on permanently - I'm renting it so if it goes wrong, it's not my problem is it?

My first connection through the cable modem was by way of a dual-boot Amithlon / PC and it was so simple to set up I couldn't believe I had done it! The modem installation was carried out by an NTL engineer and had both USB and RJ45 Ethernet connectors (the modem NOT the engineer) but the accompanying book warns only to use one of them. Whether this is so you don't use 2 computers on it or there is actually a valid reason I do not know but I've stuck with the recommendations.

## System Info.

The first thing to bear in mind is that I am running OS3.9 on both Amithlon and the Amiga. After that, the specs of my machines are:

### Amithlon

Duron running at 350 mhz (slow I know but it works fine)  
128 megs RAM  
Nvidia GeForce 2 MX  
Realtek RTL8029 Ethernet  
Soundblaster 128  
MiamiDx

### Amiga

Towered A1200 060 with SCSI  
44 megs RAM (total)  
PCMCIA Ethernet card with cnet driver  
Eyeteck PCMCIA Reset corrector  
Miami

Once the modem is powered up, NTL supply a CD for installation on the PC and Mac but obviously, nothing for our little machine so I went for the PC install first. I actually took around 15 minutes to install all the software, check out the connection and leave me free to use the Net. Having checked out the connection and installed a firewall, I powered down and re-booted with Amithlon. I had already been using Amithlon on the 'Net via a dial-up connection so I knew it worked. Miamiinit was launched and I selected the Ethernet, cable/ADSL modem option, on the next screen you only have 'other' - so select it and click next where you need to actually type in 'powerne2k.device' and leave the unit number set to '0'. With an Amiga, you would need to enter 'cnet.device' or whatever device you are using. This is about the only difference between the Amiga and Amithlon.

Miamiinit will then go through a series of checks where it obtains information from your ISP. Accept the defaults it asks you about and when you reach the final screen, enter your real and user names, give the details in the 'Save Config' text box a unique name to separate it from your dial-up in case you require it again (something like 'Miami:Miamiinit-CableModem.config'), do the same with the 'Save information sheet' and, if you don't have a printer attached, un-tick the 'Print Information Sheet' box otherwise Miami will attempt to print out the config sheet. This gives the impression of everything having locked up - took me 3 attempts to find out this was why I couldn't get any further!

I now had a complete working PC/Amiga Internet setup which worked every time. Around this time I had given a PC motherboard and processor by a friend so I added a few quids worth of bits and pieces to build myself a stand-alone PC. This would leave me with a dedicated

Amithlon computer too. Once built, the machine would only boot when it felt like it ( I

used to have a wife like that...) so I did the same as I did with the wife - I got another one! Or at least a new motherboard and processor. Built it with the aid of another HAUG member, Paul Smith, and then my problems really started. You know how it is when everything is working fine and you think "I'll just tweak so and so..." - then it all falls apart! My new PC wouldn't pick up the settings so I e-mailed NTL and they suggested turning off both the modem and PC overnight, in the morning turn on the modem first and when the lights stopped flashing, turn on the PC. Worked beautifully! Until I turned on my Amithlon machine - nothing! Miamiinit couldn't find a thing and asked me for every single setting so as a temporary measure, I was stuck with Outlook as a mailer and Internet Explorer as a browser! It's just not the same is it? I missed YAM particularly ( can't stand Outlook ) so I tried Pegasus and although that was slightly better, it still wasn't YAM!

I remembered then that Chris Morris had mentioned he was on broadband with an Amiga so I mailed him for some advice. Chris, it turned out, had a broadband router so connecting 8 mixed computers to the single modem wasn't a problem. I made enquiries and found out that an 8 port router was in the region of about £150 which was out of the question so I called at my local PC shop who quoted me £90 for a 4 port one ( the make is Mentor if anyone is interested ). I tried selling my body to medical science and in the local red light district - got turned down on both so I saved up!

The instructions for installation are straight forward - connect the router to the modem - connect the computers to the router! OK - in what order then? A bit of



Router (left) and cable modem (right).

thought using the information I already had plus what little made sense to me from the router handbook led me to believe that I turn everything off, connect the router's WAN connector to the modem, connect the computers to the router, take a couple of aspirin and go to bed! The following morning, I turned on the modem first and waited while the lights stopped flashing which meant it had the necessary information from the ISP. Then I turned on the router which performed a 'power on self-test' and obtained the info it required from the modem. So far so good! All the lights flash just as they are supposed - you don't suppose that's it do you?

Well, it was. I turned on the PC and Win98 did its stuff - TCP/IP is built in! I turned on Amithlon and ran Miamiinit - straight through and out the other side in a matter of minutes. It couldn't find the DNS servers but there again, it didn't need to as the router had those. Then for the acid test - my A1200! Miamiinit - straight through and working inside 3 or 4 minutes again! I was gobsmacked that everything went so smoothly so I am now on-line permanently with three computers, Amiga - Amithlon and PC, and back using YAM. I come home of an evening, turn on Amithlon which boots up, runs Miami, launches YAM and collects my mail whilst the PC plays itself little tunes and takes ages!

So, that's about it. With help from Paul Smith and Chris Morris, I'm a happy little bunny who can edit video on a PC, browse the Web with Aweb / Voyager and write e-mails with YAM on Amithlon. All I need now are 2 more brains and 2 more pairs of hands!

# Conexant AMX-CA64E ADSL Ethernet Router

Robert Williams and Mick Sutton find out if one of the lowest priced ADSL routers is cheap and cheerful or cheap and nasty!



Once the configuration is complete switching on the router or rebooting it causes it to start searching for an ADSL signal on the line, when one is detected the "SHOWTIME" light stays on solidly (it flashes up to this point) and the router automatically logs in to your ISP using the PPP details you've specified. By default the router is in NAT (Network Address Translation) mode which allows several computers to share an Internet connection with only one IP address (all UK home user ADSL accounts supply one IP). In NAT mode the computers on your network can access the Internet by setting the router's IP address as the default gateway and entering your ISP's DNS servers into their TCP/IP stacks.

Connecting up the router is straight forward, you can connect up to four computers directly using RJ45 patch cables, because the router contains a 10/100Mb/s switch you can connect computers using both 10 megabits per second (all Amiga Ethernet cards I'm aware of are 10Mb/s as are older PC and Mac cards) and 100Mb/s Ethernet cards and each connection will run at full speed. Note that even 10Mb/s is nearly twenty times faster than ADSL so the Amiga Ethernet card won't cause a bottleneck.

The router is configured using built-in web pages which can be accessed from a computer connected to it. Before setup can be started the computer must be configured to use the same sub domain as the router (see tutorial for details). Once this is done a web browser can be used to access 10.0.0.2, which prompt for a username and password which are supplied in the manual. The web pages provide a list of options to configure and we found they worked well in the "big three" Amiga web browsers. When you make changes to the configuration the router often has to be rebooted (via an option in the web pages) before the changes take effect, this takes about thirty seconds and causes the ADSL connection to drop and reconnect. See the boxout for detailed configuration instructions for UK ADSL.

ual. The telephone cable supplied has a RJ11 plug on the router end and a BT phone plug on the other. This is fine if you intend to connect only the router to your telephone line but if you are going to use other telephone equipment with micro-filters (as most people will) you will need to get a RJ11 to RJ11 lead (these are a standard item and should be available from DIY and electrical shops for a few pounds). The router is about the size of two conventional dial-up modems side by side at 20cm wide by 13cm deep by about 3cm high. The case is all plastic and is painted metallic blue with a slightly "swooping" design, at one end is a foot that seems to be to allow the router to be stood on end if required. It is quite light and flimsy compared to some networking gear but no worse than the average 56K modem. On the front are several LEDs showing the current status of the ADSL and Ethernet connections but we're more interested in what's round the back!

On the back there are several connectors, starting with the RJ11 socket marked WAN (Wide Area Network) which is connected to the telephone socket (via a micro-filter if required). Then there are four RJ45 sockets (marked LAN) for Ethernet connections to the built-in 10/100Base T switch. This router also has a USB port so it can be connected to a computer with USB (even if it does not have an Ethernet card), no drivers are included for the USB port but you can download them, only Windows drivers are currently available for the USB port. Finally there is the power connection and on/off button.

To connect your Amiga to ADSL in the UK you need an ADSL modem with a built-in Ethernet router, in a device like this the router handles the ADSL connection and your Amiga just needs an Ethernet card and TCP/IP stack. Typically Ethernet routers are considerably more expensive than USB ADSL modems (that cannot currently be used on the Amiga) but Dabs (a large computer equipment retailer) sell this 4 port Ethernet router as part of their Value range for just over eighty pounds, around the same price as a USB modem. As this is so much less than other ADSL Ethernet routers, can it be any good... lets find out.

The router comes in a printed box with no manufacturers name, inside is the router itself, a plug-in power supply, telephone cable and brief man-

## .info

**Developer**  
Amigo  
<http://www.amigo.com.tw>

**Distributor**  
Dabs  
<http://www.dabs.com>

**Price**  
£80 incl. VAT

**Compatibility**  
Any Amiga with a 10BaseT Ethernet connection.

**Requirements**  
ADSL enabled phone line and contract with an ADSL ISP.



The router's connections are all on the back panel. From left to right they are: Power switch and input connector, USB, four RJ45 Ethernet (LAN) connections, ADSL (WAN) RJ11 connector.

map a port on the router to one on a local machine where a server is being run. When a client on the Internet tries to access the mapped port on the router the request is transparently forwarded on to the local machine. Multiple virtual servers can be defined but you can only specify a single port for each entry, not a range.

If your ISP assigns you multiple IP addresses (this is only available on more expensive business ADSL accounts in the UK) for the machines on your network you can disable NAT, the router then acts as a bridge connecting your network directly to the ISPs.

One feature the CA64E lacks is a firewall, this is a feature of some routers which can block certain types of Internet traffic from entering and leaving the local network. With computers connected directly to the Internet, especially with a permanent connection like ADSL, a firewall is an important protection. However if you leave the CA64E set to use NAT then your local computer(s) are not connected directly to the Internet, only the ADSL modem is connected. Unless you configure the virtual server options to allow connections to the computers on the LAN from the WAN (Internet) your machines will be protected. Not having a firewall does mean you cannot block machines on the LAN from

accessing particular services on the Internet, on a small network this is not normally a requirement although on machines susceptible to Trojan horse attacks (it has to be said Windows is the prime example here) you may also want to run personal firewall software.

Although the CA64E does not come configured for UK ADSL and no UK specific instructions are supplied we found the information easily enough on the Internet. Then it was simple to setup and worked first time as soon as ADSL was activated. The web based configuration is easy to use and works well with Amiga browsers. For a single computer or small home network this router offers all the features you need and some additional options for future expansion. Although it lacks a firewall this is not really required if you're using NAT to share the connection. Once the router is installed and configured you can pretty much forget about it, the Internet connection is always there so you just need to turn on the Amiga and run a TCP/IP stack to get online. The CA64E offers far more for the money than any other comparable ADSL router we've seen, it's an ideal way for an Amigan to get connected!

Results

**Pros**

- + Easy to setup
- + Plenty of features
- + Cheap

**Cons**

- No UK specific setup documentation

Top  
Notch!

# Router Setup Tutorial

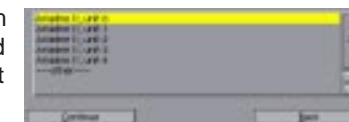
Before you can configure the router you must setup your TCP/IP stack to access it via Ethernet. Here we will go through the steps to configure Miami, other TCP/IP stacks will be similar.

Open your Miami: drawer and double click on the MiamiInit icon.

On the first page of Miami Init click "Continue", if you want to learn more about the setup you are making read through the information at the top of each page.

On the connection type page select "Ethernet, cable/ADSL modem" from the list and click "Continue" (from now on I'll assume you'll click "Continue" after each page of settings).

Choose your Ethernet card from the list if multiple units are listed and you only have one Ethernet card pick unit 0.



When prompted enter the IP address for your Amiga. By default the router has the IP address 10.0.0.2 so the computer must be set to an IP address of 10.0.0.x where x is between 1 and 255 but not 2. In this example we set the Amiga to 10.0.0.1.

Accept the default subnet mask (255.0.0.0).

Set the gateway to the IP address of the Router, "10.0.0.2".

If you know the DNS server addresses used by you ISP select "Enter now" in the next requester, if not you will need to find out and enter them later.

Enter the address of each DNS server.

Enter a host name for your Amiga on your local network, this is the name for your computer and can be anything you choose.

Enter your real name and a user name in the final screen, note that this does not have to match the username give to you by your ISP because the router will log on to their network.

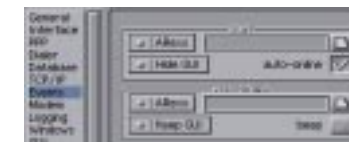
Select to save a config file and to save and/or print an information sheet if you wish then click "Continue".

MiamiInit should now have closed, our next job is to load the settings into Miami. Load Miami by clicking on its icon.

Select "Import from MiamiInit V3..." from the "Settings" menu, in the file requester choose the config file saved earlier, it's called MiamiInit.config by default.

If you need to set the DNS servers select the "Database" page from list on the left of the Miami window and then "DNS Servers" from the top cycle gadget. Then click "Add" and enter the server "IP address" for each server.

With Ethernet you will probably want Miami to go on-line as soon as it is loaded, to do this go to the "Events" page and select the "auto-online" check box in the "Start" section. You may also want to choose "Hide GUI" from the cycle gadget so Miami is iconified as soon as it connects.



When your settings are complete choose "Save as default" from the "Settings" menu if you want the Ethernet settings to be loaded each time you run Miami. Choose "Save as..." if you wish to keep your current default settings (for example a dial-up account).

If all has gone to plan clicking "Online" will now connect your Amiga to the Ethernet network allowing it to communicate with

# Features

the router.

To check this try pinging the router, to do this open a shell window and enter the following command:

```
Miami: MiamiPing 10.0.0.2
```

When you press return you should see lines similar to the following repeated every second or so:

```
64 bytes from 10.0.0.2: icmp_seq=2 ttl=64 time=2.344 ms
```

## WAN Configuration Page

This is the WAN page of the router's web interface grabbed from a browser. This grab shows the settings for a typical UK ADSL ISP (only the PPP section is ISP specific).

If there is a problem you will see:

```
ping: wrote 10.0.0.2 64 chars, ret=-1
```

In either case press Ctrl and C to stop the ping. If there is a problem check your settings in Miami, check the router is switched on and all cables are correctly connected (you don't need the WAN (ADSL) cable connected for this test to work).

