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of **utilities**

May
1997
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Disk 1

Requires Workbench 3.0

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file management

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for your system

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mode selection

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*Magic User
Interface required

LightWave secrets revealed

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all the commercial
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LightWave and
more exposed**

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1997
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Disk 2

Requires Workbench 3.0

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*Magic User Interface required

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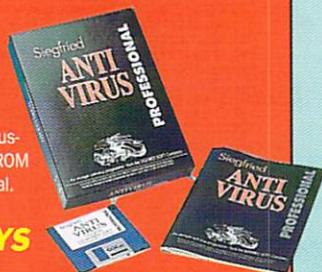
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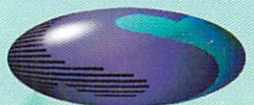
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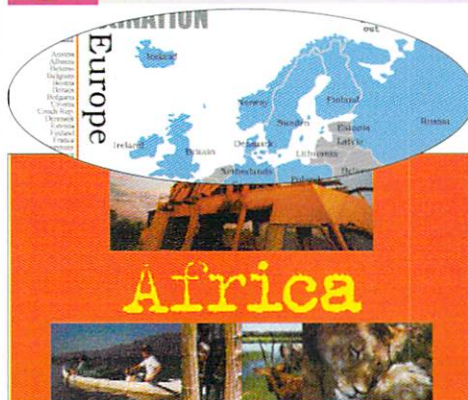


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The news we have all been waiting for has unfortunately not appeared, and Amiga Technologies is still in the hands of the liquidators. There is, however plenty to feel hopeful about. In a recent announcement, Peter Tyschtschenko says Amiga Technologies is still trading as if no bankruptcy occurred, gaining new distributors and trading at a level where AT could be self-sufficient. Fairly amazing considering the current situation.

AmiTech has managed this by exploiting new markets that are opening up, mainly eastern European countries and Russia itself, along with the Far East, including China. All this adds up to a vast market for low cost computers – an area that the A1200 fits perfectly.

It also appears that the massive boom in PC computing all the pundits were predicting has not happened. Currently almost a third of American homes have a home computer. Last year something like 9 million PCs were sold, not to new users, but to existing PC owners. No new PC users, no computer boom. Possibly the main reason for this is that the price of PCs has not changed, they are still in the \$2000 – \$3000 range, thanks of course to increased hardware requirements brought on by Windows 95.

PRICE CUTTING

Until something is done about the price of computing it looks as though PCs will stay in well-to-do, middle class homes. This has not gone unnoticed by the big PC manufacturers who are only now starting to aim machines at the lower \$1000 band. This is also backed up by Microsoft deciding late last year, in its infinite wisdom, to invent the 'NetPC' – a low-cost way to get us all addicted to Windows.

So what is this miracle of the modern age that can bring high cost PC computing to the masses? Well, it turns out to be two year old PC technology; 100Mhz Pentium, Super VGA graphics – the worrying part is the 'no end-user expansion slots' part of the deal. Doesn't this mean that you cannot upgrade, that you have to in fact replace the whole damn thing? No wonder the PC

amiga
comment

Power to the people

Amiga Computing is currently going through editors on a yearly basis,

Neil Mohr is next up

manufactures love the idea, you have to replace your entire computer every year just to be able to keep running the software.

But don't we all know of a low-cost 'NetPC'? The Amiga's main market role was as a low-cost home computer, far below even the cost of current 'cheap' PCs. Worryingly, the only company even thinking of producing a low cost Amiga style computer is PIOS, who is targeting the £500/\$800 price bracket. The trouble is Phase 5 is going to compete with (by the time its A/Box comes out) similarly priced and spec PCs in a tricky market and QuickPak is aiming at the DecAlpha where the market is, again, already jam-packed.

There is also the problem that the A1200 is woefully out of date. But then no one is really expecting the A1200 to do wonders, who ever does get the Amiga will have to go the PowerPC way. PIOS' first machine will be aimed at the desktop market, but the second machine it plans is the low-cost

machine for the masses. With multiprocessing capabilities and standard PC components this is a computer that is inexpensive, expandable and powerful, attributes the Amiga has always had.

Looking back, albeit through a slightly rose tinted fringe, myself and many of my friends owned Spectrums, C64s, Atari STs and Amigas. The unifying point with all these systems is that they were inexpensive and currently there is not a single machine out there that can fill this gap in the market. This is a market the Amiga used to fill very well, ownership spread to over three million households in this country alone. Perhaps when a stable owner is found for the Amiga, it can get back to where it belongs.

Neil Mohr

Neil Mohr
Editor

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The main menu The Explorapedia menu The subject creator Hotlist Manager

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NO. OF SAMPLES	100's	7	163
SEARCH MODES	NORMAL/DEEP	NORMAL	NORMAL
FILMCLIPS	✓	✓	✓
SUPPORTED	✓	✓	✓
MUSIC	✓	✓	✓
Inter-ACT	✓	✓	✓

*Requires an Amiga 1200 or 4000, a hard drive, a CD-ROM drive and 4mb+ of ram. (6mb ram recommended)

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news

By Hugh Poynton

World of Amiga

More details are emerging about the World of Amiga Show in May. Contrary to some reports, there will only be one major Amiga show this year, instead of two as some reports have suggested. Gasteiner boss Vas Shah has confirmed he will not be staging an Amiga event in March. He will instead be supporting the World of Amiga show in May. In a joint statement Vas Shah and Peter Brameld, head of show organisers PBA Events, said: "The World of Amiga will be considerably strengthened as a result of the decision to combine the expertise of the two organisations. We will be working together to ensure the show is an even greater success. Gasteiner brings not only its commitment to Amiga technology but also its experi-

ence in the exhibitions field. Added to the proven skills of those at PBA Events, it means this year's World of Amiga is certainly an event not to be missed."

Present at the show will be Nova Design's new ImageFX image processing and special effects package. Nova Design will be showing a demonstration film put together using ImageFX and its forthcoming Aladdin 4D package.

British companies will be much in evidence with Guildhall Leisure, Digita International, Epic Multimedia and ICPUG all participating. Epic will be demonstrating new additions to its CD range. Of particular interest will be the Epic Interactive Encyclopedia of the Paranormal and the Epic

Encyclopaedia '97. The Encyclopaedia '97 boasts features such as Inter-ACT, zoom into text, zoom into pictures and national anthems.

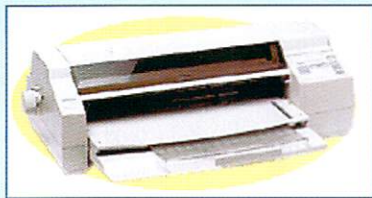
Power Computing will be launching a 12 speed SCSI CD Rom player and a 68060 accelerator board for the A1200/4000. Anybody spending more than £50 will get half their ticket price refunded by Power Computing, and anybody spending more than £100 will get a full refund.

Digita International will be offering special show prices with further reductions for those with proof of purchase and Guildhall Leisure will be bringing its entire range of titles, both new and re-released. For further information on the show contact Tony Leah on 0161 480 9811

NEW EPSON PRINTER

February saw the launch of the Stylus Color 1520, Epson's new high speed colour inkjet printer. The machine, designed to replace the Stylus 1500 printer, will be available for a recommended retail price of £899. According to Epson UK's Marketing Communications Manager Maria Foley, "The printer aims to target professional design engineers who suffer the expense of colour printing. Design engineers looking to reduce the high cost of colour output without compromising quality will find the answer in this new product. Small graphics houses are no longer limited by the costs normally associated with colour output and don't need to farm out work to expensive bureau services."

Due to the printers advanced 128 nozzle print head, the Epson Stylus 1520 will be able to produce eight pages per minute in mono and four pages per minute in colour. For more details telephone Epson UK Ltd on: 01442 61144



AMAZING ACCELERATORS

IAT International is in the process of developing a new range of Amiga accelerators that will enable a standard Amiga to run at speeds of up to 200MHz. The cards are to be made available for all machines with an O20+ processor and support a 68882 co-processor running at any speed. The 200 Mhz card will retail at around £120. A RISC card will also be available, it will enable all Amiga software to be run on the machine at speeds up to and, in the future exceeding, those of PPC upgrade systems.

IAT International is the internal Amiga market advisory body and, in addition to developing new hardware for the machine, IAT is currently working with Direct Software to open 10 more Amiga based stores around the UK.

LIGHT RELIEF

Demon Internet has announced that, on Comic Relief Day - 14 March, it will donate all joining fees to Comic Relief. The sum should be quite considerable - membership subscriptions cost £12.50 (+VAT).

In addition to this, ISP has put Comic Relief Web pages on its site containing interviews with stars such as Lenny Henry and Nigel from EastEnders. Demon will also donate 10 per cent of any comedy title purchased from its on-line bookstore to Comic Relief.



