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Scantastic!

- Scanning Explained
- Scanner Review
- fxSCAN Review
- Scan Quix Review
- Scanner Software Roundup

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SEAL-O-RAMA Report
OS 3.9 First look

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Shell Scripting

Issue 7, Winter 2000/01

For Amigans, By Amigans, On Amigas!

Editorial

Out with the Old...

... In with the New (coming real soon now)
From a retailer's point of view one of the most frustrating aspects of the Amiga market is the availability of products - or rather the lack of them! It's particularly difficult when our suppliers keep promising 'next week, delivery, honest' but the goods still fail to arrive. And for those of you that still have goods on long-standing orders with us - thanks for your patience; we really are doing our best on your behalf, and we will, of course, contact you when goods finally arrive to make sure that you still want to proceed. Only then will your credit card be charged or cheque banked.

Well, I hear you say, its alright: Eyetech complaining about their suppliers, but what are they doing about it? Well actually (apart from haranguing the offending suppliers on a daily basis) quite a bit as it happens.

Over the last year we've invested substantially in the design, development and manufacture of alternatives to those Amiga products which have been restricted in availability and/or have artificially high prices as a result of either long term shortage of supply or because of so-called 'exclusive' distribution arrangements (most of which are illegal under EC legislation) which effectively prevent price competition.

Amiga products we have designed and manufactured - and which are now available ex stock - include:

- EZTower-Z4 award winning A1200 tower
- EZKey-XS multifunction keyboard interface
- Midi-Plus Midi interface for all Amigas
- EZRack-A1200 2X19" rack mount system
- EZCam PCMCIA camera flashcard drive
- EZBoot solid state floppy disk replacement
- EZMousa right angle adapters for towers
- EZMousa PS/2 mouse/trackball adapter for all Amigas

And with the value of the pound having fallen around 10% against the euro in the last month, manufacturing these products here in the UK means that we can keep our prices stable and very competitive with euro-based imports.

To ensure that prices on these products remain competitive we are happy to supply any of these products (at significant discounts) to any Amiga dealer who meets certain minimum technical support and stock availability requirements. If you run an Amiga related business and think you fit this profile please emailing to gain access to our website's trade area.

In addition to the products mentioned above we have two other very significant products currently under development for Classic Amiga users - the **Predator-SE** 5xPCI busboard for the A1200/A4000, and the **AmigaOne**. Both these are on schedule for release shortly. Please see the separate news item on this page for a status update on these products.

Finally if you have a requirement for a product or accessory for your Amiga that either doesn't exist yet - or is just impossible to find at a reasonable price - please email us at sales@eyetech.co.uk with details of your request and we'll see if we can do anything to help.

That's all for now - see you next issue. Alan Redhouse.

Amiga news from Eyetech

February 2001

Predator-SE or AmigaOne : Which is for you?

When we first announced our intention to build the Predator range of PCI/AGP boards last Autumn, and released the philosophy behind the design of the boards we received an overwhelmingly positive response. At that time we announced two board families, the Predator-SE and the Predator Plus. The **Predator-SE** is a low cost PCI-only expansion bus designed to attach to the localbus (graphics connector) on the Blizzard-PPC accelerator (and equivalent for the Cyberstorm-PPC/Mk3 accelerators for the A4000). This is the board to go for if you have an existing phases5/DCE PPC (or Cyberstorm Mk3) accelerator and wish to upgrade the graphics performance significantly to eg - a Voodoo 3-D graphics card and/or use low cost PCI ethernet/sound/etc cards.

The **Predator-SE** - now upgraded to 5 PCI slots - will be available direct from Eyetech and our approved dealers from February 2001 priced at £129.95.

The **Predator Plus** took this design a stage further and incorporated an AGP graphics slot, SDRAM memory and a G3/G4 cpu on board. However, in October last the Predator Plus was updated and used as the basis of the **AmigaOne 1200/4000** design at the request of Amiga Inc. The new design has 6x PCI + 1 x AGP (graphics card) slots and can be used as either a stand-alone board (running the Amiga DE) or in conjunction with an existing A1200/A4000 motherboard to run Classic Amiga O/S & applications at high speed with a very high degree of compatibility. In this latter mode the AmigaOne functions as a very fast G3/G4 accelerator with the added benefit of 6xPCI + 1xAGP expansion slots for graphics and other I/O expansion. The AmigaOne does not require (or use) any other Amiga accelerator. The AmigaOne should be your choice if you want to give your existing Amiga a major boost in terms of cpu and I/O power or run the forthcoming AmigaDE and applications - or both.

The **AmigaOne** is currently in prototype form with end user boards on schedule to ship in March 2001. Final pricing will be announced when the board goes into final production. Both the Predator-SE and the AmigaOne will be available in separate form factor versions for the A1200 and A4000 (with versions for other Amigas following if there is sufficient demand). A1200 versions are designed to fit into a standard tower conversion (including Eyetech's EZTower Z4, the Elbox A1200 tower and its Power/Winner tower variants). The A1200 version will also fit in a standard ATX tower case for use as a standalone system running the Amiga DE. A4000 versions are designed to fit in an A4000 Desktop conversion tower such as our own EZTower 4000 or the Elbox A4000 tower.

The 3D graphics drivers for both the Predator-SE and the AmigaOne are being ported by Hyperion Software. Initially drivers will be available for the Voodoo3, 4 & 5, Permedia2 and Virge 3 graphics cards.

AmigaOne mailing list launched

We have set up a mailing list for the AmigaOne 1200/4000 on egroups.com as it has now become too time consuming to answer all AmigaOne emails individually. You subscribe to the 'AmigaOne' list by visiting www.egroups.com and following the joining instructions.

As well as a general forum for moderated discussion on the AmigaOne 1200/4000 we will be actively using the list to select Beta testers for the AmigaOne. The chosen Beta testers main job will be to test the compatibility of the AmigaOne whilst it is running in Classic Amiga mode. Testers will be able to buy the boards at a substantial discount, but must be regular users of demanding Classic Amiga software to be of value. If you are interested please post a message to the AmigaOne list with 'Beta test' as the subject.

OS3.9 In Stock at £29.95
OS3.5 is also still available at £24.95.
A1200 3.1 ROMS (reworked) just £19.95
when bought with OS3.9 or OS3.5

31vx streaming video compression technology to be ported to the AmigaOne

Following a meeting at the Kohn show in December between Alan Redhouse of Eyetech and Jan Devos of image compression specialists Happy Machines N.V., an agreement was reached to port the 31vx codec to the AmigaOne 1200/4000. The 31vx codec, which is currently available for Windows and Mac platforms, allows much higher quality streaming video to be achieved per given bandwidth compared, for example, to the RealPlayer codecs. Using the 31vx codec it is possible to view streaming video with acceptable quality and frame rates even using a 56kbit dial-up modem internet connection.

Much of the work in porting the codec to the AmigaOne's PPC platform has already been carried out with the codec expected to be fully available for the AmigaOne's release later this quarter.

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EZTower and Tower accessories

EZTOWER OPTIONS - The EZTower-Z4 is the latest state-of-the-art tower specifically designed to take the A1200 Z4 expansion bus-board. Available as a DIY kit, ready assembled or via our fitting service.

EZTower MK5 with 250W PSU, 6x 5.25" bays & 3x 3.5" bays, floppy drive cable & faceplate, LED adapter and full instructions. (62x42x13cm) **£89.95**

EZTower-Z4 with 250W PSU, 3x 5.25" bays & 4x 3.5" bays floppy drive cable & faceplate, LED adapter and full instructions. (48x44x18cm) **£99.95**

EZTOWER ACCESSORIES

EZKey MK2 Ribbon cable slot PC/Amiga keyboard adapter with free PC keyboard. 5pin DIN **£28.95**

EZKey-SE/A CIA-fitting A4000 keyboard adapter for A1200/A4000. 5pin DIN socket **£18.95**

EZKey-XS CIA-fitting PC/A4000 auto-detecting keyboard adapter for A1200/A4000 with xMON control, infrared decoding for CDTV remote with full alphanumeric mapping, 4 x PC keyboard mappings, keyboard operated ATX PSU on/off control etc. 5pin DIN socket **£39.95**

Z4 BUSBOARDS AND BUNDLES

Z4-Bus A1200 expansion busboard 5x Z2 slots, including 2 x high speed slots & video slot, 2x Z4 slots for future ultrafast cards, 4x clock ports and accelerator pass through connector **£99.95**

Z4-Bus & CV64-3D, AMON/F **£249.95**

Z4-Bus & CV64-3D, AMON/F **£289.95**

Z4-Bus & CV64-3D, INSD2, AMON/F **£339.95**

Z4-Bus & CV64-3D, INFF2, AMON/F **£369.95**

Z4 Tower, Z4-Bus, PC k/b, EZKey-SE **£199.95**

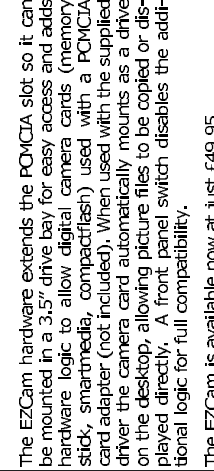
Z4 Tower, Z4-Bus, CV64-3D, EZKey-SE **£349.95**

Z4 Tower, Z4-Bus, CV64-3D, A4000 k/b & adapter, AMON/F, EZVGA INFF MK2 **£449.95**

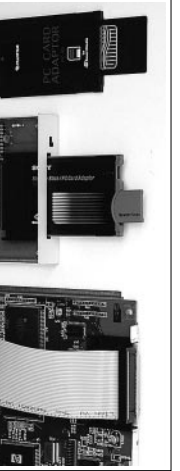
Read & Write Digicam memory cards direct from Workbench with the EZCam adapter

The EZCam hardware extends the PCMCIA slot so it can be mounted in a 3.5" drive bay for easy access and adds hardware logic to allow digital camera cards (memory stick, smartmedia, compactflash) used with a PCMCIA card adapter (not included). When used with the supplied driver the camera card automatically mounts as a drive on the desktop, allowing picture files to be copied or displayed directly. A front panel switch disables the additional logic for full compatibility.

The EZCam is available now at just £49.95.



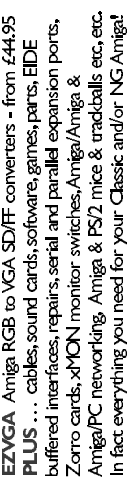
The EZCam is available now at just £49.95.



MASPlayer - an MP3 player which works with all Amigas from the A500 upwards. The MASPlayer uses the same hardware decoder chip used by the award-winning Diamond Rio MP3 players. It plugs into the parallel port, has a 3.5mm mini stereo output jack and draws its power from a pass-through connector on the serial port. Unlike software MP3 players it makes very low demands on the CPU allowing full, usable, multitasking. The MASPlayer supports all bit rates (including variable bit rates) when used with an i20 cpu or above and gives excellent sound quality. It is ideal for turning your old Amiga into a sophisticated MP3 player, or simply as an add-on to your existing configuration. The MASPlayer is now in stock, priced at just £69.95

This is just a small selection from our vast range of Amiga products and accessories. Please see our web site, see our full price list on this month's AmigaActive CD or send 39p in stamps for a full product listing and price list.

- A1200 ACCELERATORS '030 from £44.95, '060 fr £179.95 - from £12.95
- 72-PIN SIMM MEMORY - from £29.95 to 300GB
- EIDE HARD DRIVES - from £24.95
- CDROM DRIVERS & SYSTEMS - from £119.95
- CDREWRITER DRIVES & SYSTEMS - from £119.95
- GRAPHICS CARDS - LIMITED SPECIAL OFFERS
- Bvision 8MB, 24-bit 1600x1280@72Hz £169.95
- CyberVision 64-3D, Z2/3 1600x1280 £149.95
- EZMOUSE hardware only PS2 to Amiga converter £19.95
- EZSURF 56k modem, NC3 s/w, free internet conn £99.95
- HIGH QUALITY SVGA MONITORS - 15" from £79.95 - 17" from £179.95
- EZVGA Amiga RGB to VGA SDIFF converters - from £44.95
- PLUS... cables, sound cards, software, games, parts, EIDE buffered interfaces, repairs, serial and parallel expansion ports, Zorro cards, xMON monitor switches, Amiga/Amiga & Amiga/PC networking, Amiga & PS/2 mice & trackballs, etc, etc. In fact everything you need for your Classic and/or NG Amiga!



The EyeSurf is complete Plug-and-Play internet solution that works entirely independently of your Amiga (or other computer). It has a built in modem, SCART RGB/composite output and pass-through sockets, a printer port, an infrared keyboard and SCART and phone extension leads. The EyeSurf has a fully de-interlaced, hi-colour display, with antialiasing fonts and selectable text rendering sizes to accommodate different sizes of (TV) display. The EyeSurf has full SSL support built-in for secure web site ordering. Best of all we are offering 10% off the list price of any Amiga orders placed using the EyeSurf within 6 months of its purchase!

UK NEXT DAY* INSURED DELIVERY CHARGES: OS3, SW, Cables, EZCD IF = £; 7.5" HDs, Acoustic, Manuals = £; 3.5" HDs, FDs = £; CDRA, Samras = £11; Systems Monitors = £15; Tower + monitors = £23

UK Bank/Bs cheques, Visa, Mastercard, Switch, Delta, Connect, Solo, Electron. Postal/Money orders accepted. (* 3% clearance charge applies to all credit card orders). Due to space limitations some of the specs given are indicative only - please ring/write for further details. Please check prices, specification and availability before ordering. If ordering by post, please provide a daytime telephone number. All goods (excluding opened or used software) may be returned in perfect condition within 7 days of invoice date for a refund (excluding carriage, services and card clearance charges). A1200 items are tested with a Hewlett-Packard motherboards - other boards may need modification. Items subject to mechanical wear & tear (eg keyboards) are limited to 90 days warranty on these components. E&OE. All prices include VAT at 17.5%. Orders sent outside the EC do not incur VAT - divide the prices shown by 1.175 to arrive at ex-VAT prices. All goods are offered subject to availability and our standard terms & conditions, copies of which are available upon request. **CLB07**

email: sales@eyetech.co.uk
http://welcome.to/amiga.world

For further details about our complete range of Amiga games - starting at just £4.95 - please see our website: www.eyetech.com
Please see our ad elsewhere in Clubbed for more games, and to contact us!

Amiga 3D Voodoo Drivers

You may have recently heard about the use of the Voodoo range of graphics cards (made by 3DFX) on Amigas. While this is true, at the time of writing, no Amiga 3D games are able to make use of the 3D acceleration capabilities of these cards.

The only 3D hardware acceleration API (application programming interface) currently available on the Amiga is Warp3D. The authors of Warp3D have not publically released drivers for the 3DFX Voodoo range of cards for any PCI/AGP expansion device.

Currently the only drivers available which make use of the 3DFX Voodoo cards are 2D drivers, however when Warp3D drivers are developed, games such as Heretic 2, Wipeout 2097 and the forthcoming games Shogo, Freespace and SIN will benefit immensely.

The authors of Warp3D have officially announced that they will be developing Voodoo drivers for the Eyetech AmigaOne 1200/4000, which is due for release in March 2001. These drivers, combined with the onboard G3/G4 CPU and SDRAM memory, will lead to very high FPS speeds in 3D games.

Shogo Expected Soon!

The highly anticipated 3D shooter Shogo, developed by Hyperion is expected in stock in February 2001!

One of the most eagerly awaited sequels ever. Help Simon solve more puzzles and unravel even more mysteries. With full sound card (via AHI) and graphics card support.
Needs AGA or Gfx card, 68030, 16MB, CDROM, HD minimum

£29.95
Forthcoming Review

The Amiga gets one of the PC's best known strategy games. Compete with excellent strategic and economic AI, in 50 exciting missions, or take your friends on with the 6 player multiplayer mode.
Needs Gfx Card, 32MB, 68040, HD, CDROM, OS3.1+

£29.95
Forthcoming Review

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Do The Write Thing

We'd like to make Clubbed more "interactive" so we need your input!

Got a question you'd like answered or an opinion you'd like to share? Write to us and we'll include it in a letters page.

Got a tip for other readers or even an article up your sleeve? Send it in and you could very well see your name in print.

Got a suggestion or comment on the magazine? Let us know and we'll try and make Clubbed better for you.

By
Mick Sutton



This issue of the magazine I would just like to tell you about our SEAL event "SEAL-O-RAMA" which took place on September the 10th. We (SEAL) had been so impressed with the Kickstart shows (well done again guys & girls of course!) that we decided to hold one of our own (as I mentioned in the last issue), and I can tell you that at first we were very apprehensive about doing it, but we had alot encouragement from the likes of John from Forematt Home Computing who has helped SEAL from the very beginnings with offering credit card paying facilities for subscribers of "Clubbed" magazine and distributing our flyers for both the user-group and magazine.

Only a few days after announcing the show to the world we had several companies on board wanting to attend and co-sponsor which was a big relief I can tell you! Thanks to Gary Storm with his promotional tactics (I don't know or wanna know how he did it), it was only a matter of weeks before we had ALL the tables booked and were looking to reduce the number of tables exhibitors were able to have (due to our hall not being the largest in the world), not only that, Gary had managed to "persuade" all the companies attending to offer us prizes to give away!

Analogic did us proud by announcing that every subscriber to "Clubbed" at the show would receive a free gift (a trackball) which was not to be sniffed at plus several hard drives. Thanks to them and all the companies (nearly all) who donated prizes. Also I would like to mention that Hyperion gave us a copy of Heretic II to give away as a prize for the Heretic II competition and Amiga (Petro) gave us two A1200 Magic Packs and loads of promotional goodies, even though they didn't attend the show. Crystal Interactive Software brought along a special SEAL-O-RAMA version of their brand new game Bubble Heroes, which was nice!

Several user groups came along to show what they are up to and these included ANT (Amiga North Thames), ASA (Amiga Support Association) and Kickstart who you cannot keep away from any event! Some members of HAUG (Huddersfield Amiga User Group) came all the way down from Yorkshire,

and several SEAL members intend to return the compliment on the 24th of February when they are putting on a similar style show (go for it).

So on reflection, we needn't have worried about getting the companies/exhibitors to attend at all, now all we needed to do was to get the punters through the doors, in my opinion that is the hardest bit. We put the announcement on all the news sites and several companies agreed to send out flyers to all their customers and of course a big bonus was having a news article in AmigActive (thanks guys).

But on the day we were pleasantly surprised when around 180 people turned up, which I didn't think was too bad for our first ever event. From personal comments, articles on mailing lists and news groups it would seem that most who came along enjoyed themselves. From feedback I have had from exhibitors most of them did well enough in sales to make it worth their while coming along, and nearly all have stated that they would like to come along next year if we decide to do it all again. Another success was the games arena which pulled the crowds and helped sales of games, particularly Heretic II which completely sold out by the end of the day! This game sold itself, by being played people got to see what all the fuss was about which no review or screenshot can do. This just proves how important shows are in an Amiga market where there are no shops demonstrating Amiga wares.

In summary I would like to thank all the exhibitors for their support and the people who turned up not knowing what to expect. Without doubt the heroes of the day were the SEAL members who got this thing off the ground and kept the momentum going (where have I heard that?) in particular, Robert who done all the promotional artwork and posters, Gary for mugging companies into coming, Jeff Tony & Glenn who ran the games arena faultlessly, Roy for selling so many subscriptions of this wonderful magazine and not least Sharon and Mandyleigh for all their hard work in the kitchen a.k.a. the Turkish bath!

SEAL-O-RAMA Show Report

by Gary Storm and Robert Williams

We didn't know whether our first show would be a success or not. As far as we were concerned if we could get around 150 people coming through the door it would be a great start. If we didn't get any more than a hundred it would probably be our first and last show :)

As it was we had nearly 100 Amigans rush the gig in just half an hour after opening. At the end of the day the final attendance was about 190, which is fantastic for our first show. Of course this is in no small part in thanks to the brilliant support of Czech Amiga News, Amiga.org, Amiga Active magazine and everyone else who helped to get the show known (I must point out here that Gary himself and Mick Sutton were the guys behind the shows publicity and obviously they did a great job, Ed.).

Setting Up

SEAL members and exhibitors arrived at our venue in Basildon at 10am to set up everything for the 12 noon opening. Setting up was pretty painless, even though there were lots of Amiga's (and a couple of PCs - cough) being used for various things. About our only problem was that the parking area was being invaded by the cars of a junior soccer team's parents (who had a match on which we didn't know about), but after we brandished our baseball bats they disappeared for some reason. Strange.

Robert Williams (SEAL God and editor of Clubbed magazine) (BLUSH, Ed.) had printed loads of posters for the exhibitors, and also some for us to stick on the road-signs to show where we were. Mandyleigh (my fiancé www.mandyleigh.co.uk), Dave (not my fiancé) and myself went and illegally plastered the signs up with some gaffer tape. We even had a police car drive by us as we were doing it, but they didn't stop to beat us up, which was a shame.

Exhibitors

Once the doors were open to the general public, a deluge of Amigans filed into the venue for the princely sum of £1 each, and were handed a raffle ticket each for the multitude of prizes that were on offer. There was enough to see, even though Mick Tinker and the mythical beast of a BoXeR couldn't make it, as well as iFusion PPC (which I was hanging out for, al-



The Mediator PCI board got its first UK showing at SEAL-O-RAMA

though I am assured it should reach us fairly soon).

Blittersoft had a sexy looking Mediator PCI running with a Virge graphics card, which looked great on a motionless screen. Unfortunately there wasn't any application or game running at the time I was there to see how it performed under working conditions, but it's very exciting. The excellent Payback game was on a separate AGA Amiga. Payback looks and plays brilliantly, and it's not even finished yet. You definitely have to buy this game if you liked Grand Theft Auto in any way.

Later in the show Bart, the programmer of "Fubar" showed up to demonstrate his Cannon-Fodder/Command & Conquer-esque game, which looks very promising.

Eyetech had what I think was one of the most interesting tables, thanks to the stock they brought with them which included XSurf Ethernet cards, BVisions and their many A1200 products and the d'Amiga system that was running.

Analogic didn't bring anything to demo, but had a few bargains, including 17" Compaq V70 monitors for £120. I grabbed myself one of those baby's. Yum.

Forematt Home Computing brought along quite a bit of good software, old and new, games and serious stuff. We were happy to see they had brought along some of the new releases such as Heretic II and you could order anything they didn't have and still get the show price. John and his lovely wife kept on smiling all day, which makes me wonder what drugs they were on, and where I could get some :)

Mark Hinton and Russell from Amiga Active magazine weren't looking so im-

Clubbed.info

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(19:00 - 22:00 GMT only please).

Only Amiga Made it Possible

Clubbed is designed and laid out using:

Hardware:

Amiga 3000
CyberStorm PPC/060
CyberVision PPC
64Mb RAM, about 8Gb HDD space.

Software:

PageStream 4 by Softlogik
ImageFX 4 by Nova Design
Photogenics 4 by Paul Nolan
Final Writer 5 by Softwood

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.

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

Legalese

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: Clubbed 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 Clubbed 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 above and we will pass it on.

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pressed on their stand when I was wandering around... or maybe it's 'cos I was there, and joking about Mark's gay Amiga following :). Amiga Active had an absolutely outstanding huge poster behind them as you'd expect (even bigger than our SEAL and Clubbed ones, grrr, Ed.), and a lot of their excellent magazines on show. Unfortunately Andrew Korn didn't make it. I was doing a bit of Amiga Active magazine promoting, and most of the people I spoke to were already subscribers. One guy even said he didn't want to subscribe because he ordered it through his local small newsagent and wanted to support them even though it cost him extra. If you haven't experienced the delights of the best commercial Amiga magazine in the world yet (OK, the only commercial Amiga magazine in the world), then get your ass to www.amigactive.com and subscribe. You have no excuse not to, as it's brilliant and is delivered all over the world.

Crystal Interactive premiered and sold Bubble Heroes, which is a game very similar to 'Bust A Move 2' on the Playstation (you can read a review on page 34 of this issue). Anyone who's played that knows how addictive and fun it is, and Bubble Heroes is a fantastic Amiga rendition, and well worth buying. Andrew also gave a popular demonstration of Gilbert Goodmate, Crystal's new point and click adventure game, this was running on a laptop PC and Andrew was keen to judge the reaction to an Amiga version.

Unfortunately I didn't get to see the Gasteiner stand, but it's nice to have had them at an Amiga show again.

Ideas2Reality had brought along a working QNX system, which looked very interesting. Bernard and his accomplice were nice to chat to, and very interested in the response (which was pretty positive). They didn't really bring much to sell, just a couple of pc keyboards and mice really, but they came to gauge reaction to the QNX RTOS and I think they were pleased.

Kickstart were doing a great business of selling registrations to MooVid for PPC and non-PPC Amiga's for the author. MooVid is a great .avi and .mov video player, and I've always wanted it for my PPC. It's a real pity that the Frogger author didn't trust Kickstart enough to let them sell his program at the show as well, as it's much less of a pain in the arse to buy shareware through Kickstart than trying to get foreign money posted off to God knows where. So c'mon all you shareware authors... let Kickstart do the biz for you.

SEAL ourselves were there promoting this very magazine and issue 6 was released at the show. We sold another 20 subscrip-



The games arena was popular all day.

tions, and loads more single issues. A large number of these sales were down to Roy Burton who spent most of his time behind the SEAL table, thanks Roy.

Usergroups ASA and ANT where there too attracting new members and selling a variety of second hand bargains. ANT's Michael Carillo who isn't known for his shyness also did a great job of helping us out throughout the day. His loud voice came in useful with announcements (as we had three separate halls), and during the prize-giving at 4pm.

Games!

The games arena was the area we were most worried about but in then end everything went off very smoothly thanks to the hard work of Jeff Martin, Glenn Pudney and all the other members who helped out. We had three games Wipeout 2097 and Heretic II representing bang up-to-date Amiga gaming and the classic Sensi Soccer. Wipeout was running throughout the afternoon, with people trying to better the best time on a certain track. The winner got a copy of Wipeout 2097, kindly donated by Blittersoft. I used to be great at this game on the Playstation, but everyone was beaten by some kid who'd played it once or twice on a friends PSX. Brat :)

Heretic II was played on two PPC's opposite each other, networked in a death-match. I got through to the quarter-finals but was trounced. I blame the lack of a mouse-mat myself :) The prize was Heretic II of course, donated by Hyperion themselves.