With Miami online you are ready to configure the router, to do this launch a web browser and enter the URL "10.0.0.2", when you press return the browser should prompt you for a username and password, by default these are "admin" and "password". The web based configuration interface is then displayed in the browser. You need to make several changes for the router to work with UK ADSL:

Select the "WAN" page from the "Configuration" section in the left hand frame, then in the page on the right change the following settings:

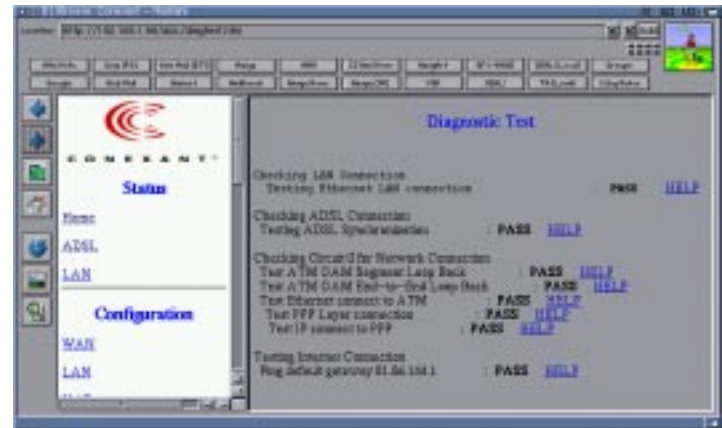
VPI: 0  
VCI: 38  
ENCAPSULATION: "PPPoA VC-Mux"  
Username: *The username supplied by your ISP.*  
Password: *The password supplied by your ISP.*

Click the "Submit" button at the bottom of the page.

On the "LAN" page you can change the "IP Address" of the router to fit into an existing network, click "Submit" after you make the change. If you do this remember to change the IP address, Subnet mask and Gateway in Miami to suit.

That's all there is to it! Now click "Save Settings" and then "Submit" to save the setting to flash memory and reboot the router. If your "WAN" cable is connected and your line has been enabled after about 30 seconds the "SHOWTIME" light on the front of the router should stop flashing and light solidly indicating an ADSL connection. Then the "RxD" light should flicker as the router logs in to you ISP.

To check all is well go to the "Diagnostic Test" page under "Admin Privilege" on the router this runs a number of tests on your connection, if the ADSL connection has been mode "Testing ADSL Synchronization" should "PASS" and if the connection to your provider has worked "Test PPP Layer connection" and "Test IP connect to PPP" should "PASS". If you have problems with the ADSL connection check your cabling, micro-filters and other phones on the same line, then check with your ISP that your line has been successfully enabled (it is possible that your activation has been delayed). If there is a problem with the PPP connection check you have your login and password exactly as supplied by your ISP. If there is still a problem contact them to check your account has been properly set up.



The web configuration interface as it appears in a browser. In this case showing the Diagnostic Test section which tests certain aspects of the ADSL and LAN connections.



## NORTH WEST MICRO

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2.5" 8.0 Gig	59.00	Syquest EZ135 cart	9.99					Amiga convertor lead	2.99	Amiga Action Pad	7.50
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		Base Jumpers	4.99							1.3 WB Disks	3.99
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		Dinosaur Detective	4.99								
		Dizzy Panic	2.00								
		Fantastic Dizzy	4.99								
		F29 - Retaliator	4.99								
		FIFA Soccer	4.99								
		Firehawk	3.99								
		Gloom AGA	4.99								
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		Heimdall 2 RPG	4.99								
		Huckleberry Hound	2.99								
		International Soccer	2.00								
		Jurassic Park	4.99								
		Legends AGA	4.99								
		Lion King A1200	6.99								
		Marvins Adventure	4.99								
		Microprose Golf A5/600	3.99								
		Microprose Soccer	2.99								
		Minskies, puzzler	4.99								
		Mortal Kombat	4.99								
		Nick Faldo A1200	4.99								
		Nigel Mansell GP	4.99								
		Ninja Warriors	2.00								
		North and South	4.99								
		Pinball Mania A12	4.99								
		Road Rash	6.99								
		Ruffian jungle adv	4.99								
		Rugby World Cup	4.99								
		Sci Fi Collection	4.99								
		Second Samurai	6.99								
		Simon The Sorcerer	6.99								
		Skeleton Krew A12	4.99								
		Sports Masters: PGA Tour Golf	4.99								
		Tennis, Indy 500, Euro Soccer	4.99								
		Champs	4.99								
		Street Racer A1200	4.99								
		Striker soccer	4.99								
		Suburban Commando	4.99								
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		Tennis Cup 2	2.99								
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		ups, etc	4.95								
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# .info

**Developer**E3B  
[www.e3b.de](http://www.e3b.de)**Distributor**KDH Datentechnik  
[www.kdh-datentechnik.com](http://www.kdh-datentechnik.com)**Forematt Home Computing**[www.forematt.co.uk](http://www.forematt.co.uk)  
(08700) 112234**Price**

99.90 Euro (approx. £65).

**Compatibility**Any Amiga with Zorro slots.  
68020+ processor  
Uses about 100KB of RAM**AmigaOS 3.0 or above**

MUI (for preferences GUI)

**Test System**A3000 Desktop  
Cyberstorm PPC/060  
CyberVision PPC**Other Zorro cards:**Ariadne II Ethernet  
Wavetools Sound Card  
Hypercom III fast I/O

AmigaOS 3.9

# Highway

*It's taken a long time but at last USB for the Amiga is here!  
Robert Williams takes his Amiga into uncharted waters.*

The Universal Serial Bus was developed as a method of connecting relatively low speed peripherals replacing the RS232 serial and Centronics parallel ports that have been standard on most computer platforms for well over a decade. USB has a number of advantages over the existing ports. Multiple devices to be connected to one USB port using hubs. USB is faster than both serial and parallel ports so it can be used for devices which require little data transfer such as mice and keyboards and those that transfer more data such as printers and scanners. USB devices can draw their power from the bus so many do not require a separate power supply. From a manufacturer's point of view USB is relatively simple to implement using a connector with just four pins, the connectors are also physically smaller than a typical parallel or serial port.

With the popularity of USB on the two major consumer computing platforms, Windows and Macintosh,

over the last few years it has become increasingly difficult to find peripherals compatible with the Amiga's standard serial and parallel ports. For example digital cameras and scanners now use USB almost exclusively and some printers no longer have a parallel port. Several efforts to bring USB to the Amiga have been mooted but none of them came to anything until now! E3B, a small German developer are the first to actually bring a USB solution to market in the form of the Highway Zorro II card.

The Highway is a small card just long enough to fill a Zorro slot. Its size means it can be fitted behind another card in a bus board which shares Zorro slots with PCI, video or ISA slots. Installing the card in a Zorro slot is easy, you just have to be careful to get it the right way up. Two blanking plates are supplied each holding two USB connectors which connect to a header on the Highway via short cables. These will only really reach to the brackets immediately behind the Highway so if you wanted to install them elsewhere in a tower you would need to get longer cables. With both plates installed you have four USB connections on the back of your Amiga, more can be added using a hub if required. In my A3000 desktop I only had room for one plate, this posed no problem for the Highway. The printed manual explains the installation in detail with a section on installing the card in various Amiga systems. On the E3B website

there is a list of third party Zorro bus boards with which the Highway has been tested. At the time of writing the RBM OnBoard 4000 bus board is the only one said to cause problems.

In addition to the USB connectors the Highway also has a clock port header so devices intended for the A1200 clock port can be connected, for these devices to work updated driver software is required from their manufacturer. The Highway also has a 38pin expansion port, E3B are developing an 10Mb/s Ethernet card called the Norway for this port, in fact a driver for the Norway is included on my Highway disk but the hardware is not yet available as I write this. Full pin-outs for these connectors are in the manual which also states that developer information for the expansion ports is available on request from E3B. One final connector on the Highway allows for the bus interface logic to be upgraded, if such an upgrade were ever available (and there is no sign one is required) it would have to be carried out by an authorised service centre.

Getting working hardware on the Amiga is only part of the battle to a USB solution (after all you could plug a PCI USB card into one of the existing PCI bus boards but it wouldn't do you any good without a driver), software referred to as a USB stack is needed to add USB support to the OS and then drivers for USB peripherals are also required. As you might guess from the name a USB stack is very like a TCP/IP stack in concept, it provides a standard way for

the USB drivers to access the USB hardware and deals with the low level device access. The Highway is supplied with a USB stack called Poseidon, developed by Chris Hodges. Although Chris has developed Poseidon using a Highway card the stack accesses the hardware using a driver and has been designed so that other types USB card can be supported.

Poseidon needs to be installed before the Highway and any attached USB devices are recognised. The program is supplied on a single floppy disk and is installed using the standard installer. Only two options are given during installation, the first is whether Poseidon should be started automatically at start-up. If you select this option a command is added to the end of your user-startup file to load the USB stack, USB devices are then ready to use as soon as your Amiga boots. The second option is to install an updated input.device, the input.device is the part of the OS which handles the keyboard and mouse. Replacing it allows USB devices to seamlessly replace the standard mouse and keyboard without patching the OS. The updated device also supports multiple keyboards and mice (should you need them for any reason). Also on the Poseidon disk is an Extras drawer which contains, amongst other things, the Fat95 file system which is useful for many mass storage devices and some nice Glow Icons for the stack's utilities.

USB peripherals are grouped into various classes based on their function, for example keyboards and mice generally belong to the Human Interface Device (HID) class and storage devices such as disk drives come under the Mass Storage Device (MSD) class. Poseidon allows class drivers to be written supporting different classes of device. A number of drivers are supplied so the Highway card can be used with several types of device straight away, the currently supported classes are:



The Highway installed in an A3000 desktop. The card is connected to the USB ports by the two light coloured cables.

**Hubs**

A hub allows you to connect several devices to one USB port, usually they are a small box with one USB "input" known as an upstream connection and several "outputs" or downstream connections. The number of downstream connections provided by a hub varies and they can sometimes be found built into other devices such as keyboards allowing another device (for example a mouse) to be "daisy chained". A hub can pick up its power from the bus (meaning that in total the devices connected must not draw more than 500 milliamps) or it can have its own power supply (self powered), in that case each device can draw up to the 500mA maximum allowed in the USB standard. The Highway can only supply a limited current because the whole Zorro bus is limited to 2A (2000mA) so the manual recommends that high drain devices (in particular anything with a motor such as a ZIP drive or bus powered scanner) are connected to a self powered hub. Poseidon supports both bus and self powered hubs and most are expected to work. I tried a Belkin four port hub that is readily available locally and all devices except an Epson printer (see printers section below) worked equally well connected to the hub or directly to the Highway.

**Keyboards and Mice**

As I mentioned above USB keyboards and mice generally belong to the HID class, at the moment this is not supported by the Highway however it does support the bootmouse

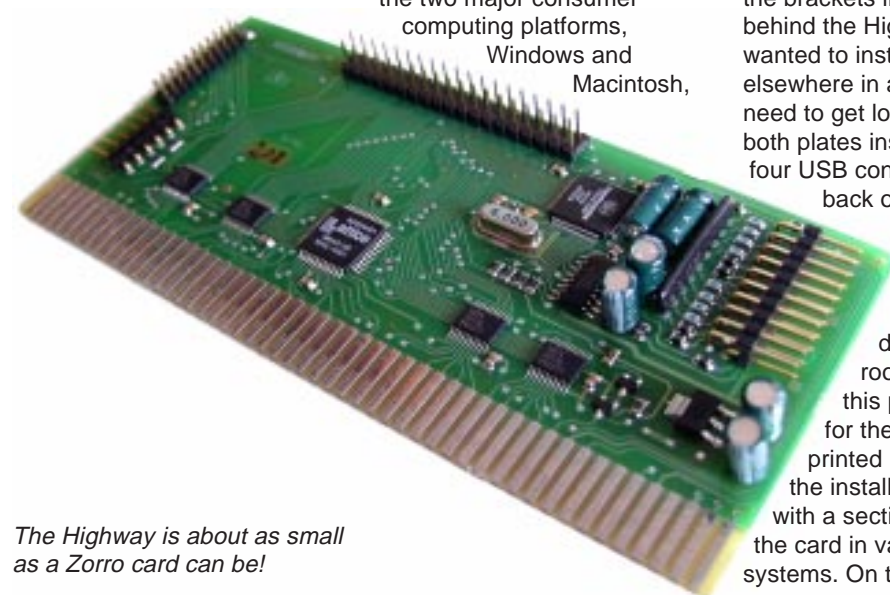
and bootkeyboard classes. These classes were designed for simple keyboard and mouse support in system configuration screens (such as a PC's BIOS). The Supplied drivers work with most keyboards and mice and provide fairly basic functionality. Mice act as a simple three button mouse, any additional buttons or scroll wheels are ignored. That said modern optical mice such as my Logitech Wheel Mouse Optical and a Microsoft Intellimouse Explorer work well (with the exception of their scroll wheels). I also noticed that the same mouse connected through USB seems to track more smoothly than through my PS/2 to Amiga adaptor. On the keyboard front the basic keys (102 if I remember correctly) on a PC style keyboard are supported but not any additional "multimedia" buttons. The author of Poseidon has said he is working on a full HID class driver for Poseidon which should enable support for scroll wheels and additional buttons on mice and "multimedia" keyboards.

Since I got my Highway I've had my mouse connected by USB, it has worked well and my system seems to be as stable as ever. I was also pleased to see that the mouse continues to work smoothly even when there is intense activity on the USB bus such as printing or copying large amounts of data, I think this is because USB can prioritise "interactive" devices. Anyway it works very smoothly, pretty impressive for the first release of an entirely new product to the Amiga.

**Printers and Parallel Devices**

When a USB printer is connected to the Highway the Poseidon USB stack automatically creates a device driver called usbparallel.device which can be used to access the printer, if multiple printers are attached they are assigned different unit numbers. Being able to access the printer via USB doesn't suddenly make printer drivers available however if the printer has both USB and Parallel ports or their is a similar model with a parallel connection someone may already have written a driver, for example in the Turboprint package. If this is the case then you just need to set the driver to print to the usbparallel.device and the appropriate unit and print as normal. We tested USB printing with a Canon S450 and an Epson Stylus Photo 790 both printers worked on the USB connection. We did have some problems with the Epson when connected through a hub but this issue is also reported on other platforms, it worked perfectly when connected directly to the Highway. We also compared printing speed between USB and the standard parallel port using Turboprints "Turbo par" mode. In cases where the standard parallel port wasn't able to keep the printer fed with data all the time (we could hear the head pausing between passes) the Canon was between 20 and 30 percent faster on USB, the Epson was up to 20 percent faster with similar tests. As we have proven with the mass storage devices (400 - 500KB/s) that USB is much faster than the standard parallel port (about 50KB/s) this seems to suggest that the main bottleneck in Amiga printing is actually processing the data ready to print.

Given that the speed advantages of USB printing are not huge (although a 20% speed up on a 15 minute print job is not to be sniffed at) and currently most printers have parallel and USB support



The Highway is about as small as a Zorro card can be!

printing might seem to be one of the less interesting aspects of the Highway. However E3B report that the authors of TurboPrint are working on more USB printer drivers for the package and some interesting printers are now being introduced which only have USB ports (for example the acclaimed Canon S900 and 9000 photo printers) so in the future USB printing will become more important.

## Storage Devices

There are many storage devices that connect by USB, the most common being flash memory card readers and disk based devices such as ZIP drives. Poseidon supports devices that comply with the `masstorage` class. Several memory card reader have been tested as compatible, I purchased a LaCie Hexadrive which reads all the common Flash memory formats (Compact Flash, MicroDrive, Smart Media, Memory Stick, Secure Digital and Multimedia Card). When you plug in a storage device Poseidon creates the `usbcsi.device` which is used to access the device. If you connect more than one device or your device has several slots (like my reader) multiple units of the device are created. Disks or cards inserted in the device are not automatically mounted, you have to create a suitable `DosDriver`. Most USB storage devices will use DOS/Windows style FAT file systems so you will probably want to install the FAT95 file system included on the Poseidon disk in the Extras drawer. A sample `DosDriver` using FAT95 is installed with Poseidon into your



Some digital cameras like this Olympus E20 can be directly connected.