DEBUGGING DEBUT

Intangible Assets Manufacturing has launched the Enforcer V37 advanced debugging tool for Amigas equipped with a 68020/68851, 68030, 68040, or 68060 CPU. It uses the MMU to help detect stray pointers and access invalid memory. The Enforcer archive includes tools to help identify the exact location of bugs, including the line of source code in most C or Assembly code, as well as some other languages. Also including is a large on-line manual and examples as to how errors can be caught.

The original Enforcer (written by Bryce Nesbitt, copyright Commodore-Amiga) was instrumental in the development of AmigaOS 2.04 and the improvement of the quality of software on the Amiga. Enforcer V37 is a completely new set of code designed to provide even more debugging capabilities across more hardware configurations and with more options.

Information about Enforcer, the down loadable Enforcer archive and ordering information is available through the Enforcer Web page at <http://www.iam.com/amiga/enforcer.html>. Any questions about Enforcer should be directed to enforcer@iam.com

POWERPC CONVENTION TO INCLUDE AMIGA

The Amiga will be represented at Montreal's first annual PowerPC Convention in July. The convention will gather together an unprecedented number of Power PCs for the first time. Present will be BeBox, PLOS-ONE, A/Box, Amiga (PowerUP), PowerMac (and clones), IBM and Motorola machines. Much attention will be focused on the PowerPCs operating systems and software such as

BeOS, pOS, MacOS, Linux, Solaris, and AIX.

The exhibition will be held at the Howard Johnson Hotel in Montreal, on the 19 and 20 July 1997. For more details contact:

Howard Johnson
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475 Sherbrooke West Street
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Canada H3A 2L9

NEW VERSION OF IMAGINE

Impulse (Infologic in the US) has just released the latest version of Imagine for the Amiga. Imagine version 5 includes Arexx and Cybergraphix support and, in order to boost sales, Infologic is offering Amiga users the chance to purchase the package for a price of \$100 plus \$10 shipping.

Contact
Impulse/Seron Christian
5 Rue Alfred de Vigny
30320 Marguerittes
France



TAEN DOWN UNDER

TAEN (The Amiga Education Network) has announced details of an initiative to support schools that use the Amiga as a learning tool. TAEN was established after the demise of Commodore Australia with the express intention of supporting the format in Australian schools and safeguarding the all important education market for the machine.

The purpose of TAEN is to provide an Amiga-based global facility open to all persons or organisations with an interest in the Amiga in the field of education. Through national representatives, information relevant to that country's education can be disseminated and exchanged.

The organisation intends to offer advice on the latest Amiga software and hardware suitable for education, supply names of appropriate contacts, arrange for demonstrations of, and training in, appropriate products, publish regular newsletters, identify areas of need, advise developers and publishers about them

and, most importantly, promote direct interaction among educational institutions and individuals.

TAEN intends to have a national representative for each interested country, whose role it will be to fulfill the above requirements and act as a point of reference within their own country. They will also assist in developing and expanding The Amiga Education Network both nationally and internationally.

The aim is to increase TAEN's benefits to users and those developing products, to promote and arrange for the assessment of suitable Amiga education products, to arrange for the production of a regular Amiga-specific education publication and to advise of the special education needs for that country. For information contact:

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Voice: 61+ 67 72-2100
E-mail: flinter@tpgi.com.au

news snippets

SAY CHEESE!

Following the success of its terminal mounted digital cameras, Californian based OmniVision Technologies is set to launch a cut price colour camera. The C3086 will be displayed at the CeBIT show this spring. It is the latest addition to OmniVision's family of CMOS video camera monitors and, as Robert Strohl, OmniVision's Director of Marketing and Sales believes, "...the ideal solution for PC video conferencing, video phones, video e-mail, digital cameras, video games and a wide variety of PC multimedia applications".

A few months ago OmniVision found itself in the Amiga news after it launched its AQC/Vid hardware/software interface for the Connectix Corporation's Quickcam digital camera.

ZIPPERWARE CLOSES

US Amiga retailers, Zipperware, will be closing as of March 2, 1997. The Seattle based Amiga Store is currently liquidating all merchandise. Anybody interested in contacting Zipperware can reach the company at:

Zipperware, 76 South Main St.
Seattle, WA 98104, (206) 223-1107
zipware@nwlink.com

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SEATTLE'S LAST GREAT AMIGA STORE

VULCAN PERIPHERALS

Amiga games company Vulcan Software has decided to branch out into hardware manufacturing with the release of its PC Analogue to Amiga Joystick Adapters. The adapters, available for £8.99, will be sold mail order alongside the company's expanding range of titles.

For more information take a look at the Vulcan Web site (<http://www.vulcan.co.uk>) or contact director Paul Carrington (Paul@vulsoft.demon.co.uk).



What a lovely pair

PHASE 5; PART ONE

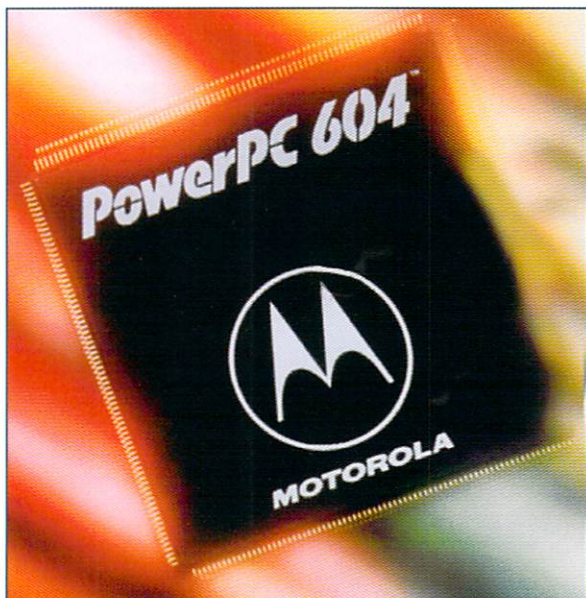
On February 25, Phase 5 announced it was bringing out the CYBERSTORM PPC PowerPC based accelerator for the Amiga 3000(T), the 4000(T) and systems with compatible CPU-slots. These new accelerators will enable processing speeds more than 10 times faster than the current fastest 68K based accelerators.

The accelerators are being designed as upgrade boards for existing Amiga systems and incorporate Phase 5's dual processor technology, where a fast Power PC RISC processor works in unison with a 68K processor (in the case of the CYBERSTORM PPC either a 68040 or a 68060 CPU). The AmigaOS3.x still runs on the 68K processor whilst the Power PC CPU is supported by a comprehensive PPC Library developed by Phase 5.

The CYBERSTORM PPC will initially be available with the fast PowerPC 604e processor in clock speeds of 150, 180 and 200 Mhz; the socket for the 68K companion processor accepts either a 68040 or a 68060 CPU. It provides a 64-bit wide, extremely fast memory and the 200Mhz version of the CYBERSTORM PPC provides a performance that goes far beyond most PC systems available today.

PHASE 5; PART TWO

Phase 5 has also released the Blizzard 603e PowerBoard for Amiga 1200 and A1200 based Tower Systems. The PowerPC based accelerator promises to improve the performance of the Amiga way beyond what is possible with a 68K based accelerator. Although a price hasn't been decided, we are assured that it will be extremely competitive.



THE LAIR WEB SITE ANNOUNCES LAUNCH

A new Internet based e-zine, The Lair, has been launched. In addition to covering many aspects of IT, The Lair pays particular attention to the Amiga platform.

Of interest to Amiga owners is the exclusive interview with Steve Jones of HiQ Ltd, developers of the Siamese System, and players in the future of the Amiga. Also included in the premier issue is an analysis of America's most notorious hacker, Kevin Mitnick, and a look at the Amiga's position in the computing world today. <http://amigaworld.com/thelair/>



FRIENDLY MONITORS

Hitachi Business Systems has increased its current range of monitors with new 15 inch, 21 inch and LCD monitors. The CM500ET monitor is a high resolution and high frequency monitor purposefully designed for office use.

The monitor offers microprocessor controls, power saving features that conform to Energy Star requirements and has a low radiation 280 x 210mm screen. The CM500ET updates at 85 Hz (a vertical refresh rate fast enough to avoid discomfort for the user) and offers less magnetic emission than many other monitors.

In addition, Hitachi is releasing the new high spec 21 inch CM802E and CM802ET monitors. The monitors offer high performance with 200 Mhz clock speed and new CRT design. An Invar shadow mask ensures that a flatter, sharper image is displayed. Like the CM500ET, the 21 inch monitors are designed to cut down on the electrostatic and electro magnetic field emissions and meet energy saving guidelines.

IMAGE LIBRARY

GTI, the German based Amiga software company, is releasing a compilation CD of fractal images. The CD includes 350 high quality fractal images which can be viewed under Amiga-DOS, MS-DOS or MS Windows. The recommended retail price for the CD will be DM39. For further details phone (49) 8383 9519.