Finally there was a SEAL-O-RAMA! 2000 Sensible Soccer tournament, where I was knocked out after an own-goal in extra time (a shot deflected from a defender) and a couple of other goals just to make sure. The final was between Paul Qureshi and Glenn. It wasn't Paul's day, as Glenn beat him here, and he'd also lost his long standing best time on Wipeout 2097 to that talented bratlet. Glenn is actually a SEAL member who had organised the Sensi comp, but in no way was it rigged (or I'd have won) :). Glenn had the grand prize of an Amiga 1200 Magic Pack from Amiga and a 3.2 gig 2.5" HD from Analogic to go into it.

All three of these games are just fantastic, so if you have any interest or equipment to be able to play them... do it. Get them.

The Prizes

After many tickets were drawn only to find that the winner was no longer there (it was probably YOU), other prizes to be handed out at 4pm were:

- A 6-month subscription to Amiga Active. This had been won by one dude, who because he was already a subscriber, kindly donated the prize back to be redrawn. Excellent dude.
- OS3.5 from Ideas2Reality.
- Various great game and utility CDs from Forematt Home computing.
- Another Amiga 1200 Magic Pack.
- Port Plus Junior, STFax 4 and other things from Eyetech.

Thanks again to all the exhibitors for donating the prizes. Brill.

Special thanks must go to Analogic as their give-away helped to sell many Clubbed subscriptions and to Forematt Home Computing who have been a great support to SEAL right from the start. John of Forematt eagerly supported SEAL-O-RAMA and was the first to book a table. He also sends out Clubbed flyers and provides our credit card subscription service, thanks John!

All in all the day was fantastic. SEAL members did a sterling job throughout the day and the way everyone worked together was really fantastic. Cheers especially to the hard working ladies who sweated it out in the kitchen - Sharon & Mandyleigh. The kitchen was seriously a sauna. Of other note from what I saw were Roy, Jeff, Glenn, Robert, Mick, Dave and David who was tied to the door for most of the day. Well done to those and all the people we didn't see or have forgotten.

After the show we contacted all the retailers who attended and almost all of them seemed very happy with how the show had gone. We were very pleased that everything went so smoothly, there really were no major problems although we do have a few ideas to make a future show even better. To top it all off the final turnout significantly exceeded our expectations, not bad for our first show!

Thanks to all of you who came, and all of you who made it worth coming to :)

Squeeze!

Sorry that there was not room for an Editorial or SEAL-Update this issue... they will return!



OS 3.9 Is Here!

Amiga and Haage and Partner surprised most people in the Amiga community by delivering a new version of the AmigaOS at the World of Amiga show held in Cologne, Germany in December. The new OS version has a range of new features and lots of new bundled utilities. Some of the major features include:

- Multimedia programs
- Internet suite with unrestricted Genesis TCP/IP stack.
- New OS utilities including: AmiDOCK, IomegaTools, Un-archiver and Find
- New powerful Shell
- Extensive HTML documentation

For more details turn to our AmigaOS 3.9 first look feature on page 10 or visit the OS 3.9 website at:

<http://www.amiga.com/3.9>

OS 3.5 BoingBag 2a

Soon after the release of 3.9 Amiga also made available an update to OS3.5, called BoingBag 2 this includes a variety of minor bug fixes and it was nice to see purchasers of the older version hadn't been abandoned with the new release. Note: the initial release of BoingBag 2 was updated to 2a very soon after it was released due to the wrong version of some files being included if you got the earlier version you should grab 2a now.

BoingBag 2a can be downloaded from the Support section of Amiga's OS3.5 website:

<http://www.amiga.com/3.5>

Amiga Show "oop North"!

Huddersfield Amiga User Group are holding the first Amiga show in the North of England for many years on Saturday the 24th of February 2001. Christened the Alternative World of Amiga (alt.WoA for short) the show venue is The Old Cornmill on the outskirts of Huddersfield only about one minute from Junction 25 of the M62.



At the time of writing the following companies were confirmed as exhibiting at the show:

- Eyetech Group
- Wirenet
- Classic Amiga
- Cartridge Club UK
- Forematt Computing
- Ram Jam Consultants
- Weird Science
- Epic Direct
- Trogladite Software

A number of usergroups will also be attending including: The Amibench Team, Kickstart, Amiga North Thames, the Glasgow Amiga User Group and of course SEAL.

There will be plenty of things to see and do at the show. In the games you can try your hand at Heretic II (which is being organised by SEAL), Napalm and the ever-popular Sensible Soccer. An Internet Cafe will let everyone have a go at surfing plus door prizes and demonstrations are also planned.

We wish HAUG all the best with the show and hope to see you there!

For more information and directions visit the show website at: <http://www.alt-woa.org/>

Storm C



Haage and Partner have released a major new version of their StormC C and C++ development suite. The major change in version 4 is a move to the open source GCC compiler, this is designed to aid portability to the new Amiga DE. Currently StormC runs solely on classic Amigas but H&P say that this move will make future porting easier. GCC has been modified to be very compatible with the Storm compiler from earlier versions and outputs the same debug file format. The PowerPC version supports H&P's WarpOS PPC system.

Several networking features have been added to version 4 such as support for the Concurrent Versions System (CVS) which allows several developers to work on the same project and distributed make which allows the task of compiling to be spread over several machines on a network.

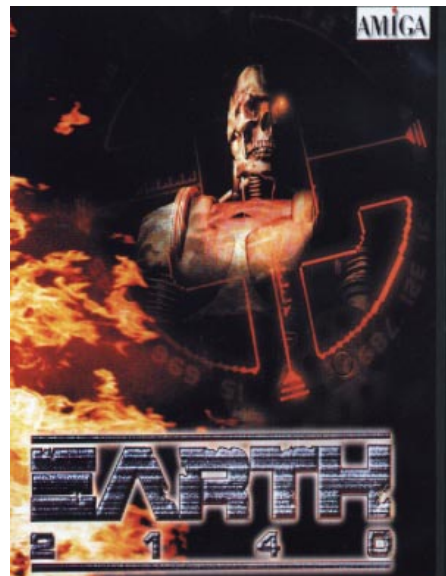
Other new features include:

- Enhanced Editor (Shows Prototypes of Functions).
 - StormDOC to manage ToDo-lists, bug reports and so on.
 - Enhanced debugger (for GCC also).
 - Debugging of Tasks and Shared Libraries.
 - Global full text search.
 - Comprehensive Online-Help.
- StormC 4 is available now and costs 498DM (about £170) upgrades for users of older versions are 198DM (£70).

For more details or to order on-line visit the Haage and Partner website:

<http://www.haage-partner.com>

For more big news see our news features starting on page 10!



Can You Save the Planet?

Earth 2140 is a real time strategy game, a genre that first appeared on the Amiga with Dune-II and went on to be hugely successful on the PC with games like Command and Conquer. E2140 was originally written for the PC by Topware Interactive and has been ported to the Amiga by Pagan Games, it is published by Epic Interactive GmbH.

This is the first Amiga RTS game to use 16bit graphics and therefore a graphics card is essential, 640x480 and 800x600 resolutions are supported. The game also requires an 040 or above processor with at least 24Mb of RAM, 32Mb and an 060 and or PPC is recommended. The PPC support is via WarpOS.

Earth 2140 promises to be a huge game, there are 50 levels to play and over 100 units to command along with a large selection of buildings. There is also a long rendered intro movie and cut scenes to help the story of the game flow and a CD audio track completes the experience.

Earth 2140 costs about £30 and is available from most dealers.

We can already tell you that the game CD comes very nicely packaged in a DVD-Style case with instruction booklet but you'll have to wait for the next issue for our review!

For more information and to download a demo visit Pagan Games at: <http://www.pagan-games.com/>

and Epic Interactive at: <http://www.epic-interactive.com/>

Simon Released!

Epic Interactive have been busy over the last couple of months, as well as Earth 2140 they have also released the long awaited sequel to Simon the Sorcerer which is called (surprise, surprise) Simon the Sorcerer 2.

Simon 2 is a point and click adventure in the style of the classic Monkey Island series. It features beautiful hand drawn hand drawn back grounds and all the dialogue is spoken (in English, German and Italian subtitles are also provided). The game has over 80 locations, about 100 characters who you can talk to, all these are portrayed with an amazing total of 50,000 frames of animation!

The game was ported to the Amiga by Paul Burkey of Foundation fame, you can find some updates to the release version on his website at: <http://www.shoecake.com/simon2.html>

If that tickles your fancy Simon 2 costs about £30 from your favourite Amiga dealer, more details and screenshots can be found at Epic Interactive: <http://www.epic-interactive.com/>



Eyetech Amiga One

At the World of Amiga show held in Cologne, Germany in December Eyetech announced that they will be producing an official PPC based AmigaOne system, designed to work with A1200s and A4000s giving AmigaDE and classic Amiga compatibility. Eyetech say that the AmigaOne boards are stand-alone computers capable of running AmigaDE alone however because they have access to a classic Amiga motherboard they should be able to provide a high level of classic software compatible.

Both models will have 6 PCI slots, an AGP slot, PowerPC G3 or G4 CPU and local memory. There will be no pass-through for an Amiga accelerator so we assume all Classic Amiga programs will

run under emulation on the PowerPC. The AmigaOne boards will fit in exiting A1200 towers which can take a ZIV board (Eyetech Z4, Power Tower etc.) and we assume the A4000 version will also require a tower. A fitting kit will be available to allow fitting in a standard ATX PC tower for those who don't need Amiga chipset compatibility.

On their new AmigaOne website (see below) Eyetech have announced a challenging schedule for the release of the AmigaOne boards which will see the end product available in March this year. For further details visit:

<http://www.eyetech.co.uk/amigaone/>

Amiga SDK for Windows

Amiga have released their Software Developer Kit (SDK) for the Amiga Digital Environment (AmigaDE) for PCs running Windows in addition to the Linux version already available. The SDK needs a PC with an Ethernet card, Windows 95B, 98, NT Workstation 4.0 (with SP3), 2000 or ME, 64 MB of RAM

(128 MB recommended), 100 MB of hard drive space and a 200mhz Processor or faster.

More details are available on the Amiga website: <http://www.amiga.com/>

Colour screen shots from Earth 2140 and Simon 2 on the back cover...

Even More Perfect

Haladjian Georges has released version 2.4 of his fantastic freeware paint program, Perfect Paint. It supports editing graphics from 1 to 24bit and now has a very wide range of effects, and useful features like anti-aliasing on all drawing operations.

The major addition to version 2.4 is the Raylab factory, this is a simple GUI, integrated into Perfect Paint, for the freeware Raylab 3D renderer. A range of pre-defined shapes can be selected or you can use a 3D font, then you select a texture and lighting. Finally you can rotate the object to get the effect you wish. The completed image can then be painted onto your Perfect Paint picture. This new feature looks like it would be ideal for creating quick web graphics and adding a bit of spice to flat images and compositions.

Other new features in 2.4 include improved design of some requesters, colour level adjustment, a new rotated ellipse tool and several bug fixes.

Download Perfect Paint 2.4 from: <http://gothic.fr.free.fr/amiga/index.html>



Got a Micronik Bus Board?

If so you want to take a look at Mike Woods' support page it covers the various bus boards made by Micronik and what Zorro cards and fast slot accelerators (for the Z3 models) they are compatible. If you have some experiences of tips on getting cards working you can submit them to Mike for inclusion on the page.

Surf along to: www.microniksupport.freesevers.com

100% Amiga

no, it's not a dodgy game show on Channel 5 :)

Our friends at FORE-MATT Home Computing along with "another prominent Amiga company" have announced that they are working on a new monthly CD based Amiga magazine called 100% Amiga. They plan to include news, software reviews, previews, tips, cheats and many other features.

The first issue, January 2001, should be available by the time you read this and will include the

new real time strategy game Exodus, the brilliant sequel Simon the Sorcerer

2, a review of OS3.9 and sneak peaks at PAYBACK and EARTH 2140 including a demo. The feature this month will be the AmigaONE presentation from Eyetech.

100% Amiga is priced at just £5 for single issues, £30 for 6 month subscription or a 1 Year subscription for just £48. Overseas postage is an additional £1.50 per issue.

For more information contact Forematt on their new phone number +44 (0) 8700 11 22 34 or visit their website:

<http://www.forematt.free-online.co.uk/>

EZCam Makes Digital Cameras EZ!

Eyetech have announced a new product that should make a far wider range of digital cameras available to Amiga users and also overcome the problem of slow download speeds across the serial port... sounds good! The product is the EZCam which connects the A1200's PCMCIA slot and adds some additional logic enabling it to ready any size PCMCIA memory card. Adaptors from all types of digital camera memory card (Smart Media, Compact Flash and Sony Memory Stick) to PCMCIA are widely available so with one of these and an EZCam any camera should work (it would probably still be wise to check with Eyetech before buying a camera). The EZCam connects to the PCMCIA slot via an extension cable, the card slot can be fitted into a 3.5" drive bay at the front of a tower.

The other benefit is that the PCMCIA slot is much faster than a serial port so pictures can be copied from a memory card almost instantly (we have seen figures of 5MB per second quoted)! The Eyetech software presents the memory card as a Volume icon on the Workbench so you can copy images onto another drive, or even load them directly into a graphics program.

We expect to have a review of the EZCam next issue.

The EZCam costs £49.95 but remember you will also need a PCMCIA adapter suitable for your digital camera. For more information visit the Eyetech website at: <http://www.eyetech.co.uk/>

DrawStudio from KickSoft

We are pleased to be able to report that the excellent structured drawing program, DrawStudio which we use for some of the graphics in Clubbed, is now available again thanks to the Kickstart user group.

Although DrawStudio is no longer in development it a very powerful package, certainly the best of its kind on the Amiga. It is ideal for creating images and logos to be used in word processing documents and also very good in its

own right for single page layouts like posters, CD covers and many other jobs.

Because Kickstart now handle the sales of several software products they have setup a new company dedicated to software distribution, KickSoft. KickSoft currently supplies GoldEd 6, DrawStudio, Metaview and MooVid.

They have a new website at: <http://www.kicksoft.co.uk/> complete with secure on-line ordering.

AmigaOS 3.9 First Look

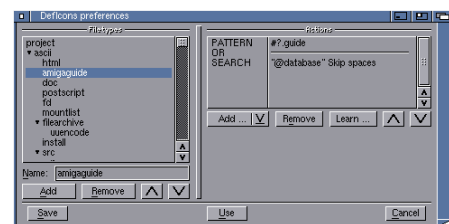
Haage and Partner surprised most Amiga users by announcing OS3.9 in September and shipping it in December, as they promised! As I write this feature I've only had the new OS for two weeks so I've just taken a look at the main additions in 3.9, there are some more minor changes and may be some things I've missed, but I've tried to include all the important ones.

New Utilities

Several new utilities are now shipped with OS3.9, some of them are updates of existing free and shareware programs and others are completely new developments.

Find allows you to search one or more devices for a file with the name you specify or which contains the words you enter (this could be used to search for wordprocessor document containing a certain phrase for example). The list of matching files is displayed in a separate window, double clicking on a file tries to launch it as if you double clicked it on Workbench, you can also open the Workbench window containing the file or copy its path to the clipboard.

Deflcons is a utility which improves the functionality of Workbench's Show All Files view, instead of just showing a project icon for data files or a tool icon for programs Deflcons looks at the content of each file and displays an icon according to its type. Each file type icon can have its own default tool and other settings so, for example double clicking on a JPEG picture could load it into a viewer while a word processor document could load it into the appropriate application. A Deflcons utility was included with the NewIcons package so this idea isn't new but the OS3.9 version as two important improvements firstly it is system legal using new features of Workbench and secondly it has a preferences editor so you can define the new types of file (the NewIcons version used a fixed file that was difficult to edit). As more and more Amiga users get on the Internet handling a variety of files many of which are



Deflcons prefs is used to define types of file.

not supplied with an Amiga icon becomes increasingly important, so I feel this is a useful addition to the OS.

UnArc provides a simple way of dealing with lha, lzx, DMS, zip, Gzip and tar archives, you simply select the archive and the directory where you want it extracted and click extract. By default it is set-up to work with the Deflcons utility so when you double click an archive without an icon UnArc pops up allowing you to select a destination and extract. While seasoned Amiga users have archive handling down to a fine art this will be of great assistance to many less experienced users, especially those who have discovered the delights of the Internet (and Aminet in particular).

Stephan Rupprecht's RaWbInfo has now been included in the OS, this provides a new Workbench icon information window, it uses Reaction to give a resizable interface. There is also some new functionality including the display of file version information. In the menus you will find icon manipulation options allowing you to convert icons to the new format, one particularly useful option is to convert a Magic Workbench icon keeping the correct colours.

Another Stephan Rupprecht creation included in the OS is the ASL preferences editor, this enables you to set the defaults for the Amiga's standard file, screen and font requesters. You can now select how the list of files will be sorted and where the requesters will appear on the screen, an option allows you to override the settings built into many programs.

Other utilities added include BenchTrash which gives you a configurable trash can on the Workbench. It has quite a range of options, for example you can set it to automatically delete trashed files after so many days. WbClock which uses Workbench's new icon features to provide a highly configurable clock on the Workbench.

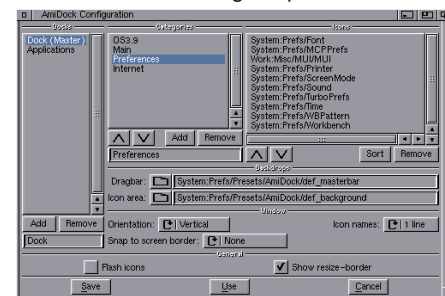
AmiDock

Quickly accessing programs and utilities has never been a strong point of Workbench, the only way to avoid trawling through directories is to leave files out but that quickly leads to a very cluttered screen. Many third party utilities are available which let you launch programs from menus or button bars, AmiDock is another utility of this type, included with OS3.9. After installing the new OS version you will

OS3.9 was released so quickly can it be any good? Robert Williams investigates.

notice a small tool bar (known as a dock) at the bottom of the screen holding icons for some of the new utilities. A single click on one of these icons launches the program and you can open a particular file in a program by dropping the file onto the program's icon (you could view a picture in multiview by dropping the picture's icon onto Multiview in the bar). Adding programs to the dock is very easy, you just drop their icon onto the background, you can also add drawers to the AmiDock bar in the same way, clicking on their icon causes a Workbench window for that drawer to open.

At the end of the bar is a handle area which can be used to move it to other areas of the screen, it also contains a button which pops up a menu of options for the bar. Selecting Edit here opens a Reaction based configuration window where allows you to change some settings including the order of the icons on the bar. You can also add "pages" to the current bar or additional bars. Each page can hold a different set of icons, you can select the page from the pop-up menu. Additional bars can be placed independently on the screen and can have a different background pattern. AmiDock is a really neat little utility and does a good job of giving a lot of flexibility without being over complicated. One feature I miss is the ability to launch shell and AREXX programs (as it is you would have to setup an icon for them on Workbench), this would make it easier to create an AmiDock bar to run Workbench controlling scripts.



In AmiDock's configuration you can define multiple tool bars and categories.

Multimedia

Three "multimedia" player programs are now included in the OS. Action plays QuickTime and AVI video clips which are commonly found for download on the Internet. Based on MooVID it can be used in its own window or on a separate screen,

sadly it does not support all the latest AVI and MOV formats such as Intel Indeo. Some of these formats are supported in the MooVID but could not be included in Actions due to licensing issues. Amplifier can be used to play various audio files although it is clearly designed with MP3 (again a format that is very common on the Internet) in mind. The mpeg.library which is now included with the OS is used to decode MP3 files, this is available for both 68k and PPC. Amplifier has a play list and on-screen equaliser and you can use WinAMP skins to change the look of these windows. The other new multimedia utility is PlayCD and this also supports skins so you can customise its look. Apart from this PlayCD is a utility to play an audio CD in your CD-ROM drive, while it offers the standard features like programming and random play there is no option to manually name your CDs and tracks or download them from CDDb (an Internet database of CD titles and track listings).

More Preferences

Some of the standard Preferences programs have been enhanced over 3.5. The Workbench preferences program now allows you to set several options which could previously only be modified via an external program. The most important of these is the icon memory setting, this allows systems with graphics cards or running FBlit to store the icons in fast RAM which stops high chip RAM uses on drawers with lots of icons. Note that there is a section in the OS 3.9 FAQ on running FBlit with 3.9. The WbPattern prefs now allows you to select how to fit a background image to your Workbench screen, you can now centre it, scale it to fit or tile as normal.

Genesis

Probably the most disappointing aspect of OS 3.5 was the time limit on the version of Miami included, to rectify this problem Haage and Partner have decided to include the Genesis TCP/IP stack (also used in Netconnect 3) with 3.9. This is a full unrestricted version and included the Genesis Wizard which helps you setup an Internet connection step by step. Genesis has always used MUI for its interface so to fit in with the rest of the OS software Haage and Partner have started to convert it to Reaction. For the initial 3.9 release they have completed the control window (which is used to go on and off-line) and the Wizard but not the main Prefs program itself. If you need to alter any settings after running the Wizard to create your configuration or set it up from scratch you will need to install MUI and the group-pager.mcc class, neither of which are included on the OS 3.9 CD.

As in 3.5 two other pieces of Internet software are included, AWeb which has been updated to the latest version (3.4) and AmigaMail which has had a few bug fixes.

WbMenus

The OS3.5 Workbench allowed users to add items to its Tools menu, in 3.9 this facility has been extended to allow the creation of as many new menus as you like so, for example, you could add an Applications menu to hold your favourite programs. Menus and menu items

are added by sending commands to the Workbench AREXX port, this means you currently have to write a script to setup your menus and then run it after Workbench has loaded (for example in the WbStartup drawer). A package to allow conversion of ToolsDemon (a hack to add menus to older Workbench versions) setups to a suitable script has been written by John Nelson and is on his web page at <http://web.ukonline.co.uk/amigadude/>. Several people including John have mentioned that they are working on a GUI so new menus and items can be added comfortably so hopefully something better will be available soon.

AsyncWb

The OS 3.9 Workbench itself is largely unchanged over 3.5 apart from much faster icon loading which is actually due to optimisation of the icon.library. One major feature which we hoped might be included in 3.9 was multi-threading but unfortunately this wasn't ready in time. Multi-threading means that Workbench can perform more than one operation at a time, for example if you start copying a large number of files in you cannot do anything else in Workbench until the copy has completed. As for many users Workbench is their main means of launching programs this can mean your Amiga is effectively

More Information

<http://www.amiga.com/3.9/>

The official AmigaOS 3.9 site from Amiga, any updates and BoingBags released will be found here.

<http://www.gregdonner.org/>

Greg Donner has an in-depth review of OS 3.9 on his website which covers all the upgrade's features. He also compiles the official OS3.9 FAQ which is essential reading, especially the installation section.



This screen shot shows some of the new utilities in action: AmiDock in the top right, UnArc working from an lha Deflcon in the Downloads drawer and Bench Trash in the bottom left corner.

locked until the file operation is complete (of course any other programs already running will continue to multitask). Adding multi-threading to all aspects of Workbench would be a major job so in 3.9 Olaf Barthel has been working on allowing some operations to be replaced with alternatives that can run while Workbench does other things. Stephan Rupprecht is working on a package called ASyncWb which will replace the Workbench operations, we expect it to include Delete and Copy and perhaps other slower functions. Hopefully ASyncWb will be included with the first BoingBag update for 3.9 (not to be confused with Boing Bags 1, 2 and 2a already released for 3.5).

Conclusion

Although less seems to have been done to the core OS and Workbench in OS3.9 the new utilities are genuinely useful and I think most users would now find a basic install of 3.9 an acceptable system without installing any third part add-ons. If you already have 3.5 your impressions of 3.9 will probably depend on what you have added to your system. Users who already have registered Internet software and lots of other utilities, in particular Opus Magellan, won't find that much new, others will find the upgrade of much greater value. For anyone with 3.1 or earlier I would say OS3.9 is pretty much an essential buy, it updates many aspects of the OS and makes it much more pleasant to use. Amiga have stated that sales of OS3.9 will be used to judge the demand for future AmigaOS versions and buying it also rewards the many programmers who have contributed to the project and given a great deal to the Amiga community over the years. So all in all there are many reasons to buy OS3.9, the final one is the price, less than 30 pounds.

PCI Update

PCI promises cheap high-spec add-ons, no wonder the market is buzzing!

By Robert Williams

While there are good reasons that Amiga hardware is expensive, it is still frustrating to see similar or better PC hardware selling for a fraction of the price of the Amiga equivalent. A clear example of this was when I bought an Ariadne II Ethernet card for my A3000 last year, it cost £80, a few days later I bought an Ethernet card for the family PC so I could network it to the Amiga, this cost just £12 and it turned out to be based on the same chipset as the Ariadne III! The obvious solution to this problem is to find a way to use standard expansions on the Amiga, the de facto standard for expansion cards on the PC is PCI (Peripheral Component Interconnect).

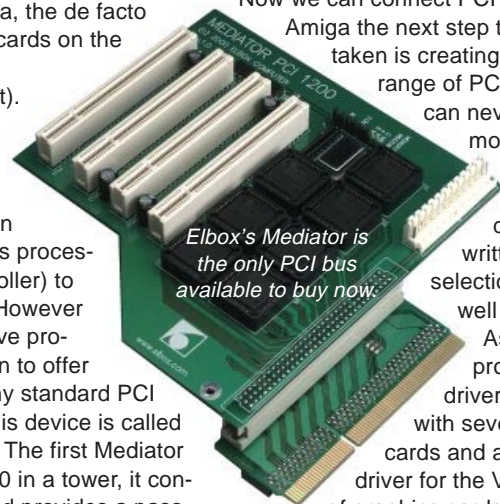
Many Amiga Zorro cards have used a PCI bridge to connect a chip designed with PCI in mind (such as a graphics processor or an Ethernet controller) to the Amiga's Zorro bus. However now Elbox of Poland have produced the first expansion to offer PCI slots which allow any standard PCI card to be connected, this device is called the Mediator bus board. The first Mediator model requires an A1200 in a tower, it connects to the belly slot and provides a pass through for an accelerator. Because of its design the Mediator does suffer from a limitation, A1200 accelerators are only designed to address only 16Mb of RAM via the accelerator slot. This is because the A1200's processor address bus is only 24bit due to the 68EC020 used. When the address space of the various other system components such as the ROMs and custom chips is taken into account this only leaves 8Mb for the Mediator. Now nearly 2GB can be address across the PCI bus so to get around the problem the Mediator contains logic which automatically switches between 8Mb chunks so the full range can be accessed. Elbox claim that their system will not offer any problems and so far this seems to be the case, although we have yet to see a Warp3D driver running on the Mediator (please note that I am in no way implying that a Warp3D driver is likely to cause problems).