`Sys:Storage/DosDrivers/UMSD` drawer. You can edit this `DosDriver` to point to the correct unit of the `usbcsi.device` for your device.

With my card reader when you mount the device by double clicking on the `DOSDriver` a bad disk icon appears until you insert a valid memory card. Then you can access the contents like any normal Amiga drive, with `Workbench`, a file manager or direct from programs whatever you prefer. As well as reading files from the drive you can also save back to it and perform other operations like renaming and deleting files. One slight oddity I did notice is that when you remove a card it's icon does not disappear from `Workbench` unless you issue a manual `diskchange` command, however a new card is recognised automatically when inserted. I did some tests reading and writing to Compact Flash and Smart Media memory cards and achieved around 460 Kilobytes per second transferring a 24Mb file to and from Compact Flash. Smart Media came in at about 400KB/s for the same operations. Compared to connecting a camera via the serial port this is hugely faster, as the best you'll get on serial is about 14KB/s.

According to the E3B website USB ZIP100 and 250 drives work with the Highway (although you may need a self powered hub). Currently the `masstorage.class` does not support auto mounting devices with RDBs so you have to create a `DosDriver` or use a mounting utility such as `AutoMounter` (supplied in the Extras drawer). Some digital cameras conform to the `masstorage` class themselves meaning they can be connected directly. For me the storage device support is the most useful part of the Highway, now I can get pictures off my digital camera in a fraction of the time making it much more enjoyable. When I'm ready to upgrade I can consider any camera with a removable memory card (almost all of them).

## USB Device Compatibility

The Highway should be able to operate with any USB device however to make use of a device it must conform to one of the classes with a Poseidon class driver. The E3B site warns that there are also devices which supposedly belong to a particular class but do not properly implement the standard and thus cause problems. From my limited testing mice, keyboards and printers seem a fairly safe bet, with storage devices you need to be more careful, make sure you can return it if it doesn't work. The E3B website mentions that the source code to the Linux USB stack if full of work arounds for devices that don't quite stick to the specifications. For example the first flash card reader I bought would work without problems until I also connected a USB mouse, then it kept reporting errors in the Poseidon error log and I could no longer access the device. When I reported this to Chris Hodges he looked at the Linux sources and found the particular device was marked as non-standard. The E3B site also has a useful list of USB devices that have been tested as working, I returned my card reader and got the Hexadrive which was confirmed to work properly.

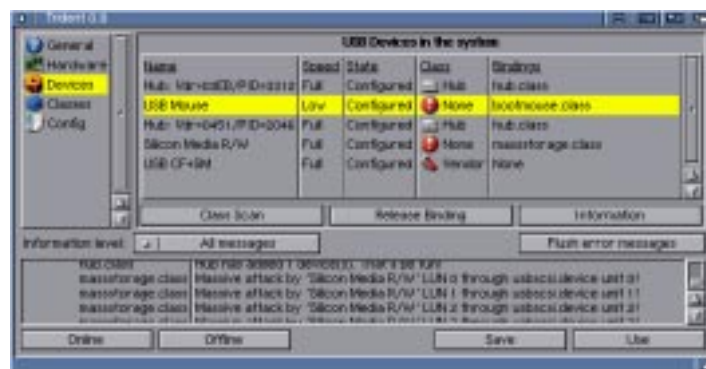
There are also devices which do not belong to any class, instead they use a vendor specific driver, usually these are only available for Windows and MacOS (if you're lucky). For these devices a specific driver is needed to provide



support. Scanners and some digital cameras are commonly vendor specific devices. IOSpirit have announced that they are working on Poseidon compatible scanner and digital camera drivers for their `fxScan` and `VHISudio` packages respectively. Poseidon is also supplied with a simple command line program to download pictures from webcams based on the `STV680` chip, for example the `Aiptek Pencam` series.

## Trident

Most of the time the Poseidon USB stack just sits in the background doing its job, never the less it comes with a handy MUI based preferences program called Trident and a few command line utilities. The main Trident window has several pages selected from a list on the left hand side, Miami style. The Hardware page shows the USB cards installed in your system, normally one Highway card is shown but additional hardware drivers can be added if they become available. Devices lists all the USB devices connected to the Highway, this includes hubs and any USB devices connected to them. On the Devices page you can check which class driver has been



Poseidon's preferences program, Trident, shows all the USB devices connected and which class driver they use. The bottom section gives easy access to the log file.

bound to each device and if necessary release the binding (I guess this might be useful in the future if there was more than one driver for a device). There is also a button which displays more information about the selected device. The classes page shows the USB class drivers available with a brief description and how many devices are currently using each driver. When new class drivers are developed an Add button allows them to be registered with Poseidon. There is a Configure button on the Classes page but none of the currently supplied classes have any configuration options. The last page is called Config but as yet there are no configuration options available.

At the bottom of the Trident window is a list which shows a log of events since the Poseidon was started. This is handy because you can look back and see exactly in what order devices were recognised,

it also shows when any device was added or removed from the bus and what class driver it was bound to. I should mention here that the log is particularly humorous, here are a few examples:

```
New hardware
DEVS:USBHardware/
highwayusb.device/0 added.
Plug in, baby!
```

```
0-bootmouse.class: I'm
pleased to introduce a mouse
alliance to 'USB Mouse'!
```

```
0-hub.class: Device 'Hub:
Vdr=0451/PID=2046' at port 2
is gone!
```

```
0-hub.class: Oh no! I've been
shot! Arrggghh...
```

Well I enjoyed them anyway, more seriously the log can be handy for trouble shooting, if you want to save the log to a file you can use the shell command `"psderrorlog >device:file"`.

Pressing the Help key within Trident brings up Poseidon's extensive AmigaGuide documentation, this provides information on using Trident, the class and hardware drivers. I found it to be comprehensive and well written. The Highway package also comes with a printed manual which covers the hardware installation.

## Conclusion

From the very start the Highway has impressed me, the board itself is high quality and it is accompanied with well written installation documentation. Having used

the board for about a month now both it and the software have been very reliable, even though this is the first release it feels like a mature product. A useful combination of drivers are provided, for many Amigans just having the ability to use a modern digital camera will justify the purchase of the Highway and a flash card reader. It seems likely that in the next few months more and improved class drivers will appear making the Highway an even more attractive proposition.

## Results

### Pros

- + High quality hardware.
- + Reliable software.
- + Useful set of drivers.

### Cons

- Keyboard and mouse drivers currently simple.



# FrontX

*Dealing with the rat's nest of cables behind your Amiga is always a problem, Neil Bothwick seems to have found an interesting solution to this perennial problem.*

Computer cases are designed to look good on a shelf in a shop, so all the messy stuff like input/output ports is hidden at the back. This is fine for things like keyboards, printers, modems and many other devices. You want their cables out of sight,



Autumn 2002

and you don't need easy access to them very often. There are some things you may want more frequent access to. Digital camera users will want access to serial and (hopefully) USB ports. Gamers may want to use different controllers for different games. Anyone who likes to listen to MP3s late at night, or play noisy games, may want to replace the speakers with headphones. All of these are a pain in the neck (or wherever) with a standard tower case.

FrontX provides a solution. It extends selected ports from the back of your computer to the front, housing them in a 5" drive bay. There are two elements to the kit, the first is a chassis that fits in a drive bay.



Just slot in the ports you need, FrontX is compatible with any computer including Amigas.

This has a flap to cover the ports when not in use and a number of slots in which to place the ports. It also has a special cover plate for one of your PCI access slots to allow cables to pass through.

The second element consists of the port extenders. These can be bought individually, or as a kit of commonly used ones. You choose which ports you move to the front, from serial, USB, game, audio, video, microphone and firewire. There's also a headphone port that leaves the speakers connected to the back of the computer, but cuts them off when headphone are plugged into the front socket. The chassis hold six of the smaller

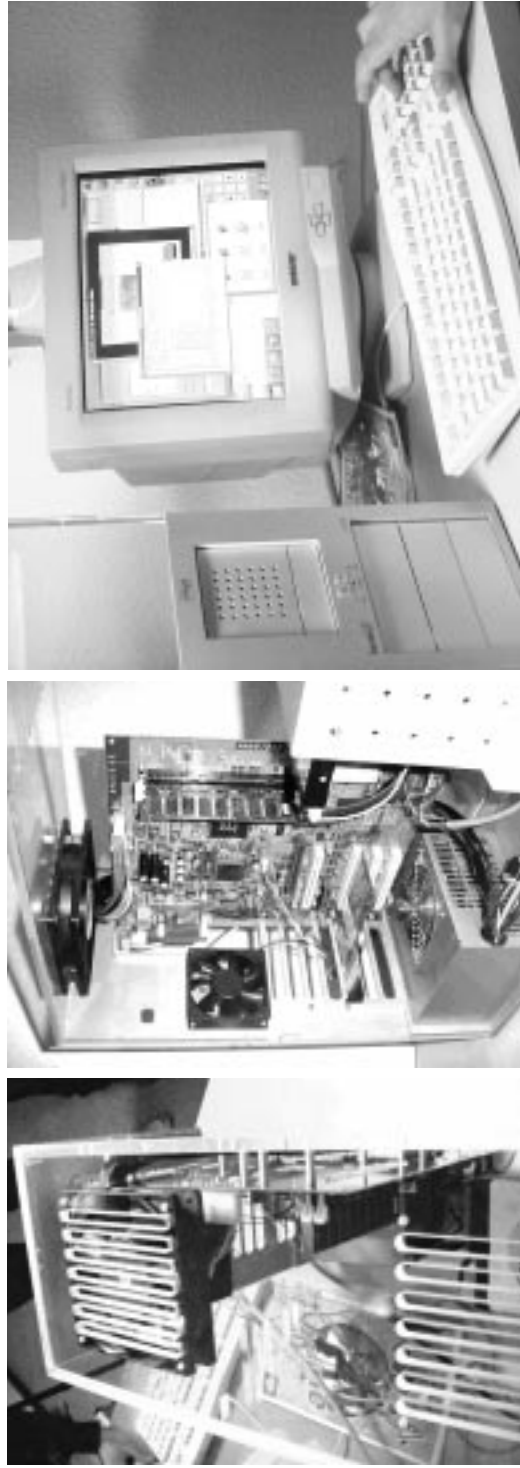
extenders, the ones that use jack or phono plugs, and two of the larger ones for serial, USB etc.

Some ideas are so simple you wonder why no one has thought of them before. FrontX is one of those ideas. FrontX is totally hardware independent. It will work on any computer that has a spare 5" bay and standard connectors. All the parts are sold separately, so you can tailor it to fit your needs exactly. The multimedia kit costs \$28.90 (about £20), the chassis alone is \$10.90 (£7.50) and most port extenders are \$5-\$10 (£4-£7). FrontX can be ordered from <http://www.frontx.com> and prices include shipping.

# AmigaOneG3-SE

TEL: 07000-4-AMIGA 07000-426-442 +44 (0)1642-713185  
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 EMAIL: sales@eyetech.co.uk WEB: http://welcome.to/amiga.world

**We are clearing our stocks of Classic Amiga hardware and software in preparation for the AmigaOneG3-SE. Stocks of many items are already low - so act now if you want to secure a bargain. When they're gone, they're gone!**



## The first all-new Amiga for a generation has now arrived!

### Specifications:

ATX form factor motherboard with case I/O panel (supplied)  
 Four PCI slots + one 2-speed AGP slot on 2 buses  
 On-board 10/100Mbps ethernet on rear I/O panel  
 2 x USB connectors on rear I/O panel + 2 more on headers  
 2 x UDMA 100 channels (4 devices)  
 Open firmware-compatible BIOS with OS4 extensions in socketed ROM, with non-volatile RAM for parameter storage  
 PS2 mouse & keyboard connectors  
 Sound, modem & gameport I/O via AMR header (supplied)  
 Parallel, serial & floppy (PC FDD controller) connectors  
 IRDA header, real time clock  
 IBM 750CXe G3 cpu running at 600MHz  
 2 x SDRAM sockets for up to 2 GB of main memory  
 Optional Escena PCI-A1200 bridge card for running hardware-hitting applications.  
 OS4.0 (OEM) for A1G3-SE and Amiga Inc motherboard licence fee included in price

### Pricing:

AmigaOneG3-SE motherboard as above, with 600MHz G3 & OS4 : **£382.94 ex VAT (£449.95 inc VAT)**  
 Complete ready-to-run systems are also available - please see our website for details.

### Availability & Upgrades:

From your local dealer (see our web site) or direct from Eyetech.  
 Available for shipping to end users as soon as OS4.0 is complete.  
 Limited quantities of boards are available to software developers before OS4.0 is released for running Linux & UAE-PPC (No tech support from us - only from user group moderated web/ mailing list).  
 Guaranteed trade-in price from us (and most dealers) for upgrading to the Eyetech AmigaOne-XE (socketed single/dual G4 motherboard) + G4 module from an AmigaOneG3-SE within 6-12 months of purchase.

### Classic Amiga Hardware & Systems

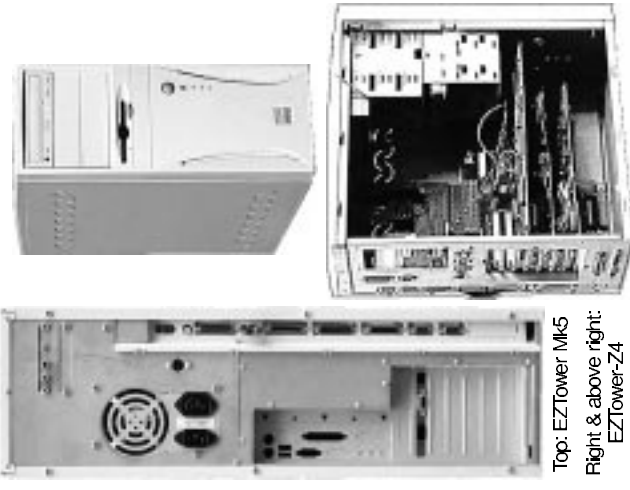
**As above + 20GB HD, 40x CDRom, PC k/b £280(430)**  
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# The Feeble Files

*It's about time we had a new point and click adventure on the Amiga. Sam Byford thinks EPIC Interactive's latest port will keep fans of the genre quiet for a while.*



Feeblefiles68k

## .info

### Developer

EPIC Interactive  
[www.epic-interactive.com](http://www.epic-interactive.com)

### Price

£35

### Available from

Forematt Home Computing  
[www.forematt.co.uk](http://www.forematt.co.uk)  
Kicksoft  
[www.kicksoft.co.uk](http://www.kicksoft.co.uk)

### Requirements

68060  
32Mb RAM  
4Mb graphics card  
600MB hard drive space  
AHI  
AmigaOS 3.0+

PPC accelerator  
recommended.