AIRMAIL 4.0

GTI is also releasing an e-mail management program for the Amiga. Air Mail 4.0. The package aims to make the sending and receiving of e-mails faster and easier and supports the encoding and decoding of mail using MIME and external text editors. The package requires Workbench 2.1 or above, AmiTCP/IP version 4.0 or above and Miami, Mlink or Termite.



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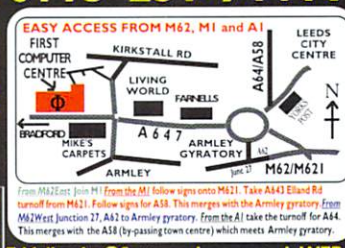
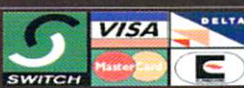
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Double the number

NewTechniques, a new magazine aimed at users of NewTek products such as LightWave, Video Toaster and Video Toaster Flyer, has just announced that, in 1998, it will switch to a bimonthly release (although during 1997 it will remain a quarterly magazine). The editor in chief, Joe Tracy, is the former editor in chief of the Video Toaster User magazine, which is no longer being published.

NewTechniques keeps in close contact with NewTek to maintain the usefulness and reliability of their information. The magazine features tutorials, reviews and tips and techniques for using NewTek products, as well as information on forthcoming NewTek products. Those people subscribing before June will receive a special NewTek limited edition item. The identity of this item will not be announced until the NAB convention in early April.

Subscriptions to NewTechniques cost \$32US. This covers the three issues in 1997 as well as the six issues in 1998. Cover price is \$6.95US. For more information, e-mail jtracy@main.rosenet.net.



SOUPED UP SPIDER

amiSpider
AMIGA SEARCH ENGINE
ADD URL COOL NEW FAQ FILES HEADLINES STATS SURVEY

amicrawler.com announced that it has added more features to its search engine, amiSpider. amiSpider searches the full text of the over 3000 Amiga documents in its library and displays the results in order of relevancy. It features a multilingual interface and will detect the source country of the person accessing the Web page to determine the default, as well as gear the weight of the search findings towards the language being used in the search. There is a Top 20 list of the most often searched sites. Also, amiSpider lists the news sites which have updated or changed their information. To add a site to the amiSpider library, just send the URL of the page to dtiberio@amicrawler.com.

amiSpider also features free banner advertising for those who have joined the Amiga Web Network. The advertising on amiSpider is targeted to the users depending on the user's operating system, browser, and location. amiSpider can be found at <http://www.ami->

NOVA MOVES

Expansion has caused Nova Design Inc.'s mailing and shipping addresses to change suite numbers. All other information remains the same. The new address is Nova Design Inc., 1910 Byrd Avenue, Suite 204, Richmond, VA 23230, USA.

POWER CONVENTION

PowerCon'97 is a PowerPC convention geared toward users of all machines utilising the PowerPC line of processors, such as the PowerUP Amiga, BeBox, PIOS-ONE, A/Box, PowerMac and its clones, as well as IBM and Motorola machines. Among the current list of attendees are PIOS, who is working on a PowerPC machine called PIOS-ONE and ProDAD, who is developing pOS, a new operating system for PowerPC machines that has the feel of the Amiga operating system.

This convention will be replacing the Montreal Amiga Conventions of previous years and will take place at the same venue as last year's Amiga Convention. The hotel is the Howard Johnson, 475 Sherbrooke West Street, Montreal, Quebec, H3A 2L9, Canada, tel 514-842-3961.

The show is open 10am-8pm on Saturday 19 July and 9am-6pm on Sunday 20 of July. Tickets are \$7CDN. Rental of tables for dealers and developers will cost \$150CDN for one day and \$250CDN for both. The table is 6' x 3', and includes chairs. Individuals who bring their own PowerPC system(s) may be able to get a free table, available on a first-come, first-serve basis and are smaller than the other tables.

For more information about PowerCon'97, mail to moogy@datrox.ca, tessier@moebius.qc.ca, or steve.pruneau@mcbbbs.magicnet.com, or visit <http://www.moebius.qc.ca/PowerCon97/>. Also, call 514-649-9756 and ask for Frederic or 514-933-8095 and ask for Jeremie. The organisers of PowerCon'97 can be reached by writing to Frederic Tessier, 922 Deschamps, Sainte-Julie, Quebec, J3E 1N9, Canada.

AMIGA MERGE

National Amiga has announced it has created a new company, which they have incorporated. National Amiga is now a division of that company, ARCHTECH Inc.

It has also released a PC keyboard to Amiga adapter in conjunction with MicroBit. Two other hardware projects are in the pipeline and are expected to be released soon. The Insert104 keyboard adapter utilises the Windows keys as the Amiga keys, as well as turning unused keys into special functions keys. Orders are being taken now for \$39CDN.

National Amiga's Web site has been updated and redesigned. Documents have been shuffled between machines to make document loading faster, but the server is still running on Amigas.

Many new and favourite products are in stock. The CyberVision64/3D in particular are available for \$479.95CDN. 1084 monitors are also in abundance. National Amiga also has a new employee, Jason Norwood, to be helping with order processing and shipping. For more information on any National Amiga product, price, etc., visit <http://www.nationalamiga.com/>, or call (519) 858-8760

NATIONAL AMIGA
AMIGA PRODUCTS AND SERVICES INTERNATIONAL

BOOM BOOM

The ClickBOOM Web site has moved to <http://home.ican.net/~clkboom/>. A new upgrade to Capital Punishment 1.1 can be found there. It provides Apollo board compatibility, removes the need for 040.library or 060.library and fixes some loading problems found in the previous version.

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<http://www.amicrawler.com>
dtiberio@amicrawler.com

ClickBOOM
<http://home.ican.net/~clkboom/>

PowerCon'97
Frederic Tessier
922 Deschamps
Sainte-Julie Quebec
J3E 1N9
Canada

<http://www.moebius.qc.ca/PowerCon97/>

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111 Waterloo St. #101
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EXTRACTING COVER DISK FILES

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

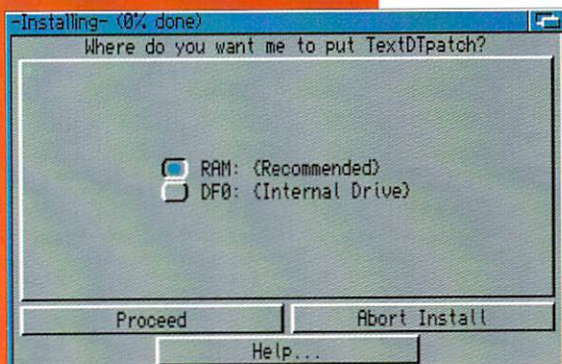
To extract any single archive, simply double click its icon, and follow the on screen instructions. If you want to extract the program to Ram, select the NOVICE level on the welcome screen, and press proceed once on the current screen, and then again on the next. The program can then be found in your Ram disk. Normally most programs need further installing, so read the documents on how to do this.

HARD DRIVE USERS

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

All you hard drive owners will find MultiExtract very useful. It is a separate method of extracting the cover disk files. It allows you to extract a number of files in one go, to your hard disk or Ram.

When you run MultiExtract, you will be presented with a number of check boxes, each representing one of the programs on that cover disk. Just de-select all the programs you do not want extracting, and then press proceed. All the selected programs can now miraculously be found in the selected destination.



This is MultiExtract for all you sensible people with hard drives



One of the most useful programs around,
ToolManager, updated and on this month's disk

TOOLMANAGER V3

Author: Stefan Becker Requires Workbench 3.0 • Magic User Interface

Once you have this program installed on your Amiga, you will wonder how you ever managed without it. The previous version was pretty much a permanent fixture on my hard drive and I have had many years of flawless use out of it.

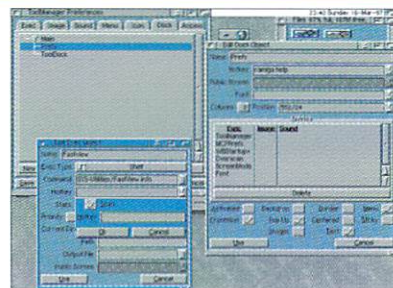
So what is this little marvel? Well, quite simply it lets you add all manner of short cuts to programs. You can add menus, key board short cuts, Workbench app-icons and even create what are known as 'docks' – all controlled from the one program.

This latest version is more of a interface overhaul than a complete upgrade. Obviously there is the jump to MUI, but there have been some small tweaks, such as keyboard scanning that means you don't have to type in keyboard shortcuts, they are read automatically. Drag and drop now exists internally in the program so you can drag executable programs to the dock window to add it to the list.