Two other models of the Mediator have been announced, one of which works along side a ZIV bus board in an A1200 tower and the other for A4000 desktops fitted in a tower case. Both of these

solutions allow Zorro and PCI cards to be used side by side. The A4000 solution comes in two parts, a bus board (with 5 PCI, 7 Zorro and 1 video slot) and a Mediator core logic card which activates the PCI slots. Elbox displayed the bus board, which is designed to fit their E/Box 4000 tower, at the recent World of Amiga show in Cologne, Germany. However the core logic card was not ready for the show, it should be out in January 2001.

Drivers

Now we can connect PCI cards to the Amiga the next step that needs to be taken is creating drivers for a range of PCI cards, while we can never hope that most PCI cards will be supported with luck drivers will be written for a small selection of popular well regarded cards. As it stands Elbox provide a SANA 2 driver which works with several network cards and a Picasso 96 driver for the Voodoo3 range of graphics cards with the Mediator. Vision Factory Development also supply an S3 Virge driver for their CyberGraphX system.



PPC

Elbox have one final string in their Mediator bow, the Shark PPC card. This is a PCI card which holds a PowerPC 750 processor running at 400 or 550Mhz along with up to 1GB of SDRAM local memory. According to the Elbox press release announcing the Shark it will allow both the 68k Amiga processor and the PPC to work simultaneously and also access any installed PCI cards. At the WoA show Fleecy Moss of Amiga said that they were in talks with Elbox to bring the new Amiga environment to Shark PPC systems. It has not yet been made clear if WarpUp (or PowerUp) will be available for the Shark to provide PPC support within AmigaOS and backwards compatibility with existing Amiga PPC applications, games and utilities. The 400 and 550 Mhz Shark boards are priced at 390 Euros (about £240) and 520 Euros (£320) respectively, Elbox hope to have them available early in 2001.

Other Options

Since the last issue of Clubbed two further PCI bus boards have been announced, the Predator from Eyetech and the GRex from DCE. Both of these differ from the Mediator in that they connect directly to the local bus slot (usually used by a BVision or CVision PPC graphics card) of the ex-Phase 5 Blizzard and CyberStorm PPC accelerators. This method of connection has the advantage of a faster bus and full 32bit addressing without the need for the Mediator's "memory window" however it does mean that a PPC accelerator is required. Just before we went to press Eyetech announced that they have decided not to continue with the Predator, and will instead stock the GRex which has a very similar specification.

DCE showed pre-production versions of the GRex for the A1200 up and running at WoA and hope to ship boards early in 2001. After the A1200 board is out a 5 Zorro/5 PCI version for (we assume towered) A4000 desktops and a 3 PCI slot version for the original A4000T should follow. DCE have announced that the boards will ship with CyberGraphX drivers for several Voodoo graphics cards and SANA 2 drivers for popular network cards. Further drivers for sound, SCSI and TV-tuner cards are then planned in the following few months.

Warp 3D

So far I have only mentioned 2D graphics card drivers which seem to be coming along nicely for both Mediator and GRex. 3D drivers to accelerate 3D games and

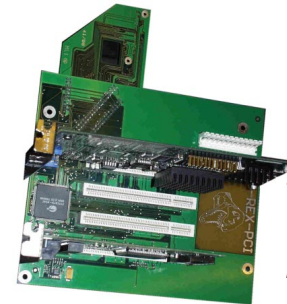
More Information

<http://www.vgr.com/cybergfx>
The CyberGraphX home page which also reports all graphics card related news. They also have a special page dedicated to the Mediator.

<http://www.egroups.com/group/amiga-mediator>
A busy mailing list populated by Mediator users.

<http://www.elbox.com/>
Elbox's home page carries all their press releases but sadly no product information.

<http://www.dcecom.de/>
DCE's home page for information on the GRex.



This prototype GRex has graphics and network cards installed.

applications will also be needed to take advantage of cards like the Voodoo3 whose forte is 3D. Fortunately drivers for the Voodoo 3 are currently being developed by Hyperion (who have announced that the V3 is the only card they will be supporting for the foreseeable future) who are also busy porting several 3D intensive games to the Amiga (the excellent Heretic II was their first release). Warp3D support for the Voodoo3 is particularly eagerly awaited because it has become clear that the major bottle neck in the speed of Heretic II (and presumably other future 3D games) is not the processor power but the speed of the Permedia 2 chip on the BVision and CVision PPC cards. Hyperion

showed a beta version of their Warp3D Voodoo3 driver running Heretic at the WoA show using a pre-release GRex so it may well be ready soon. Hopefully there will be a version for the Mediator as well.

Trouble

When the Mediator was first released it was announced that Vision Factory would provide CyberGraphX Virge drivers and that they were working on a Voodoo3 driver. Soon after this VFD announced that they had entered into a contract to develop Voodoo drivers for DCE's GRex board and that the Mediator drivers were on hold. While it has never been made totally clear that CyberGraphX Mediator Voodoo drivers will never be developed the announcement caused Elbox a problem. Not being a company to be easily put off they announced that they would release their own Voodoo3 driver and a few weeks later the CyberGraphX announcement they did so, releasing a driver for the Picasso96 RTG system. According to posts on the Mediator mailing list the initial driver was

quite slow and buggy, a new version 1.1 was released a few weeks later that was usable and much faster and as I write version 1.2 is supposed to be imminent. However just as we thought the CyberGraphX debacle had died down the Picasso 96 authors issued a press release claiming that Elbox had developed their driver without permission, which according to the P96 license agreement should be sort for commercial developments. As we go to press this issue had not been resolved but the Picasso 96 authors had just posted that they will develop Voodoo drivers themselves, it is not clear if they have reached agreement with Elbox or have decided to do this "off their own bat".

So it is an exciting time in the Amiga hardware world, at this point it is hard to guess how things will pan out and which options are best for the future. That said high performance PCI cards are so reasonably priced that if you are looking to add a graphics or ethernet card to your A1200 a Mediator (or GRex when it is available) is probably already the cheapest option.

AmigaOS 4 PPC?

Opinion by Robert Williams

Since the last issue of Clubbed AmigaOS 3.9 has been announced and released, much to the surprise of most Amigans! In an update posted to the Amiga website on the 22nd of November Bill McEwen stated that "If OS 3.9 sells well, and we see a continuing need to produce for the existing Classic Amiga platform, then there is a strong possibility of a 4.0". So the "classic" AmigaOS seems to be on the move again and in active development, which must be a good thing whatever your view of 3.9.

Naturally with the possibility of OS4 has come all manner of speculation on what a major update like this might contain. This seems to have centred on whether this release would mark the transition of the AmigaOS to a new processor, with the PowerPC being the most likely candidate because PPC accelerators are already available. A recent poll on amigart.com had attracted over 1300 votes for a PPC Amiga OS at the time of writing. Then on the 9th of December at the World of Amiga 2000, Cologne, Germany, Fleecy Moss of Amiga revealed that 50000 sales of OS3.9 was the "magic number" that would prove AmigaOS 4 to be a viable product both in terms or paying for its development and providing a user base for developers.

50,000?

So the question now is will OS3.9 sell in those sort of numbers? Personally I think it

is unlikely to for two main reasons.

Fristly the Amiga has a very limited base of active users which sadly in the current climate must be shrinking all the time, it was sad to see the number of high-spec Amiga systems for sale on Amibench over Christmas. While the release of AmigaOS 3.9 and the prospect of future revisions might keep some existing users from leaving the Amiga it is hard to imagine any significant number of new users being attracted.

The other factor that will effect 3.9 sales is whether it has enough improvements and new features to attract the majority of remaining users. Most of the new features are provided by the integration of existing freeware and shareware programs, there are fewer additions to the OS itself then there were in OS3.5. In my opinion many users who decided to buy OS3.5 are likely to be on the Internet, will have registered some shareware products and maybe running a Workbench replacement like Directory Opus. For this type of user OS3.9 offers little. For users still sticking with OS3.1 or earlier then 3.9 is a good buy as it includes everything from 3.5 and the additional features at a lower price. However it is hard to imagine that the number of users who decide to go directly from 3.0/1 to 3.9 will exceed the number who do not bother to upgrade from 3.5.

Rumour has it that sales of 3.5 have been around 20000 copies, given that OS3.9

has less major features than 3.5 and in the intervening year the market place has almost certainly contracted I feel it is unlikely that 3.9 will achieve the same number of sales as 3.5, let alone over double.

Amiga should decide soon!

While it might seem a rather odd thing to say I think the most important thing Amiga can do is to make a final decision on whether OS4 will go ahead and roughly what it will include and make it soon. Even if they decide not to go for 4 I feel it would be better for what remains of the market to know quickly. From a developer's point of view it would allow them to put their development efforts into a project with a future and users would be able to plan upgrades and software purchases. If OS 4 doesn't happen or it explicitly won't be aiming for a PPC (or other processor) native OS then other projects, in particular MorphOS, will assume much more importance and probably support from both developers and users. Now Amiga has set the 50000 copy barrier there obviously needs to be some time for the sales to be achieved however I hope this doesn't mean that a decision on version 4 will be delayed indefinitely. In my view they should make a clear and final statement of their future classic intentions before the middle of 2001. The last thing we need is yet another year of uncertainty.

Paul "ExiE" Strejcek of Czech Amiga News

In just over two years Czech Amiga News has become one of the premier Amiga news sites, Gary Storm catches up with the man behind its success.

Every Amigan online must surely know of Czech Amiga News, which has graced the Internet with the best selection of Amiga news for the last couple of years. Funnily enough, the people involved are based in the Republic of Czechoslovakia, and I'm talking to ExiE, the main protagonist.

Before we start: there's been no Czechoslovakia for a couple of years. The republic was divided into two independent states (the Czech Republic and Slovakia) soon after the fall of the communist regime. And, to have a full picture, you can find us on the map of Europe - in the very middle of it! :-). The capital is Prague, a city commonly called 'the heart of Europe'.

But don't worry, I'm not a champion in geography either! :-))

First off, what's your Amiga background. When and why did you get into the Amiga scene, and what Amiga do you have now?

It was 10 or 11 years ago. My first Miggy was an A500 with an additional half meg of Fast RAM. I really enjoyed playing games like the Shadow Of The Beast series, Lemmings and of course LucasFilm / LucasArts adventures. The Secret of Monkey Island is still my no.1 adventure game. :-)

But you can't play games forever. Coding can be fun, too. Together with my brother I created a number of games; I think highly especially of a conversion of Oil's Well, the C64 classic. This one roxx! In 1993 I bought an A1200, and a couple of years later I went for a used A4000 with the 68060 and a CV643D board. I still miss the PPC, so if anyone was willing to send me one... :-)

Tell us about yourself ExiE.

I am 25 years old, I live in Brno, the second biggest city in the Czech Republic. I work as a freelance 3D-graphic artist and a web designer. I enjoy riding a mountain bike, and I dream about sleeping more than six hours a day. :-)

How did the idea for Czech Amiga News come about, and when was it born?

It was in the summer of 1998. CUCUG's AWD was no more that good then, and



the ANN just didn't work during the summer. I had something to do at that time, so instead of going for my holidays I had to stay at home... It wasn't a long way from the first idea to the complete realization. Also, I got an exclusive information from Raven Software that the Hexen and Heretic source codes were going to be released, and I just had to say it to everybody. :-))

What were the main obstacles to overcome in creating the site?

There were none. The first page was created in two or three days, ehm, nights :-). (it was too hot to sleep anyway). Then I showed it to Petr -pekr- Krenzelok, who got so enthusiastic about it that he became a co-author of the news. It was very exciting to watch the number of readers growing every day. Just like watching the rates at the Stock Exchange. :-)

REBOL (www.rebol.com) was a great help, too. It's been the core of the news up until nowadays. My brother and -pekr- have been REBOL betatesters since the early days, which made our work much easier.

Being Czech, you often (understandably) have English spelling and grammar mistakes. Couldn't you get some English-speaking person to proof-read for you before you post any news?

News are of some value only when they are topical. In recent months I've had a pressing shortage of collaborators who would help me with writing the daily news, let alone proof-reading. We also failed to find translators into other languages (German, Polish, French).

Moreover, thanks to the high prices of the Internet connection in the Czech Republic, I get to the net no sooner than after 9 PM, and I finish after midnight...

The jigsaw logo for Czech... why?

Hard to say. I just did some drawing. But you can take it as a symbol if you want: making news is like putting jigsaw pieces together.

Who was responsible for the PC-site joke you played on the community a couple of months ago?

It was my idea. I was really bored then, the page's 2nd anniversary was coming in three days, so I made this little joke. Petr didn't work with me for some time, and I phoned him only five hours after I had changed the page. Many people took it very seriously, which I didn't expect. The truth is that in the page there was a number of hints helping to find out that it's all just a bad joke.

Part of the community and people with whom I'd made friends during my work on the Czech Amiga News sent really nice e-mails - and I, in return, told them about the joke and where they could find hot news just like any other day. I still can't believe that this little experiment was kept secret for whole three days! :-)

But there were also negative responses, some of such a nature that I wish I have never read them... one, then, loses his illusions, you know.

Many people believe that the design for the PC joke site was actually better than the Czech Amiga News site. Would you consider using that design for the future of Czech News?

NOPE. It's too M\$ oriented :-). I think they liked it because the design was new and fresh-looking.

Also, it's my experience that it's real art to make pages so that they look exactly the same in Voyager, AWeb and iBrowse. Each browser is good in this and bad in that... For a long time I hoped that the Opera would come up, but we all know what the result was.

Are you interested in getting a site makeover?

I am well aware that some improvements would be appropriate here and there. Unfortunately, updating the news regularly consumes my energy, and there's virtually none left for design changes. Nor one of the biggest collections of Amiga links gets updated as regularly as it deserves.

Moreover, I'm still waiting for a new and much improved Amiga browser that would be better in performing Java scripts, CSS, would run as fast as iBrowse and contain less bugs than the others. :-)

By the way, we planned opening some other parts of the Czech Amiga News; unfortunately, everything failed when it came to financial matters...

Would there be any chance of changing the name from Czech to something more international?

It's now clear to me that naming the page "Czech Amiga News" was a great 'marketing' mistake. I put a lot of effort into persuading Amigans that the page was written in English and was well worth visiting. The original idea was to create a central World Amiga News, consisting of local pages like Czech Amiga News, German Amiga News, Polish Amiga News etc. We would be responsible for the central news service, the local translators would add news relevant to their country. Unfortunately, things went their own way.

However, I can tell you that the change of the name is about to happen. Most probably it will take place sometimes next year, and the address is going to change, too. I won't tell you more as it wouldn't be a surprise...

If you got some good idea, there is still enough time to tell me!

Do you have any tracking logs of who visits the site? If so, any interesting visitors (Microsoft for instance)?

No, unfortunately not. For me, a quality contents is the first priority.

By the way, during the three days the mock PC pages got much more visitors than the Czech Amiga News get in two weeks! All this with no commercials and with a single news update...

As you see the news before most, I suppose you've had some incredibly exciting and depressing moments over Czech's History as you've been writing the site.

Of course. It's become almost a rule that a really good piece of news is immediately followed by a really bad one. I recollect me and Petr at 2 AM, preparing an exclusive page with the design sketches of Gateway's new Amiga. An hour later it was announced that the core of the OS wouldn't be QNX but Linux. Several times I was in such a bad mood that I really wanted to leave it all...

Another bad news I remember was Bill McEwen leaving Gateway, soon

followed by Mr. Collas. My belief in the Amiga got restored only weeks later, with the first unofficial news from Bill McEwen concerning the purchase of Amiga Inc...

What would you consider the best and worst news you've posted on Czech?

The Czech Amiga News now comprise about 4500 news pieces, and it's pretty difficult to choose the most extreme ones...

You've been trying to get banner revenue going for Czech Amiga News for a long time, mostly without success, with the recent exception of 'Crystal Interactive Software' (publishers of the truly excellent "Bubble Heroes" . . buy it), why is this so?

I've never wanted Amiga-unrelated commercials on the page. That's why it's difficult to find someone...

The Amiga market is still in a very bad condition, and dealers simply can't afford investing into banner commercials. In Germany, where the Amiga has the strongest position in my opinion, there are several quality German news pages, and the dealers tend to orientate towards them.

I would have thought that an Amiga Inc sponsored banner on Czech Amiga News would be a great marketing move for them (supporting a popular site, letting us know they are still around etc). Have you had any talks with Amiga?

Yes. I guess it's time to give it away. In April 2000 Bill McEwen promised to donate the Czech Amiga News for the whole year with a certain sum of money. Unfortunately we have never made it to real cooperation. Our page probably isn't that interesting for Amiga Inc. because of not having so many visitors or for a similar reason. I say "probably" because Amiga Inc. didn't even bother to reply to our later questions.

Do you keep an archive of everything you've produced to date?

Sure. I've got some 70 MB of mail regarding the Czech Amiga News, and another 50 MB of pictures, documents, just everything. :-). Perhaps one day I'll try to sell it all at an auction. :-))

If so, have you thought about releasing archived Czech Amiga News cd's (with the linked pages involved)?

I was thinking about it, and something of this kind was even planned, in cooperation with the German AmigaOS magazine. Everything was already prepared,

but before the release of the first CD the Amiga-News.de got published on Aminet CDs, so...

There's also a problem with copyrights. The Czech Amiga News have links to many other pages, which can't be simply added to our archives.

And moreover, there's nothing more boring than stale news! :-)

What do you see as the future of Czech Amiga News?

Bigger, better? I'd be delighted if the Amiga was again in such a condition that I could run a news server as a professional. I'd like to cooperate with interesting people, and also widen the range of services provided by the server. But it's still too early to guess which way things will go.

What is your opinion of the current Amiga Inc, and will you buy the AmigaOne if it materialises?

I probably will, but it depends on many aspects like the availability of software, price, and of course whether the new Amiga meets my expectations of an Amiga for the next millenium. My current Amiga allows me to do most of what I need to do, and the classic AmigaOS is still in my view the best choice, taking into account its simplicity and functionality. The Amiga Inc. announcement doesn't make it particularly clear which classic OS features will be implemented in the new OS.

I also find QNX a very interesting system (except for the horrible Linux-like filesystem).

Who do you admire and respect in the Amiga community?

The Amiga community as a whole isn't what it used to be. Still, there's a lot of friends and many other people I respect very much and who motivate me to continue working on the Czech Amiga News. I don't want to forget anybody, so no names... perhaps I'll add that GoldED Studio and PPaint have been invaluable helpers for all the time. :-)

And yes, I shall add a name. I think we should all thank Petro Tystschenko for promoting the Amiga during the difficult years when the Amiga suffered so many hard blows.

And now a question for you, ok? Anyone selling an A1000 in a good condition? :-)

Thanks a lot ExiE, especially for all the selfless hard work you've put in over the years, and you're support of all things Amiga, especially Clubbed magazine. Cheers mate :)

Visit Czech Amiga News at <http://www.realdreams.cz/amiga/>

Scanning Explained

Robert Williams looks at scanning from choosing a compatible scanner to getting the best from it.



Hands posed by Lara Sutton!

Most people have probably, at one time or another, wanted to get an image into their Amiga for editing, inclusion in a document or just to print a copy. Most families have large collections of photos which might need touching up or could form the basis for many projects. When I'm working with graphics, whether it is to produce a final image or to enhance a document my main problem always seems to be finding suitable source images to work with. With a scanner you can make almost any printed image available as file on your Amiga which you can then manipulate using your favourite graphics applications. In this feature I will attempt to explain the basics of scanning, what software and hardware you will need and finally give some ideas of what you can do with your scanned images.

A few years ago the only type of scanner available at an affordable price was a hand scanner, these were small hand-held units which had to be dragged across the document to be scanned. A flat bed scanner which looks like a small photocopier and can scan an entire document was far too expensive for most home users. In the last few years flatbeds have become more and more popular and due to the laws of supply and demand their price has dropped rapidly, so much so that they have completely replaced the hand scanner. The other type of scanner you may see mentioned is a film scanner, these tend to appeal more to the keen photographer as they cannot be used to scan anything other than slides and photographic negatives, for example you couldn't scan a page from a magazine with a film scanner.

Note: The only film scanner support I know of on the Amiga is within the commercial package, ScanQuix. According to the manual it can drive CanoScan Film Scanners from Canon.

In this feature I will concentrate on flatbed scanners as they are by far the most common type, however most of the

information will apply whatever the type of scanner you use.

How They Work: Flatbed Scanners

A flatbed scanner is essentially quite a simple device, the document being scanned is laid face down on a sheet of glass called the bed. Below the bed is the scanning head which slides along on rails driven by a stepper motor. Within the head is a light source which shines on the document and a selection of mirrors and lenses which focus a single line of the document onto a sensor. The sensor and its associated electronics then converts this line into digital data and stores it. The stepper motor then moves the head to the next line which is stored, and so on until a complete image of the document is built up.

The Numbers Game

The main specification that most manufacturers quote is the resolution of their scanner. The resolution refers to the maximum number of individual pixels the scanner can resolve in one inch, a pair of figures is normally given as the horizontal and vertical resolution can differ. For example you will find many scanners have an asymmetrical resolution such as 300x600, usually the vertical resolution (along the bed) is the higher of the two because this simply requires gearing down the stepper motor which adds little or nothing to the cost of the scanner. On the other hand increasing the horizontal resolution requires a higher resolution sensor which can add significantly to the cost. For most applications a symmetrical resolution is required so increasing the resolution in one direction is a somewhat dubious improvement. A common low-end scanner can resolve 300 dots per inch in both direction and would be marketed as 300x300 DPI. This is often referred to as the true or optical resolution of the scanner.

You may also see much higher resolutions quoted, 9600x9600 is quite common, these are achieved by soft-

ware interpolation. This process takes a scan at the maximum true resolution of the scanner and increases the resolution, calculating the likely shade of the pixels added. Interpolation cannot add detail that was not there in the original scan and can be performed in any image processing software with a scale function (to varying degrees of quality). So when you're reading scanner adverts look for the true resolution. Even then don't assume that a scanner with a higher resolution specification will necessarily be better than one with lower resolution, many factors come into play, very important is the quality of the optical system used, if a blurry image is focused onto the sensor you will get a blurry scan no matter what the sensor's resolution.

Compatible Scanners

Choosing a scanner for your Amiga can be a difficult task unless you decide to buy a hardware and software bundle from an Amiga dealer. The main problem is that most scanner manufacturers change their models very frequently and often each new model is incompatible with those that went before it. This means that the scanner driver authors are always aiming at a moving target. If you decide to buy a scanner it is best to start by making a list of the makes and models the various drivers support then seeing which of these models is available. Be careful that the exact model you want to buy is listed, as often only a slight difference in model name can mean a radically different scanner. For example when Mick Sutton was looking for his new scanner he found a Mustek ScanExpress 12000SP Pro, the BetaScan Mustek driver lists the 12000SP as supported so we assumed that the Pro just meant some extra software or a minor change... how wrong we were! On contacting the Mustek driver's author we discovered that the 12000SP and the 12000SP Pro are in fact totally different and he could not guarantee compatibility.

Ne'er the TWAIN Shall Meet

Almost every scanner available for Windows or MacOS is described as TWAIN compliant. So it would seem logical that if someone could implement TWAIN on the Amiga then we would have access to a huge range of scanners. Sadly this is not the case because TWAIN is not a hardware standard but a software one. Scanner manufacturers make their driver software compliant with the TWAIN standard which means you can scan from within any application that supports TWAIN. However a unique driver still has to be written for each scanner model. In fact TWAIN does not even provide a scanning user interface, this is also supplied by the driver so porting TWAIN to the Amiga would have no real benefits even if the source code to the drivers were available.

Requirements

The exact requirements of an Amiga system for scanning will vary depending on what type of work you want to do. Beware that it is very easy to scan extremely large files, for example an A4 page scanned at 300DPI is nearly 25MB of uncompressed 24bit data and that's without the additional memory required to run the scanning software, OS etc. However if you stick to the resolution guidelines I mention later on in this article you should be able to do a reasonable amount on an Amiga with 16Mb of fast RAM, though this is probably the sensible minimum. A graphics card is also very useful, when dealing with scans, you really need to be able to see the image in true colour to make adjustments prior to the final scan and then to edit the image afterwards. Finally high resolution images are going to take longer to process so a fast processor is also useful. If your Amiga is suitable then you need to connect your scanner...

Hook Up

Scanners can be connected to the host computer by a number of interfaces. Until recently the most popular were the parallel port and SCSI, however in the last year or so USB (Universal Serial Bus) has increasingly become the standard, particularly for low cost scanners, as it offers better performance and easier connection than the parallel port and is supported on both PCs and Macs without additional hardware unlike SCSI.

Sadly there is no hardware USB support on the Amiga yet, let alone any driver software.

Parallel

The Amiga's parallel port while being fully bidirectional (it can receive as well as send data) is subtly different to a standard PC parallel port. This means that although parallel printers will work most other parallel devices intended for the PC will not. For the most part this is true of parallel scanners, most will not work on the Amiga although there are a couple of notable exceptions. Epson have made a variety of parallel models all of which will work with the Amiga parallel port providing you use a specially wired cable, the downside of this is that the only drivers available are commercial: ImageFX, ScanQuix and a stand-alone module from ASDG which also worked with their Art Department Pro image processor. An appropriate cable was included with the ADPro module and instructions for building a cable are included with ImageFX. The only other Parallel scanner support that I am aware of is within ScanQuix which supports the Mustek 600 and 1200CP so long as they are connected to a supported add-on parallel port card which provides a PC style port. ScanQuix supports rbm's own IOBlix parallel port which is available as both a Zorro and an A1200 clock port card and recently VMC (<http://www.vmc.de/>) have made drivers available so their Hypercom boards with parallel ports can be used too.

SCSI (Small Computer Systems Interface)

SCSI scanners are by far the best supported type on the Amiga, as you will see in our Scanner Software Roundup the vast majority of drivers only support SCSI models. To use a SCSI scanner you will need a SCSI controller for your Amiga with an external connection. Some older controllers do not work well or at all with scanners, I would be wary of anything produced before about 1993 although you may be able to get updated drivers that will work. On more modern controllers there should be few hassles so long as you obey the basic SCSI rules of no conflicting units and proper termination at each end of the bus.