### Test System

A4000  
CyberStorm Mk III 060/50  
65MB RAM  
Mediator 4000  
Voodoo 3000 (16MB)

AmigaOS 3.5 BB2  
Picasso 96

The Feeble Files is the latest game conversion from the company Adventure Soft (published by EPIC), and is in the age-old format of a Point-and-Click adventure. Anyone that has played Monkey Island I or II, Simon the Sorcerer or Nightlong will feel immediately at home with the environment of Feeble Files and except for a few differences the basic concept is the same also. You control an alien called Feeble. A member of the Omnisociety (ruled over and controlled by the Omnibrain) who, through some rather reckless (but fun!) space piloting manages to collide with an Earth satellite and thereby ruins a company installation base.

According to the printed introduction in the manual the "...Omnibrain considers all life forms to be his citizens who he loves and cares for in the way that is best for them..... He watches over you constantly to protect you from any possible rebellious influences and dangerous emotions you may find yourself experiencing. Praise be to the Omnibrain!" This is the first hint that the Omnibrain may not be the all-wonderful 'God-like figure' he is believed to be and as you progress in the game you find this out for yourself and, well - the rest is obvious! Uncover the truth you must; give the members of the Omnisociety back their freedom and make all right in the (Omni)Universe again.

### Becoming a member of the Omnisociety.

The Feeble Files comes in a DVD case and consists of two CDs and a manual in English, Dutch and French. Unfortunately it is not a double leaf case which would have kept things nice and neat, instead the second CD is in a paper wallet tucked under the manual. CD1 consists of the main executables, a readme file and a Spoilers directory. This

contains a complete Solution text file and another directory with ten save files in it taken from various progressions through the game. These are here to help you in case you become completely stuck at some point in the game, but as with any cheat would spoil the fun of the game if you use them.

Installation of Feeble Files could not be easier - open up the CD contents and double click the "Feebleinstall" icon, it will then copy the needed contents to the hard drive in a place of your choosing which will take up about 700mb of space. To run the game just click on Feeble's head (a rather large icon). You will need CD2 in the drive to play the game. Personally I find this kind of dependence on CDs a real pain so if you have a big enough hard drive I would recommend that you copy the contents of the 2nd CD to a directory of your choosing and then make an assign "Assign Feeble2: Movies:Feeble2" where Movies: is the directory of your choice.

As with any program you should always read the readme file first, and in this case it tells of a few changes to the Amiga version from the Mac version. It also tells you that Feeble Files uses AHI for its sound output and that it uses Unit 0 only - which is a bit naughty as it should use whatever channel you tell it to. It also says to set the channel number to between 4 and 6, though I had it running on 1 channel for ages and didn't notice much difference except that with 6 channels I had to turn the volume up louder than with it set to 1 channel!

### Stepping into the Shoes of an Alien.

When you first start Feeble Files it will ask you for a screenmode to use. Most people should select 640x480 8bit because this is the ideal mode for the game. It will run in a higher res but on my

060 it went really slow (slideshow speed in fact). Anything smaller and all I got was a blank screen. For an 8bit game the graphics are remarkably good but its a shame there isn't a 16bit version as well, especially as a lot of Amiga users now have graphics cards which can handle this standard very nicely now. You can then sit back and enjoy the introductory animation that is presented to you. It shows feeble and the already mentioned joy-ride that causes the destruction of the installation. You then take control of Feeble on this base and are introduced to the first set of puzzles in the game. (A hint - pick up the Doll and use it in the transporter. This isn't the only thing to do at this stage but it gets you started!)

You will notice that there is a gold coloured icon at the top left of the screen. This is Feeble's Database system - Oracle. It holds the rules of the Omniverse, the items Feeble has picked up (the inventory) and has basic prefs and info items. Use the mouse to click on this icon and it will bring up the Oracle screen, where you should read through the "Ency" (Encyclopedia) items, and change your preferences to suit you. It should be noted that turning "Hitbox" names on will often help you in the game. With this on whenever your mouse passes over an item that Feeble can interact with it will throw up on screen the name of the object. This can be very valuable for finding those hidden items not easily seen. Not far into the game you help to get a member



Turning on "Hitbox" names helps you find vital items.



The graphics are detailed and numerous and look great even though they are only 8bit.

of the Omniverse killed and he leaves behind a boarding pass that you need to get your hands(!?) on, but it was only with the Hitbox names turned on, and a bit of patience, that I found the pass sitting on the table in deep shadow (see the screenshot for the exact position!). Understandably though, some players will prefer to have this turned off for exactly the reverse reason, they like to make life that little bit harder for themselves!

### Time to get interactive.

The mouse pointer is actually a multi-tasking item, which with a right click of the mouse turns from a "walk-to" icon (the default setting) to a "look-at" "pick-up" "action" and "double-action" icon. All of these are pretty obvious in their uses but I'll clarify the use of the double-action icon, throughout the game Feeble will need to use certain objects with other objects or people (such as the doll with the transporter at the start of the game), that is where the double-action mouse comes into use. You first click on one of the two items to use, then on the other and Feeble will try to use them together with either a positive or negative result.



The Oracle system contains rules, prefs and inventory.

Now call me picky, but this is actually where the game falls down in my estimation! The inventory of items you see, as previously mentioned, is stored within Oracle. To get an item for interaction you have to move the mouse up to the Oracle icon, click it, move the mouse back down and to the required object, then click "OFF" to return to the playing screen and then click on the item or person you want to try to get that object to interact with. A lengthy process at the best of times. However, when you're in a situation where you Know something should interact with an item but your not sure exactly what then you have to repeat this process over and over till you (maybe) find the correct combination! Not clever, a much better solution is the way the Clickboom game Nightlong works, in Nightlong you move the mouse pointer to the bottom of the screen and a bar pops up with the inventory items in that making the whole process quick, efficient and painless. If Feeble Files did things this way then you could still have all the other Oracle processes inside that icon but the item handling would be made much easier.

### Look and Feel of Alienism.

So other than the 'interesting' user interface how does the game look and feel? The Box cover says that Feeble Files requires a minimum spec of an 68060 with 32mb Ram and a 4mb graphics card (as well as 600mb of hard drive space, AHI and AOS3.X) with the recommended specs being a PPC Amiga with a 8mb graphics card. On my Cyberstorm 060

system with Mediator and Voodoo 3000 (which puts it somewhere between the minimum and recommended specs) the game is more than playable. However it is still somewhat jerky which, considering this is only an 8bit game in 640x480 is quite surprising! I would have expected much more fluid screen scrolling and animation playing from a game of this calibre. As an example look at T-Zer0 (another game from Clickboom) this is of similar graphics and size but the scrolling in it is perfect, no stuttering like in Feeble Files. That said it is not too bad and I have seen plenty worse which were still playable. No doubt on a PPC system the screens and animations will fly and run perfectly. Talking of the animations, it may have just been a quirk of my system but on a fair few of the cut-scenes I had graphics glitches in the form of swapped colours and also, once, the animation itself froze. The sound kept going so all I actually missed was a lot of head turning and hand waving but still, perfection would have been nice!

The sound in the game is fine, if overused at times. While walking through the main town you get the voice of the Omnibrain coming over the tannoy system at regular intervals, highly annoying when you have heard the same distracting sing-song voice several times already. Thankfully that is confined to that one area out of all those I have encountered so far.

All in all then the sound and pictures are very sharp, well drawn and in the case of the voices, well performed (in this case by Robert Llewellyn of Red Dwarf and Scrapheap Challenge fame).

### The End of the Omniverse?

I couldn't possibly tell you whether the game has a satisfactory conclusion or not,

### Pros

- + WGood use of graphics and sound.
- + Easy to use gameplay.
- + PPC supported.

### Cons

- Slightly jerky graphics at times.
- Inventory can be tedious to use.

Results



The cut scenes are worth watching.

mainly because I'm nowhere near finishing the game! Some of the puzzles in the Feeble Files may well keep you frustrated for hours (I haven't yet figured out how to get past the secretary to see the person I've been told to go see!) but from what I have played there is more than enough to keep all point-and-click fans interested for ages. I'm just hoping the end isn't as quick to happen or as easy as it was in Code Name: Hell Squad (the only Point-and-click game I've ever finished!). While I may have some slight hang-ups about the graphics smoothness it is not something that would stop me buying the game and though the inventory system may be somewhat cumbersome it is still very workable and, I suppose, neat (in that everything you could possibly need is in the same place).

So, Feeble, whatever his (my) task may be in the game, will have to plod along (saving regularly of course!) and I'm sure eventually I will discover if I can truly unmask the Omnibrain and return the (Omni)Universe to its inhabitants. The graphics and sound along the way will not let you down and the cut-scenes are definitely worth watching and, for a 256 based piece of work, really quite impressive.

All in all a worthy addition to the converted Amiga Games market. I would recommend all fans of point-and-click games to buy the Feeble Files as soon as possible.

Pretty Good!



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# .info

Developer  
NEC-Mitsubishi  
www.nec-monitors.com

Supplier  
Micro Warehouse  
www.microwarehouse.co.uk

Price  
£411 Incl. VAT

Compatibility  
Graphics card with 15pin  
VGA connection.

Specification  
Screen Size: 15.1"  
Max. Resolution: 1024x768  
Brightness: 300 cd/m2  
Contrast Ratio: 450:1  
Response time: 25ms  
Colour: 24bit (16 million)

Viewing Angles  
Vertical: 110°  
Horizontal: 150

Input Signal  
Scan rates: 31.5-60 kHz  
Refresh rates: 56.2-75.1 Hz

Features  
Built-in stereo speakers.  
Headphone socket.  
Powered 4 port USB hub.

# Reviews TFT Monitor

Mick Sutton has taken a step up to the latest monitor technology but how does it compare to the traditional CRT monitors which currently dominate most people's desks?

It was only in issue 6 that I reviewed my then new Sony 17" CRT monitor, so why only 18 months later or so am I reviewing another monitor I hear you saying?

### Size Matters

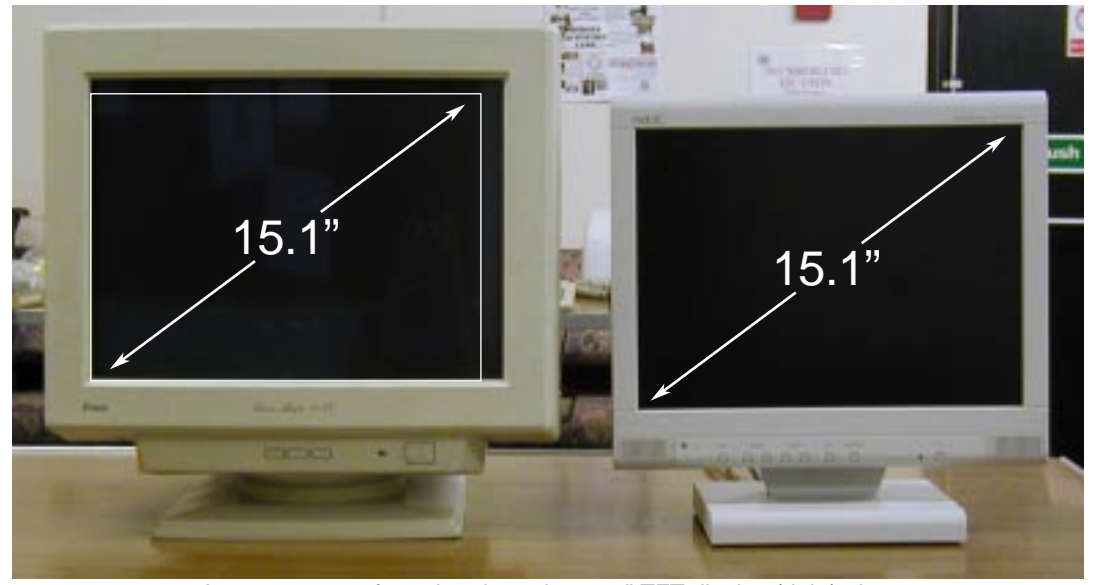
The answer is space, or in fact the sheer lack of it to be precise. On my desk at home I had a 17" CRT monitor, a printer, a flatbed scanner and my wife's iMac and keyboard (my keyboard is on a separate pull out shelf luckily) which made it very tight for room to work but just about enough to get away with it. Then my audio setup died, the significance is that it was a unit that sat beneath my monitor and therefore took no extra space. Looking around I couldn't find anything like it and the alternative speakers would not remotely fit on my desk, so what should I do?

I had been very interested in the latest TFT monitors available and had noticed the prices dropping quite considerably. On further investigation I found out that specs of such monitors can vary quite a bit according to price, I also was informed that playing games on such monitors was unbearable unless response times were very quick (see boxout). When I spotted the NEC 1550M with good specifications (see panel) and built in multi-media speakers I thought to myself that would meet all my demands in one swoop, so here we are!

### Big is Small!

The NEC 1550M (Multi-media) is a 15" TFT monitor which has a diagonal visible screen measurement of 15.1 inches. Although it is a 15" monitor the actual viewable area is about the same as a 17" CRT

(Cathode Ray Tube) monitor, the reason for this is that CRT monitors sizes quoted is the actual size of the physical tube which is partially surrounded by the monitor casing. On most 17" CRT monitors you end up with about 15.9 inches of viewable screen, so you can see it is not much difference in size. One other thing to note is that 15" TFT's have a maximum screen resolution of 1024 x 768 so if you like to use resolutions above this you will need a 17" TFT monitor and they cost around £550 or so. The entire flat panel area of the monitor measures 34.5cm horizontally by 30cm vertically and that includes a 2cm border down each side, a 2.5cm border at the top and a 5cm border at the bottom that has the control buttons and speakers within it. The entire footprint including the screen panel and base of the monitor is 34.5cm width by 16.5cm depth which is much less



As you can see from the photo the 15.1" TFT display (right) gives almost the same screen area as a 17" CRT monitor (left).

space than my 17" CRT required I can tell you.

## Feature Packed

This particular monitor has several features that I have not mentioned yet, it has a stereo headphone socket in the front as well as the in-built speakers which is useful for playing games in the early hours of the morning (mustn't wake the kids or my life would be hell) and it has a four port USB hub (powered) built into the base which should be very handy in the near future with the release of USB on the Amiga both in the "Classic" form and the new AmigaONE. I can even make good use of it at present with my wife's iMac which only has two USB ports that are free to use once the keyboard and mouse is plugged in!

## Looks Good

The monitor has a very neat entry panel at the back that has the cables coming into it, these are the power cable, the monitor input cable and a pair of audio cables if you want to use the in-built 2w speakers. Where the cables enter there are clips to secure them and a cover that clips over that area to conceal the whole thing....very neat indeed! At the front of the monitor under the

screen are eight buttons that perform all the functions, the one on the far right is a power button which is only in fact used to put the monitor in stand-by mode (the proper power off switch is at the rear of the TFT panel on the left hand side). The other seven buttons are used to access the various on screen menus that used to set up speaker volume, brightness, alignment, languages and the like found on almost every monitor.