If you have never used ToolManager before it may seem a little overwhelming when you first run it, but once you understand how it all works it is very easy to use. The program only consists of a few library files, a preference program and the start program that goes in the WBStartup drawer. All these are copied for you by the installer, so there is no need to worry about any of it.

When everything is in place you should run the preference program, if you already have a ToolManager configuration it will still be able to use this, but you may want to start afresh. For newbies the main part of ToolManager revolves around the Exec list, if you want to add a program to ToolManager you simply drop it in this list. This brings up a new window describing what ToolManager calls the program and where it is on your Amiga.

If you are a novice you should leave this stuff alone, it is fine as it is, the only thing you



If you have never used it, you don't know what you're missing. The most useful Amiga tool around

may want to do is add a keyboard short cut. To do this click on the popup gadget at the end of the keyboard short cut text box, click the scan tick box and press the keyboard combination you want to run the program. Select OK, and then Use and you have added a program to ToolManager. The same process can be done for images and sounds. ToolManager allows you to add icons to Workbench and its docks for sounds when programs are launched. You can add new images and sounds by dragging them to the appropriate list.

Once you have a few programs set up in the Exec list, you can start adding them to the Menu, Icon and Dock lists. Adding menu items and icons is a straight forward process of creating a new object entry and dragging the appropriate program from the Exec list over to the new object window.

The part of ToolManager that I like the most are the docks – they are windows that can be opened on any public screen that let you run any ToolManager exec. They can be a little tricky to set up, due to the silly number of options you have, but if you play around with them for a little while you'll soon find out what all the options do. Alternatively, you could use the on-line context sensitive help.

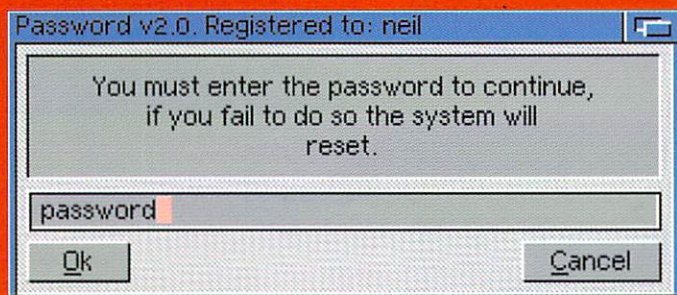
PASSWORD

Author: Richard Hodger • Requires Workbench 3.0

Here at Amiga Computing we are quite lucky, the set of Rottweilers guarding our office make sure any intruders silly enough to break in, will not have any hands left to mess around with our equipment (ooh er missus - ed). If however, you don't have a deterrent this effective, you may worry about people poking around your Amiga files.

Password adds simple protection to your system, to keep those prying eyes out. By replacing the LoadWB command in your startup-sequence you can stop people being able to load Workbench up. It will not stop an Amiga expert, but for anyone that does not know too much about the machine, it will do the trick.

The install script just copies the files across to their relevant places, and to set up Password you need to run KeyMaker and then SetPass to actually create your password.



Your name's not on the list, your not getting in. Password - a virtual bouncer for your Amiga

MODEP

Author: Andreas Kleinert
Requires Workbench 3.0

The Amiga's operating system is complicated, not as complicated as some, but it has its moments. With all the new bits added to Workbench 3.0, a command called BestModelID was among the new additions. This is supposed to tell programs which screen mode they should use to display pictures, as an Amiga with a multisync monitor has the ability to display an awful lot of different screen modes, many times more than the ScreenMode preference may make out.

Unfortunately it will not pick aspect correct screens, so the picture can look stretched either horizontally or vertically. This tiny little patch corrects the problem. It is of more help to graphic card owners, as it will automatically choose graphic cards screens as the first choice.

QT v1.3

Author: Marcus Comstedt
Requires Workbench 3.0

A few months back we came across this rather spiffy QuickTime player for all AGA and lucky old CyberGraphX users. Now a little further along the line, there is an update. With a few bug fixes, added support for new sound and video modes (such as Jpeg videos), you should have no problem playing any QuickTime movies you stumble upon.

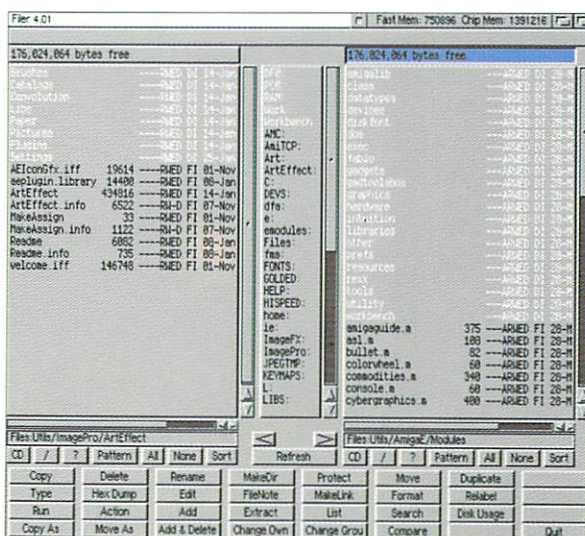
All the different options with QT are available through editing the Workbench tool types. CyberGraphX users have the luxury of being able to play movies in a normal Workbench Window, while us lowly AGA users will have to make do with fuzzy old Ham8 screens, a grey scale replay does help matters though.

FILLER

Author: Matthias Scheler
Requires Workbench 2.04

Filler is a directory utility in the old Opus 4 style, you have two directory windows on the left and right of the screen. Allowing you to copy, move and do all those tedious file managing type of tasks. It's small-ish, quick and looks good thanks to it using the Amiga's normal Gadtools gadgets. You can change the screen mode and fonts to whatever you like.

Possibly the only bit that could cause confusion is that its configuration file has to live in the S directory. If you need to add any file types you need to alter this file by adding a new file class. Refer to the documentation if you are having problems, or an example configuration is provided in the original archive. So this could be copied over to your S directory to give you a start.



Grey, drab but very functional. Lets face it, file managers are not very exciting

FAULTY DISKS

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

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

Please allow 28 days for delivery

ATAPI 3.0 PNP

Author: Georg Campana
Requires Workbench 2.04

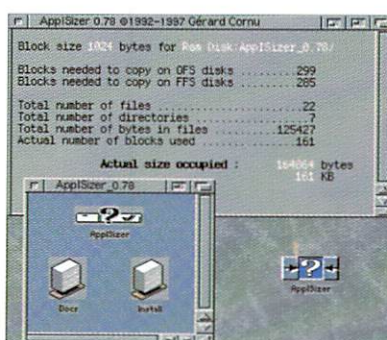
This is the latest CD driver for your Amiga, taking the old PNP (Plug And Play) acronym from the PC Atapi PNP is an easy one step solution to getting an Atapi CD-ROM up and running on your Amiga. As long as you have a CD drive already hooked up you can run the Installer and along with copying all the files over to your Amiga will allow you to select where your CD drive is and so create the DOS driver for you, no hassles no worry. Thrown in for good luck you get an AudioCD player as well as a CDXL player, if you have any CDXL videos.

APPISIZER

Author: Gerard Cornu
Requires Workbench 2.04

How big are those files there? You don't know do you? That's because you haven't got AppSizer. It is all very straight forward, just run the program and away you go, a little Workbench

Appicon appears on the Workbench and you can drop programs, directories or disks onto the icon and it will come back with all the size statistics you could possibly want.



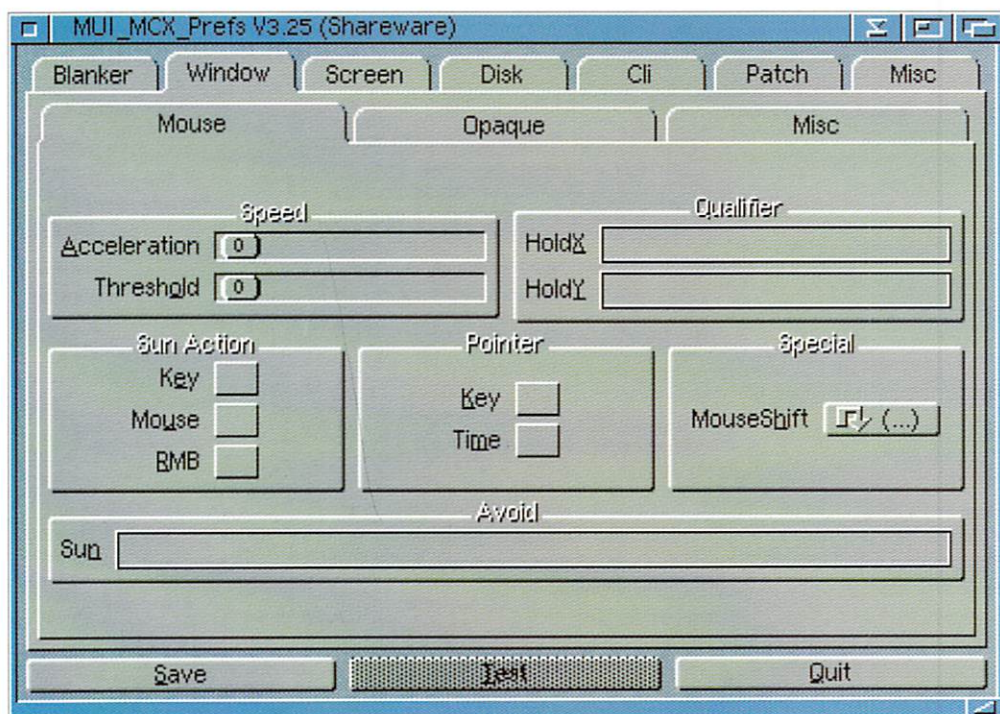
If your worried about size, AppSizer might just be what you are looking for