USB (Universal Serial Bus)

As I'm sure you are aware there is cur-

rently no USB hardware available for the Amiga, although many USB cards are available in PCI formats which could be plugged into the Mediator and other PCI solutions when and if they materialise. However just plugging in a USB card will not solve the problem... as ever drivers will be required. With USB this will need two stages, drivers will have to be written to access the USB card, these may well have to be specific to the particular PCI expansion and/or PCI USB card. Then scanner drivers will be required for USB scanner models, which may of course require access to technical information not readily available from the scanner manufacturers. The same will also apply for all other USB hardware, just having USB support on the Amiga will not make the range of USB peripherals available to the Amiga.

Types of Scanner

Two basic types of flatbed scanners are, or I should say have been, available: Single Pass and Three Pass. Single pass scanners can scan a colour image in one pass of the scanning head, they do this by using a set of three coloured (Red Green and Blue) lights or a white light and a colour sensor. In my experience the three colour type is pretty unusual, my Epson GT5000 is the only scanner I've seen using this method. The only disadvantage I've found with it is that you get strange colour effects when scanning 3D objects, it makes no difference with anything that sits flat on the bed. Three Pass scanners scan the image three times, with a white light, each pass uses a coloured filter (R, G and B) to get a final colour image. Three Pass scanners tend to be slower and require that the original does not move between passes! You are unlikely to find a three colour or three pass scanner available new but it is useful to know the possibility if you are looking for a second hand model.

The Scanning Process

Whatever scanner and software you choose the process of scanning will be very similar. So rather than repeat ourselves too much within the scanner software reviews we thought we'd mention the basics here:

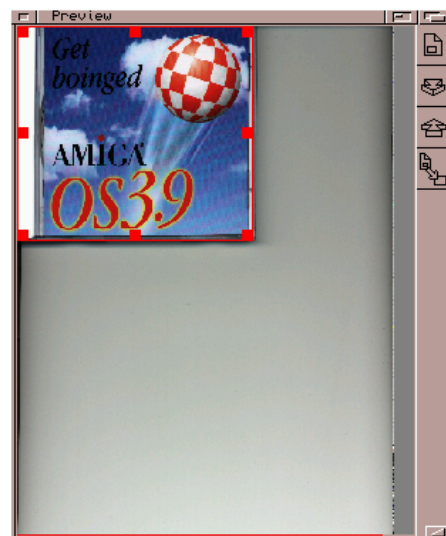
Place the original to be scanned on the bed.

This sounds very straight forward... and it is! However there are a couple of things to watch out for. Firstly if you want

to scan from books or thick magazines it is useful to have a scanner with a flexible lid design. Most scanners have a removable lid for really big items but some also have hinges which can be raised to accommodate thick books while still closing and excluding most of the light. When you're choosing a scanner also check the strength of the hinges, it's very easy to break flimsy plastic hinges by simply knocking the large lid (I speak from experience, although mine did last about five years!). If you are scanning from a magazine or book with thin pages you may find that some of the text from the back of the page being scanned or even the next page shows through. To minimise this try putting a piece of black paper between the page you're scanning and the one behind.

Perform a Preview Scan

The first step in scanning is to perform a preview scan, this scans the complete bed of the scanner quickly at a relatively low resolution. You can then select the area of the bed you wish to scan, usually by dragging a selection box over the appropriate area of the preview image. Selecting only an area of the bed like this allow you to scan a small original like a photo without wasting time, memory and disk space scanning blank space.



The preview allows you to scan just the area you want at full resolution.

Adjust the Colour Balance

Some software allows you to make adjustments to the scan's colour balance before you make the final scan by looking at the preview. Usually they allow you to adjust the brightness, contrast and gamma (gamma adjustment allows you to brighten or darken the mid-tones

without affecting the pure white or black areas) of the image, some packages also allow you to adjust the individual red, green and blue colour channels. While it's useful to be able to tweak settings like this a much easier option is automatic colour correction, many packages now support Wolf Faust's ICS colour correction system (discussed below) which can also be applied to an image file so it can be used with drivers which don't directly support it.

Scan Resolution

To decide on the resolution you want to scan at you need to know what you are going to with the resulting image. For example there wouldn't be much point scanning an A4 magazine cover at 300 or 600dpi, making a multiple megabyte file, if you were going to put it on a web page. On the other hand if you don't scan at a high enough resolution and then print on a high quality printer the result can look blocky. So here are some rough guidelines, you will probably need to experiment to get the best out of your setup.

Photos

If you are scanning a photo or other colour image to be printed, most likely on a colour inkjet printer, you do not need to scan at the full print resolution. Your printer can only print its primary colours (usually Cyan, Magenta, Yellow and Black) at its specified maximum resolution and even then due to the nature of paper and ink there tends to be some spreading and mingling of dots. To produce a full range of colours the printer prints a pattern of primary coloured dots changing the mix of primary colours to produce the final colour required. This process, called dithering, reduces the effective resolution of the output. With a scanner each pixel can be any colour, for this reason the image you scan only needs to be at the effective resolution of the printer to avoid showing pixels when it is printed. As a general rule you can scan at about a quarter of print resolution with and still get good results, this means the scan will be much smaller and therefore quicker to work with and easier to store.

If you want to enlarge a scanned image when it is printed then this must be taken into account when deciding on the scan resolution. For example say you want to print a 10 by 8 inch enlargement of a 5 by 4 inch photograph. If you scan the original photo at 150dpi, as you

might to reproduce it at the same size, when printed at 10x8 the resolution will only be 75dpi as one inch in the original photo (150 pixels across) is now occupying 2 inches. To work out the resolution to use you can use this simple calculation, I'll use the above enlargement as an example:

Decide on the final resolution required, in this example 150dpi.

Divide the final size by the original size: $10 / 5 = 2$

Multiply the final resolution by the answer: $150 * 2 = 300$

So you need to scan at 300dpi to get 150dpi once the image is enlarged.

By the same token if you are scanning an original which is to be printed smaller you can use a lower resolution. For example if we wanted to scan an A4 (about 8.25 by 11.7 inches) page and print it as a small thumb nail, say 1.5 by 2.1 inches:

Final resolution: 150dpi

$1.5 / 8.25 = 0.18$

$150 * 0.18 = 27$

So we would only need to scan at 27dpi to get a 150dpi final output.

Mono Text, Line art etc.

Printers can print in black or one of their other primary colours (usually cyan, magenta and yellow) at full resolution so if you're scanning a mono image, for example line art like a cartoon or plain text, then you need to scan at close to the print resolution. In most cases 300dpi should be adequate but even then it may look slightly blocky on a high resolution printer. In these cases interpolation can be your friend, scanning mono work at a high resolution even if it is interpolated will smooth out the steps between pixels and improve the final print. Again if you are going to print at larger than actual size you will need to scan at a higher resolution.

Scanning for web pages

When you're designing a web page you tend to know the pixel dimensions of the image you want to end up with, this makes it considerably easier to set the scan resolution, for a start most scanning packages show you the final pixel size of the scan. If you want the final image to appear "life size" on screen somewhere between 75 and 100 DPI is a good choice but the actual display size

will depend on the screen resolution and monitor size of the surfer.

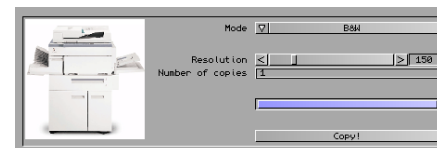
The Final Scan

When you are ready to scan most packages will simply scan the selected area and save the resulting image into a file on disk. Scanning directly to disk like this has the advantage that you do not need to have enough memory to hold the complete scan, only a small portion that is currently being saved. The disadvantage is that you must then load the image into another application to make any adjustments or print it out. Some packages scan into memory which then allows them to offer other options, for example direct printing and image processing operations, the downside is that you must have the memory to hold the entire scan. When you come to save the image you should be careful to choose a suitable file format. The two most common are JPEG and IFF24. Unless you are not going to perform any further operations on the scan I would advise against saving as a JPEG. JPEG compresses the image to minimise file size but in this process some details are lost, this is called lossy compression. When saving a JPEG you can usually set a quality percentage, at higher values (commonly 70% or more) you will hardly notice any difference from the original (Note that even at 100% quality the image is still compressed and some detail lost). However if you load and save a JPEG image again, for example after a processing operation, more details are lost so the quality degrades each time. In contrast IFF24 is not a lossy format, so file size is much bigger but you can load and save files as many times as you like without losing any quality.

Useful Options

Photocopy

It can be very useful to use your scanner, in combination with a printer as a home photocopier. Any scanner software can be used for this task but several of the drivers available have a special photocopy function. This means you simply put the document in the scanner and it is automatically scanned



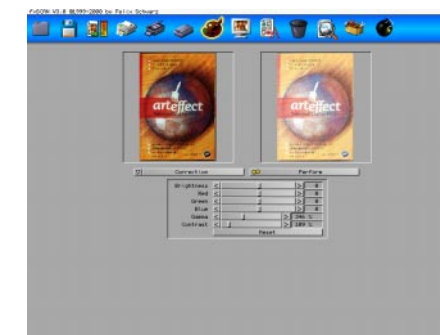
fxSCAN's photocopy option is particularly glitzy.

Colour Correction

To get the best results when scanning you will usually need to make slight adjustments to the colour balance and brightness of the finished image. This is because no scanner produces a totally perfect and over time, particularly as the tube ages, the colour balance in your scans will change. All the scanning software available has some colour adjustments but some packages have a much wider range than others. However adjusting each scan soon gets tedious so it might be nice to have an automatic method... along comes Wolf Faust's ICS. ICS is an automatic colour calibration system, which can be used with any scanner driver and is directly supported by several of the available packages. To use ICS you need a scanner target, this is an accurately printed sheet with patches of a range of colours and grey scales. Some scanners are supplied with a suitable target or you can buy them separately. As targets are usually fairly expensive Wolf Faust has had some manufactured and supplies them at 25DM (less than £10) including postage inside Europe, ICS itself is freeware. ICS works by comparing the scanned image of the target with the known shades on that target, it then builds up a profile of the scanner and uses this to correct other images scanned. It also takes into account your monitor's display so you should end up with an accurate image displayed. Currently ICS does not include printer colour calibration however in our experience TurboPrint does a good job once you have a good quality scan on screen. In the future Wolf hopes to implement printer colour calibration giving maximum accuracy from scan to final output.

Conclusion

A scanner will be very useful to anyone who uses their Amiga for graphics and can also be used for other tasks like photocopying and OCR. Scanning is essentially a pretty simple process but scan resolutions and colour correction are areas that are worth experimenting with to ensure you get the best results but don't waste space and time. Later in this issue you will find reviews of the various scanner drivers available and of Mick Sutton's new Mustek scanner.



Some scanning packages include image processing effects.

and then printed, without the bother of saving the scan then having to manually print it. Some of the packages offer additional photocopy options such as multiple copies and enlargements and usually both colour and mono copies are supported.

OCR

Regardless of the document you scan the result is always an image, for example if you scan a page from a magazine you end up with a "picture" of that page. Now you may want to be able to edit the text from that page or include it in a document of your own (copyright permitting of course). This is where Optical Character Recognition (OCR) comes in. OCR software processes a scanned image of text and tries to recognise the text and layout from the patterns of pixels that make up the text in the scan. This is a complex and difficult process as the group of pixels representing the same scanned character can be quite different depending on the font, size and scan resolution used. Complex algorithms are used by the OCR software to recognise the shapes of letters rather than patterns of pixels. Most OCR packages also have a learn facility which will show display any portion of the scan that the software cannot recognise and allow the user to enter the characters it represents. In future the software uses this information to improve its accuracy.

The Amiga has never been very well blessed with OCR software for many years the only package about was MigraphOCR but this was very old, hard to come by, designed with hand scanners in mind and to top it off doesn't run well on "modern" Amigas. However we now have fxSCAN, a scanner package with an OCR function, you can read a full review starting on page 20 of this issue.

Something Fishy

Reviews are very subjective, what one reviewer may love, another hates. Such is life. So we decided to have a general score, which the reader can take into account along with the text.

So we invented the fish... it's easy to work out which we feel is a better product... the more bones that show, the smellier the fish :). We only award our top Caviar rating to products that are practically perfect.



Caviar
The best so far! We can hardly pick anything out of it, not even boogers. Rarer than Nessie.



tasty
This product is definitely worth buying but, like most things, still has room for improvement.



SMELLY
Average, neither too good nor too bad — it works but there are areas which need major improvement or are way behind competing products.



ROTTEN
Crap, but hopefully getting better in future versions (if there are any).



ROTTEN
Disgusting, multicolour yawn inducing abomination that insults the Amiga.

fxSCAN 3.0

New scanning software with OCR, Mick Sutton and Robert Williams can't wait to try it out!

Just when you thought you'd reviewed all the scanner software packages... another one comes along! fxSCAN version 3.0 (released on the 27th of November), as if you couldn't guess, is from Innovative, the people who brought us fxPAINT and VHISudio (or should that be fxSTUDIO?). Rather than providing yet another set of scanner drivers fxSCAN uses either Betascan drivers (included on the CD-ROM, the Betascan program itself is not required) or ScanQuix if you have it installed.

Installation from the CD-ROM is very easy, you just have to choose the destination directory and your CPU type. PowerPC is supported under both WarpUP and PowerUP but you can't select which one you want to use manually. After installation you need to setup your scanner in the preferences window, here you can set the SCSI device and unit number (we were unable to test if any parallel scanners were supported) and the BetaScan driver to use. The documentation is in AmigaGuide format, and can be called up from within the program by clicking on an icon. The manual explains what all the buttons and options do, but there no tutorials or tips on scanning. There are also popup help bubbles which explain most icons and buttons.

Get Scanning

The interface always uses a full screen, in the screenmode of your choice, and looks very attractive. The main controls are held in a shaded blue button bar along the top of the screen, each button is a glow icon. There are icons to select

the various functions of the program, scan, copy, print, OCR etc. and buttons for load, save, delete and quit. Clicking on one of the function buttons opens that function in the screen below, very few windows are used.

In the scanning section you will first want to do a preview scan by clicking on the Preview button (funnily enough). The preview image is then displayed on the right hand side of the screen, although this image is particularly low resolution it is only used to select the area for the final scan. The area to be scanned is marked out by a selection box which you can resize and move on the preview image. You can now choose the type of scan: lineart (black and white), greyscale or colour. The scan resolution is infinitely variable, you just drag a slider to the value you want. As you change the resolution the memory required to perform the scan is displayed, however this does always seem to be calculated for 24bit colour whichever scan type you choose. Then hit the scan button... and the scan is performed.

So where's my scan? To see the scan you have to click on the View icon which shows it at the full resolution, you can drag with the mouse to scroll around the image. Clicking on the view icon again takes you to a thumbnail screen which shows any previously scanned or loaded images (this session). The scanned image can be saved in a number of formats including BMP, JPEG, RGB8, TARGA and bog standard IFF24 there is also the option to load the scan into fxPAINT, as long as it is running, at the click of a button using Innovative's Stargate plugin.

Image Processing

Once an image is available, either by scanning or loading, you can perform some image processing operations on it. The Process section has two scaled down versions of the image at the top of the screen with its current state on the

left and a preview showing the effect of the selected process on the right. The processes that can be performed are correction (contrast, gamma, brightness, etc.), MinMax, Mirror (vertical and horizontal), Blur, Rotate, Invert, Black & white, ICS-color-calibration, scale, sharpen and cut (crop). These are all fairly simple image processing effects but they are useful for quickly improving scans.

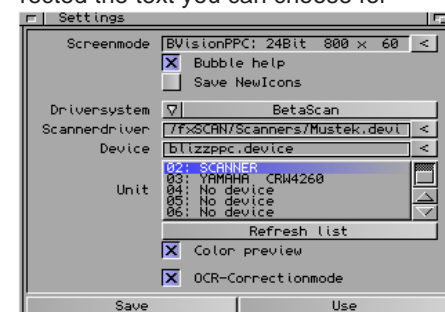
Copier

The copy machine function allows you to scan and print in one operation, effectively turning your scanner and printer into a photocopier. You can set the scan resolution, type (black and white, greyscale and colour) and the number of copies to print. There's even a nice picture of a photocopier!

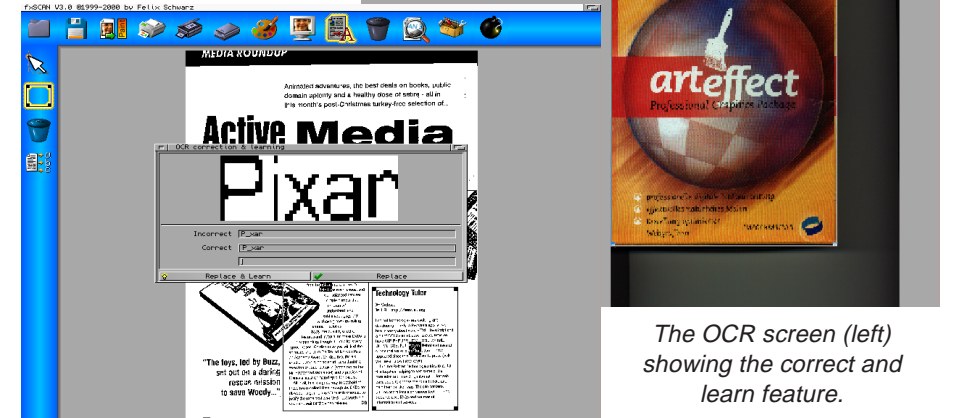
OCR

Optical Character Recognition (OCR to its friends) has to be the jewel in fxSCAN's crown as it is the only current Amiga scanning package to offer this useful feature. OCR allows you to scan a document and convert the text into an editable file (rather than simply an image of the text). Once a suitable document has been scanned, the manual recommends a resolution between 200 and 300DPI, you can select the OCR function. If you start the process straight away fxSCAN will attempt to convert the whole document. If there are columns of text, headings, or you are only interested in a portion of the text then you can define areas of the document to convert. To do this you can add as many areas as you like using the selection box icon on the OCR toolbar.

After the areas have been selected you click the start icon and fxSCAN will then convert each area in order. If there is an area of text that fxSCAN has problems with a window pops up showing the part of the image and its best guess at the text it represents. The best guess is duplicated in an edit box for you to manually correct. Once you have corrected the text you can choose for



The scanning screen (right) shows a low resolution preview allowing you to select an area to scan.



The OCR screen (left) showing the correct and learn feature.

fxSCAN to simply replace its guess with your input or for it to learn what that image represented which should improve accuracy later on. It is not mentioned in the manual whether these learned characters are saved between sessions! The only minor niggle with this process is that the unclear area that is confusing fxSCAN is not shown on the main image, sometimes a jumble of pixels appear and you can't tell where they belong in the document making it difficult to assess which character(s) they represent. After some testing on real life documents we found that the OCR works very well if original text is of good quality, is in a standard font(helvetica, times etc) and is proportioned correctly. On documents like this we almost always got no problem windows and very few errors in the text output, all of which would have been corrected by a simple spell check.

Interface

We found the user interface quite frustrating at first as it doesn't seem to work in a very logical or consistent way. For example after you have scanned an image you can click on the view icon to see the scan but you can't jump directly to any of the other functions, you have to first click on Scan again to come out of that function and then on the function you want. The other problem is that it is not always clear which actions are available at any one time, for example in View mode you cannot click delete to delete the image you are looking at. To do that you must come out of view by clicking on view again, this brings you to the hidden thumbnail view where delete does work! These problems are exacerbated by the fact that inactive functions and actions are only shown by turning

their icon to greyscale and slightly dimming it which, as many of the icons are predominantly grey already, is not very clear. Another minor quibble which seems to be true of all Innovative products is that fxSCAN doesn't show the busy pointer when the program is working so you often get that "has it hung?" feeling during long operations.

Conclusion

fxSCAN is a useful program at a reasonable price, in particular the OCR function is very impressive and unique among the currently available Amiga software. One minor negative point is that you must have enough memory to hold the images you scan, there is no scan to disk function. While the GUI is a little quirky fxSCAN is an excellent product functionally and represents very good value for money.

Results

Pros

- Wide scanner support
- Useful image processing functions
- Surprisingly reliable OCR
- Reasonable price

Cons

- Frustrating GUI
- No scan-to-disk option



Mustek 600 CD II

Luckily for us Sharon Sutton got a new scanner...

For a few years now I have been into Digital Photography and image manipulation, and recently my wife Sharon mentioned that she would like a flatbed scanner for her birthday, and it occurred to me that I could also make some good use of one myself.

Let's Get One

Having looked around for a bit for various models, it came to my attention that I would have to make sure that I choose carefully for one that had Amiga support (by third parties obviously) which rather narrows down the choice available.

As I have SCSI (via the PPC card) I thought I might as well go for a SCSI model, but I can tell you that they are far and few between these days! I could have gone for one of the Epson models but even they are getting harder to find because most models that I did see in the shops tended to be USB models, and as I didn't have the biggest budget in the world, I thought a good choice would be the one of the Mustek models that are available.

After searching on the internet for various models without much success, I located eventually one very close to home (in an Amiga sense) at Eyeteck, they had a SCSI scanner bundle Mustek Paragon 600 CD II, ScanQuix 5 and SCSI cable for £139, which when you think about it, this is not too bad for value as ScanQuix 5 weighs in at £55 and SCSI cables are expensive (say £15) that makes the scanner itself work out at about £70.

So after phoning Eyeteck (who were very helpful by the way) I decided to go for this package and after they

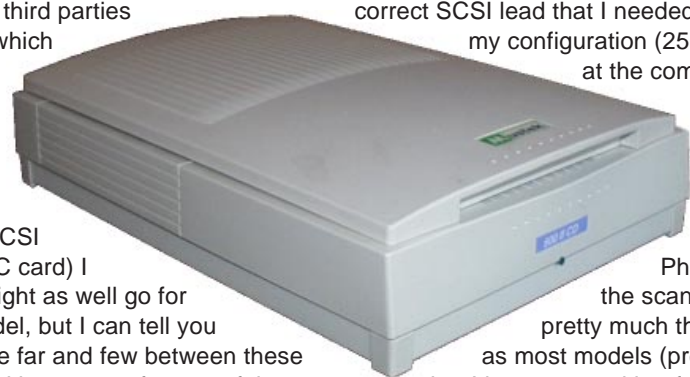
Product Information

Developer: Mustek
Distributor: Eyeteck
Tel: +44 (0) 1642 713185
WWW: www.mustek.com
 www.eyeteck.co.uk
Price: £139.95 w/ScanQuix 5

asked/advised what cable I needed to suit my set-up I can tell you it arrived the very next day, what a good service (and the postage was not too expensive either).

WASSAT!

The scanner came packaged with the manufacturers manual (152 pages written in six languages) and is quite useful with general tips on scanning and useful recommendations of which are the best resolutions to scan at for various projects. Also in the package was the correct SCSI lead that I needed to suit my configuration (25 pin M 'D' at the computer end).



Physically the scanner is pretty much the same as most models (pre USB) that I have seen with a footprint of approximately 40cm by 29cm (roughly the size of A4 plus a 5cm border all the way round) and a height of 9.5cm, with a lid that hinges from the back but also sports "posts" that rise if a thick object (such as a book) is placed on the scanner enabling the user to still close the lid.... neat! On the underside of the lid is a flat white sheet of stiff card which acts as the background to any scanned image. There is an on/off switch on the side and a SCSI ID selector on the back next to the two SCSI ports, one is a 25 way 'D' type, the other a 50 way high density type so that you have options of connection type. The only other noticeable feature is a carriage lock which er well ...locks the carriage for times when you need to transport it, ask at SEAL what happens when you forget and leave it in the locked position!

The Techie Bit

The specifications of the model are pretty average but certainly up to the job of anything my wife or I would be using it for, but just to get technical I can bore you with the details. The scanner is a single pass model with an optical (true) resolution of 300 (H) x 600 (V) dpi (dots

per inch) which rises to 4800 x 4800 dpi through software interpolation and can scan a maximum area of 216mm x 292mm. Looking through the manual it has four scan modes and they are True colour (24 bit), Greyscale (8 bit), Halftone (1 bit 2 levels?) and Text/Lineart (1 bit 2 levels?).

The light source is a cold cathode (single white light) lamp and is therefore quite good at scanning three dimensional objects such as a bunch of keys (ask Rob to explain this one)!

Scan Something For Pete's Sake!

In operation the scanner seems to work very well and is so incredibly quiet, but I have noted that it seems quite slow compared to other models that I have seen in use, suppose you can't have everything can you?

I have used the scanner in conjunction with various scanning software packages including ScanQuix 5, Betascan and fxSCAN 3 and it worked fine with all of them no problem and the result scan in all cases was acceptable with only some minor dithered look to some of the blues in a few scans, but since I have calibrated using ICS and things look all OK now. One feature that I have noticed is that after several minutes of non-use the scanner lamp switches itself off which I guess is to prolong it's life, this may happen on all scanners but I thought I would mention it out of interest.

I have scanned various types of subjects from plain text (1 Bit) to 3D objects such as bunches of keys and I can tell you I am quite happy with the results I have got to date.

In conclusion I think this is a pretty good scanner which does a good job and is quite good value for money, so I would not hesitate to recommend it, but is you need the higher resolutions to scan at (which I don't) then maybe you would be better off with one of the latest Epson or HP models.

Results

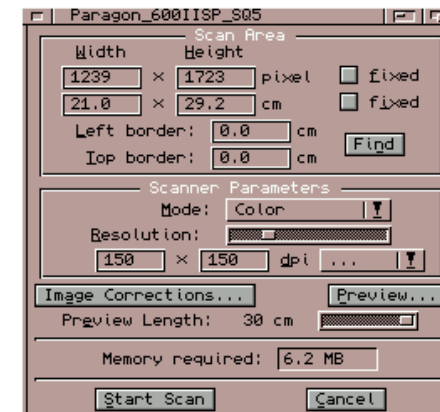


ScanQuix 5

ScanQuix is one of the few commercial Amiga scanner driver packages available (the brand new fxSCAN and ImageFX, although scanning isn't its main use, are the only others). The package is supplied on CD-ROM and includes an extensive on-line manual in HTML format. ScanQuix is a very modular package, it has separate programs to handle different scanning functions and drivers for a range of different scanners. With version 5 all the scanner drivers are supplied on the CD, unlike version 4 where you had to buy a specific version for your scanner. After installation, which uses the standard installer, the first job is to set up your scanner in the ScannerPrefs program. Here you first select the scanner driver (various Artec, Canon, Mustek, Epson and UMax models are supported) you wish to use, then a window opens allowing you to configure that driver. For example with the Epson driver this configuration consists of selecting the interface (parallel, SCSI or serial), and the options for that interface type e.g. SCSI device name and unit number for SCSI. Other drivers have different options depending on the interfaces supported. You can install several scanners at once (greedy!) and pick which one you want to use by default in the various ScanQuix programs.