## Feels Good

The first time I connected this little gem to my Amiga and powered it up I was rather pleased by the image quality displayed on screen as it was excellent, it's pin sharp and the colours vibrant even more so than on my previous monitor, which was to my mind very good quality also (as stated in my review in issue 6). One other thing that I noticed when my Workbench screen appeared is that the monitor performed an auto adjust to set the screen perfectly... mega cool! This meant that I didn't have to sit and fiddle with the controls to get it perfect like I did with my CRT monitor and in fact the first time I loaded every "standard" (ie 1024x768, 800x600 and 640x480) screen resolution it did this auto adjust



The cables connect behind a cover (removed here).  
Left to right: USB hub power, mains, VGA cable, audio cable.

which it then saves to it's settings. If you load something that uses a non "standard" screen resolution you have to perform the adjustments to screen position and size manually via the on screen menus. One of my concerns with buying a TFT monitor was that I was not totally certain it could cope with Amiga games screens, I had seen one at World of Amiga in 1999 (owned by Kickstart member Chris Green if my memory serves me correctly) that refused to show PAL screens despite them being put through a scan-doubler on his A3000, maybe they are less tolerant than CRT monitors when the lowest scan rates are used. But in the end it worked fine with all the screenmodes I could throw at it, and in fact the game screens did not suffer much at all with the stated response rate problems I mentioned earlier.

The only game that showed any slight effects of response rate blurring was Freespace and this is probably due to the high contrast within the game (from the darkness of space to the bright light coloured craft) but it was not bad enough to

distract you from the game. Another concern of mine was what the viewing angles would be limited to, and I can tell you they are very good with a vertical angle of 110° and a horizontal one of 150°. This means that you would have to be some way off the centre of the screen before the image fades an unacceptable amount, so unless you're one of these strange people who uses their monitor at awkward angles it won't be a problem!

## and by Golly it is Good

All in all I am very impressed with this monitor, it is sharp and clear, it uses about a quarter of the space of my previous monitor (and weighs a lot less) and therefore makes it more practical for carting down to SEAL (<http://www.seal-amiga.co.uk>) meetings every fortnight. The only negative thing I can really think of is the price (£411), but you can pick up TFT monitors now from about £270 so things are better than say a year ago when a price tag of around £700 was very common.

Results

**Pros**

- + Compact size.
- + Sharp and vivid display.
- + Built-in speakers and USB hub.

**Cons**

- Expensive compared to a CRT monitor.

# Top Notch!

Size Matters!



# How it Works

## A short guide to TFT monitor specifications.

TFT LCD monitors work in a quite different way to a traditional CRT (Cathode Ray Tube) monitor. Therefore when you're looking to buy one you need to learn a whole new set of specifications and jargon! Here's a quick primer on the basics of the technology and what to look for in a new LCD monitor.

### CRT Monitors

A CRT monitor is based on the same technology as a television that has been available for around 70 years. The display consists of a glass tube coated with phosphor on the inside of the screen. At the back of the tube are three "guns" (in a colour monitor) that fire electron beams at the back of the screen making the phosphors illuminate, producing the picture you see. The electron beams from the guns scan across each line of the display working their way down the screen until a complete picture is built up, persistence in the phosphor keeps it glowing for a fraction of a second and the display is redrawn many times per second giving the illusion of a stable picture. The number of times per second the screen is redrawn is called the refresh rate (typically 60-100Hz (times per second)), a low refresh rate gives a flickery screen because the phosphors have started to dim before they are redrawn.

### TFT Native Resolutions

A TFT monitor is based on a completely different technology. It uses a type of Liquid Crystal Display (LCD) called a TFT (Thin Film Transistor) this is in the form

of a thin glass or plastic panel which is illuminated from behind by fluorescent tubes (although you couldn't tell they were tubes from looking at the display). The display is constructed from discrete pixels making up the "native" resolution of the display. For example a typical 15" display like mine has 1024x768 pixels, unlike a CRT monitor it is not possible to exceed this resolution because the pixels are set. Lower resolutions can be displayed by scaling them to fill the whole screen. Some TFT monitors applied a simple scaling method which could lead to ugly doubled pixels when displaying a lower resolution, recent models use a smoothing system that just makes these resolutions look softer than the native mode. With an LCD monitor it is advisable to run in the native resolution most of the time.

### What's Important

Each pixel in a TFT display can be individually controlled to show the colour required, unlike a CRT monitor the display does not have to be regularly refreshed. This means that the refresh rate that is so important to prevent flicker on a CRT monitor is not relevant to a TFT. You might see refresh rates quoted on TFT monitor specifications but this is purely the signal the display can accept from your graphics card. The key measure of the quality of a TFT display is how quickly it can change the state (colour and brightness displayed) of an individual pixel, this is called the response time. On displays with a slow response time moving objects on the screen, for example scrolling windows, games and even

the mouse pointer can blur as the display tries to keep up. This effect is particularly noticeable in areas of high contrast where the pixels have to change from one extreme to the other (dark to light or vice versa). The response time is usually quoted in milliseconds, you probably won't find many displays with higher than 40ms response, my monitor has a 25ms response time and the lower the time the better the monitor will display moving graphics. You might see the response time measured in two parts, build and collapse, these are the times for the element to go from black to white and back again. Generally the overall response time is the sum of these two. If you see a spec. with an unusually small response time check they are not just quoting the expand or collapse time alone.

### The Angle of the Dangle

LCD displays have a limited viewing angle, when you look at the display from the side, from above or below the display appears dimmer and the colours begin to change. Manufacturers specify the viewing angle of their displays and it is good to look for one with as wide angles as you can find. Again on modern displays you can find viewing angles of 150° or more which in my experience is fine for normal usage.

### Do you Amiga?

Most LCD monitors will run with no problems on any Amiga with a graphics card, you may need to tweak your screenmode settings in the graphics driver software (CgXMode or Picasso96Mode) to meet the

input specifications of the monitor. As I mentioned before you will also want to use the native resolution of the monitor for most of your screens. I don't know of an LCD display that will sync to the standard 15KHz Amiga screenmodes (PAL, NTSC) however if you have a scandoubler or flicker fixer there is a good chance it will work (my monitor does, I would advise you check compatibility before you buy if 15kHz compatibility is important to you). Another option is that some LCD monitors have a composite video input in addition to the graphics card input which is intended for video equipment (video cameras, VCRs etc.) if you can get a screen like this you could hook it up to the Amiga's composite video out for 15kHz screenmodes. Some TFTs have a DVI (Digital Video Interface) connector in addition to or instead of a standard 15pin SVGA connector. DVI can send digital signals direct to the monitor but it requires a graphics card with a DVI connection. No Amiga graphics card to date have DVI so make sure any monitor you buy has at least one standard VGA connector.

# PD Paradise: Task Bar Roundup

Like it or loath it a Windows style task bar and "Start" menu has become standard on most desktop operating systems. Robert Williams looks at four utilities designed to bring similar features to AmigaOS... and add some ideas of their own!

AmigaOS has never really offered an easy method of dealing with lots of windows on screen, for example finding a window that is completely obscured by another. In the past small screen resolutions and multiple screens meant that most people ran all their programs on separate screens and seldom had too many windows to worry about. In these days of high resolution graphics card displays it is becoming more common to run many programs on a single screen (often the Workbench screen) and this means it is handy to have a way to easily reveal a particular window. In Windows 95 Microsoft's solution to this problem was the taskbar which lists all the running applications and allows them to be easily brought to the front. Many Amiga programmers have written programs to bring similar functions to the Amiga. In this roundup we look at four of the best examples and see what they have to offer.

## StartMenu

**Developer:** Martin Elsner  
**License:** Freeware  
**WWW:** <http://www.martin-elsner.de>

StartMenu offers pretty much a direct clone of the

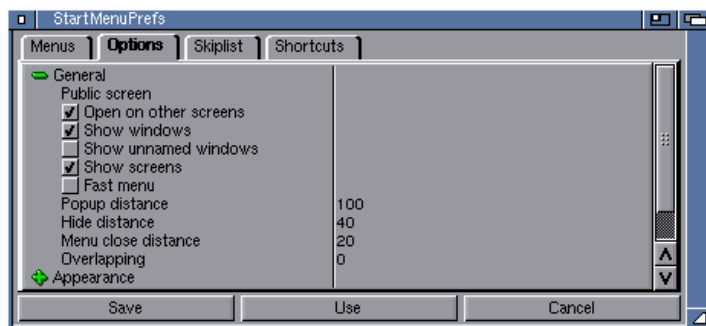


Windows start menu and task bar on the Amiga right down to a (rather ugly in my opinion) Windows XP default look. The program is configured by a neat Reaction based preferences program which is installed in your Prefs drawer by default.

Using the preferences program you can add items and sub menus to the start menu. Shell, Workbench and AREXX commands are supported. The program name and icon shown in the menu can be set independently of the filename and icon. Programs can be easily added by dragging their icons from Workbench. You can make additional sub-menus to organise your programs as you wish. Internal StartMenu commands can be added to the menu too. Only two commands are supplied, quit adds an item which quits StartMenu (without warning or any other options) and commodities creates a new sub-menu showing the currently running commodities. Each commodity in the menu has a sub-menu with Show, Hide, Deactivate/Activate and Kill options. One feature that StartMenu lacks is the facility to explore drives within the menu, personally I don't find this feature very useful so it's no great loss, of course your opinion may differ.

For quicker access commonly used program icons can be added to the left hand side of the task bar where they load with a single click. At the opposite end of the task bar a clock is shown, moving the mouse over the

StartMenu in its "Windows XP" default look. Note that it shows windows and screens.



StartMenu's Reaction based preferences program.

clock shows the date and clicking it opens a pop-up menu where you can load the prefs program or quit StartMenu. Between the two is the taskbar area, here a button is displayed for each window on the current screen, clicking on a button brings its window to the front. With many windows open the task bar can get crowded and the window titles truncated, as far as I can see there is no way to see the complete window title. StartMenu can be configured to open on all public screens, an other option allows open screens to be listed along with windows on the task bar. These options can be very handy, you can easily open programs or switch windows and screens to screens other than Workbench. A preferences option lets you exclude Windows and Screens from the task bar.

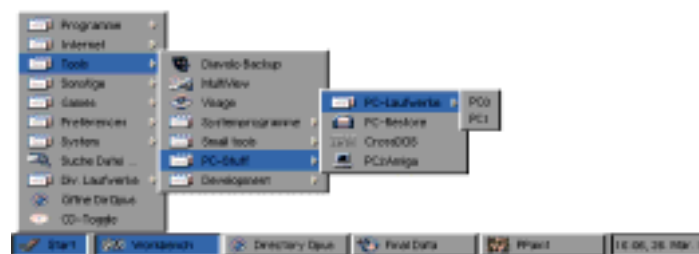
The appearance and operation of StartMenu is quite configurable, colours, fonts and background images can all be changed but there is no option to change settings for individual menus. I was also disappointed to see that the icons for the start button, folders in the menu and those

used on the task bar buttons are hard coded so you have to replace the defaults to change the look (I think it would be nicer to pick your own choices in prefs). On the plus side the bar can be hidden until your mouse pointer reaches the edge of the screen and you can also choose to have the bar at the top if you wish. If you're after a taskbar that sticks fairly closely to the Windows design, offering mostly cosmetic options then StartMenu is a good choice. If you share my opinions on the Windows XP look set aside some time to re-configure the default look though!

## Screen Tab

**Developer:** Michael Link  
**License:** Freeware  
**Download:** Aminet, util/cdity/ScreenTab\_3\_2.lha and ScreenTab\_Ext.lha

ScreenTab's main purpose in life is to let you easily swap between open screens and windows using two different key combinations. By default Left Amiga and Tab switches between screens, pressing the key combination brings up the name of the next



ScreenTab's task bar only shows screens, not windows. However it does let you select windows with a keypress.

screen in a window in the centre of the current screen, pressing Tab again cycles to the next screen and releasing the Amiga key brings the selected screen to the front. Bringing a window on the current screen to the front works in a similar way except the hotkey is different (Left Amiga and ' by default).

These features work well but they're not all that ScreenTab has to offer, move your mouse to the bottom edge of the screen and a task bar with start button appears. The taskbar cannot be set to appear permanently and must be at the bottom of the screen. However it does appear on every screen for easy screen swapping and launching of programs away from the Workbench screen. The taskbar only displays buttons for the currently open screens, there is no facility to list the open windows on the taskbar. However a plug-in is provided to add a window list to the start menu. At the right hand side of the task bar the time is shown, the format can be altered from the prefs program.

The start menu can contain three types of object, programs for quick launching, plug-ins that add additional features and sub menus. This is all configured from a neat MUI



In the MUI prefs program you can add programs and plug-ins to the Start menu.

based preferences program (ScreenTab itself doesn't use MUI). You can add programs and plug-ins anywhere on the top level of the start menu or on a sub-menu. The menu can be reorganised using drag and drop. Programs can be added to the menu by dropping their Workbench icons on the preferences editor, if you want an accompanying image you must select it separately as ScreenTab does not use the program's icon. A selection of suitable icons are included in the ScreenTab distribution.

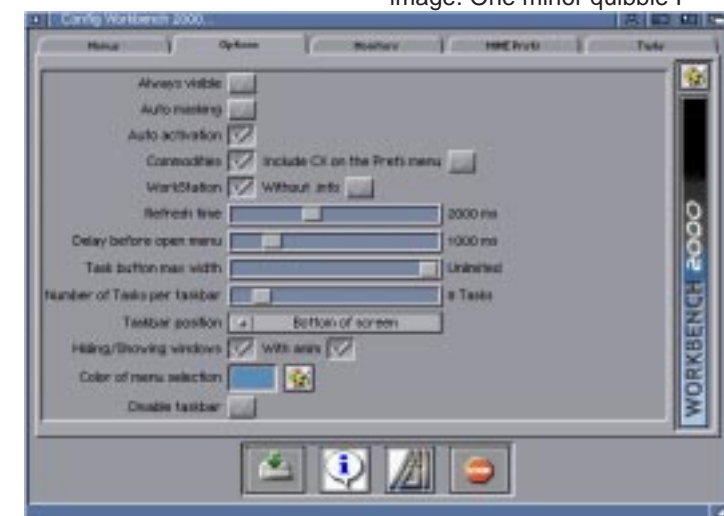
Plug-ins are used to add powerful features to the ScreenTab start menu, several are supplied with Screen Tab. When the program was Shareware the author held back several plug-ins as an incentive to register, he has now uploaded these plug-ins to Aminet in the ScreenTab\_Ext.lha archive.

The Commodities plug-in adds a sub-menu containing all the currently running commodities, each commodity has a sub menu containing the control options found in the OS Commodities Exchange program. The previously mentioned Windows plug-in lists the windows on the current screen and brings a window to the front when you select it. A unique plug-in to ScreenTab is Bookmarks, this displays your web browser's hotlist in a sub menu and then loads the URL in your browser when you select an item. The docs for this plug-in show how to set it up for IBrowse but as it uses AREXX you should be able to make it work with any browser. Other plug-ins offer options to reset the Amiga (with optional confirmation), flush used libraries etc from memory and paste the current clipboard into

the keyboard buffer (adding simple clipboard paste support to most programs).

Probably the most complex plug-in is the Directory Walker, this allows you to explore a volume or drawer from an item on the start menu. ScreenTab uses the FileID.library to identify the type of each file displayed, there is then a configuration file where you can define which actions will be available in a sub-menu for that type of file. For example you could define Show and Edit options for a graphics file format and link them to your favourite viewer and graphics editor. A default set of actions can be defined for files which are not recognised and these can be appended to any file specific actions so you don't have to define common actions for every filetype. The actions configuration file is plain text and has to be changed in an editor, however the format is simple and a good example file is supplied.