MCX PREFS

Author: J Kempkes • Requires Workbench 3.0 • Magic User Interface

One reason why MultiCX is so small is that it has no interface, not even a separate one. All its bits and bobs have to be changed through normal the normal Workbench tool types. Normally this would be fine but as MultiCX has a shed load of functions the number of tool types gets a little overwhelming.

To help you out MCX Prefs is a well thought out front end for MultiCX. All the tool type options are laid out for you in one of those fancy looking MUI interfaces, all for your viewing pleasure.



Never have to touch MCX's tool types again, all thanks to MCX Prefs



REMCARDS

Author: Dave Jones

Requires A1200/600

Another tiny program that quite simply removes all the software to do with the PCMCIA slot from the Amiga's memory. So saving a little bit of memory and helping your multitasking along a little as it does not have to handle the PCMCIA interrupt.

MULTICX v2.63

Author: Martin Berndt

Requires Workbench 3.0

Almost as old as the hills, bit like Tym our art editor, MultiCX is the choice of the discerning utility purveyor. More petite than Kyle Minogue but as multifunctional as a Swiss army knife, MultiCX does loads of stuff (bit like me - ed) while taking up the minimum amount of room (ooh not like me - ed). If you think MCP is just that bit too big, then MultiCX is a great alternative.

GROOVY PLAY

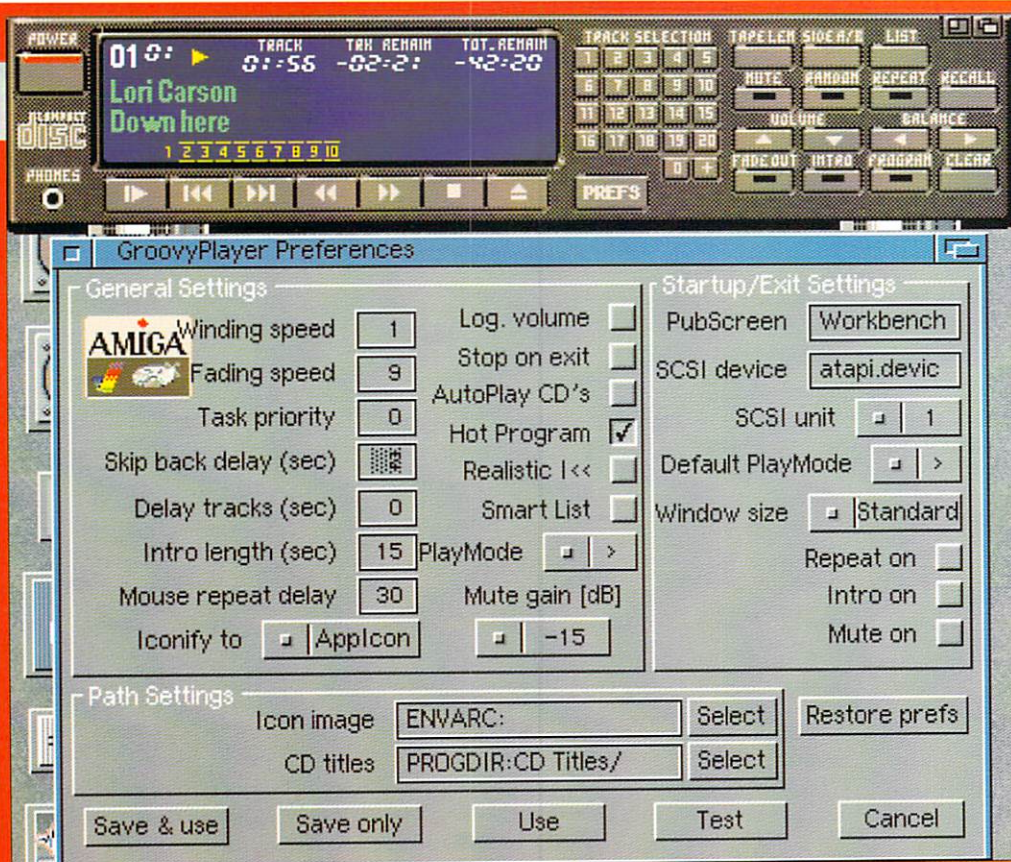
Author: Micla Arpad

Requires Workbench 3.0

Any program that has groovy at the start of its name has to be good, and GroovyPlay is no exception. If you like small, specifically functional programs you can forget this. It gives you a big old colourful hi-fi type display with all the normal jiggery pokery you expect on a hi-fi. It looks good in eight colours, it looks better in 64 and it looks tops in 2546 colours, the choice is yours.

The most complicated part of setting up GroovyPlay is setting the device and unit number of your CD-ROM connected to your Amiga. Luckily it works with just about every CD device, even the Atapi device on this month's cover disk. If you were using this on an A4000 the device would be called atapi.device, and the unit number should be one. If you have a SCSI device you will need to enter the SCSI device name and what unit number your drive are before you can use GroovyPlay.

Groovy is as groovy does,
Neil Gump that's me



Casablanca

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What Is The Casablanca?

Casablanca is a device which allows anyone to edit video, simply, and in a non-linear fashion. It works by recording video scenes from a camcorder, on to an internal storage module. The scenes can then be trimmed, split into shots, and re-arranged at will. You can also add transitions between scenes, and professional image processing effects, plus new soundtracks, slow, quick or reverse sequences.

So, How Does It Work?

Casablanca connects between your camcorder and video recorder. You don't need any special monitor, as you can use your existing television. Using a Casablanca requires no computer experience. The controls and displays are clear, simple, and easy to understand. All video and sound information, plus effects and transitions are held on the storage module.

What Models Are Available ?

Casablanca is available with a choice of three storage modules. Module 2 can hold 31 mins of VHS, 16 mins of SVHS, or 10 mins of DV quality video. Module 4 offers double those storage times. Module 9 can hold 140 mins of VHS, 72 mins of SVHS, or 47 mins of DV quality video. The storage module is removable, and additional ones are available. This allows you to work on multiple projects simultaneously.

Technical Specifications

Full Motion JPEG Compression, CCIR601 Resolution (720x576 Pixels) at 50 Fields/sec. Internal capacity from 10 minutes to 4.7 hours, external storage expansion will give between 2.2 and 15 hours, depending on quality. Composite & Y/C Video in and out, on front and rear. RGB out via SCART on rear. Optional FireWire (P1394) module for connection to MiniDV camcorders with digital output (eg. Sony). 3 Tracks of Stereo audio, 16-Bit resolution at upto 44KHz sample rate.

Where Can I Get More Details ?

Casablanca is available from a number of specialist video retailers around the UK, and is also available by mail-order from Britains favourite **AMIGA** supplier :-

White Knight Technology

If you would like a Casablanca brochure, please call.
Tel : 01920 822 321 or Fax : 01920 822 302

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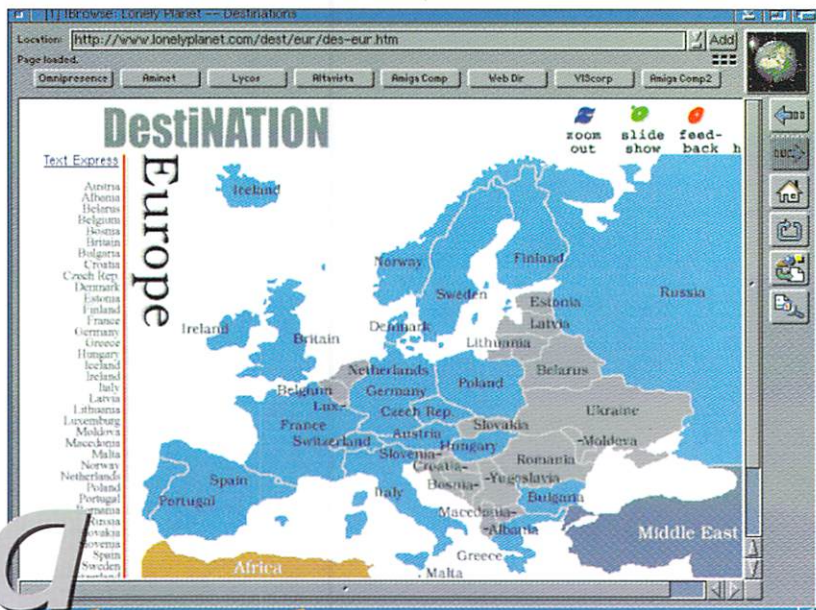
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 E & O E - 11/03/97

Kerumba! Pour Pina Coladas down your PC slot – Amiga Computing shows you how to plan your holiday using your faithful machine

Amiga On Holiday



Choose your destination from The Lonely Planet

I THINK I'M TURNING JAPANESE

You could pick up a language at a somewhat slower pace. The Sasakawa Peace Foundation in the US sells a software package called Word a Day for \$50.00 RRP.