To start scanning you run the main ScanQuix5 program, the main window shows you thumbnails of the images you have scanned in this session, you can also load in existing images. You can select any image and Save it, Print it or show it in an external or internal viewer, there are also some basic manipulation operations: scale, rotate and flip. Clicking on the Scan button opens the scanning window where most of the action takes place!

In the Scan window clicking on the Preview button opens a separate preview window and quickly scans the image, you can select whether the pre-



The main control window allows you to set the scanning mode and open the preview and image correction windows.

view is colour, greyscale or mono and the resolution used from the Settings/Preview menu option. Once the preview has been scanned you can select the area for the full scan by dragging a selection box, there is also a handy Find facility which tries to guess where the edges of the image are against the plain background. In the scan window you can select the resolution and mode (colour, grey or text) of the scan, as you change these parameters the memory required for the final image is displayed, handy if you're short on RAM or disk space. A range of options are available in the Image Corrections window so you can adjust the balance of the final scanned image. The Brightness, Contrast and Gamma levels can be set for the image as a whole or for the Red Green and Blue colour components individually. You can also set dark and light limits which can be used to intensify those areas of the image. As you alter any of the settings your changes are shown in real time on the preview. All these image corrections can also be applied to previously scanned or other loaded images from the initial ScanQuix window.

The ScanQuix program holds all the images you scan in memory which, as you can imagine, is very memory intensive if you scan large areas or use high resolutions. To get around this a separate ScanToDisk program is provided, this doesn't have the thumbnail interface of the ScanQuix5 program, you simply specify a file name and start scanning. The scan window that then opens is the same as ScanQuix5 so you get all the preview, resolution and image correction

by Mick Sutton and Robert Williams

options. The final scan is then saved directly to disk using minimal memory, if you want to the print the image or save in a format other than IFF you would need to load the image into another package.

Two colour calibration systems can be used with ScanQuix, ICS or, if you don't have access to a target, there is the built-in Calibratix system. Calibratix uses calibration images which you print out on your printer so inevitably it is less accurate than ICS.

PhotoCopyPro is another separate application supplied in the ScanQuix package, it provides a simple method of scanning and then printing effectively creating a copy. You can select the size of the paper being scanned and whether the copy should be Text (mono) or photo. Multiple copies and enlargements are also possible. Usefully you can set the scan resolution used for Text and Photo individually so you don't have to re-configure when you switch modes, ICS can be used whilst copying.

Direct scanning into a number of applications is supported. Scanner modules are provided for ImageFX and Art Department Pro, adding ScanQuix along side their built-in scanner drivers. Loader modules for Photogenics (up to version 2.0 only) and Personal Paint allow you to scan into these programs in one step rather than scanning, saving to disk then loading into the program. PageStream 3 and Deluxe Paint V are supported by AREXX scripts.

Version 5 of ScanQuix is a comprehensive scanning system that feels very well developed and supports a wide range of scanners. Our only quibble is over the price which does seem quite high, especially with scanners becoming more reasonable. With the introduction of fxSCAN which includes OCR and most of ScanQuix' features, although not as polished, for about half the price ScanQuix has some real competition on its hands.

Results



Scanner Software Round-up

To conclude our scanning section Robert Williams takes a look at some of the other software available.

Beta Scan

By Svend Daugaard Pedersen

Aminet: hard/drvr
Licence: Freeware

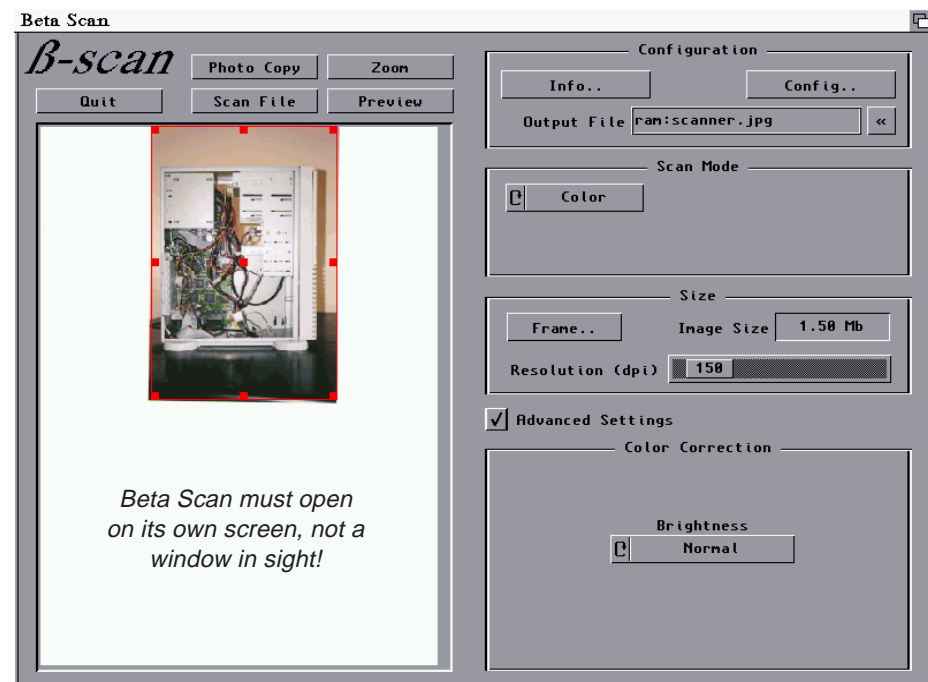
SCSI: Apple, Agfa, Canon, Epson, Microtek, Mustek, Hewlett Packard.

Apart from the commercial ScanQuix all the Amiga scanner drivers tend to support a narrow range of scanners from one or two manufacturers. Although some programs have modular drivers, none have made the specification available... until Betascan that is. Betascan itself is a simple scanning program, the special thing about it is that it supports modular drivers and the driver spec is freely available. Betascan has also been designed to make it as easy as possible to port drivers from the Linux SANE scanner driver system. As SANE is an open source project the source code for many of these drivers is readily available. This open system has attracted several developers to port drivers resulting in the impressive list of supported scanners shown above.

Betascan has to run on it's own screen, the interface does not use windows for the controls and preview. The fonts used are scaled depending on your screen resolution and to be honest it looks old fashioned and just plain ugly. That said it does work quite well, as usual you scan a preview, select the area then scan the final image direct to a file on disk. The other options you get depends on the scanner driver selected, with my Epson this is limited to one "brightness" slider. The Mustek driver has a few more options but is still much more limited than any of the packages mentioned here. One function unique outside the

commercial ScanQuix and fxSCAN is the Photocopy button which scans in mono and dumps directly to your printer. One interesting development is that Innovative (the people behind fxPAINT) have released version 3.0 of their fxSCAN scanning program which will support BetaScan drivers. fxSCAN offers a much more attractive interface and more image correction and processing functions.

Betascan is a workman like package that despite its looks gets the job done and supports a wide range of scanners. A few options such as colour correction and adjustments and noticeably missing although the photocopy function is quick and effective. Excellent for a free program although noticeably less sophisticated than the others.



Beta Scan must open on its own screen, not a window in sight!

ImageFX

By Nova Design

Licence: Commercial
Price: £99.95 from Eyetech
WWW: <http://www.novadesign.com/>

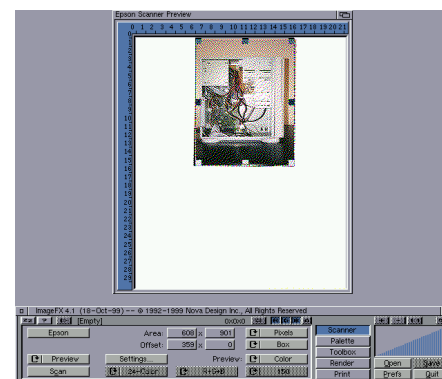
SCSI: Epson, HP
Parallel: Epson (requires custom cable)

Nova Design's heavyweight of Amiga image processors is supplied with scanner modules for Epson and HP scanners. Unusually the Epson module also supports parallel port models although you will need to make or buy a special cable (the pin-outs are in the manual). Scanning has its own section on the main toolbar, where the scanning controls are located. Before you start scanning you need to set up the scanner in the Settings window which differs depending on the scanner driver you have selected. For

SCSI models you have to select the device and unit number of the scanner and there are also various adjustments you can make to the brightness, contrast and gamma of the raw scan.

All the basic scanning controls you need are provided, you can preview, select an area to scan and set the required resolution. In the Epson module at least (we weren't able to test with an HP scanner) the preview quality is quite poor and heavily dithered especially in colour although adequate to select the scan area. The scanner module itself has quite limited control over the look of the final scan, however once the image is available you can use ImageFX's myriad of options to make colour corrections or special effects. There is also a third party ImageFX module (a Hook in IFF terminology) which uses ICS to colour correct a scanned image although this does have to be applied manually after you have scanned.

While the ImageFX scanning module doesn't have as many features as a dedicated scanning package it is very convenient to be able to scan directly into an image processor. After the image is scanned none of the other packages can compete with ImageFX's armoury of processing features. If you just want a scanner driver then ImageFX is obviously overkill but if you can use the rest of the program then the scanner drivers are a very useful addition.

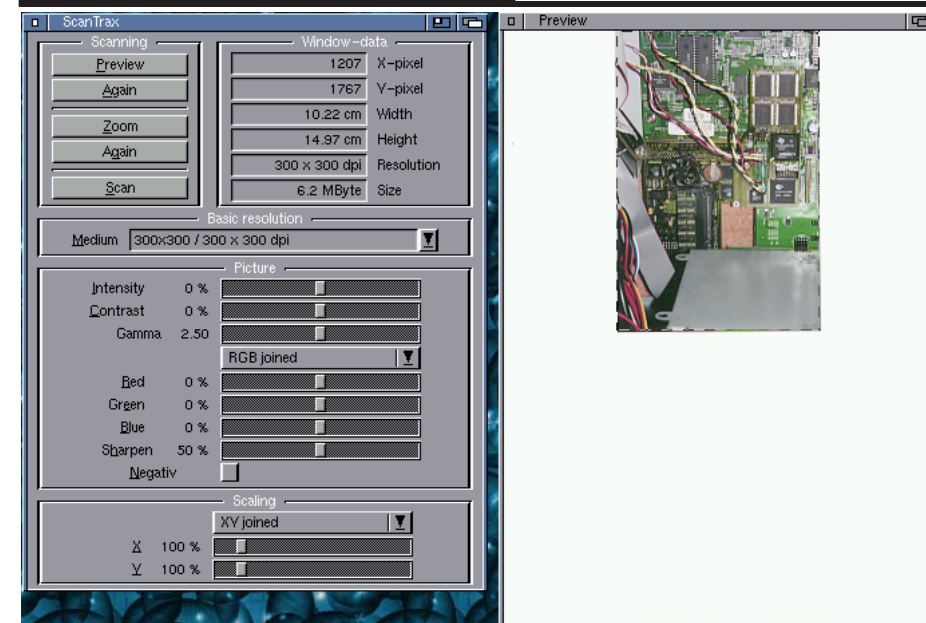


The ImageFX scanning interface is simple but has all the essential options.

Important

The scanner manufacturers listed with each piece of software are to give you an idea of the scanner(s) it supports. Do not assume that a driver will work with every scanner from the manufacturers listed. Before purchasing a scanner check that your software specifically lists the model you are considering as supported and preferably tested.

Scan Trax



Scan Trax can open on Workbench or its own screen. The main window (left) holds almost all the scanning controls.

By Klaus Krause

Licence: Shareware
Price: 30DM (£10)

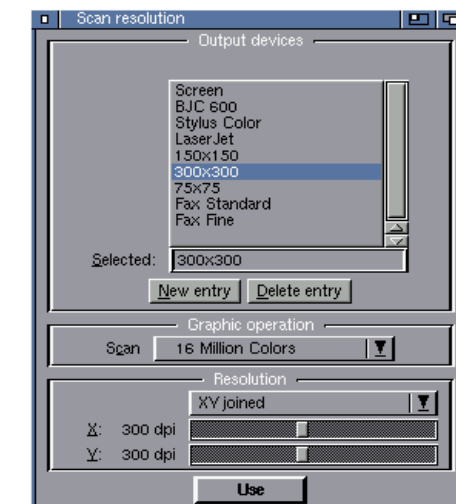
SCSI: Epson, HP

ScanTrax is a shareware scanner driver which has been available for a number of years. Version 1 supported only HP SCSI scanners and in version 2 the author added support for Epson scanners although again only the SCSI models. ScanTrax has an attractive and functional GLayout GUI consisting of two main windows, one holding the controls and the other the preview image. In the control window you can set the resolution and colour mode for the scan. Also in the control window are the image control options, once you have made a preview scan you can use these sliders to adjust the gamma, brightness, saturation and RGB levels of the image, as you make changes the preview is updated with their effect. For automated colour correction ScanTrax supports Wolf Faust's ICS calibration system. Usefully you can create your own set of default resolutions, for the types of scanning you commonly do.

Once you are happy with your settings it's time to create the final scan. ScanTrax scans this directly to a file on disk minimising memory requirements, it supports IFF, JPEG and PNG formats. You can then load the saved image into another package of printing or further processing.

An extensive AREXX port is available which allows macros to control all aspects of ScanTrax, while it would be quite possible to use this to allow scanning directly into most image processors, word processors and DTP programs supporting AREXX the only script provided is a sample to help you a macro for your own favourite programs.

If you can find a supported scanner ScanTrax offers all the facilities most people will need, including ICS support, without being over complex. It is especially well suited for quickly producing scans to be further edited in other applications. The reasonable registration fee is a bonus, highly recommended.



ScanTrax's Scan resolution window allows you to pre-define resolutions and colour depths of particular jobs.

ArtEffect 4

Mick Sutton and Robert Williams explore the latest version of Haage and Partner's image processor.

ArtEffect is now in its sixth revision (1, 1.5, 2, 2.6, 3 and now 4) so how does it match up against other long standing image processors such as Photogenics, ImageFX and the new kid on the block fxPAINT?

Installation and Requirements

The program is neatly packaged in a proper box which contains the CD, a manual (more of this later) and registration card. Installation is via the standard Amiga installer program, and minimum system requirements are quite low, ArtEffect is able to run on a system with AGA, 8Mb RAM, hard drive and CD-ROM, but it is recommended that you have at least an 040, 16Mb RAM and a Graphics card.

GUI

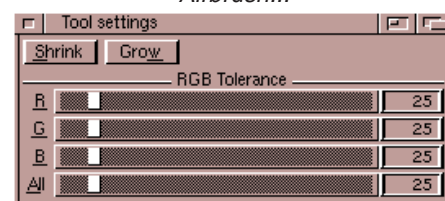
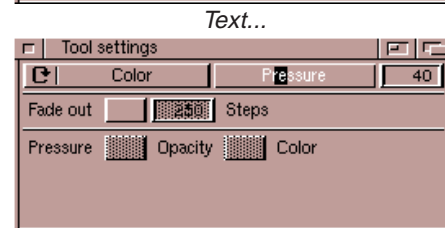
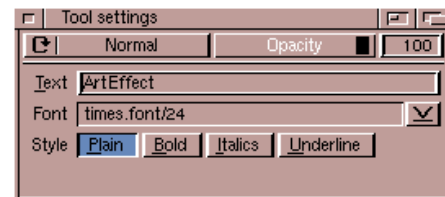
When you first run ArtEffect it opens its interface on the Workbench screen. You can set it to use a separate screen from within the program settings window, also from this window you can set several other preferences such as whether to close workbench (for those tight on memory), virtual memory, the maximum number of full undo steps and whether you intend to use a graphics tablet which are fully supported including pressure sensitivity. On the ArtEffect screen you have on the left a toolbar with the usual instantly recognisable buttons for painting tools (freehand, line, box etc) plus a few unique to ArtEffect such as mask, magic wand and cloner. Many of ArtEffects functions are accessible from its menus and many of them open their

own window with parameters you can adjust, most of these windows remain open whilst you work on an image which is handy if you need to keep returning to them to alter settings according to what you are doing. A good example of this is the tool settings window, which shows the appropriate settings for the tool you are currently using, for example if you have say airbrush selected the tool settings window lets you adjust the paint mode and the pressure but if you have the text tool activated then you can select the font, size and enter the text in style and feel to Photoshop on the PC and Mac, it's very professional.

Layers

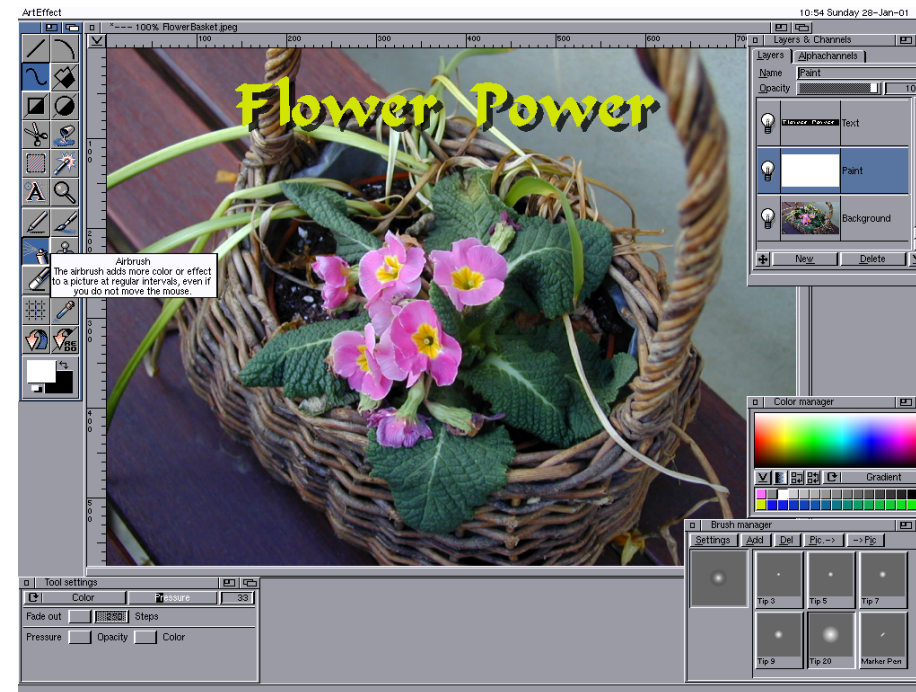
ArtEffect has a very flexible layers system, this allows you to "build" an image constructed from painted effects or images each on its own layer. Layers can then be moved, placed above or below other layers and edited at any time without affecting other layers. An unlimited number of layers can be used (dependent on the available memory) and new layers can be added at any time, you can also duplicate the current layer. The Layers & Channels window shows all the layers in the current image with a thumbnail of the contents of each one, the layers are shown in order from top to bottom so it is easy to see how your image is built up. Layers can be moved around in this "stack" by dragging their icon and dropping it in a new position which is indicated by a dotted line. Any layer can be hidden by clicking on the "light bulb" icon to the left of its thumbnail, this allows you to work on a layer in the middle of the stack and hide the layers above so they don't get in the way. If you make a layer from an existing image you can use the erase tool to make parts of the image transparent, so the layers below show through. In the layers window there is a position tool button which enables you to drag on the image to change the current layers position.

The Tool settings window shows the settings for the current tool such as...



and Magic wand.

There are three special types of layer which can be added from a dropdown menu on the layers window. Text layers are used to add text to the image, unlike using the normal text tool, text layers remain editable and you can go back and make changes at any time. All the system fonts are available, you can set the colour and apply bold, underline or italics. You can enter as many lines as text as you like but they will all have to be in the same font/style, and one thing we noticed is that the final text is anti-aliased so it looks smooth. A shadow effect can be applied to any layer using the adjust effects option, this is particularly effective when used with text layers. The angle of the shadow, its opacity (transparency) and distance can be set and one particular useful feature is the global angle setting which allows you to set the same angle for the shadow cast for several layers. And finally we come to the process layers, these allow you to apply a small range of effects to all the layers below the process layer, the effect has to be applied to the whole image (unfortunately). The



The main ArtEffect screen showing many of the windows including the excellent layer and brush managers.

available effects are correction (brightness, contrast & gamma), effect (positive, negative & threshold) and special (fire, space & landscape colour effects). All of these are applied to the image in real time.

Once you have constructed an image made up of multiple layers you have the options to save this as a flattened image without layers or to retain the layers within the image file. Layered images are saved as an extended IFF file which contains both the flattened image and all its layers, this means you can load it into another package but if you need to edit the layers themselves you can only use ArtEffect to do so. A flattened image it should be noted uses much less disk space because it doesn't contain all the layers.

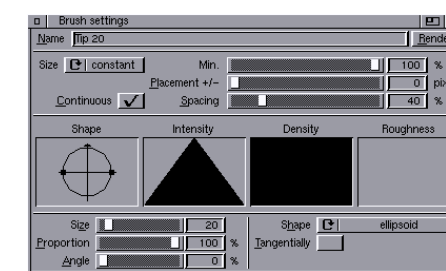
Effects

Like most image processors ArtEffect has a wide range of effects (which are in the filters menu) and all the different filters are applied to the image or the current layer in the same way. When you select a filter from the menu a preview window appears with the options for the filter below the preview image, as you adjust the filter options the preview is updated in real time. By default the preview only shows a small portion of the image but you can use the mouse to scroll around and zoom in and out. Once you are happy with the desired effect in the preview clicking on the execute button applies it to the whole image or

layer, a progress bar is shown to let you know that something is happening, which is useful because some of the effects can take a long time. We have noticed that many of ArtEffects filters do seem considerably slower than the equivalent in Photogenics 4 and ImageFX 4, apparently there are PPC plug-ins available for ArtEffect but we don't have these to test and according to AmigaActive they don't work with version 4.

Brushes

There are two types of brushes, an image brush which is an area cut from an image and generated brushes which are user defined shape and size. To cut an image brush you select the scissors tool, click on the shape of brush you wish to create (circle, rectangle, polygon and freehand), then draw on the image to cut it. You can also create a brush from any image that is loaded by clicking on a button in the brush manager window. Generated brushes can be based on an ellipse or rectangle, you can set the size and proportions, density, intensity and roughness. These last



Create and edit your own brushes.

three factors are controlled by a kind of graph which you can drag your mouse over to vary their effect from the centre to the outside of the brush. For example you could generate a circular brush with the intensity varying from high in the middle to none at the outside to get a soft airbrush effect. Both types of brush have options allowing you to set the size, placement and spacing when they are painted onto the image, these values can be set to vary randomly or by pressure sensitivity if you are fortunate to have a graphics tablet. Random size and placement is useful for creating backgrounds as it scatters the brush as you paint.

Tools

ArtEffect's main image editing controls are available from buttons on the toolbar. At the top of the bar, buttons for drawing various shapes such as freehand, line, curve, ellipse and rectangle as found in most art programs. All the shape drawing tools and freehand can be used to draw either an outline or filled shape. If you draw an outline then the current painting mode and brush are taken into account, so for example you could draw an airbrushed line. There are three main paint modes which apply a colour or effect to the image in different ways and there are several effect modes which alter the image in different ways as you paint. The pen paint mode paints as if the whole brush were solid without a soft edge. Brush mode only lets you apply a set amount of colour until you release the mouse button and paint again to re-load the brush, this makes it easy to achieve a watercolour like "wash" style. The third and final mode, Airbrush, is similar to brush except if you paint over an area several times the colour gets more intense with each pass.

Now we come to the special effect modes. Clone allows you to copy one part of the image to another, for example to move one person's head onto another's shoulders. This works by first holding Left Alt and clicking where you want to copy from. Then you just start painting where you want to copy to and the source area is copied over. ArtEffect allows you to easily reposition both the source and the destination at any time by clicking with the Left (source) or Right (destination) Alt key held down. Smudge allows you to smudge the image about with configurable strength and fade, this can be very useful for smoothing new

Product Information

Developer: Haage and Partner
Distributor: Blittersoft
Tel: +44 (0) 1908 225454
WWW: www.blittersoft.com
 www.haage-partner.com
Price: £79.95
Demo: On the H&P website.

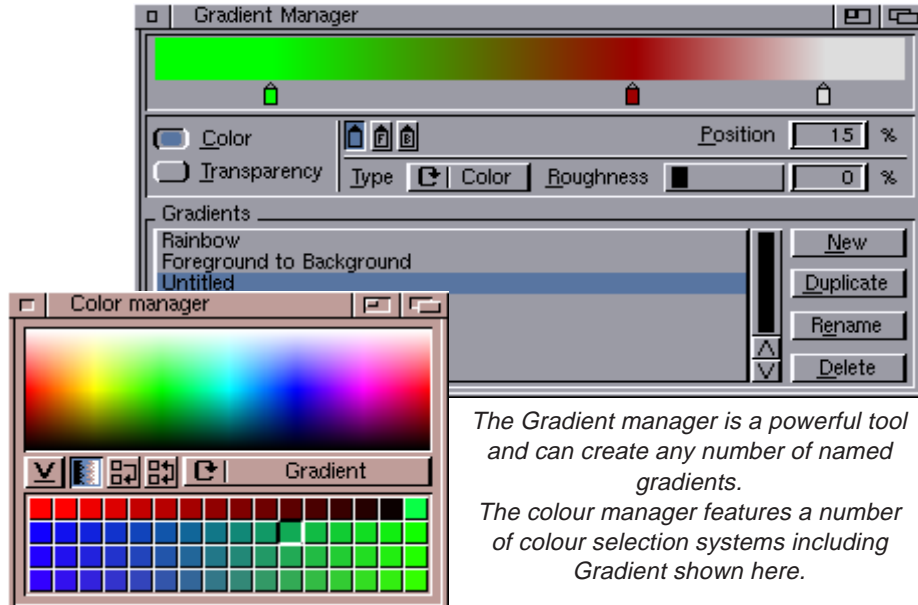
elements into an existing picture and for performing distortion effects. We did find the smudge mode was quite slow and jerky on higher resolution images (our test image was 1024x758 pixels) even on an '060. The erase tool is used to make part of the current image transparent. It can be used to paint out areas of an image using the various tools or it can make the whole image transparent if you shift click its button. Erase comes into its own when you are working on a layered image as you can erase parts of one layer to reveal the layers below. The text tool allows you to add a single line of text at a time to your image, any system font can be used and you can apply bold, underline and italic styles. The final text is antialiased and looks very nice if you use a scalable font.

While you work with these tools the appropriate settings are shown in the tool settings window so you can make adjustments. As well as painting with the selected colour or image brush you can also paint on a small selection of effects. Unlike Photogenics you cannot paint on all of ArtEffect's filters only a few are available such as water (which smears the image like a wet brush), lighten, smooth, blur, sharpen and several colour effects. All the paint modes have an opacity or pressure slider which allows you to control the amount of colour or effect applied.