The look of ScreenTab is fairly fixed, you can change the fonts and icon images used but not colours. There are no facilities for background patterns or changing borders. If you want a light weight solution with a surprising amount of power then ScreenTab works very well. Personally I would have liked windows shown on the task bar and it's probably not ideal for those who like customising the look of their system.



Workbench 2000 offers many options (controlled from this prefs window) largely making up for its lack of plug-ins.

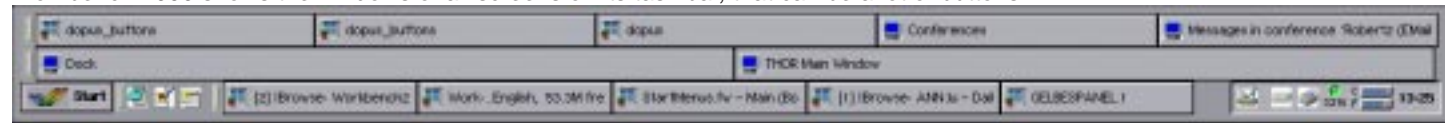
## Workbench 2000

**Developer:** Emmanuel Dausse  
**License:** Freeware  
**WWW:** [www.memory-overdrive.com](http://www.memory-overdrive.com)

Workbench 2000 is unique among the other taskbar/start menu clones mentioned here in two ways, it is a stand alone program rather than using plug-ins to add its functionality and it uses MUI for its task bar and preferences program (the others that use MUI only do so for their preferences program). Being a stand alone program has some advantages, installation is easier and all the options are immediately available., however any future expansion is up to the program author. Using MUI for the task bar is also a double edged sword, it allows the user to access all of MUIs settings (assuming MUI is registered) but also means the MUI system and the classes used by Workbench 2000 are loaded all the time it is running.

At the top of the start menu you can add items to launch programs, these can be split into sub-menus. Programs can be added by drag and drop and it is also possible to run AREXX commands, CLI commands and script files from menu items. If you have an icon datatype installed Workbench 2000 can display the program icon next to its entry, you can also choose any other datatypes supported image. One minor quibble I

Workbench 2000 shows the windows of all screens on its task bar, that can be a lot of buttons...



have with the Start menu is that you have to click to open it and then click on the item you want when I prefer the click drag approach used by Amiga menus.

The lower section of the start menu contains Workbench 2000's built in functions, all of these can be disabled in the preferences if required. Commodities offers easy control over the running commodities. Workstation contains sub-menus for all the drives mounted on your system allowing you to explore them in the menu. Right clicking on a file icon in the Workstation menus brings up a pop-up menu where you can perform file operations (Copy, Move, Rename and Delete) and also add user defined operations. You can define the default action for different file types using the MIME Types section of the preferences program, this is limited to recognising file types based on their extension.

The final entries on the start menu are Execute which allows you to execute a shell command, this includes a history function of recently issued commands. A Shutdown option at the bottom of the menu opens a window with options to quit Workbench 2000 or reboot the Amiga.

Workbench 2000 shows all the windows on all open screens on its task bar this means it can quickly get very crowded. A useful option in this case is to limit the maximum number of window/screen buttons on the task bar. When this limit is reached Workbench 2000 starts a new row of buttons above the task bar. Another way to reduce clutter on the task bar is to exclude certain applications or particular windows from the task bar. The bar can be visible all the time or only when the pointer is at the edge of the screen, it can also be positioned at the top of the

screen if you wish. At the right of the task bar you can opt to have several useful monitors. In addition to the usual clock there is are memory, CPU activity, printer, on-line and freespace monitors. Hovering the pointer over most of the monitors brings up additional information, for example the freespace monitor shows a graphical display of the usage of all your disks. You can assign a program that will be run when you click on one of the monitor icons too. On the left hand side of the task bar next to the Start button is an area where you can add program icons for quick launching.

In its default setup I thought Workbench 2000 looked rather ugly with an odd mixture of Magic Workbench, Glow and Windows icons. I also had a problem where the backgrounds of icons weren't removed but that may be related to my datatypes. With a new set of images and some work in MUI prefs I'm sure it could be made to look good. So if Workbench 2000 offers the feature set you want and you like MUI it is a powerful choice.

## AmiStart

**Developer:** Dariusz Brewka  
**License:** Freeware (Author requests an EMail from users)  
**Email:** d.brewka@freenet.de  
**Download:** Aminet, util/wb/AmiStart.lha

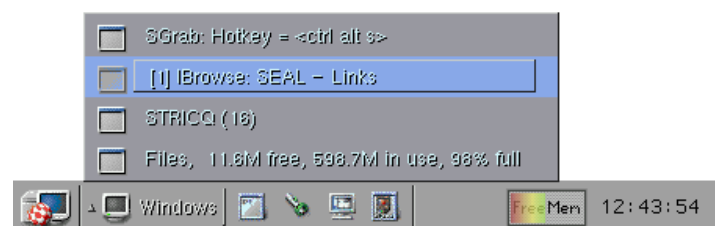
AmiStart started life as a "Start" button clone for program launching but as subsequent versions have been released it has grown a host of new features. Clicking on the button at the left hand of the bar opens the familiar menu, unfortunately the menu is "sticky", you have to click on the start button, move the mouse over the menu items to open sub menus and then click on your choice. You can't drag

like standard Amiga menus or click on sub menus to open them. At the top menu level there are several items by default. The programs sub-menu has several pre-defined categories into which you can add your own favourite programs for easy launching. To add a new program to this menu you simply open the sub-menu where you want to add it then drag the programs icon from Workbench. Options for individual menu items and for whole menu sections are accessed by right clicking on the item which brings up a pop-up menu using the popupmenu.library. Programs can have their name and icon changed (so it is different from their file name and icon), a separator bar can be placed beneath their icon (to split the sub-menu into sections) and you can choose to scale down the program icon to a size set in AmiStart's tooltypes.

The next sub-menu contains filesystem items for the Ram Disk and your System partition. Pointing to one of these items opens a sub-menu showing the top level directories and files of the device and allows you to explore the volume. If you wish you can add other volumes by dragging them onto the menu. There are various options you can set for the Filesystem items. You can set how the entries will be sorted in the menu and whether AmiStart will show the original icons. Although this slows things down a bit I would recommend it as it allows files to be launched using their existing default tool and tooltypes. The right click menu for a file has options to bring up the

information window, "Open with" which opens the file in a choice of programs (that are defined in the "Commands setup" window and "Select application" where you can choose a program using a file requester. Also on the file pop-up menu are Copy, Move, Paste and Delete items that are used for file system operations, a "Properties" item opens a window where the files protection bits can be changed. Be warned that these items change the actual files on disk not just how they are displayed in the menu! While AmiStart's filesystem items are very powerful I found manipulating files in a menu rather cumbersome, it would probably be my least used feature.

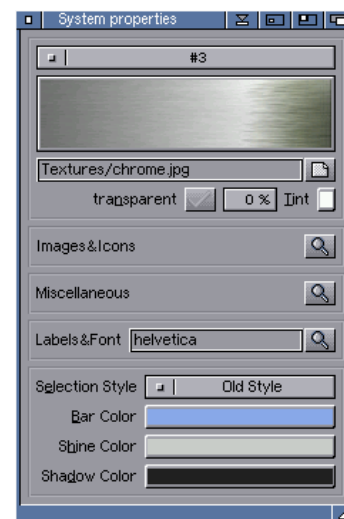
The "Commodities" sub-menu lists all the commodities you have running on your system, for each commodity a sub menu offers Remove, Show, Hide, Activate and Deactivate options making commodity control much quicker than using the Exchange program. Next up is a filesystem item that is a short-cut to the preferences directory, a useful example of how a directory of commonly used items can be easily added to AmiStart. A search item is provided at the top level but it is simply an application item and you must use its settings pop-up menu item so it launches your favourite search tool (such as the Find utility provided with OS3.9). Similarly the Help sub-menu is initially empty allowing you to add your own help files such as Amiga Guide documentation. The last default "Start" menu item is "Quit", selecting this opens a



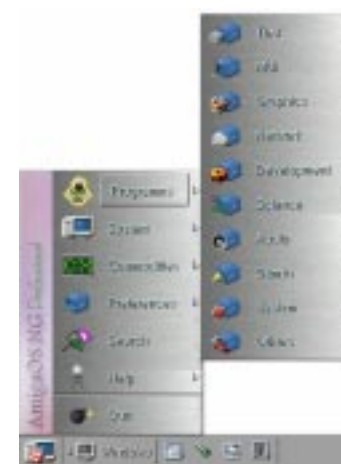
...by contrast AmiStart shows no windows or screens on its bar but you can add a neat pop-up window list.

requester where you can quit AmiStart, save preferences or reboot the Amiga.

AmiStart has an optional (activated by a tooltype) bar which runs along the bottom of the screen, this isn't really a task bar because it doesn't display current windows, screens or applications. Instead it is more an extension of the menu, any of the items allowed on the menu can also be added to the task bar. For example you can add favourite applications to the bar for easy launching. Equally you can add application or filesystem directories which then pop-up from the bar when clicked. The facility is included for external tools to display on the taskbar, two examples are supplied which show the current time and free memory on the right hand side of the bar. A second type of external module is supported which adds a new type of sub menu to the start menu or task bar, an example module is supplied that shows all the windows open on the Workbench screen. It can be configured to bring the selected window to the front when you roll the mouse over it or when you click. Adding this module to the bar gives you similar functionality to a task bar except you have to click the icon to see it, on the plus side the menu does give plenty of room for menu titles that often have to be truncated on a traditional task bar.



AmiStart is very configurable, you can change the look of every part individually. There are also transparency and anti-aliased font options.



AmiStart's default look is slick.

The look of AmiStart is very configurable, all the icons can be changed as can the background image and colours of each menu, sub-menu and the bar. Fonts are configurable too and the latest version even supports antialiasing with truetype fonts. If that wasn't flash enough you can also add a configurable level of transparency to the menus and bar! That said a few aspects are fixed, the bar must be at the bottom of the screen and there is no option for hiding the bar until the pointer reaches the edge of the screen.

Overall AmiStart is extremely powerful and comprehensive, I hope in the future the author will add drag support in the menu (for those like me who can't abide "sticky" menus) and perhaps a proper task bar. With the excellent external tool and module support perhaps some third party programmers will come up with some new plug-ins too (an SDK is included in the archive).

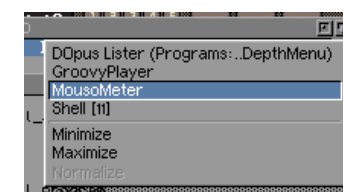
## Other Options

If you don't like the idea of a full task bar and start menu there are other utilities which make screen and window handling more comfortable. In general these don't offer program launching or other more advanced features but these can often easily be handled by separate utilities. For example many people will be happy to stick to AmiDock (supplied with OS3.9) or Directory Opus button bars to launch their programs.

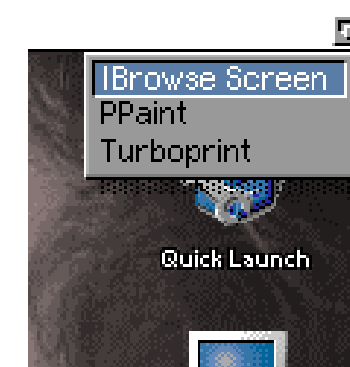
## Depth Menu

**Developer:** Arkadiusz Wahlig  
**License:** Freeware (assumed)  
**WWW:** http://www.depthmenu.prv.pl  
**Requires:** popupmenu.library available on Aminet, directory util/libs/pmuser.lha

Depthmenu adds a list of all the open windows on the current screen to the depth gadget of each window. Right clicking on a window's depth gadget brings up the list and selecting a window pops it to the front. Depthmenu adds a similar menu to the screen depth gadget except it lists the current screens. One limitation is that windows without a title bar (for example Opus and AmiDock button bars) do not get listed in the window menu (because they have no title) and cannot be used to call up the menu (because they have no depth gadget). This problem is partially solved because the window menu can be called up at any time by pressing Alt and Tab even if the active window doesn't have a title bar. Although essentially a simple utility with few options Depth Menu does support add-on modules which can change the way certain windows are presented in the menu and add new menu items. A number of modules are available for download from the author's website. The DOpus5 module shows Opus windows in a consistent manner for example listers are shown as DOpus Lister [path] this means all the opus related windows are grouped together in the Window list. This module also adds a new item to the menu to close all Opus lister windows. The MinMax module adds three new items to each window menu. "Minimize" reduces the window to the



DepthMenu adds a simple window list to each window's depth gadget...



...and a list of screens to the screen depth gadget.

smallest possible size, "Maximize" enlarges it to fill the screen and "Normalize" sets it back to the original size. On my Amiga I found these menu items had a tendency to lock the machine with some programs, though the other functions of Depthmenu worked reliably.

Depth Menu uses the popupmenu.library (which you need to install separately) which has a preferences program giving plenty of control over the look of the pop-up menus. For example you can change the colours, border style and even add drop shadows (both dithered and true translucent types are available). You can also change the way menus operate so you can have "sticky" menus if you prefer.

I found DepthMenu worked well and placed the window selection menu in a very logical yet unobtrusive place. If you want easy window and screen selection without clutter it's a good choice.

# Jabberwocky

Elliott Bird finds yet another way to meet and chat with friends online whatever utility they use.

On the Amiga, there were only two ways to communicate with friends in real-time, ICQ and IRC (as detailed in issue 9 of Clubbed). Now there are five ways to communicate on your Amiga, but with just one chat client, and that's Jabberwocky! Jabberwocky allows you to communicate with your friends, not just on ICQ and IRC, but also Yahoo, MSN, and through Jabber itself.

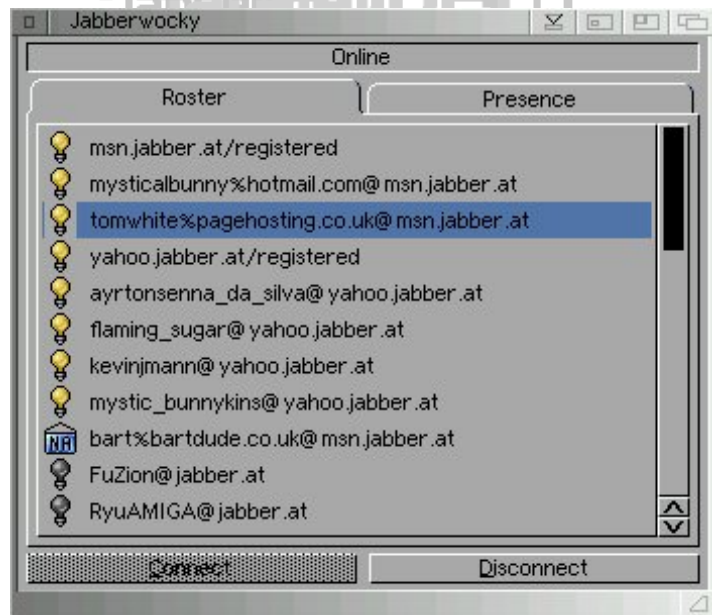
Setting Jabberwocky up is relatively simple. Each time you fire it up, a window will come up asking you for your Jabber ID and your password. Because this is your first time you will need to come up with an ID of your choice, for example: "JohnSmith@jabber.at". You can also have "JohnSmith@jabber.org", although jabber.at tends to be more reliable. Once you've chosen your ID, you will need to enter in a password. You'll need to do this carefully, as you cannot see what your typing for this, it is so that annoying brothers or sisters can't see what your password is! Once you've done this, click on Register and you should be in! Each time you fire up Jabberwocky from now on, you should already have your ID entered in for you, and all you need to do is enter in your



A chat session.

password and click on connect. In order to make use of the various chat protocols (otherwise known as transports), you'll need to register for each of them. This can be done by going to "Windows" in the menu, then go down to "Agents list", which will bring up a window with the available transports, and what you are able to do (i.e. Register, conferencing, and group chat). Fill in the required details, and bearing in mind that you may already have to be registered, so it may require access to a PC (cough!). Once your account has registered with Jabberwocky, a subscription window will appear, click on "accept" to accept it (it does help!). It should now appear in your contact list with a light bulb next to it, telling you that it's working and you're online with it. If it's ICQ you've subscribed to then it should appear as "icq.jabber.at/registered", or "yahoo.jabber.at/registered" if you've registered with Yahoo Messenger.