Word a Day aims to teach elements of Japanese almost without the user realising it. This simple little program creates an icon on the Amiga desktop which, whenever clicked on will present you with the word of the day. Play a game and then try out your new word a few times, do some DTP and then repeat the word a few more times.

In this way, Sasakawa believes, your vocabulary will slowly but surely build up. The program also allows you to build up a dictionary of the words you have been learning. If you are particularly eager to pick up the lingo, the Word a Day folder can be made to stay visible while other work is done on the Desktop Amiga Language Exhibit Page

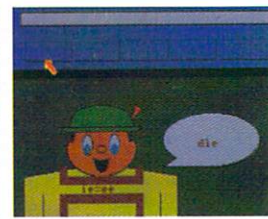
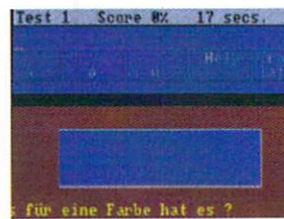
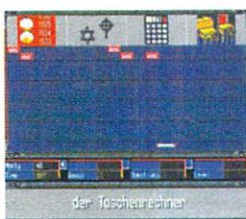
Also available from the Sasakawa Foundation is a Japanese language instructor featuring a spoken short phrases and words. Produced by Education Tutorial Software the package costs about \$65.00 and includes sections that teach you to recognise both Japanese spoken and written words.

For more information on these products write to the Sasakawa Peace Foundation, 1819 L Street, NW Washington, DC 20036 USA. Alternatively, take a look at its Web site at: <http://www.sasakawa.org/>

It's that time of year, when you've decided you've just had enough. The rain is pouring down the window, the fax is having a breakdown, junk is piling into your 'in tray' and what's more, the coffee machine is jammed ...again. You have two choices – either flip out or go on holiday. Let's assume for this article you choose the latter.

Two weeks basking on a glorious sandy beach. What could be better? But how do you go about organising it? Sitting right in front of you is your Amiga and, believe it or not, you can use this very machine to plan your destination, brush up on a foreign language and, if you're driving there, you can even let the Amiga decide on a route. So sit back, relax and let the Amiga take the strain...

WAS IS DAS?



Are you one of those people who think that if, when you go abroad and the locals don't understand English, you should resort to talking them slowly and in a VERY LOUD VOICE? Well we're all Europeans now and that sort of thing is very unPC.

Using the wonders of modern technology you can easily find a language program that will help you pick up the lingo. A fair few language packages are available on the Amiga. First up is Micro German LCL, aiming to take the novice language learner right through to GCSE. It has 24 programs which cover written and spoken German exams. As well as being suitable for students, it is handy for the businessman as it generates business letters and also covers verbs and grammar.

LCL used to include a tape with its language packages but has now incorporated speech into the actual program. Although this does sound rather robotic, it works well and give the user an idea of the correct pronunciation.

10 out of 10 German covers all these features in various forms, although all the information from the national curriculum is there and can be printed off. For example, you can keep permanent records of your success, achievements and what you need to improve on.

The package aims to tech much of the content through fairly basic, but effective, games. The first is called the Cat. This curiously titled game is a multiple choice quiz, whereby the faster you answer the questions the more points you score. Covering topics such as family, home and sport, the package is perfect for simple, conversational German.

WHERE DO YOU WANT TO GO TODAY? (SOMEWHERE WITHOUT MICROSOFT SLOGANS PERHAPS?)

Assuming you are connected to the Internet and have a suitable browser, you already have the world at your finger tips - virtually. First try typing 'holiday' into your search engine. OK, to save you lot the hassle, I'll do all the hard work and give you some suggestions of the best places to look. First of all, if you're young or a student and fancy an exotic and adventurous location, STA travel (<http://www.sta-travel-group.com/home/index.html>) gives a wealth of suggestions to take you off the beaten track. How about a carnival in Rio, for example, then on to the Iguacu Falls through Paraguay and Argentina up to the high Andean plain of Bolivia? Or maybe a camel trek across the desert?

The Lonely Planet is also a good travel resource and offers an insight into every country you could possibly think of. From the description here I think I could be quite tempted by Prague (please send donations to the usual address) or Florence even - I'm not fussy really.

Strapped for cash? Don't worry you can still holiday with the best of 'em. Why not have a look at Budget Travel (<http://www.budget-travel.com/>) for instance? Here you can see how others get around on the cheap and find out about any special offers that are running.

While you are researching your chosen destination, it's probably a good idea to check out the weather. CNN Weather



(<http://www.cnn.com/WEATHER/index.html>) provides a very comprehensive guide to weather reports around the world. Click on one of the 100 or more cities and you will get a forecast for the next few days. Manchester was forecast rain, no surprise there then.

Before you leave, don't forget the all-important health jabs (have a look at

<http://www.cdc.gov/cdc.htm> - the Centres for Disease Control and Prevention), and if you're visiting somewhere that could be a possible trouble spot, (Albania anyone? -ED) you'll be well advised to check out the various Foreign Embassy Web pages. Got all that? You're now ready for a vacation in the sun.

I LIKE DRIVING IN MY CAR

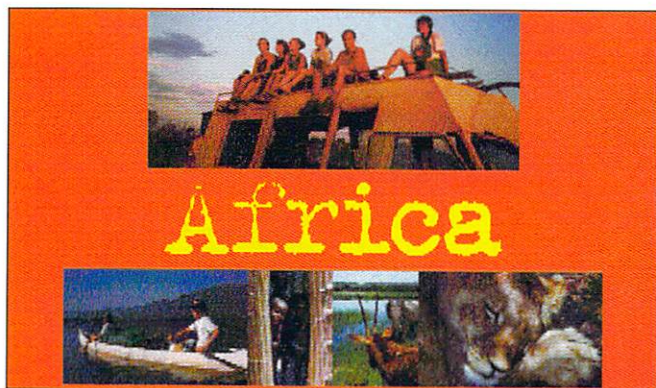
If flying to your chosen destination doesn't appeal, there is always the option of driving there. And thanks to the wonders of modern technology (or something) you don't even have to buy a road map. No more frantic arguments between husband and wife as they end up in Botswana rather than Bognor Regis because one of them had the map upside down. Now you can plan before you go - or more accurately - let the computer plan it all. The Amiga owner can buy something called AmiAtlas - a software package that decides the easiest, quickest or prettiest

route for you to take.

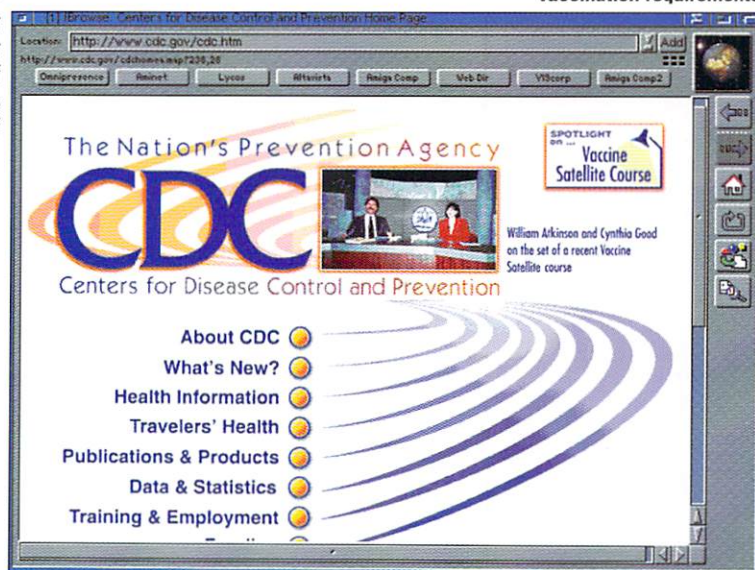
It comes on two disks - one with the main program and one with the default map of Germany (it's a German package, you see). Maps of Switzerland, Austria, Belgium, France, Denmark UK and Ireland, Italy, Poland, Hungary and Czechoslovakia are also available - oh, and one is planned for Spain too. You can either use the maps singularly or join them together - ideal if you're the adventurous type and are thinking of

travelling all over Europe. AmiAtlas can even work out how far and how long it would take you and how much petrol you will need - helping you estimate what the trip would cost you.