Stencil

This protects areas of the image allowing you to paint and apply effects to a specific area. A stencil can be applied to an image in a number of ways. With the magic wand tool you can click in an area you wish to select for editing and ArtEffect will try to find its boundaries and stencil the rest of the image so and subsequent operations are applied only to the selected area. With the magic wand selected you can set the tolerance used to select the area, this adjusts how similar a colour must be to the area you clicked to be included in the selection. You can add and remove areas using the magic wand tool by clicking with the left Alt (add) or left Amiga (remove) keys held down. The rectangular masking tool lets you select a rectangular area for editing and protects the rest with the stencil, sadly you can't use any other shapes. Finally the text tool can be used in stencil mode, this lets you paint or apply an effect just to the text area.

Once you have defined your stencil there are several operations you can



The Gradient manager is a powerful tool and can create any number of named gradients.

The colour manager features a number of colour selection systems including Gradient shown here.

apply to it from the Stencil menu. Invert is probably the option you will use most, this changes protected areas to unprotected and vice versa. The feather option allows you to smooth the edge between a protected and a free area to hide any join and eliminate noise removes any stray pixels which have not been picked up by the magic wand.

Colours

Selection of the painting colour and the colour used by effects and filters that require a colour selection is set in the Colour Manager window. This window can show up to 256 colour swatches allowing you to easily pick a specific colour. In the top part of the window colours can be defined using a variety of colour models. For the RGB (Red, Green, Blue), HSB (Hue, Saturation, Brightness) and CMYK (Cyan, Magenta, Yellow, Key (Black)) models the colour is set using three of four sliders. Two other modes are available, Gradient which shows all the colours in one block and Mixer which lets you set the colour at each corner of a box and see how they mix together. One particularly nice touch is that the colour sliders each show a gradient of colour so you can see what difference moving the slider to a particular position will make.

Colour gradients are defined in a very powerful requester, any number can be created and each is assigned a unique name. You can add as many colour points as you like and ArtEffect will create a smooth gradient between them. You can change the position of the colour points along the gradient to make slow or rapid changes in colour. We did

find the gradient requester rather slow and unresponsive which does hamper its use a bit. Gradients can be applied to the filled shapes or with the flood fill tool, after the shape has been drawn or area flooded you can drag the mouse to set the gradient direction.

Load/Save and Print

A variety of image formats can be loaded and saved by ArtEffect including, IFF ILBM, BMP, PCX, PNG, TARGA, TIFF and, of course, JPEG. No 8 bit formats are supported so you can't use ArtEffect to create GIF images directly. Printing is possible via the standard AmigaOS printer drivers, Turbo Print and Studio so everyone should be catered for. The Turbo Print and Studio options simply load the image into the print packages image printing program (Graphics Publisher and Studio respectively) so you can decide what size and print settings you require before you print.

Documentation

The English printed manual supplied with ArtEffect 4 is actually for version 1.1 so although it does cover some of the basics it is way out of date and doesn't cover major features such as layers that were added in later versions. That said an excellent set of HTML based tutorials are supplied on the CDs and even more up-to-date versions can be found on Haage and Partner's website. These tutorials are very thorough and cover many aspects of the program, all the images required are provided. Learning ArtEffect by using it is made much easier by the excellent bubble help

which not only describes most buttons but offers additional information such as what keyboard qualifiers are available.

Plug-ins

There are several plug-ins available for ArtEffect, both commercial and public domain, these vary from additional filters to digital camera drivers (only old Kodak models unfortunately). Haage & Partner released PPC plug-ins for ArtEffect 3 but we have read in Amiga Active that these don't work with version 4, but we are unable to confirm this as we don't have them ourselves (if Haage & Partner would like to prove us wrong...). ArtEffect also has an AREXX port so you can control it from your own scripts, many scripts are also available on Aminet (for those who don't want to get their hands dirty).

Conclusion

In conclusion ArtEffect is right up there with the other big two image processors on the Amiga (ImageFX 4 and Photogenics 4) it has its strengths, the excellent layers management and powerful brush tools and only minor weaknesses, speed in a few areas particularly filters and limited flexibility in applying the filters. Overall a very professional package that would meet most peoples requirements especially if you are into painting or photo editing and compositing... a masterpiece coming your way soon!

Results

Pros

Powerful and easy layers system. Flexible brush system and painting modes. Attractive and logical interface.

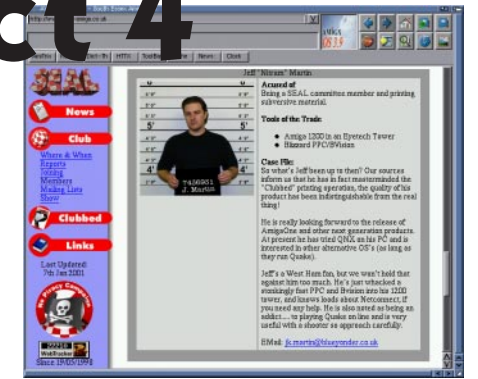
Cons

Effects can be slow. Limited number of layer effects.



ArtEffect 4 Tutorial

By Robert Williams and Mick Sutton



It's always hard to get across in a review how a program actually works so we thought we would include this ArtEffect tutorial. We hope that it will be useful for anyone who already has ArtEffect and will also be interesting for people who want to see how the program could be used in "real life". We used ArtEffect to produce the new images for the Members section of our website. To spice up what was a rather dull page Mick Sutton suggested we have a criminal theme, and make each committee member look like they were in a line up of "usual suspects". To do this we took a photo of each member standing against a plain white background and then added the height chart behind them. Finally we super imposed a blackboard and with their name and prisoner number. It turned out that this project uses quite a few aspects of ArtEffect, especially the layers so it makes quite a good tutorial. These techniques could be applied to all sorts of projects involving photo compositing, if you want to give it a go using the same images as we did you should find them on our website by the time you read this review.

Step by Step

Load original image by selecting Open from the Project menu, in our case this is the image of Jeff against the plain background.

Add the Height Chart



Then load the height chart. You could create this from scratch in ArtEffect but as our height chart contains lots of lines and text we decided to prepare it in DrawStudio which has grid and alignment facilities.

Click on the magic wand tool in the tool bar then click on any unwanted area in the height chart (the white background), everything except the area where you clicked should now be flood filled with a

red tint (red is the default colour, it can be changed in the Settings/Settings window) indicating it is stencilled. Now we need to remove the stencil from all the other unwanted areas including the "holes" inside numbers like 6. To do this hold down the left ALT key and click in each area until they are all cleared.

Now we have a stencil protecting the black areas where we actually want the white areas protected, to achieve this we simply select Invert from the Stencil menu. The white areas should return be tinted red and the black lines and text should be solid black again. When we pick up the height chart as a brush in the next step the areas protected by the stencil will be left transparent so this method allows us to pick-up just the lines and text.

To pick up the height chart as a brush click on the Scissors tool, then in the Tool settings window (choose Settings from the Window menu or press F2 if it's not already open) uncheck the Transparency box. Now drag your pointer from one corner of the image to the opposite corner and release the mouse button.

Now re-arrange the windows so the background image is in full view and active.

We are now going to add the height chart as a layer above the background so click on the New button in the Layers and Channels window (open with the

Window/Layers menu item or by pressing F6). Ensure that the pen tool and freehand are selected on the tool bar. In the Tool settings window (which you opened earlier) select Matte from the cycle gadget. Now position move the pointer over the image and you should see a bounding box representing the brush. Align the bounding box with the edges of the image then click the left mouse button once to paint the brush. The height chart should then be painted over Jeff but the white background will be transparent so you can see him behind. Finally click in the Name box in the Layers & Channels window and change it to Chart.

Add the Foreground Layer



Select the Background layer by clicking on its thumbnail in the Layers and Channels window, its row should be highlighted. Select Duplicate Layer in the pop-up menu which is accessed by clicking on the down-pointing arrow button in the bottom right hand corner of the window. A new layer identical to the background appears, name the duplicated layer "Jeff". Drag the "Jeff" layer thumbnail to the top

(release the button when the dotted line is above the top layer), this new layer should now obscure the others in the main image window.

We now want to remove the white screen background from the "Jeff" layer, this will allow us to see the height chart behind Jeff but with the original background. To do this select the magic wand tool and click anywhere on the white screen behind Jeff. Select magic wand again, hold down the left Alt key and click in any areas where you want the background image to show through, for example under the arms. If you go too far you can always choose Undo from the Edit menu. When you get to the point where a click selects more than you want you can either reduce the tolerance in the Tool settings window or tidy it up manually later. When you're happy hold down a Shift key and click on the Erase tool to erase the unprotected parts of the image, in this case the screen background.



Now we need to tidy up the areas we couldn't easily select with the magic wand, first select None from the Stencil menu to clear the stencil. Click on the Erase tool and choose a soft round brush from the Brush manager (Window/Brush manager or press F4). Carefully paint over any areas you want to remove, for example where the foreground shadows obscure the chart lines.

The Black Board

Jeff looks like a convict but one vital feature is missing, a black board with his prisoner number! Note that in the images on this



page we've given Jeff a grey "black board" this is so you can see what we've added even though Clubbed is a black and white magazine!

Add another new layer, name it Board. Select the filled polygon tool (click in the bottom right hand side of the Polygon button) and ensure black is selected as your drawing colour. Draw a box over the magazine Jeff is holding, to do this just click in each corner of the magazine in turn.

Now we'll make it look as if Jeff is actually holding the board by revealing his fingers. To make this easier zoom in over one of the hands by clicking on the Zoom tool and dragging a box over the area you want to magnify. Select the erase tool and a small round brush from the Brush manager. Erase the area over the fingers so they look as if they are gripping the board.

Name, Rank and Number

The finishing touch is to add the prisoner's name and number, to do this we'll use ArtEffect's special text layer, you could also use the text tool. First select white (or whatever text colour you fancy) as your drawing colour then choose Add text layer from the Layers and Channels window pop-up menu.

In the Text layer window enter the text you want and select a suitable font, I chose CGTimes, size 50. Click the Apply Text button then close the window. Now click the Move icon in the Layers window and drag on your image to move the text into place over the board. If you need to edit the text at a later date simply double click the layer's thumbnail to re-open the Text layer window.



Well that's it and I hope you'll agree that the end result is quite effective, now it's up to you to apply these techniques to your own images.



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EZMouse PS/2

Developed and Distributed by: Eyetech Telephone: +44 (0) 1642 713185
WWW: www.eyetech.co.uk Price: £19.95

With Amiga mice becoming more difficult find (especially if you don't like the "official" ones) the various options for connecting a standard PC mouse are more and more attractive. Not only are PC rodents very readily available but you have a bewildering choice in shapes and sizes there is also the option of alternative devices like track balls and finally many PC mice have extra features like scroll wheels and additional buttons.

PC serial mice can be used with the Amiga's built-in serial port and an appropriate driver (which means they cannot work until the Amiga has booted) or in the mouse port with a suitable adaptor such as the PUNCHINELLO. However serial mice are now also a dying breed as most new PCs use PS/2 or USB ports to connect their mice. It will be quite a while before serial mice stop being available altogether but already some newer models are only available for PS/2 and USB. So it's nice to see this new EZMouse adaptor from Eyetech that lets you connect a PS/2 mouse to your Amiga's standard mouse port.

The EZMouse adaptor itself couldn't really be any simpler, it is only just over 3cm long and plugs directly into the mouse port. On the opposite end to the Amiga mouse connector is the PS/2 port where you plug in the mouse. If you take

the adaptor apart (I couldn't resist taking a quick peek :) you'll find just one IC and two chip capacitors neatly surface mounted on the tiny PCB.

In use the PS/2 mouse acts as any other Amiga mouse. No software is required for this basic functionality so you can bring up the early startup menu and use the PS/2 mouse in games that do not multitask. The only slight limitation we found is that, unlike the PUNCHINELLO, the middle mouse button does not work without the supplied software being run. On the plus side if you've used a serial mouse on a PC or via an adaptor on the Amiga you'll notice that the EZMouse is noticeably smoother especially when moving the pointer slowly.

Two pieces of software are supplied with the EZMouse, WheelDriver and FreeWheel, both are installed into the WBStartup drawer by the simple install script so they will be available after every boot. WheelDriver is unique to the EZMouse and generates events when you roll the scroll wheel or click the additional buttons on your PS/2 mouse. FreeWheel which is written by Alistair Robinson allows you to use the scroll wheel and up to four buttons with most Amiga software. The wheel support works with most applications that use a standard scroll bar and all applications that allow you to scroll using

Serial and PS/2

Many mice work with both serial and PS/2 ports, usually these types are supplied with an adaptor. However be aware that this does not mean that any PS/2 mouse can be converted to serial with a simple adaptor. In fact the serial and PS/2 mice use some redundant pins in the PS/2 connector to supply the required serial signals, a PS/2 mouse not designed for a serial adaptor (such as USB and PS/2 mice) cannot be used with one.

the cursor keys. Scrolling in some MUI applications and classes works because they accept cursor key input but a better option is to download MUIWheel (giftware, on Aminet) which patches MUI to support wheel events and has a neat page of options in the MUI preference program. So you can use the wheel to scroll in workbench windows, web browsers and many other applications. Freewheel allows you to define the actions of the two extra buttons so you could use one to bring the window under the pointer to the front or flip screens for example. You are limited to the pre-defined actions provided which are not as extensive as those provided by utilities such as MCP but most likely uses are catered for.

It's worth mentioning that although the wheel seems like a bit of a gimmick at first it is really useful. Scrolling through webpages and long documents in particular feels much more natural because you can keep your eye on the text rather than searching for a scroll bar, even though the Amiga's scroll bars work much better than the ones on Windows. If you've never used a wheel mouse before the wheel actually moves in small steps, notches if you like, in Freewheel you can set how many lines of text should scroll with each notch.

The EZMouse is a simple and effective device, when used with a four button wheel mouse it adds a great deal of functionality you soon won't want to be without. You just need to be careful you pick a compatible PS/2 mouse, from our tests Logitech seems a good choice.

By Robert Williams



Results

Wheel Mouse Optical

Developer: Logitech WWW: www.logitech.com Available from: Computer shops Price: about £30

We all know the problems of traditional mice which are forever getting gummed up with dirt making them erratic. They also have a tendency to slip unless you use a good quality mouse mat. Optical mice with no moving parts have been available for a long time too, but they have always required a special mouse mat printed with a grid.

This optical mouse is different, it has no ball and no moving parts yet it can be used on almost any surface! On the bottom of the mouse is a red LED and a recessed reader which scans the surface under the mouse some very clever processing determines the direction of travel. While the mouse is not in use the LED glows softly, it brightens as soon as the mouse is moved. I have been very impressed as to how well this system works, the mouse tracks perfectly on all the surfaces I tried including my "Keep the momentum going" mouse mat (very important!), desk top and even

plain surfaces like the top of my A3000. As you would expect with no ball the action is totally smooth although I noticed it is not as fast as the Wizard mouse I used previously, I had to increase my acceleration setting to get the same effect.

The symmetrical design of the Wheel Mouse Optical should mean it is usable by both left and right handed people, I find it well shaped and comfortable in the hand. The large buttons have positive microswitches without being too clicky. The top shell is a slightly metallic looking dark blue colour and the two buttons are silver, the bottom half is translucent blue so you can see the LED glowing as you use the mouse. I'm not usually a fan of strangely coloured peripherals but this is quite subtle and it makes a change from beige, I'm not so sure I like the red glow though. The mouse is actually a USB device and is supplied with a USB to PS/2 adaptor which must then be plugged into the

EZMouse and finally into the mouse port! As you can imagine this adds up to quite a length, which will probably get in the way. One way to solve this problem is to use a short extension cable so the adaptors hang down.

As I mentioned in the EZMouse review the scroll wheel is a very useful addition and can also be used as a third button by pressing it down.

So far the Wheel Mouse Optical and EZMouse combination has worked flawlessly and proved to be a complete replacement for my Wizard mouse. I'm already beginning to be so used to the wheel I miss it when using other people's computers. I hope that the optical technology will mean this mouse works reliably (without regular cleaning) and lasts for a long time justifying its rather high price.



Mice Tested

Since I've had the EZMouse I've managed to test it with a variety of PS/2 mice (most of them borrowed from work). Unfortunately I have found compatibility with PS/2 mice to be variable here are the results with the mice we tried:

Working

- Generic 2 button PS/2 mouse (bought for £2.50 at a computer fair!)
- Logitech Trackman Marble
- Logitech Trackman Marble Wheel (via the supplied USB to PS/2 adaptor)
- Logitech Pilot Wheel Mouse serial and PS/2
- Logitech Wheel Mouse Optical (via the supplied USB to PS/2 adaptor)
- Microsoft Wheel Mouse PS/2

Didn't Work

- Microsoft Intellimouse Explorer (via the supplied USB to PS/2 adaptor)
- Microsoft mouse port compatible mouse 2.1a.

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Blade.....£10	Megaball Deluxe.....£15	Testament CD.....£10	Amiga SDK.....£90	EASys! Enhancer.....£25	Multimedia Backdrop.....£15
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Cedric.....£15	Naughty Ones CD32.....£10	The Prophet.....£15	Aminet Set 4 - 10 ea.....£30	Extreme Visual FX2.....£10	Network CD 2.....£15
Chess 2k.....£15	Nightlong.....£40	The Strangers AGA.....£10	Aminet Set Subscribe.....£25	Faces of Mars 2001.....£15	Octamed Soundstudio.....£10
Civilization AGA/ECS.....£10	Payback (soon).....£30	Ult. Super Skidmarks.....£15	Aminet Singles.....£13	Fonts.....£10	OS 3.9.....£25
D-1000 doom data.....£10	Phoenix Fighters.....£10	Turbo Racer 3D.....£10	Aminet Subscription.....£10	fxPaint v1.5.....£60	Oxygen Patcher.....£15
Eat The Whistle.....£10	Pinball Illusions CD32.....£10	Ultimate Gloom.....£10	Amos PDCD2.....£20	fxScan v3.0.....£25	Photo CD Manager.....£15
European Superleague.....£10	Prey: Alien Encounter.....£10	Ult. Super Skidmarks.....£10	Anim Workshop.....£15	Gateway v1 (netBSD).....£10	Photofolio v2.....£25
Exodus.....£30	Pure Doom.....£10	Uropa 2.....£10	Animations CD.....£15	Giga Graphics.....£10	Red Hat Linux.....£20
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Final Odyssey.....£10	Seaside.....£15	Vital Light.....£10	Asim CDFS v3.x.....£30	Graphic Sensations.....£10	System Booster.....£10
Fightin Spirit.....£15	Shadow of 3rd Moon.....£20	Wasted Dreams.....£20	Beauty of Chaos.....£5	Guinness Records v2.....£10	Texture Heaven 1&2.....£10
Flyin High.....£15	Shogo PPC (soon).....£40	Wembley Int. Soccer.....£10	Best of Airosoft.....£10	HD Patchez.....£10	VHI Studio 5.2.....£30
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Bubble Heroes

Bubble heroes is an interesting little puzzle game similar to tetris with a few twists, the principle of the games is simple at the top of the screen you have a number of coloured balls and at the bottom you have a 'launcher' which fires balls from the bottom of the screen up to the top when you have three balls of the same colour in contact they explode and any loose balls fall off the screen, while your doing all this the balls are slowly moving down and if any of the slip below the bottom line you loose.

There are three basic play modes, Story, Championship and Deathmatch. Story mode provides you with a fairly straight forward progression through all of the game's levels, Championship mode where you can go head to head against the computer and deathmatch mode where you an go head to head against another player. Deathmatch mode has

two methods of play, Until Death and Target or Die. Until Death is a straight forward one on one match where as in Target or Die you can either win in the normal way or by releasing the fairy trapped at the top of the screen.

The game has three characters a Knight (Yorumaru), a Frog (Gupochi) and a Weird cat girl (Nekochan) each of the characters has their own special moves for use in deathmatch mode.

The Plot

The game has an interesting plot involving floating islands, fairies and an evil villain who happens to looks reminiscent of Dr.Doom all of which seem pointless and the story its self is very badly written and almost nonsensical, overall the plot seems to be nothing more than padding to try and make the game stand out from the crowd and is worth ignoring.

Visuals

The game's graphics are excellent and it



seem apparent that a great deal of care was made in their creation. Right from the start, the in game background graphics are all exceedingly well drawn. The only place where the graphics could do with, improvement would be the character graphics, which appear blocky.

Game Play

The game itself plays exceedingly well and is challenging enough to keep you entertained for hours, it has a nice learning curve so the first time you play the game you'll find it quite hard though the more you play it the easier it becomes.

The game is structured in four sections each containing 10 levels at the end of each section you have to free a fairy after which you have to battle a level boss, this makes the game varied enough to keep you interested.

By Mike Woods



Product Information

Developer: Crystal Int. Software
Availability: Forematt Home Comp. & most games dealers.
WWW:
www.crystal-software.com
Price: £15
Req'd: 68030 or above
 AGA or RTG gfx card
 4Mb RAM
 CD-ROM
 Hard drive

PD Paradise Part 1: Warp Datatypes

By Oliver Roberts

WWW: <http://www.nanunanu.org/~oliver/>
Licence: Freeware

The datatypes system is one of the most innovative aspects of the Amiga OS, however one of the main criticisms of datatypes is that they tend to be slower than the loaders built in to applications. Oliver Roberts has set out to squash this view by releasing a set of datatypes specifically designed to be as fast as possible. According to Oliver's figures the

WarpJPEG datatype, for example, is about 20% faster on most images than the akJPEG datatype which was the previous leader in datatype speed.

Initially the Warp datatypes were only available for PowerPC users running Haage and Partner's WarpOS software, now 68k ('020 and above, processor optimised versions included) and MorphOS versions have been added meaning everyone can use them. Currently three datatypes are available supporting, JPEG, PNG and BMP images all of them require that you have a 24bit pic-

ture datatype installed, this can be the one supplied with your graphics system (both Picasso 96 and CyberGraphX come with one) or the new picture datatype supplied with OS3.5 and 3.9. If you don't have a graphics card you can use Picasso 96, OS3.5 or 3.9 picture, the 24bit image will be dithered down to the colours available on your screen.

Just because the emphasis is placed on speed doesn't mean the Warp datatypes are lacking in features or format support, let's look at each datatype in more detail:

Key to Driving Theory

Elliott Bird finds the perfect revision aid for his upcoming driving theory test.

Today's driving tests are changing rapidly, with the recent introduction of the theory test four years ago. So the best way to pass this theory test is to revise, right? That's where your Amiga, and Key To Driving theory comes in use.

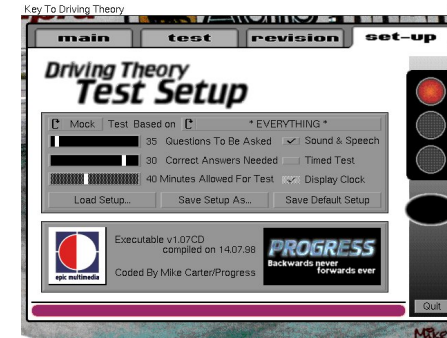
Key To Driving theory is a unique interactive revision aid, which comes on CD-ROM and boasts a large number of multiple choice questions which come from the actual theory test itself. When you run KTDT, and once you've bypassed the production screens, you come to the main screen, where you are greeted with a somewhat comical voice which you hear throughout KTDT (unless you've disabled it of course, which may be a good idea after a while). From there you can go straight in to the test itself, you can do some "Quick Revision", or you can customise the test to suit your revision needs in the "Set-up" section.

Set-up

From here you can change how you are tested. You can either have a mock test

Product Information

Developer: Mike Carter
Distributor: Epic Direct
Tel: +44 (0) 1793 514188
WWW:
www.amigautils.co.uk
Price: £15



or a strict test. With the mock test, you are told whether your answer is correct or incorrect before you move on to the next question, you will also be told more about your answer, whether you've got it correct, or incorrect. Other options include what you want to be tested on, how many questions are to be asked (the default is 35, which the number of questions in the real test), the pass mark, which is normally 30, and there's the time limit, which can be switched off.

Quick Revision

This is a small revision section, which includes National Speed Limits, Stopping Distances, and Traffic Light Signals. All of which come with colourful, easy to follow diagrams and charts.

The Theory Test

This is where you can put your driving theory knowledge to the test. This is the best way to find out whether you are ready for the real thing. Practice makes

perfect as far as this goes. Of course you are not only faced with some multiple choice questions on their own, most of the questions have colour diagrams and pictures as in the real thing. If you have set a time limit for the test, you will see the clock on the right hand side, not that you would miss it of course, as it can be very off putting.

Conclusion

Overall I think this is quite a useful revision aid for people who have an upcoming theory test. No matter how much the real theory test changes, you can configure it to suit your testing and revision needs. I would also say this is good value, especially at £15, for what you get. But there are flaws to it, including a few bugs and stability problems from time to time, you may also come across a number of spelling mistakes, which seem to be quite common in quite a few revision aids I've seen! And the questions may repeat themselves a number of times, which can also be a good thing. If you have a theory test coming up, then Key To Driving Theory is the first thing to get!



By Robert Williams

PD Paradise continues on page 40...

PNG

The Portable Network Graphics format was primarily developed as a replacement for GIF when various licensing issues arose over the compression method it used. It also allows for the lossless compression of 24bit images (unlike JPEG which is lossy). WarpPNG's main claim to fame over other PNG datatypes is its speed being 90 to 300% faster than the akPNG datatype when running on PPC and substantially faster on 68k.

JPEG

In addition to the standard and progressive JPEGs supported by most datatypes the WarpJPEG can decode a wide range of more unusual JPEG formats such as Exif, Adobe, Photoshop, Mavi, Windows and JCKK colorspace files. I have found this flexibility useful as the Warp datatype was the only one able to read the thumbnail files saved by my Olympus 920Z digital camera.

BMP

BMP files are commonly used on

Windows and OS/2 systems, WarpBMP supports colour depths from 1 to 32 bit and the RLE compression format. Speed increases with BMP files are less dramatic as the format is quite simple and only lightly compressed. However I believe WarpBMP is the only BMP datatype to properly support > 8 bit BMPs with a 24 bit picture datatype.

I have found all three Warp datatypes to be very fast and reliable and to work with all the files I throw at them, a really excellent freeware product.

Top Tips

Robert Williams has some handy hints to make your Amiga life easier.