To add a contact to your list, you need to go to "Roster" in the menu, and select "Add Contact". Where it says "Jabber ID" enter the address of the user you want to add, for example if you wanted to add someone who's on ICQ, their ID would be something like "123456789@icq.jabber.at", or if they're on MSN it would be something like "johnsmith@hotmail.com@msn.jabber.at". Then the contact should be added, along with a light bulb telling you if they are online or not. You will be able to tell when they are away or not available with either a small "N/A" or "DND" symbol in place of the light bulb. You can change your



Jabberwocky brings together all your instant messaging contacts even if they use different networks.

status by going to the "Presence" tab in the main Jabberwocky window. To chat to someone, click once on the user you want to speak to, go to "Roster" in the menu, and go down to "Chat", and a chat window will open up. What you say is in italics, and what the person at the other end says is in normal style text. With ICQ, I recommend you make a note of ICQ UIN's, and who is what number, to save yourself from embarrassment! If you suspect that anything isn't working properly on Jabberwocky, go to "Windows" in the menu, and go down to "Console", then make sure "Watch XML Traffic" is ticked. This way, all activity



This window shows the various messaging systems (transports) supported by Jabberwocky.

from Jabberwocky, as well as the presence of other users and traffic of messages between users show up in this window. Any errors usually show up in this window too. Unfortunately there are some features of Jabberwocky that are yet to be implemented, such as the ability to have conferencing, and save messages. But "Flush" does actually work as I found out (Wipes conversations in chat windows).

Overall I am quite impressed with what Jabberwocky is capable of, and it brings the ability to be able to chat to your friends on Yahoo, MSN, ICQ, as well as Jabber itself, on your Amiga! Well worth a try! It's free, and now open source too!

[jabberwocky.amigaworld.de/](http://jabberwocky.amigaworld.de/)

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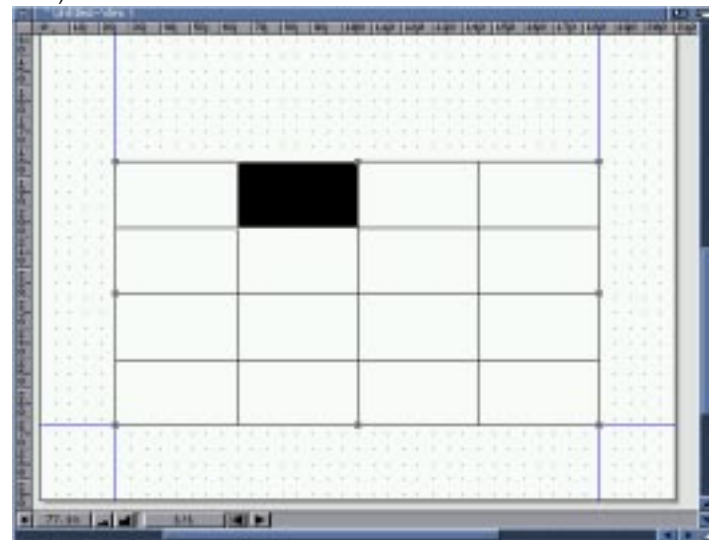
# Tables Tutorial

By Robert Williams

One of the major new features of PageStream 4.1 is the tables tool which allows you to create complex tables of data and text in a PageStream document and even has some basic spreadsheet features. The table feature is currently only documented by a few notes in the 4.1 readme file so I thought it would be useful to demonstrate creating a table in this tutorial.

Load PageStream and start a new document by choosing "New" from the "File" menu. In the "New Document" window select a page size, I chose to use standard A4 letter, also enter 1 under the "Column Guides" section.

To start with we need to draw out a basic table. First select the table tool from the tool box, it is the 11th icon from the top and looks like a small white irregular grid. If you see the grid icon (a grey regular grid icon) click and hold the left



Creating a new table is as easy as drawing a rectangle.

Product Information	Pack Qty	RRP	Our Price	Saving (%)
Floppy Disks (5.25")	10	3.5	3	14.2857
Floppy Disks (5.25" HD)	10	3.5	2.75	21.4286
Floppy Disks (5.25")	10	5	4	20
CD-R ( Jewel Case)	10	4.75	4.25	10.5263
CD-R (Spindle)	25	10.25	9.9	3.41463
CD-RW ( Jewel Case)	10	7	6.2	11.4286
Compact Flash (60Mb)	1	90	59	33.3333
Average Saving (%)				21.1672

## Table Cell Edit Palette



mouse button on it to select the table tool from the pop out. With the table tool selected click on the page to locate one corner of the table then drag it out to the size you want. I made mine fill about a third of the sheet height and the width inside the margin guides.

### Editing

Initially the table has four columns and four rows so probably the first thing you'll want to do is customise it to have the right number for the layout you want. For this example I want five columns and eleven rows. To modify the table we need to be in modify mode, to select this click and

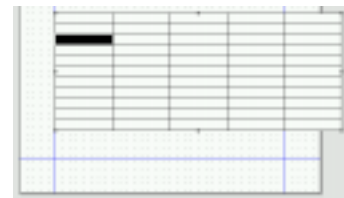
hold on the pointer tool and select the modify tool (a pointer

with a square at its tip) from the toolbox. Now click on the cell in the table where you want the row of column to be added (as we don't yet have any data in our table you can choose any cell) it should be highlighted in black to show it's selected. Now take a look at the Edit palette (normally at the bottom of the screen) it now shows controls that effect the table and the current cell. To add a column click the insert column icon. A new column of four cells is added at the cursor position, notice how the table becomes wider the accommodates the new cells rather than squashing up the existing ones.

Now we'll add some rows, before we do so it's a good idea to adjust the height of the rows already in the table otherwise it will grow bigger than the page when the rows are added. Make sure you're in modify mode then click on a cell in the top row, now hold down shift and click once in a cell in each of the lower rows. Change the height (H) gadget in the edit palette to 7.5mm (or equivalent in your preferred measurement system) and press Return twice (this is necessary to activate any change you make in the edit palette), the table then changes to show the new height. Now we can add the new rows, you can only add rows or columns one at a time

so click in any cell then click the insert row icon seven times to get a total of eleven rows.

It would be nice if the width of the table fitted the margins of the page, we could do this by setting each cell's width to one fifth of the pages width but it is easier just to re-size the whole table. This is achieved using the standard pointer tool, select it from the tool box then click on the table. Now drag the middle right hand editing handle to the right hand margin guide. Notice that the table cells scale down evenly to fit the new width.



Before you do any formatting it's a good idea to put the data into the table so you can see the effect of the formats. Data can be entered into a PageStream table in two ways, with the text tool or into the Value box on the edit palette, if you don't intend to use any formulas the easiest way is with the text tool. Select the text tool then click in the top left cell, the flashing text cursor should appear there. Now type "Media Price List". In the second row click in the first cell and type "Product Information" then select the third cell in the

second row and type "Price (£, per pack)", don't worry if either of these phrases don't fit in the cell. Select the first cell in the third row and enter "Description", moving along the third row enter the following into the cells: "Pack Qty.", "RRP", "Our Price" and "Saving (%)". On the bottom row enter "Average Saving (%)" in the left hand cell.

Now we'll use a feature unique on the Amiga to PageStream's tables implementation, merging cells. Select the modify tool and click in the top left cell then hold down shift and click all the cells in the top row in turn. Click the merge icon in the Edit palette to join the cells. Next up is to merge the first two and then the last three cells in the second row. Finally merge the first four cells on the bottom row (leaving one cell at the right). The merged cells can now be treated as one, for example try centering the "Media Price List" text in the top row (drag select it with the text tool then choose Alignment/Center from the Type menu) notice that it centres to the middle of the table not its original cell.

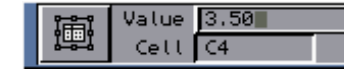
Fill in the Description and Pack Qty, columns, if you want to use the same data as me you can copy it from the screenshots. To fit the descriptions in we need to make the Description column wider, select modify mode and click in one of the cells in the first column.



**TIP:** When changing the width of cells choose a single cell not a merged one, when changing the width of a merged cell PageStream sizes the first column contained in the merged cell the size you specify and then adds the width of any other cells making the merged cell wider than you specified.

Enter the new width in the Edit palette's "W" box, make the cell slightly wider than it needs to be to hold the text (I found 55mm about right), and hit Return twice. Now the table is too wide for the page again, instead of changing the size of the other cells individually we'll reduce the size of the whole table. Select the pointer tool and drag the edge of the table to the right margin guide as we did before. Again all the cells are scaled evenly keeping their relative proportions (the description column is still bigger than the others).

Now its time to enter the prices, however because I want to use them in a formula later we need to enter them in a different way. Using the modify tool select the cell immediately under "RRP", in the Edit palette click in the "Value" box and type "3.50" then press return twice.



**NOTE:** Formulas only work on values entered in the value box, not on numbers entered with the text tool.

Using the same method fill in all the values in the "RRP" and "Our Price" columns, be careful that there isn't a space before the number you enter.

Now we'll add a formula to automatically calculate the percentage saving for buying in bulk. To do this we can enter a formula in the "Saving (%)" column, PageStream uses formulas that will be familiar to anyone who has used a spreadsheet program. A formula can use standard mathematical operators such as +, -, / (divide), \* (multiply) and brackets. A formula can include the value of other cells, these are referenced using a letter for their column and a number for their row. For example cell C4 would be the fourth down in the third column.

**TIP:** If you're unsure of a cell's reference click on it with the modify pointer and check the "Cell" box in the Edit palette.

A formula must be entered in the Edit palette "Value" box for the cell where you want the answer displayed. To tell PageStream the text you enter is a formula you must start with an "=" symbol. Enter the following formula in the "Value" box for the cell below "Saving (%)", this should be cell E4: "=(1-D4/C4)\*100". Now press return twice and you should see the result of the formula displayed in the cell.

**NOTE:** If the formula does not calculate correctly (shows 0 or the wrong value for example) check that you have typed it exactly as shown and check none of the cells holding the numbers or formula have a preceding space in the value box.

The next job is to copy the formula down to the product rows in the "Saving (%)" column. Unfortunately PageStream doesn't have an easy copy down method as found in most spreadsheets that automatically updates the appropriate row so you have to copy the formula manually. To do this select the formula cell (E4) with the modify tool and click in the "Value" box on the Edit palette. Now press Right Amiga + C to copy the formula to the clipboard. Click in the next cell down (E5) and paste the formula into its value box using Right Amiga + V. Edit the cell references in the formula so it calculates using the value on the current row, the formula should now read "=(1-D5/C5)\*100", press return twice to apply the change. Now

Product Information	Pack Qty	RRP	Our Price	Saving (%)
Floppy Disks (5.25")	10	3.5	3	14.2857
Floppy Disks (5.25" HD)	10	3.5	2.75	21.4286
Floppy Disks (5.25")	10	5	4	20
CD-R ( Jewel Case)	10	4.75	4.25	10.5263
CD-R (Spindle)	25	10.25	9.9	3.41463
CD-RW ( Jewel Case)	10	7	6.2	11.4286
Compact Flash (60Mb)	1	90	59	33.3333
Average Saving (%)				21.1672

Editing a value (in the edit palette) causes the calculated cells which use the value to automatically update.

repeat this to copy the formula to all the rows except the "Average Saving" row.

In addition to simple calculations PageStream also has a few functions which help you perform more complex mathematics in one step (check the Functions box out for a complete list). We'll use one of these to calculate the average saving in the bottom row. The function we'll use is called "average", select the bottom right cell (E11) with the modify tool and enter the following formula in the "Value" box: "average(E4:E10)". Two things to notice here are how the function is supplied with the information it needs inside the brackets and how we've specified a range of cells for it to work on. E4:E10 tells it to find the average value of all the cells from E4 to E10 inclusive. Press return twice and the average should be calculated.

Now our formulas are all setup we can see how useful they really are. For example lets say we had a special offer on 5.25" disks and decided to sell them at £1 a box, modify the Value of cell D6 to "1" instead of "4" and press return twice (remember you must make the change in the Edit palette). Immediately the saving is recalculated to 80% and the average saving is recalculated too!

### Limitations

Currently the implementation of formulas in PageStream tables has a number of limitations, the most obvious one from our example is that you can't set

Product Information		Unit Price	Price	Price
Description	Unit Price	Price	Price	Price
Floppy Disk (5.25")	10	0.5	0	14.2857
Floppy Disk (5.25" HD)	10	0.5	0.75	21.4286
Floppy Disk (5.25")	10	5	1	90
CD-R ( Jewel Case)	10	4.75	4.25	10.5880
CD-R (Spindle)	25	10.25	9.9	3.41463
CD-RW ( Jewel Case)	10	7	6.2	11.4286
Compact Flash (32Mb)	1	90	20	9.56667
Average Saving (%)				21.4286

Nearly finished... the table with just the text formatting to add.

the formatting of the displayed numbers. By default they are displayed at four decimal places and any zeros after the decimal point are hidden. This can make the results look a bit messy. Also there is no option to have a leading or trailing symbol for currency or percentage values.

## Formatting

Next up is some formatting to make the table look a bit more interesting. In a PageStream table you can set the background fill and outline of each cell individually and also set the fill and line style of the table as a whole. By default each cell has a solid white background and a thin black border. To edit the style of a cell choose the modify tool and click on the cell, you can shift click on multiple cells to edit them all at once. The first thing

I usually do is to remove all the cell borders, to do this click on one cell with the modify tool and then shift click on all the others. At the right hand side of



the Edit palette click on one of the line buttons surrounding the box (fill) button. In the Line and Fill window that appears you can change the line style and colour, in this case we want to turn the line off so click on the "Stroke" check box until it is cleared (not a tick or a cross). Click OK and follow the same procedure for the other three line buttons. Click on one of the cells to clear the selection, now you should have a bare table with an outline around the outside.

I'm going to make the heading lines and Average Saving lines red, using the modify tool click on one of the cells in the top three rows and then shift click on all the other cells in those rows and the two cells in the bottom row. Click the fill button on the edit palette and choose "Red" from the "Color" drop down menu, click OK. Now we'll give these cells a yellow vertical border, click on the left border button and set the "Weight" to "1 pt" and the "Color" to "Yellow".