Don't forget to check the vaccination requirements



For the more adventurous, how about Africa with STA?



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The first ever speech adventure. Four long years have passed since Infinity murdered Garamond, the King of Valhalla and claimed the crown, yet Garamond's young son and heir to the throne escaped the slaughter. Now come of age, the Prince is returning to enact vengeance for his father's death and claim his birthright...

You are the Prince's mentor on his quest, inching your way through four vast levels in the chilling castle of Valhalla. You encounter a world crammed with logical puzzles and richly interactive characters. The cinematic graphics are dazzling, the spine tingling sound track mesmerizing, in this magical world of words that redefines the adventure game. 96% Rating.

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VALHALLA BEFORE THE WAR

The second ever speech adventure. In this sequel to the blockbuster, Valhalla I, you play Infinity's mentor on his quest of hatred in which murder is the ultimate goal. Infinity has been jealous of his brother, the good King Garamond for as long as he can remember, and all for a twist of fate. Infinity had been born too late to be King. Set in the Mystical castle of Valhalla, you encounter a horde of brain melting puzzles through four vast levels of dazzling graphics and exceptional game play in which the art of communications is the name of the game.

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There's nothing like a good bit of healthy competition to keep things moving along. Of course I'm talking about the current browser war that not only the current three Amiga browsers are embroiled in but also the 'big two' browsers. All this competition is very good for us, it makes sure no one programmer will rest on their laurels because if they do the others will quickly pull ahead.

With iBrowse being the first commercial Amiga browser it means that all you people that bought it are having access to your second free program update (well, as free as it is going to get). The update patch is freely downloadable from HiSoft's lovely Web site at <http://www.hisoft.co.uk/ibrowse/support.html#download>.

For a long time now, iBrowse has been the leader in the Amiga browsers but it was pipped to the frames post by Voyager. However, as any primary school child knows, the hare didn't win the race, mmm deep moral implications I'm sure.

Never again will your Amiga's screen be darkened by the, 'this site requires a frames capable browser. Get Netscape 3', useless bit of advice. More importantly than that is, so far iBrowse has displayed every framed site I threw at it, but not 'just' displayed them, displayed them as well Netscape 3.

Scroll bars only appeared in frames they were meant to, if possible frames were

were meant to, if possible, be scalable and if specified frame outlines were hidden. Also one site that used an unusual way of linking through frames worked flawlessly, where as Voyager was thrown by it.

One thing I have been waiting for was an improvement in the colour display for AGA users using lower colour depths. Graphic card users have it easy, being able to run iBrowse on a high resolution 256 colour screen with no slow down, but with AGA monitor modes 64 colours is about as good as you are going to get.

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Last month we brought you the
first framed capable Amiga
browser and now, right on its
heels, comes iBrowse

Noel

was framed

Noel

was framed

Voyager had problems navigating through this site, but no such problem with iBrowse. Manages to do a better job than Netscape 2



Multiple hidden frames, with an animated GIF. Looks great in 256 colours, don't you think?



Mac running a 256 colour screen – both in terms of layout and colour selection. For AGA users this means that for most pages a 64 colour screen is good enough to give a usable colour display.

If you are stuck with a 16 colour display, then luckily since version 1.02, there has been a grey scale choice that renders all on-screen colours as a shade of grey. Even with only 16 colours this gives a nice alternative and looks a lot better than the confused colours you would otherwise get, it's also very fast.

Now supported by iBrowse are something called cookies or magic cookies or tokens, depending on who you talk to. This is a way for Web designers to store information about you on your own hard drive, and every time you access a Web page this cookie is passed back to the Web server. This allows the Web server to keep a record of every page you visit. Some people do not like cookies; they talk about invasion of privacy, so they can be turned off, unlike Internet Explorer users.

iBrowse is still, in my opinion, the premier Amiga browser. There are still a few formatting tags it does not support such as percentage width for tables and the middle tag that sometimes crops up instead of centre. One thing I do miss is (on Windows and the Mac) if the TCP stack is not running, it is automatically started and dialed up for you, perhaps an Arexx script for Miami, Termite or AmiTCP could be included in the future?



news
previews
reviews
features



For some reason I am using this as a standard test page, but Channel 4 has never looked so good on an Amiga

Bottom line

REQUIREMENTS

RED *essential*

BLACK *recommended*



4 Mb

RAM 030/040
Processor

PRODUCT DETAILS

Product	iBrowse v1.1
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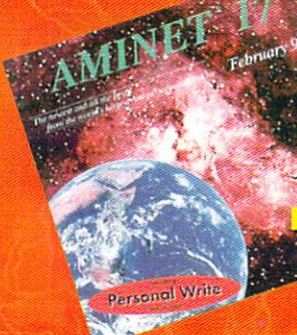
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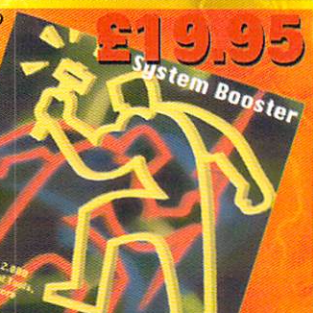
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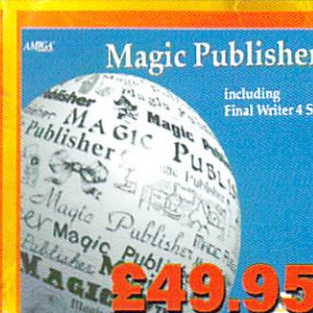
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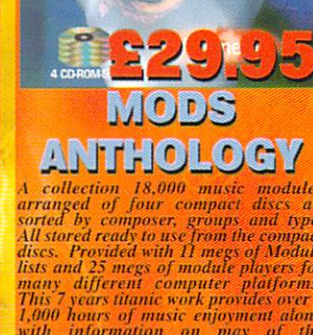
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After a brief glance through the article it's pretty obvious that 3D is my stable diet when it comes to commercial art, although the odd foray into 2D does make an occasional appearance.

Needless to say, I always do my very best to avoid freehand elements wherever possible, due to a rather disturbing lack of talent when it comes to pen and paper. I'm mentioning this to illustrate that a lack of skill with traditional tools isn't necessarily a stumbling block when it comes to computer generated art and animation.

Thanks to the power, and sometimes the complexity, of computer software the real skill is in conceptualising, visualising and finally implementing the desired look and feel. When it comes to CGI understanding the technology, its limitations and potential



From to

can be far more important than being able to knock out a convincing stickman.

Obviously this won't inspire confidence for those not consumed with a passion for 3D. However, even in two dimensions there's still huge scope for what is known as derived art. In short, this means the importation, manipulation and composition of real-world and CGI elements to form an occasionally surreal mixture of photography freehand, ray traced and digitised imagery.

Combine a talent for derived art and add a touch of photography or videography and you have the basis for a new media business.

As all these genres converge under the global banner of digital technology, the ability to combine multiple skills is becoming an increasingly valuable commodity.

OK, if it's so easy why isn't everybody doing it? After all, if you don't need any physical skill it must be a doddle right? Alas no, as with every swing there follows the inevitable roundabout.

Although the Amiga can rescue a

would-be artist from the limitations of hand and eye, the mental demands remain the same and, in many cases, the creative pressure is even higher.

The reason being that every computer artist starts off with roughly the same basic skills – commonly referred to as the machine and its software. Because computer graphics rely on such a similar array of tools it's much easier to produce predictable results. Your job is to develop a style – which to many freehand artists comes naturally.

As computer art is primarily a mental discipline, you can survive with the hand/eye co-ordination of a house brick, but if you don't have the eye, the understanding and



Paul Austin guides would-be Amiga artists through the minefield of transforming a hobby into **hard cash**

The images used on these pages are a collection of various Lightware and Imagine images - all commissions for a variety of computer titles. Amiga Computing being a prime example...

Pixels Pounds

the inspiration, you're in trouble. (At this point it's worth stressing that I certainly don't consider myself an artist in the classical sense. What I, and many others, do is commercial art, there's a very big difference).

I work solely on commissions basis and therefore don't have to wait for the hit and miss of inspiration. All that's required is to turn a concept into reality - a process which can be pretty painful in itself. While we're on the subject of inspiration, it's perhaps worth stressing that artistic pretensions rarely have a place in commercial art. If, while negotiating a job, you come across as the sort of person who would never compromise their artistic principles there's a strong chance your career will be short lived.