Drag-n-Drop on Workbench

You're probably used to dragging file from one window to another on Workbench to move and copy them and perhaps using drag and drop within one application. Here are some examples:

Web Browsers

All three major Amiga browsers, AWeb, IBrowse and Voyager load any HTML page you drop onto their window, this can be useful for previewing HTML pages you have written and viewing HTML documentation.

File Requesters

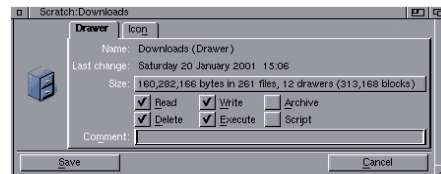
Any program that uses standard (asl.library) or ReqTools file requesters can load files by drag and drop. Simply open the file requester and drag the file you want to load from the Workbench and drop it on the requester. The requester changes to the correct directory and selects the file. Now just click OK to open it. If you drop a drawer the file requester changes to display its contents.

Graphics Publisher

Turbo Print's excellent picture printing application supports file drag and drop in a very useful way, just drag and image from its workbench window onto the page in Graphics Publisher and the image is placed. This speeds up adding several pictures to a page greatly.

Programs not Running on the Workbench Screen.

Dragging and dropping files onto a program that doesn't run on the Workbench screen presents a bit of a problem. Some programs place an Applcon (application icon) on the Workbench, this allows you to drag the file you want to load onto the Applcon where it will be loaded into the program on its own screen. Applcons can also be used in other ways, for example there are several utilities available which provide information on or process the file



Drawer size shown in the OS 3.9 RaWbInfo icon information requester.

dragged onto their Applcon.

Getting drawer/drive sizes in OS 3.5 & 3.9

It can often be useful to know how much space a directory and all its contents take up on disk. For example you might need to know whether the directory will fit on a floppy or CD-R or even how much space will be freed by deleting it.

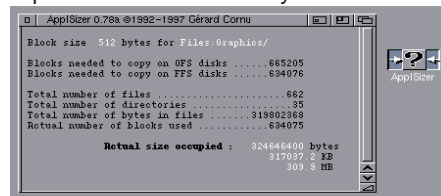
From OS 3.5 there is now an easy, if slightly hidden way to achieve this from Workbench:

Select the drawer you want size information for and choose Information from the Icons menu or press Right Amiga+I.

In the information requester click on the text "0 blocks" to the right of "Size:", this is actually a hidden button.

You will see the size appear and count up as Workbench scans through all the files and sub-drawers in the drawer you selected. When the value stops going up you can see the total size of the selected drawer, and the number of files and sub-drawers it contains.

Older versions of AmigaOS don't have this feature but there is a handy free utility on Aminet (util/app) called ApplSizer by Gerard Cornu. This puts an Applcon on your Workbench which will report the total size of any drawer or



ApplSizer does the job for older Workbench versions.

disk dropped on it.

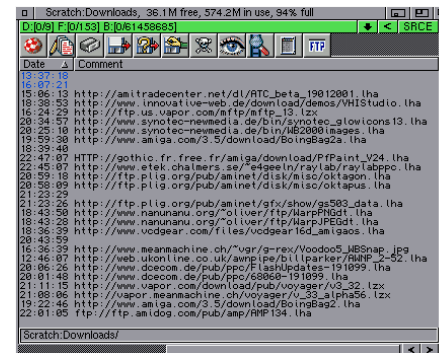
Adding a file comment before installing files

A common complaint when installing programs is that they put files outside their program directory which you can't identify if you ever decide to delete the program. One way to make the uninstallation a bit less painful is to tag all the files you install with the program they belong to. This can be done by setting the file comment of all the files before installation. The file comment is a short piece of text, up to 79 characters long, which is held against each file. You can see it in the Comment field of the Information requester and in the output of the list command. Using the shell command Filenote you can add a comment to all the files in a directory, if you do this before installing a program then you will be able to see where these files came from. As an example if you were installing a utility called MessyInstall.lha you would first unarchive it into the Ram Disk or a temporary directory. Say this created a drawer called MessyInstall in Ram: then to add the comment "MessyInstall 1.1 Installed 29/12/00" to all the files you would enter the following in a shell (all on one line):

```
Filenote Ram:MessyInstall/ ALL
"\"MessyInstall 1.1 Installed
29/12/00"
```

The ALL switch applies the comment to all the files contained in the directory specified.

If you have Directory Opus 5 (and I'm sure older versions of Opus and other directory utilities have a similar option) then you can use the Comment command which is in the pop-up lister menu (marked by a downward pointing arrow) to add a comment to all the files in a directory. Simply select the directory in a lister and choose Comment from the pop-up menu. Opus then asks you if you want to act on files in sub-directories,



File comments can be viewed in many ways such as Opus listers (like this one), with the shell list command and in the icon information requester.

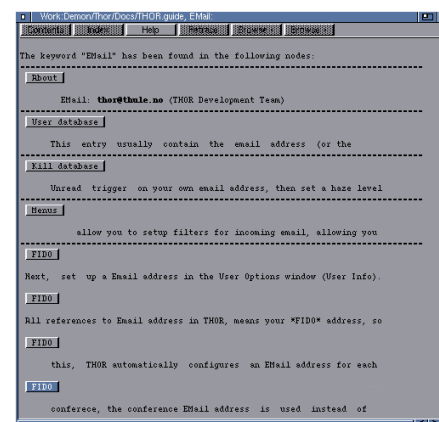
click Yes and then enter your comment and click OK.

A word of warning, remember that files such as libraries and fonts may well be used by other programs as well as the one you're installing. Even with the files marked with their installer you need to be careful when deleting to ensure you don't remove anything needed by other programs.

Searching AmigaGuide files.

Most Amiga programs come with their documentation in Commodore's AmigaGuide format which has a few shortcomings, one of which is that the standard viewers (Multiview on OS3.x and AmigaGuide on earlier OS versions) do not have a search facility. On a basic level an AmigaGuide is simply a text file with embedded formatting codes so you can always search one in a text editor. If you want a rather more sophisticated solution then a couple of programs are available to solve this problem.

PowerGuide is a stand-alone Amiga Guide viewer written by Matthias Scheler for Schatztruhe for use on their Aminet CDs (where it can be found in the Tools directory, it does not have an



SearchGuide's results are very neatly formatted.

icon). It is very similar to the OS Amiga Guide viewers however I have found some mention of it being faster (I can't see any noticeable difference on my '060 system) and has a simple search facility. Clicking on the "Search" button in the tool bar opens a requester where you can enter a word or phrase.

PowerGuide then lists every line of text in the guide that contains that word or phrase. Clicking on the line jumps you to the correct section of the Amiga guide with the found line at the top of the window. As far as I can tell PowerGuide is not freely distributable but if you have a fairly recent Aminet CD (the version on the new Aminet CD 40 is dated 1996 so it has been about for a while) then you will have a legal copy.

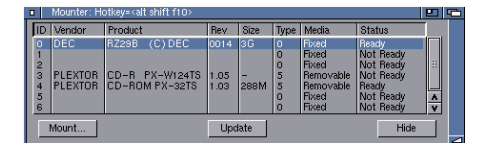
SearchGuide is a utility by Gerard Cornu (yep, we've already mentioned his ApplSizer utility in this month's TopTips) it is designed to allow Amiga Guide authors to include search facilities in their guides. For this reason it is a shell based tool which must be run with the name of the Amiga Guide to search as an argument. Then a requester opens allowing to enter the word or phrase you wish to search for. The results are displayed in an AmigaGuide document, this is rather better laid out than PowerGuide because it shows the node (section of an Amiga Guide document) name as well as the line containing the found text. As SearchGuide is a shell program you could always assign it to a button or menu option in your favourite directory utility or create a script so you can run it from a Workbench icon (for more see our scripting tutorial on page 40).

Easy Volumes

As part of our OS3.5 feature in issue 6 we mentioned the improved ASL requesters that formed part of the upgrade. One small hidden feature of the file requester that we missed was that you can click your middle mouse button (if you have the three button mouse) as a short-cut for the Volumes button.

Rescanning a SCSI bus

If you have a SCSI controller in your Amiga and some external SCSI devices you may not always want to have all your devices switched on every time you use your Amiga. However with most SCSI controller you will find that devices switched on after the system has booted will not be recognised. The most common peripheral to cause this problem is



Mounter, included with OS 3.5 and 3.9 can be used to rescan your SCSI bus.

probably a scanner which tend to be used infrequently but it could also apply to devices like backup drives which you probably don't use in every session.

The solution is to force the SCSI controller to scan the bus for newly added devices. Some SCSI controllers supply software with this functionality, for example Phase 5 supplied a program called UnitControl which has a Rescan feature. However if you have OS 3.5 you can use the included Mounter tool, which as well as allowing you to mount partitions also rescans the SCSI bus when run. Remember that you need to set the DEVICE= tooltype in the Mounter icon so it is scanning the correct controller. If the device that was switched off is hard disk or removable cartridge drive you will need to use Mounter's "Mount..." button to mount the partitions on the disk. If the device is a CD-ROM drive you may need to issue a DiskChange command or eject and re-insert the CD for it appear on Workbench. With a scanner it should be enough to run your scanner driver after Mounter has caused the bus to be re-scanned.

OS3.9 Find Utility

OS3.9 has a utility called Find that lets you search one or more volumes for files with the a certain name or containing a string you enter. One minor annoyance with this otherwise extremely useful tool is that when you run it all your mounted volumes are selected for searching (in my case this is usually about 10 volumes) as you commonly only want to search one or two this means you have to uncheck all the unwanted volumes every time you search. To solve this problem simply uncheck all the volumes except those you most commonly search and choose Save Settings from Find's Settings menu.

Snapshotting Multiview

In a similar vein to the Find tip above you can set Multiview's window to open at the size and position of your choice rather than full screen by sizing its window as required then choosing Save as Defaults from the Settings menu. This is especially useful if you run on a high resolution screen where Multiview's

ProNET

Step by Step

Last issue's ProNET review provoked a lot of interest in this handy package, Roy Burton takes us through the set-up required to get your miggys talking.

After reading PD Paradise in the last issue of Clubbed where Robert Williams recommended a low cost way of networking two Amigas.

I have not paid much interest in local networking as it seems complex and requires special cables, and I always remembered an article that warned that it was easy to damage the Amiga's parallel port.

So why bother now! well now I have two Amiga systems and often want to transfer data between them which is a problem when you start to transfer large files (5meg) with floppy drives, at one stage in desperation I uploaded the file to my web space and then downloaded it to the other machine.

Cabling

There are two main ways to connect two Amiga's using ProNET.

Serial ports

Advantage

1. Easy to obtain 25pin to 25 pin null modem cable.

Disadvantages

1. Slower than parallel ports.
2. Serial port may be required for Internet access.

Parallel Ports

Advantage

1. Faster than serial ports.

Disadvantages

1. Need a Parnet (Parallel-Network) cable from an Amiga dealer or make it up yourself.
2. Parallel port may be required for Printer use.

3. If using a Parallel network and the serial port for Internet use etc., pin 22 (RI) needs to be disconnected from the modem to the serial port. If your modem only has a 9pin plug it isn't put through and so nothing needs to be done. (This is to prevent incoming telephone calls that reach the modem crashing the local parallel network).

My personal choice was parallel as I hardly use my printer and use my serial port for Internet access. I decided to make my own cable which I then tested with a multimeter (continuity tester) to make sure there was no short circuits between pins or disconnected wires, before connecting to the computers. Please remember to also make sure both Amiga's are switched off when connecting or disconnecting the leads.

I cannot emphasise enough how important it is to make sure the cable is correctly terminated as it is easy to damage the Amiga's parallel port, it is also recommended to keep the lead to under 5m. I used a 3m length of cable.

Installation

The ProNET documentation I found a little confusing as there is a lot of information to digest in the end I manage to put its operation down to 3 scripts (text files that are executed) per machine giving total cross access between two Amigas.

There is no installer for the ProNET file but its easy just open the "user" drawer in ProNET and put everything from the "C" drawer into your system "C" directory, everything from the "L" drawer into your "L" directory, and everything in the "Devs" drawer into "Devs" (the pronet.device and a ProNET drawer, which contains various drivers and to which you will need to add a configuration file called .config which is created in

a text editor (ed, memacs, golded etc.). It should contain the following single line (don't hit return at the end of it):

```
internal-parallel 0 5
```

then, on the other Amiga, carry out exactly the same installation but use the following line in .config:

```
internal-parallel 1 5
```

Save the file ".config" into SYS:devs/pronet/ for each machine.

The Scripts

We now need to make the 3 scripts to:

1. Start the ProNET network.
2. Mount the drives of the other machine.
3. Dismount and stop the networking.

1. Start the Network

The script consists of one line:

```
run <NIL>: c:pronet-server
```

save this text file anywhere on both machines (e.g. a drawer called network) I suggest a file name of "StartProNET"

2. Mount the Drives on the Distant Amiga

This text file is the most complex and varies with the number of drives you have on the distant machine and how many of them you wish to access.

Each line defines a drive from the distant Amiga, for example:

```
pronet-start PRO0 DF0 UNIQUE
```

In this example:

pronet-start is the command which makes a drive on the distant machine available across the network.

PRO0 is a network name for the distant drive as the Amiga would get confused

with two DF0's so it is assign another device name this name can be anything you like that has not been already used as a device name.

UNIQUE is used by Workbench icons and adds a character (the unit number defined in the .config file on the distant machine) to the volume name (which is shown under the Workbench icon) of the distant drive. E.g. a drive called Work on the distant machine becomes Work0 on the local Amiga and thus doesn't clash with Work on the Workbench screen.

Example text for 1st Amiga which lists drives on the 2nd Amiga:

```
pronet-start PRO0 DF0 UNIQUE
```

```
pronet-start PRO1 RAM UNIQUE
```

```
pronet-start PRO2 DH0 UNIQUE
```

```
pronet-start PRO3 DH1 UNIQUE
```

Example text for 2nd Amiga which lists devices on the 1st Amiga:

```
pronet-start NET0 DF0 UNIQUE
```

```
pronet-start NET1 RAM UNIQUE
```

```
pronet-start NET2 DH0 UNIQUE
```

```
pronet-start NET3 CD0 UNIQUE
```

Save these text file to the correct machine, the Amiga that does not normally see them. e.g. 1st Amiga has a CD drive (CD0) so the text including this is put on the 2nd Amiga.

save this text file anywhere on both machines (e.g. a drawer called network) I suggest a file name of "MountDrives".

3. Stop the Network

This text file closes down the network drives.

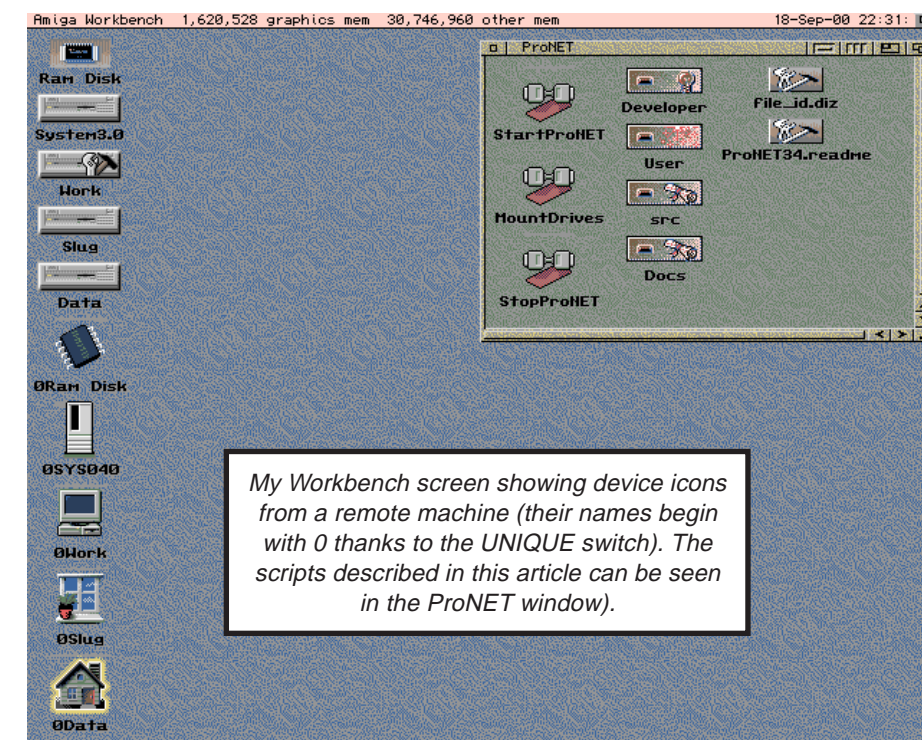
Example text for 1st Amiga which lists drives on the 2nd Amiga:

```
pronet-stop PRO0
```

```
pronet-stop PRO1
```

Device Names

If you are not sure what disk devices you have on you system and what their device names are, for example DH0, then you can use the Info command to find out. In Workbench just use the pull down menu Workbench - Execute command and type "Info" in the Command: text gadget then click Ok. You can also open the Execute command window by pressing Right Amiga + E while in Workbench.



```
pronet-stop PRO2
```

```
pronet-stop PRO3
```

Example text for 2nd Amiga which lists devices on the 1st Amiga:

```
pronet-stop NET0
```

```
pronet-stop NET1
```

```
pronet-stop NET2
```

```
pronet-stop NET3
```

Running both these scripts when you have finished networking will allow you to switch of one Amiga without locking up the other.

save this text file anywhere on both machines (e.g. a drawer called network) I'd suggest a file name of "StopProNET"

So you should now have 3 little text files on each Amiga, to make life easy it is now time to add a project icon to each file, and add "IconX" to the default tool of the icon information, thus enabling you to double click on the icon to run the script.

Important if you do not know how to make a script run from a icon see Page 40 of this issue.

Using the Network

Once the cable has been fitted between the Amigas and both computers booted double click on the Start-Pronet icon on both Amigas then click on both the MountDrives icon and pray after about 5 seconds the networked drives should appear on the Workbench. To dismount

double click on the StopProNET icon.

Sequence of Starting ProNET may vary between differing machine networking via scripts:

One or both machines may lock-up and will have to be rebooted (RESET). I must admit I have had trouble starting my network and have had to use different sequences at different times. I cannot explain why I assume its timing differences between the Amiga's 030/50 and a 040/33

But try the following to start with:

StartProNET on machine 0

StartProNET on machine 1

MountDrives on machine 0

MountDrives on machine 1 (optional)

Or you can start machine 1 first :

StartProNET on machine 1

StartProNET on machine 0

MountDrives on machine 1

MountDrives on machine 0 (optional)

PD Paradise Part 2: AWPipe

By William Parker

Licence:

Childware (the author requests you make a donation to a children's charity)

WWW:

<http://web.ukonline.co.uk/awnpipes/>

Mailing List:

<http://www.egroups.com/group/awnpipes/>

A pipe, in computer terms, is usually used for moving data from one program to another without the need for an intervening file. One program writes its output to the pipe and another reads its input from the pipe. On the Amiga pipes are usually implemented as a device so for example one program writes to pipe: and another reads from it. AWPipe is a pipe device and can be used like this, to move data between commands but it is really much more than that. AWPipe can be used to build Reaction GUIs, read icon tool-types, convert HTML to plain text and a whole host of other functions.

Now before you start thinking this is really bizarre, lets have a look at how AWPipe came about. The AWN part of its name stands for AWeb News, an (I think) AREXX plug-in developed by William Parker to give AWeb a news reader. AWeb News used a Class Act GUI and displays news postings as HTML within the AWeb window so you can see how this strange combination of features might be useful. Although I mention Reaction here AWPipe is quite happy with Reaction's predecessor ClassAct, which is freely downloadable, and any OS3.x Amiga.

GUI

GUI building is the most complex part of AWPipe, it gives you access to most of the Reaction gadgets so you can include buttons, text boxes, list views, scroll bars, check boxes, radio buttons, cycle gadgets, menus and many more in you GUIs. Powerful elements are available such as an image which can show any image you have a datatype for and a hierarchical list view complete with collapsible branches. A GUI is defined by writing lines describing each element, the first line defines the window and allows you to choose, amongst other things, whether it will be sizeable and what title bar gadgets will be present. Then you write a line defining each gad-

get in turn, layout groups can be used to separate areas of the GUI and to ensure it looks correct when scaled. After each line is written you can read a confirmation line which also gives a unique identifier for the gadget so you can read its state (or contents), alter its state, remove or replace it later on.

Once the GUI is built and displayed the pipe then returns a line every time the user interacts with the GUI, you decide how your program will respond to these interactions. This lets you build a GUI that looks and feels just like one coded using the Reaction classes directly.

Other Features

Apart from the standard pipe and GUI creation features there are many other things AWPipe can be used for, here are some examples. Pattern matching returns a list of filenames which match a particular AmigaDOS wildcard patterns. AWPipe can add keystrokes to the input buffer allowing you to fake user interaction with a command that requires you to respond to prompts. You may also be able to use this feature to control programs which are not usually scriptable. You check if tool types are set in an icon, check their values and write back new ones. Several HTML functions are available, including stripping HTML codes from a file and automatically adding special character codes in place of the characters them selves.

Languages

Because AWPipe is implemented as a device it can be used from really any

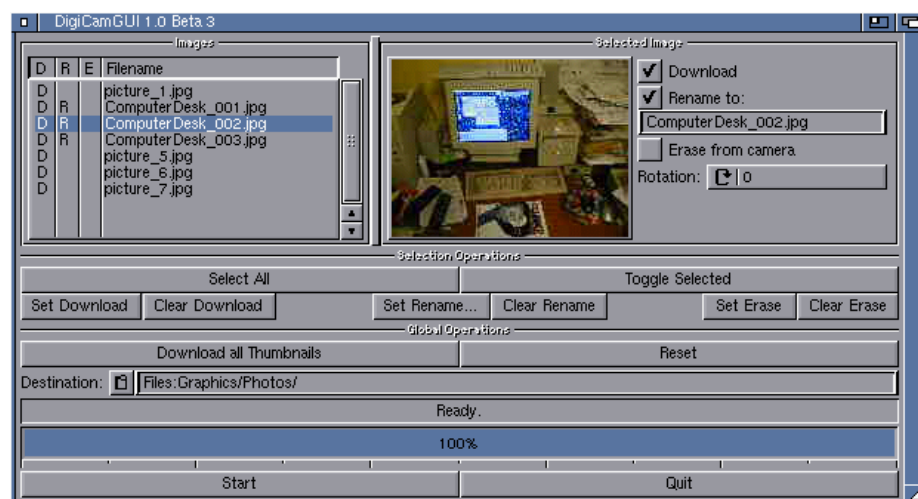
programming language, examples of AREXX, shell scripts and C programs using AWPipe GUIs and other functions are supplied in the archive. Once you get used to it building GUIs in AWPipe is very quick so I would imagine it is a good way of prototyping a program even if you intend to write it using Reaction directly later.

I have mainly used AWPipe with AREXX, my biggest project has been a GUI for DigiCam (shell only digital camera software). In doing this I found AWPipe offered the ideal set of features, at the start of the script I use it to retrieve settings from icon tool types, then I build the GUI and finally I use it as a traditional pipe to read the output from DigiCam so I can have status displays as it works. The additional features above GUI creation meant I could do without three external AREXX function libraries I would otherwise have needed.

Conclusion

AWPipe is an ideal package for making simple scripts seem very polished and professional in the minimum amount of time. It is easy to implement the features users expect in a modern Amiga program such as an attractive GUI, menus and tooltype configuration. It does take a while to get your head around its slightly strange approach but this is helped immensely by extensive documentation and a wide selection of examples.

By Robert Williams



My DigiCamGUI AREXX script shows some of the Reaction gadgets available from AWPipe including a multi-column list, datatypes picture and progress bar.

SGrab

By Stephan Rupprecht

Licence:

WWW:

<http://www.stephan-rupprecht.de/>

When you're producing an Amiga magazine a decent utility to grab screen shots is essential, since the start of Clubbed we've been using SGrab. When first run SGrab opens a small window which lists all the screens you have open, (you can also run it without a GUI if you wish). If you activate the Windows check box all the windows open on each screen are also listed. At the bottom of the window you can select the file name to which the grab will be saved and the format of the file, either IFF-ILBM or JPEG (which also has a selectable quality). If you select a screen in the list and click the Grab button the whole screen will be grabbed and saved to the selected file, if you select a window just that window is grabbed. The other grabbing mode is called mark and grab, when you click this button your pointer turns into a cross hair and you select the area of the screen you wish to grab by dragging a box over it. This allows you to grab several windows at once or small areas inside a window. For all modes a slider allows you to delay the grab for up to 60 seconds so you can grab things that require user interaction.

While SGrab is running you can also use a hot key to grab the current screen or active window, this stores the data in the selected directory. You can define how file names will be assigned by adding keywords (identified by braces) to the file name so for example SGrab can automatically include the screen title, current time and many other variables in the file name. Another option gives each file a sequential number at the end of the file name. These options mean you can take as many grabs as you like without getting duplicate file names. The hot key facility is invaluable for taking screen grabs of fast moving action such as games.

SGrab is simple and effective and works on both chipset and graphics card screens, it's really hard to think of anything else that could be added. All in all it's the best screen grabber I've come across.

Back to Basics

3.2: Shell Scripting

Robert Williams and Roy Burton show you how to make command line only programs easier to use with a simple script.

At its most basic a shell script is a list of AmigaDOS commands which are held in a text file and executed one after the other. Some additional commands are available only within scripts to make them more powerful, for example the If command can be used to make decisions in a script. Scripts allow you to automate any process that you would normally carry out using several shell commands and they can also be used to replace long-winded Workbench processes. Almost any program can be started from a shell script, and you can setup a script to work just like a standard shell command, it is even possible to run a script from a Workbench icon.

Scissors and Sticky-back Plastic?

So what do you need to create your very own shell script? Well the only requirement is an editor that will save a plain text file, you could use a word processor but a dedicated text editor is probably better and won't let you save a binary file accidentally. Several editors are supplied with AmigaOS: Ed, Memacs and, if you have OS3.5, EditPad. Of course there are also loads of third party editors and many people will have a favourite they would rather use.

Tutorial

Lets start with a simple script, in the TopTips section we mentioned that SearchGuide, a little utility for searching AmigaGuide files, does not have a file requester to select the file you want to search. So we can write a little script which opens a file requester, and then runs SearchGuide on the file selected.

To follow this tutorial you will need SearchGuide which can be downloaded from Aminet (it's in the util/app directory) and can also be found on every AmigaActive CD in the Resources/General directory. For the example scripts to work you need to copy the SearchGuide program into a

directory on your path, I would put it in C: as the installer recommends.