For the information rows we'll use alternate yellow and white backgrounds to make them easier to read. Use the modify tool to select all the cells in every other data row (4, 6, 8 and 10). Use the fill button to set the fill "Color" to "yellow" and the intensity value (to the right of it) to "50%", this will give a light yellow which is

easy on the eye. Click OK and select another cell to see the effect. Next we'll add some vertical lines to the data section, select all the cells in this area, click the left border button and set the line "Color" to "Red" and the "Weight" to "1 pts".

To finish the table off we'll add a border to the whole table, to do this select it with the pointer tool. Choose "Line & Fill" from the "Object" menu or press the "L" key, in the window choose the "line" tab, set the "Weight" to "4 pts" and the "Color" to "Red".

## Text Formatting

The last job is to format the text, this works exactly like any text formatting in PageStream. Use the text tool to select the text you want to format then change the options using the edit palette, type Line & Fill requester and other options on the Type menu. I selected "Product Information" with the text tool and set the fill colour to "White" in the Line & Fill requester (accessed from the "Type" menu or by pressing Ctrl+L), then I set the style to Bold by clicking the "B" button on the "Edit" palette.

**TIP:** You can select text in several cells at once by holding the "Alt" key while you select each block. Then you can apply formatting to several blocks at once. You may find it easier to apply the format you want to the text in once cell and then use the Eye-dropper tool to copy it to other cells. To do this click the eye dropper tool then Shift-Click on the text with the format you want to copy and click (without shift) on the text you want to give this format.

I used the eye dropper technique to apply the white and bold text format to all the heading cells (with the red backgrounds).

**NOTE:** If you increase the font size of the text if can spill over the bottom edge of the cell, to avoid this you need to

make the cell height larger. On merged cells this will cause the problem I mentioned before where the table suddenly becomes very wide (the first column is set to the width of the merged cell). To cure this you will have to re-size the cells manually (either by sizing the whole table or individual cells) remember to set the size in non-merged cells, if you size another merged cell the problem will re-occur.

Bearing the above in mind select the "Media Price List" text in the top cell and use the Edit palette to set the text size to "24pt". Then, in modify mode, change the height (H) of the top cell to "12mm", when you press return twice the height should change as expected but the width of the table will now be much too wide, I found that the text in the cell also disappeared (this didn't happen when I changed the size of an ordinary cell). To correct the size problem select one of the single cells in the left hand column (the "Description cell for example") and set the width to "55mm". You will then probably need to adjust the width of the table slightly using the pointer tool. Now choose the text tool and re-enter the title, it should remember the text formatting you set.

I hope this tutorial is helpful to people who have PageStream 4.1 and wondered how the table tool works and also shows most of the possible options to people thinking about buying the program or upgrades. As you can see there are currently some limitations and bugs in the table feature but it does work well for the most part and is far more powerful than tables in any other Amiga program.

## Functionality

Here is the complete list of mathematical functions currently available in PageStream tables:

ABS  
ARCSIN  
ARCCOS  
ARCTAN  
AVERAGE, AVG  
COS  
EXP  
INT  
LN  
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# Creating a Photo PANORAMA in ImageFX

Robert Williams helps you do something a bit more interesting with those holiday photos.

As we're in the middle of the holiday season I thought it would be good to have a tutorial that could be applied to holiday photos. One of the utilities commonly supplied with digital cameras is to stitch together several photos to form a panorama. While there isn't a dedicated application to do this on the Amiga there's no reason you can't get similar results using a standard image processor, particularly if it has layers. In this case I'm going to be using ImageFX but there's no reason you couldn't apply the same technique in Photogenics or ArtEffect.

Before you can begin of course you must have a set of photos you want to assemble into a panorama. As you can probably tell from my photos I'm no expert photographer, to be honest I'm just your average snapper! So I'm not going to pretend to offer any advice on the actual photography. All I will say is that your job in assembling the panorama will be made much easier if you keep the camera settings constant as you take each photo so they are all evenly exposed. To avoid the



You must zoom out the display so you can see the whole image before cropping.

large steps I have in the positions of my photos you need to pan the camera on an even path, a tripod would help in many situations I'm sure.

As my source material I have a four photo panorama of St. Ives bay taken while I was on holiday in July. If you want to try this tutorial with the same photos as I used you can download them from the Issue 12 page of the Total Amiga website.

## Let's get Started

So without further ado load up ImageFX (I'm using 4.5 here but I think everything here should apply to any 4.x version) and lets get started.

Open the photograph that will go at the left side of your panorama in ImageFX by

"Interface" button, in the window clear the "Close Child Windows Immediately" check box. To save this preference click "Save" in the preferences window and save the prefs file as "Default.prf".

Click on the "Size" button in the toolbar and then in the "Size" palette that opens click "Scale". In the "Scale Image" window set "Mode" to "Border" and make sure "Aspect" is set to "Ignore Aspect". Now we need to add a border equal to the width of the additional images we are going to add. I have a total of four images, as the border command applies to both sides of the image I will need to make the border on each side wide enough for three images, so that's six images in total. As the first image is already included we must add that so we want the buffer to be seven times the current width. To do this easily just type 700 into the first "Percent" box and press return, then click "Okay".

To crop off the unwanted space on the left hand side you need to zoom out to see the whole image, to do this click on the "-" icon in the image window's

bottom border or on the toolbar until you can see a border to the left and right. Make sure you can see the whole image including the borders on both sides because the crop function only works on the visible area. Click "Crop" in the size palette then, on the image, drag the middle left handle to the right until it just reaches the left of the photo, don't worry about being too accurate as we'll have to crop the image again later. Click the "Crop" button in the "Crop" requester.

## Merge

Zoom in on the image until it is about half the screen width, stretch out the window to cover most of the screen so you have a good view when composing the other photos. Now open the "Layer Manager" by clicking on the icon to the left of the R, G and B buttons on toolbar. From the Layer Manager's pop-up menu choose "Load Layer", select the next photo along in your panorama in the file requester. The photo will be loaded into the middle of the buffer so depending on how wide it is you may need to scroll the buffer right to see the photo. When the image has loaded select "Move Layer" from the pop-up then drag the photo to the left so it's left edge is close to the first photo.

Look at the joining ends of the photos and try to identify a common landmark or object. As ImageFX shows a bounding box rather than showing the content of a layer as it is dragged I found the easiest way to line up the photos was to click the mouse on a landmark I had found in the second and then drag the pointer to the landmark on the first photo to get a rough match. At this stage it's probably wise to take a look at the overall join and check obvious things (for example make sure that the horizon (if there is one) lines up! To improve the match try reducing the "Blend %" in the "Layer Manager" to about the half way point. This allows the first image to show through the second. Although you won't get

a perfect match you should be able to see if objects on one layer are misaligned with those on the other by a few pixels. It will probably help to zoom in again to at least actual size (indicated by 1:1 after the filename in the Image window title bar) for this operation. To nudge the layer a pixel at a time with the arrow keys position the pointer over the layer and then hold Left Amiga + Alt (the standard left mouse button key combination). When you think you have a good match I would suggest nudging the layer a couple of pixels in each direction in turn from your good position just to check there isn't an even better match.

Slide the "Blend %" back up to the far right and check out your handy work (at this point don't worry if the colour balance of the two photos doesn't match), unless you have done a fantastic job of shooting the panorama there will probably still be some mismatches. I found the best way to deal with this was to blend the two images slightly into each other. For this we use the layer's alpha channel which allows us to control the translucency of the image. The first job is to give the layer an Alpha channel, click on the "Alpha" button in the toolbar then on "Create" in the palette and finally on "Matte". Next take a look at the Alpha by clicking on "Swap". You should see a plain white image, if you need to zoom out so you can see it all. Notice that the Alpha channel is the size of the photo layer not the whole buffer. Now white areas of the alpha channel relate to solid parts of the image and black parts to transparent areas, grey areas are more transparent the darker they are.

## Blend

What we want to do is to add a gradient to the left side of the image making it gradually transparent. First we'll make the gradient we're going to use, take a look at your palette window and see if you have a black and white colour next to each other. If there aren't



Blending the photos together using an alpha channel (below) smooths out imperfectly matched sections.

choose the "Palette" button in the toolbar then click on any colour in the palette window so it is selected. Now in the toolbar drag the R, G and B sliders down to "0" the palette entry is now black. Click the next colour along the row in the palette and set all its RGB values to "255". In the toolbar set the cycle gadget above the "Range" button to "R1".

Click on the Black colour then click the "Range" button, finally click the white colour, the new range you have created (from black to white) is shown by dots on the colours in the palette.

Click on the "Toolbox" button in the toolbar and double click the filled box tool (click the bottom right hand corner of the box tool), the "Drawing Options" palette should open. In the palette set "Fill" to "Horizontal" and "Range" to "R1". Now size the image window so you can see the whole alpha channel with a small border at the bottom and right edges. In the bottom border position the mouse pointer along the image at the point you want the fade to start. Exactly where you start will depend on how much your images overlap, I was able to have about 100 pixels. Now click and drag the box up and to the left until you cover the whole left hand edge of the alpha channel, don't worry if you move over the window border, then release the mouse



button. Your alpha channel should now have a smooth fade on the left edge. To see the effect this has click the "Swap" button in the "Alpha" palette again.

Carry on and follow the steps above to load each of your other images as a layer and merge them together. Once they're all loaded we'll have a go at correcting the differences in colour balance. If you're short on memory or using particularly large images it will help if you flatten the layer you've just merged before adding the next image. To do this select the "Flatten Layers" command from the "Layer Manager" pop-up menu. However if you have to do this you will need to perform colour corrections on your layer before it is flattened.

## Match

No matter how careful you have been in keeping your camera settings consistent you will probably find that the colour balance of the photos which make up your panorama needs some adjustment to get them to match up and look like

## Step by Step Merge



1. Find a landmark.



2. Position the image roughly and turn on transparency



3. Nudge the image to get an exact match.



4. Remove transparency.



The "Color Balance" window is ImageFX's main colour adjustment tool.

layer in the "Layer Manager", I'm working on the left hand image so in my case it's the "Background" layer. Then we can use ImageFX's colour tools, the basic adjustments are in the "Balance" window accessed from the toolbar. In the "Color Balance" window zoom out the preview thumbnail by clicking the "-" button until you can see a top and bottom border (about 1:9 for me) then click on the top thumbnail and drag it until you can see the photo (you may need to drag a few times). Now click the "Realtime Update?" check box so you can see the difference your changes make in the lower thumbnail. In this window the R, G, and B sliders adjust the intensity of the primary colours, "V" is brightness, "Co" contrast and "Ga" gamma. The gamma is often a useful tool because it adjusts the brightness of the middle tones without effecting the very light and dark colours which would normally be washed out or merged together respectively. In this case I have some light areas that are very washed out so after some experimentation I settled on reducing the brightness by "-30" and increasing the contrast by "10" to pep the colours up a bit. This worked well on most areas, especially the sea and town. But the sky was still too light and grey because it had been over exposed in the photo losing its true brightness and colour.

The only option seemed to be to treat the sky on its own and make the blue more intense. To select the sky I used ImageFX's flood region tool, on the main toolbar click the cycle gadget at the left hand side (which is on "Full" by default) until it says "Flood". Now click in the sky of the photo you're

one image. If you have been able to keep each photo as a separate layer then you can work on each photo in turn tuning its colours to the others. If you've had to flatten layers as you added each photo then you will need to match each photo in turn which can be more difficult as you won't see all the images together to decide which balance you are trying to match. I'm going to assume here you have each photo loaded as a separate layer.

The first job is to look at each of the photos in turn and decide which one has the best colour balance, the aim will then be to match the others to this photo.

With my photos I hadn't followed my own advice and left the camera in automatic mode, this gives me four photos with noticeably different colour balances. It doesn't help that the right side of the scene is overcast and the left side in bright sunshine. In my selection the left hand photo is pretty over exposed and looks quite washed out where as the right one is rather grey and dull. So I picked the second photo as the one I wanted to try and match, it is nice and bright without being over exposed.

Starting with the first image you want to balance select its



Cropping the flattened composition to give the final panorama, see it in colour on the back page.

editing, the area selected is shown by "marching ants". If the area selected is too small you can increase it by changing the "Flood" tolerance slider in the "Drawing Options" palette (I found I needed to increase this to "50" to get the whole sky) and click in the sky area to perform the flood again. If you want to add an area to the selection (for example among the tree branches) hold down Alt while clicking, to remove an area hold Ctrl. Now any processing operations you apply will only effect the selected region.

**TIP.** If you want to apply effects to the other parts of the image and protect the currently selected region open the "Buffer" palette from the tool box, click "Region" and then click "Invert Region". This requester also has options to load and save regions for later use.

I then used the "Balance" effect to increase the blue level by 20 and reduced the brightness (V) by 10 to get a good colour match on the sky. When you're finished with the region remember to set the cycle gadget back to "Full" otherwise you may be surprised when your next effect only changes the region.

### And Finally...

When you're happy with the first photo choose the layer of the next one you want to adjust. On the third photo I thought the bushes at the front of the shot already looked quite a good match so I decided to work on just the sky and sea.

Using a "Flood" tolerance of 50 at the top of the sea, this should select most of the sea and sky area with just a few

exceptions. Then switch the region mode cycle gadget to "Box", hold down the Alt key and draw a box over any areas in the sea and sky that didn't get automatically selected. Now open the "Balance" window, I found a contrast setting of 20 combined with a brightness of 10 gave a good match.

Set the region control to "Full" and then choose the final photo's layer, this one is considerably darker than the rest and in this case I found I could adjust the whole thing without the bushes getting too bright. So it's just a case of opening the "Balance" window and setting brightness to "27" and contrast to "25".

When you're happy with the overall look of the panorama you can flatten it into a single image. If you wish to keep the layered image make sure you save it as an INGF file before flattening. Then choose "Flatten Layers" from the "Layer Manager" pop-up menu. Once the image is flattened you can apply any effects you want to the whole image. If you wish you can also crop it to remove the uneven borders making the finished panorama look as much as possible like one photo.

When you crop remember to zoom the image so you can see the whole area you want to crop out without scrolling.

Overall I'm quite pleased with the way this panorama turned out, especially as I hadn't given much thought to keeping the camera settings consistent between shots and I didn't use a tripod. There are a couple of areas where the colour balancing could probably be improved if I had spent a bit more time on it, especially in the bushes on the first and last photos. You can also still make out the joins in the sea and sky again those transitions could be lost with a bit more work. So get out that digital camera and find some interesting panoramas to photograph!

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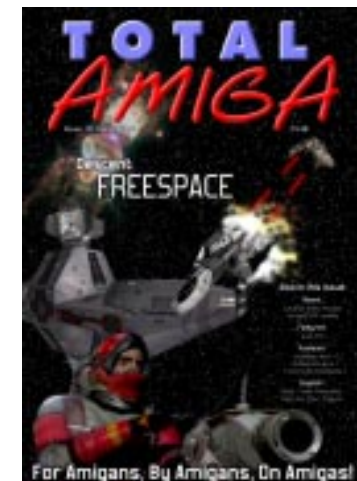
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