AmigaOS 3 and above comes with a command called RequestFile which allows you to select a file in a standard file requester then returns the filename and full path so we will use that to select the AmigaGuide file:

```
RequestFile PATTERN "#?.guide"
TITLE "Select an Amiga Guide
file."
```

In this command line I have used two of RequestFile's options: PATTERN so only files whose name ends in .guide will be displayed and TITLE which will give the requester a descriptive title.

RequestFile normally outputs the filename to the command line but we want to use the filename as the argument to another command. To do this we will store the returned value in a local variable called guidefile. A variable is a piece of data assigned a name, the data assigned to a particular name can change, it is variable. This is the new command line:

```
Set guidefile `RequestFile
PATTERN "#?.guide" TITLE
"Select an Amiga Guide file."`
```

The Set command sets a local variable and the first argument, guidefile, is the name of the variable. The rest of the line is the contents of that variable, here I have enclosed the command in back ticks "" (you get this character by pressing Alt+) which causes the output of the command enclosed in the back ticks to be inserted into the command line before it is executed. So in this case the selected path and file name will be stored in the guidefile local variable.

We can now add a line to run SearchGuide with the newly stored filename as its argument:

```
Set guidefile `RequestFile
PATTERN "#?.guide" TITLE
"Select an Amiga Guide file."`
SearchGuide $guidefile
```

Notice that a "\$" symbol is added to the start of the variable name, this tells the interpreter that the following text is a variable name, before the command line is executed this variable name will be substituted with the contents of the variable, the selected file name.

Save this script from your editor into Ram: with a suitable name, for example SearhGuideWb. Then you can try executing it from a shell, to do this type the following in a shell window:

```
Execute Ram:SearchGuideWb
```

First a file requester should appear, if you select an AmigaGuide file and then click Ok the SearchGuide window should then appear for you to enter a keyword. So... job done? Well not quite, what happens if you cancel the file requester instead of selecting a file? At the moment SearchGuide will be passed a filename "\$guidefile" because no filename was selected. We can add an If statement to check for that possibility and exit cleanly:

```
Set guidefile `RequestFile
PATTERN "#?.guide" TITLE
"Select an AmigaGuide file." `
If $guidefile EQ "$guidefile"
Quit
Else
SearchGuide $guidefile
```

This says that if the variable guidefile equals (remember that its contents will be substituted before the line is executed) the string "\$guidefile" then the command Quit which exits the script immediately should be run. Note that I have indented the Quit command purely to make the script more readable, it is clear that Quit is only executed if the If statement evaluates to true. Else the script should continue, and in this case execute the SearchGuide command.

Running the Script from the Shell

If you want to run your script often you can tell AmigaDOS that the file is a script and then the Execute command is no longer needed. This is achieved by setting the script protection bit on the file (the file protection bits (script, archived, readable, writeable, executable and deleteable) are used to control access to a file, you can see them in the output of the List command and in the Workbench Icons/Information window). To set the script bit on a file you use the

Protect command like this:

```
Protect Ram:SearchGuideWb s
ADD
```

This line adds (activates) the script (s) protection bit, if you want to remove the s bit use the SUB option instead of ADD. Once the script is set you can run the script as you would do any other command, for example by entering:

```
Ram:SearchGuideWb
```

If you put the script in a directory on the command path you don't even need to specify the path, the S directory on your system partition (which is on the path) is the standard place to keep scripts to be accessed from the shell.

Running the Script from a Workbench Icon.

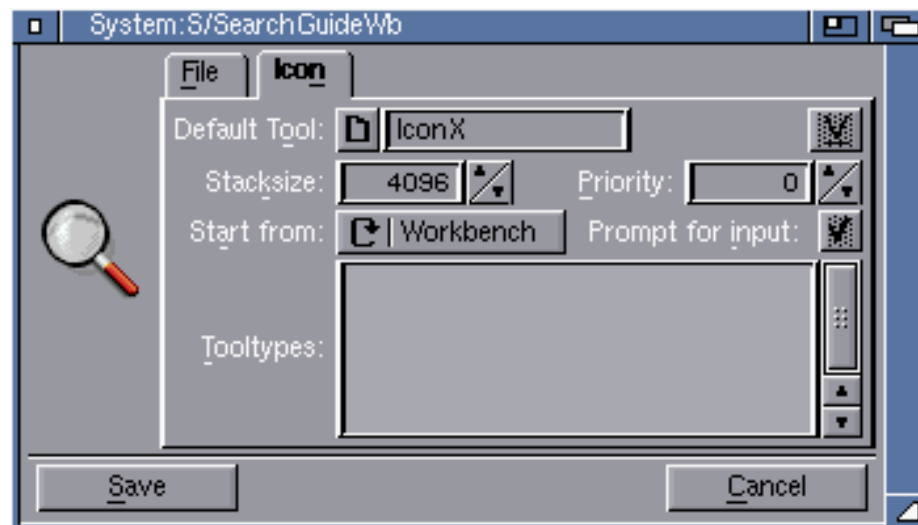
Now what we really want to be able to do is to run our script from a Workbench icon.

First we need to give the script an icon so start IconEdit which is in the Tools drawer on your system partition.

From the pull down menu go to Type and select Project then from the Project menu select Save As. In the save file requester select your file "SearchGuideWb" in RAM (you may need to clear "#?.info" from the Pattern gadget in the file requester and press Return to see it) and click Save to save the icon.

Quit IconEdit

Open the Ram Disk on Workbench, click once on the icon called SearchGuideWb and then go to the Workbench Icons menu and select Information. An information window opens, find the



Setting "IconX" as the default tool in a script's icon allows you to run it with a double click from Workbench.

"Default tool" string gadget and type IconX then tick the small box next to script and the click Save.

Drag your icon (SearchGuideWb) to where you want to keep it on your hard drive and try it out, the script open a file requester so you can select an AmigaGuide and then SearchGuide will open a requester allowing you to enter your keywords.

Conclusion

So there you have it, a very simple script which performs a useful task. As you have probably noticed the script we ended up with is a bit over complex, especially as SearchGuide doesn't cause any problems if you don't give it a filename. However I wanted to illustrate as many scripting concepts as I could in this small space. You could easily adapt this script to run many other CLI programs from Workbench, and maybe the concepts will lead you to think of other tasks that could be automated.

Scripting Resources

Before you can get into AmigaDOS scripting you need some reference information. If you have OS 3.5 or 3.9 you will find the AmigaDOS manual along with all the others on the CD in HTML form, however it is more a reference than a tutorial although it does give some examples. I don't think there are any tutorial books currently in print but if you can get hold of any second hand jump at the chance. Bear in mind that only books written for version 3.0 or later are going to be reasonably up-to-date and complete. Another option is the DOSGuide an AmigaGuide document which can be found on Aminet.

Trouble Shooting Start-up Problems

Robert Williams plays agony uncle to your reluctant Amiga.

One of the worst feelings you can have as an Amiga user is when your beloved machine refuses to start for no apparent reason. You can often tell just by the start-up noises that this is not going to be a good boot. A no boot situation has probably happened to us all at one time or another, however there are a number of steps you can take to resolve the problem and more importantly a number of precautions you can take so you are prepared if disaster strikes.

What Happened Before?

An Amiga system that has been running reliably won't suddenly stop booting for no reason, therefore an important clue to the problem may be what you did just before the system stopped working. For example if you have just installed some new software or hardware that could be causing the problem either directly or by conflicting with something already installed.

Common Problems

Patches and Hacks

A common cause of boot problems are patch programs which change aspects of the OS and other programs to work in ways that weren't originally intended. Many users, myself included, have a very reliable system with a whole range of patches installed but because they don't work to clearly defined rules patches can cause problems both with normally reliable software and particularly in combination with other

System Partition?

"System partition" refers to the partition on your hard disk that your Amiga boots from, this is commonly called Workbench or System, sometimes followed by the OS version for example System3.0 or Workbench3.5. As usual on the Amiga you can actually call the system partition anything you like (Super Kickstart A3000s are the only exception I know to this rule but that is a very unusual configuration).

patches. If you are installing a new patch make sure you remove any others that have a similar function and carefully read the documentation to see if there are any known limitations or incompatibilities. If you have recently installed a patch or changed the configuration of one you already have installed make that the first thing you disable when trouble shooting.

Hard Disk Problems

One problem with hard disk drives which can cause startup to fail, or at least take much longer than expected to complete, is an invalidated partition. Invalidation commonly occurs if the Amiga crashes while writing to the hard drive. When you startup or reboot after a partition has become invalid you will see and probably hear lots of hard drive activity as the OS automatically checks for any damage and tries to repair it. In the this situation the best thing is to leave the system alone, usually it will eventually boot, then disk activity will stop and everything will be fine. If after this you find the system will not boot or you have a partition which shows the error "Volume is not validated" or similar when you try to access it then you will need to use a third party disk repair tool such as DiskSalv (version 4 is available commercially and version 2 can be found on Aminet) to revalidate the disk.

Validation can take a long time, particularly on large partitions and it is possible for the validator to crash. Normally the Amiga continues to boot while the partition is being validated, meaning the drive must read the boot data and validate simultaneously. This slows both processes down and other programs being run can interfere with validation. If you have OS 3.5 or above you can add the WAITFORVALIDATE option to the SetPatch command line near the top of your startup-sequence. This will stop bootup until all partitions are validated. Although your Amiga may sit with a blank screen for longer validation will complete more quickly and there should be less chance of the validator crashing. Users of OS versions will find various utilities which do a similar job on Aminet.

Other disk problems can occur and if they effect the system partition they may stop the Amiga booting. In this case it is wise to have a bootable disk available which contains your choice of repair programs. It is useful to have a copy of a disk partitioning utility other than OS 3.5+ HDToolBox available on floppy as the newer versions cannot be run without the Reaction GUI system installed.

WARNING: Big Disks

If you have a hard drive larger than 4.3GB then be wary with both disk repair tools and partitioning utilities, as I mentioned in my Hard Drivin' feature in issue 6 you need to make sure you are using tools designed with big disks in mind. As far as I know there are currently no repair tools for partitions using the standard FastFileSystem partially or completely above 4.3GB and using an old tool such as DiskSalv on these partitions can cause damage to data on the lower partitions. The only option is to backup the data if you can, re-format the partition and restore.

This is why it is wise to consider an alternative file system such as PFS or SFS, these are supplied with repair utilities and support disks greater than 4.3GB. Another option is to use a system such as Elbox's EIDE 99 which splits a big disk, attached to one of their IDE controllers, into 4.3Gb chunks which can be handled by older hard disk tools.

Finding the Problem

Early Startup

The Amiga Early Startup Control system was introduced with Amiga OS 3 (supplied with the A1200 and A4000) a



The Early Startup screen makes fault finding easier, as long as your graphics set-up can display it!

simpler version that basically allowed selection of the boot device was in the 2.x Kickstart. The Early Startup is accessed by holding down both mouse buttons as soon as the Amiga is switched on or rebooted and makes trouble shooting many boot problems much easier. In this feature the main use I make of the early startup screen is to boot into a shell without launching the startup-sequence and therefore Workbench. To do this simply access the Early Startup screen and click the Boot with no startup-sequence button. After a few moments (it can take a reasonable amount of time on some systems) a low resolution screen will appear with a 1> prompt at the top. The Early Startup shell allows you to access the Amiga in a state where none of the startup-sequence or later commands, which may be causing your startup problem have run. The main limitation of the Early Startup is that it was designed only to be displayed on a standard PAL or NTSC monitor or TV, it cannot be seen by default on the VGA style monitor now used on many Amiga systems.

So to see the Early Startup screen you will need one of the following:

A TV, 15kHz monitor or multisync monitor that allows you to view PAL or NTSC lowres.

A VGA/SVGA type monitor with a scan-doubler, graphics card with a built-in scan-doubler or a BVision/CVisionPPC graphics card.

Most people without one of the above usually connected to their Amiga will probably be able to find a nearby TV in an emergency! If you have an A4000 things are even more awkward as these Amigas do not have a composite video output or modulator, you will need an external modulator like the A520 commonly supplied with A500s or an Amiga video to SCART lead (if your TV has a SCART socket).

Where to Look

Here are some of the places to look for software that may be causing your startup problem and how to disable anything you suspect so you can begin to isolate the errant program.

startup-sequence

The startup-sequence, which can be found in the S directory on the system partition, is an AmigaDOS script file which contains all the commands required to set-up the AmigaOS for use.

By and large you should not need to alter this file and programs should not make changes to it during their installation. The idea behind this was to limit non-OS programs and users to changing the user-startup which can be disabled (by renaming it) while still allowing the Amiga to boot. However there are some programs that need to be run in the startup-sequence because too much initialisation has happened by the time the user-startup is run. The ironic thing is programs that need to be run this early are often the very patches that cause problems, therefore you may need to prevent programs running in the startup-sequence. When looking for potential problems in your startup-sequence you can ignore blank lines and those starting with a semicolon (;) neither of which are executed. Any text on a line that follows a semicolon is ignored, this allows comments to be added to the script. It might be useful to have a standard startup-sequence to refer to, we printed one complete with a description on page 34 of Clubbed issue 3.

Tip: If you make changes to your startup-sequence (particularly to SetPatch options in OS3.5 and above) it is often necessary to perform a cold reboot (switch your Amiga off, wait a few seconds and then turn it on again) for the change to take effect.

user-startup

This is another AmigaDOS script, this time run by a line in the startup-sequence, many applications will write lines to this file when they are installed, the most common of these is an assign statement which allows a program to locate the directory where it has been installed. When troubleshooting a user-startup file you can mostly ignore assign statements as the only likely problem with them is that the directory they point to does not exist and although this will cause an error message to be displayed in the boot shell it does not cause booting to stop. Like the startup-sequence you can ignore blank lines comments neither of which are executed anyway. So with all those out of the way you will probably only have a few lines of user-startup to check.

Disabling a line in the startup files

If you want to temporarily disable a line in either of the startup scripts one simple method is to pop a semicolon (;) in front

of it the line and save the file, this is called commenting out the line. To reinstate the line simply remove the semicolon and save the file again.

Editing the startup-sequence and user-startup

The easiest way to edit these (or indeed any other script file) on an Amiga that won't boot is to boot to the Early-Startup shell, type the following command and press return:

```
ed s:startup-sequence
```

Change s:startup-sequence to the full path and file name of the script you want to edit. Then make any changes you want and choose save from ed's Project menu, finally Quit ed and reboot to see if the changes made any difference.

Tip: If you have GoldEd installed you will need to run the original Amiga Ed editor, for this type ed_old in place of ed in the above command line.

Finding a Problem in your Startup Scripts

If a problem is occurring in one of the startup scripts it can be very difficult to pin down the cause as generally the screen is blank while they are executed and there is no output. If you want to see what is going on you can add the following command to the top of the startup-sequence:

```
set echo on
```

This causes each line to be displayed on screen before it is executed, therefore the last line printed before a crash is at least a possible cause. If you don't want to edit your startup-sequence you can execute this command in the early startup shell and then execute the startup sequence:

```
set echo on
```

```
execute s:startup-sequence
```

WBStartup

The WBStartup drawer contains programs that the Workbench runs as soon as it has been loaded by the LoadWb command near the end of the startup-sequence, Workbench replacements like Scalos and Directory Opus 5 also emulate Workbench's behaviour here. If the program causing your problem is located in the WBStartup drawer you will be able to see the Workbench screen



Could one of your WBStartup programs be causing the problem?

appear on your monitor before the Amiga crashes or hangs. If you can't get the to a Workbench to add or remove programs from the WBStartup drawer on your system partition the easiest way to disable them from the Early-Startup shell is to rename the WBStartup drawer using the following command:

```
rename sys:WBStartup
sys:WBStartup.disabled
```

then reboot and none of the programs in WBStartup will be executed. If the Amiga then boots successfully I would suggest renaming WBStartup.disabled back to WBStartup using Workbench, then remove all the programs inside and replace them one by one, rebooting each time until you find the culprit.

Directory Opus 5.x

If you have Directory Opus 5.x installed as a Workbench replacement and suspect that it is causing your startup-problem then there is an easy way to disable it and get back to good old Workbench. Simply hold down the Shift key while your Amiga boots, the shift must be held at the end of the startup-sequence when the LoadWb line is executed. This prevents Opus loading and loads Workbench. If you're still not happy and want to ensure that Opus is definitely not loading you'll need to bring back your old LoadWb command which the Opus installer replaces with a new one which loads Opus in Workbench replacement mode. To do this enter the following commands in the Early-Startup shell:

```
cd c:
```

```
rename loadwb loaddb
```

```
rename loadwb_old loadwb
```

To reinstate Opus use these commands:

```
cd c:
```

```
rename loadwb loadwb_old
```

```
rename loaddb loadwb
```

Be Prepared keep your

Amiga marching on Seeing the Problem

If you have a graphics card you may be in a situation where you do not have a means to view the standard Amiga video output. For most applications and modern games this does not cause a problem however if you get into a situation where your Amiga won't boot you will probably need to see the standard Amiga screen modes to correct the problem. As I mentioned in the Early Startup section this screen absolutely requires you to have a means to view a low res screen (unless you are lucky enough to have a BVision or CVisionPPC graphics card). However when you don't need to access the Early Startup you can make a basic boot disk that contains the tools you need to fix problems and uses a screen mode you can see.

Multiscan

If you only have an SVGA type monitor it is best to create a boot disk which uses the Multiscan monitor driver and has VGAOnly installed, this combination gives a screenmode that will work on most SVGA monitors, you will need an adaptor to connect an SVGA monitor which commonly has a 15pin high density "D" plug to your Amiga's 23pin "D" socket. To create a multiscan boot disk follow these steps:

Make a copy of your Workbench disk.

Drag the Multiscan and VGAOnly drivers from the Monitors drawer in storage on your system partition (they may be in Devs/Monitors if you have installed them) into the Devs/Monitors drawer on your copy of Workbench.

Double click on the Multiscan icon, nothing should appear to happen.

Load the screenmode preferences editor, you should see two Multiscan screenmodes in the list.

Click on MULTISCAN:Productivity in the list and set a suitable number of colours, I would suggest 4.

Choose Save as from the Project menu and choose the Prefs/Env-Archive/sys directory on your copied disk, type the file name screenmode.prefs and click OK.

Finally Cancel the screen mode preferences editor.

Now switch off, connect your monitor to the Amiga output, insert the disk and

check it boots to a visible Workbench screen. Once that's done you can add any utilities you like to the disk, you will probably need to delete some unnecessary programs such as tools and utilities to make room. Remember to include any tools you might need especially those required to restore your backups. If you backup to CD don't forget to install a CD file system and any software your IDE or SCSI controller needs!

CyberGraphX

It is difficult to make an 880KB disk that boots into a graphics card screen mode because the files for CyberGraphX and Picasso 96 take up so much space. For example I use CyberGraphX and just the main cgxsystem.library and a monitor driver comes to about 300KB. If you have a high density drive however there should be no problem. OS3.5 and 3.9 include the option of making an Emergency Disk which includes graphics card and CD drivers, it does this by using some files from the system CD once it is mounted so if you have one of these new OS releases you would be wise to use this feature. Some SEAL members have reported that there is not enough space on the emergency disk to install their IDE software however.

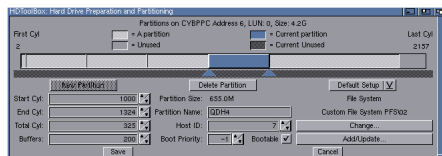
Backups

If you have a serious software problem with your system or a hardware problem which corrupts your data good backups are essential. How you make them is up to you, there are various devices from the humble floppy disk through tape backups and CD-R/W to high-end devices like Jaz drives. Even if you only have your Amiga's built-in floppy there are programs available like Amiback which will compress data to fit the maximum on and should allow you so store your system and most used files and allow fairly easy retrieval in case of calamity. Whatever backup method you choose the important thing is to be able to restore the data when disaster strikes, ensure you have the means to read your backups on a bootable floppy disk that boots into a screenmode you can see! As hard drive capacity become cheaper and cheaper an increasingly attractive option becomes to backup to a separate hard drive partition or even to have an additional drive just for backups. Although this is a good idea in many ways as hard drives provide cheap and fast storage be aware that a hardware problem that effects the data on your

master drive could possibly effect a backup too, especially if it's a partition on the same drive. If you'd backed up on to removable media even if the drive were effected you could still buy a new one or use another system with a suitable drive to retrieve your data.

Alternative Boot Partition

One very useful weapon to have in your trouble shooting armoury is an alternative boot partition, this is simply a partition on one of your hard disks which is set to be bootable and has a working system installed on it. To stop the Amiga booting from the alternative partition in preference to your main system partition set it to a lower boot priority in the HDToolbox partitioning screen. You might choose to make your alternative partition an exact duplicate of your main system partition (when you are sure it is in a reliable state), this has the benefit of also being able to use it as a backup (although see the paragraph on backups for some limitations). However it can be interesting and useful to set the alternative partition up from scratch as a basic system so you can use it to test programs on a bare bones system or when you need maximum memory available. Another option is to use it as a test bed



The bootable option and Boot Priority setting are found in the Partitioning section of HDToolBox.

for major system changes you are considering, for example Opus, Scalos or even MorphOS. Beware though that a partition being used like this might not be the best basis for disaster recovery!

Whatever you're using it for you can boot from your alternative partition by booting to the early-startup menu, clicking on the Boot Options button and choosing the partition in the left hand list. Then click on Use at the bottom of the screen then Boot to boot using the new partition. With a bit of luck this will get you up and running to investigate the problems with your main partition.

Restoring From a Backup

Usually it is nice to solve a problem by finding its cause and correcting it, for example by replacing a corrupt file or correcting an error in a script. However sometimes it is quicker and simpler (although not as satisfying) simply to

reinstall the effected application or even the whole operating system especially if you have a recent backup. For example a few weeks ago I had a problem with Directory Opus 5 where whenever I tried to access a sub directory on any disk (I tried several partitions and CDs) my Amiga would lock up. I reverted to Workbench using the techniques outlined above and everything worked perfectly. I knew I hadn't made any changes to Opus recently and so I had no clue what was wrong. I decided that it would be easier and quicker to restore from a recent backup rather than fault find with very little to go on. So I backed up a couple of preference files I knew had changed and copied everything back... since then I've had no problems.

Conclusion

Solving startup problems quickly and easily is a combination of being prepared and using a logical approach to find the source of the trouble. In this feature I have mainly concentrated on software, of course hardware can cause problems too so don't ignore it when troubleshooting. Finally if you don't have a fairly recent backup of your system and important files make one now, you'll be glad you did!



Back Issues

- Issue 3**
 - Interview with Petro Tyschtschenko.
 - Get Netted: Get your Amiga on the 'net.
 - 10 Internet software reviews.
 - Reviews: TurboPrint 7, BVisionPPC, Epson Stylus Photo.
 - Back to Basics: startup-sequence and user-startup scripts.
- Issue 6**
 - Interview with Gary Peake of Amiga.
 - Acceleration: Tips on choosing an accelerator for your Amiga.
 - Reviews: PageStream 4, Virtual GP, Heretic II.
 - AmigaOS 3.5: find out some of the hidden features in the new OS release.
 - Hard Drivin' Part 2: Big disks and alternative file systems.

To Order

Please list the back issues you require and send with a cheque or postal order payable to "South Essex Amiga Link" for £2.50 per issue to: Clubbed, 26 Wincoat Drive, Benfleet, Essex, SS7 5AH.

Keep Up-to-Date with the clubbed-announce Mailing List

Clubbed now has its own Internet mailing list to keep connected readers better informed about the magazine. The mailing list called clubbed-announce is hosted by the EGroups service.

We will post a minimum of one update on the list per month but your mail box will not be flooded because this list can only be posted to by the editor.

How To Join

Subscribing to the list is free, just send a blank EMail to:

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Or go to the list page on the OneList website, if you subscribe on the website you will need to register (if you haven't already for another list):

www.egroups.com/group/clubbed-announce (all one line)

We hope the list will keep you better informed about Clubbed and encourage you to join.

Next Issue

What's coming your way in issue 8?

Features

Alt.WoA - Show Report
Networking - we investigate various ways of connecting your Amiga(s) and other computers to share files and the Internet.

Reviews

Earth 2140 - Real-time strategy.
EZCam - Digi-cam card reader.

Support

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...and much much more!

Clubbed Issue 8

is planned for
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NOTE: This is a provisional contents list and is subject to change without notice.



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THE EYE-PLAY GOLD SELECTION	
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News

Earth 2140



Simon the Sorcerer 2

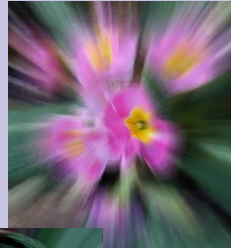


ArtEffect 4

Some examples of ArtEffect 4's filters (effects):



Wax Paint



Zoom Blur



Polar Coordinates



The final image from our ArtEffect tutorial. (Page 29)

New-Look SEAL Website

The SEAL website underwent a major redesign in September and October; the new-look site has a radically different look and colour scheme from the old one! The main goals of the new design were to make the site more attractive, easier to navigate and quicker to load. Along with the new design we have also started a new policy on updates which had become less and less frequent on the old site. Since the new site went on-line we have been updating it immediately after every SEAL meeting with a report (complete with photos) and the details of future meetings. In addition to this we have uploaded a brand new members page which has a criminal theme, this was Mick Sutton's idea and I think it has come off really well, see what you think. The next stage in the website's development will be the opening of a gallery section for SEAL members to display their works be they images, programs or anything Amiga related.

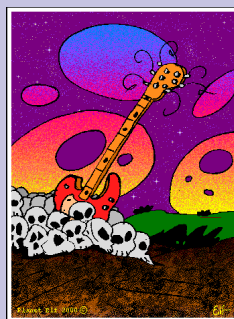


<http://www.seal-amiga.co.uk/>

Gallery



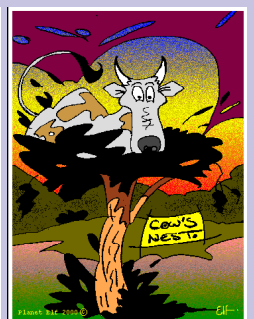
Clock Tower



Dead Rock



Joint Man



Cow's Nest

Cartoons by Ray Elf

Ray starts his cartoons with a pencil sketch which he scans into the Amiga and then refines in ImageFX. He then does the colouring in Deluxe Paint V. He says "I use a Amiga because it does the perfect job for my style of cartoons".