However, that doesn't mean you should do



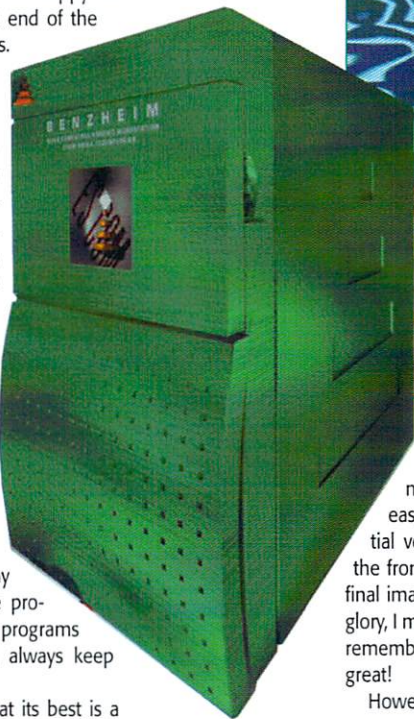
A Lightware production complete, with bones, which finally appeared within a PC driven CD-Rom attraction at one of Granada's theme park attractions

what you're told without question, often a client is looking for input on a project. In many cases the people commissioning the work will be blissfully unaware of the potential and, perhaps more importantly, the limitations of your particular field. They'll often be happy to explore new ideas – but at the end of the day it's their opinion that matters.

Often relatively simple things can really impress a client while the real clever stuff may be overlooked with annoying indifference. The response will may be 'Oh that, yes it's OK I suppose...' when you were expecting a wow! The bottom line is to get involved in the design stage as soon as possible. As a result you can guide the client in the best direction for both parties.

Another point worth mentioning is not to let the software take over the show. All too often you see beautiful images ruined by the latest addition to the software. No matter whether it's lens flare, motion blur, depth of field or any one of the hundreds of image processing options available via programs such as ArEffects or ImageFX, always keep your goal clearly defined.

A good example of over-kill at its best is a



Christmas card image in this very article. Although this doesn't suffer from new-feature-itis, it does illustrate a very easy mistake to make. A slightly more spatial version was commissioned for use on the front cover of an ST magazine. When the final image appeared in all its texture mapped glory, I must admit I was fairly pleased - I'd even remembered to leave space for the cover disks, great!

However, when the cover words, flashes and

masthead were added, the vast majority of its appeal was lost. Once all the other elements arrived it was simply too cluttered and the impact was lost.

This is a key point in almost all commercial art work – you're being paid to make an impact, not to impress your peers. Invariably you're selling something in one way or another and it's your job to make the client's product leap out from the rest. As a result, adding intricate detail and clever technicalities that only a tiny handful of enthusiasts will appreciate isn't always good business. At worst they'll confuse the image and at best, waste valuable time.

WORKING IN PRINT

As you've probably spotted, the vast majority of my work is in 3D, usually in the form of magazine cover images, illustration, animation - either on tape, CD or the Web. Although the animation work can be a lucrative business, still images are usually the most cost-effective, especially on a freelance part-time basis.

With a full-time job as well, it's often difficult to fly around the country baring hard drives packed with thousands of images or invest hours building and rendering complex animations. Thanks to the Internet, high density floppies and high compression file formats such as Jpeg, it's usually quite easy to transfer even the largest individual files.

For print work I rarely go below 1024 x 1024 and for a magazine cover image a pixel count of 2,000 in the vertical axis is a minimum. The reason being that most ray tracing programs such as Lightwave render at 72dpi. This is fine for video, but as most

publishers output film at 300dpi or above, the image needs to be at least three times the normal scale to ensure pin-sharp output at the printers.

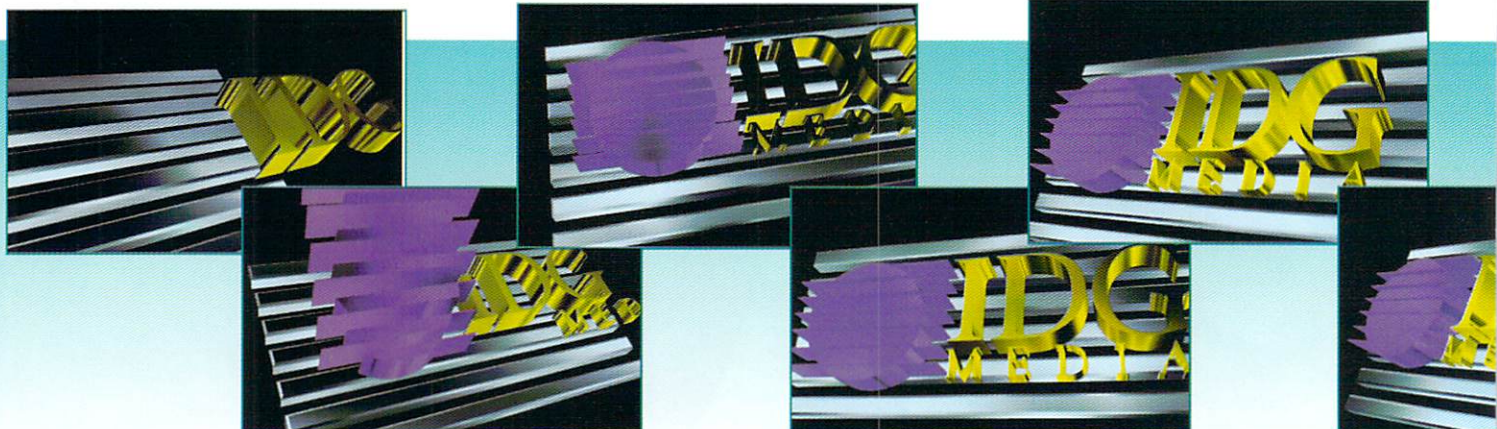
Needless to say jpeg is the ideal format for this kind of work, however there is a downside to jpeg that you should be aware of. Although it is often a life-saver, repeated saving using jpeg compression can introduce faults or artefacts into the image. Unlike IFF24, jpeg actually reduces the amount of information in the image in order to achieve it's compression. In reality this doesn't mean there's any perceivable damage on the occasional jpeg save.

However, the danger comes if you fall into the habit of using jpeg while working on an image. The more saves you do, the more likely artefacts will creep into the image. For storage and transport it's perfect, but don't get carried away with saving space – it can become a false economy.

ESSENTIAL HARDWARE

Obviously with the huge range of Amiga hardware and software available, listing the lot is out of the question. So I'll concentrate on the elements you'll need to do business, rather

Thanks to the fax, you're provided with the ability to both send and receive ideas and proofs of work in progress



YOUR FIRST BIG BREAK

For the newcomer it's always difficult to land that first all-important project. Well, the vital first step is to build a portfolio of your work. Probably the most realistic approach is to undertake one or two jobs for free or at break-even for a big name. (It's important that there is a clear understanding that the freebie is a one-off and that the subject of payment should remain strictly confidential.)

If you do adopt this approach it's important to get as high a profile job as possible and make sure you get a reference and, if possible, a credit on the finished job. The bigger the company name, the more impressive it will appear to potential employers.

Assuming you've landed that first contract, the next step is to set your stall out for future employers. It's

vital once you're established that you stick to your guns when it comes to cost. A good businessman/woman will always try to barter the price down. And obviously it's occasionally worth leaving a small margin in your quote to accommodate a compromise. However, one of the biggest mistakes you can possibly make is to crumble under the pressure and agree to work at break-even on a regular basis.

Trying to get a fair price is almost impossible if you've have a reputation of being cheap. If a potential client won't pay a fair price, don't do the job - it's that simple. If you're good enough, you'll get what you deserve more often than not. Most individuals and companies are willing to pay a fair price for qual-

ity results, but that doesn't mean they'll like it...

Secondly, it's important when making a presentation to a potential client that your work is in a format that they can handle. It's useless walking into a business brandishing an Amiga floppy. Always present on either Mac or PC.

For still images opt for either Jpeg, Pict or Tiff formats. For animation, the best option is QuickTime as this will work equally well on both Macs and PCs. Again ShapeShifter can be vital at this stage.

Obviously liaison with the client is vital to ensure you make a suitable first impression. As time goes by it's important to develop a working knowledge of both Macs and PCs, especially in relation to file transfer and favoured formats.

than those which will actually generate the end results.

Perhaps the most important of all has to be a fax modem and an Internet account. Thanks to the fax, you're provided with the ability to both send and receive ideas and proofs of work in progress. It also overcomes two of the major stumbling blocks when attempting to incorpo-

rate Amiga graphics into a business world dominated by the PC and Macintosh.

Firstly, the modem element can side-step the problem of transportation and hardware compatibility. All too often your latest creation will be just 50K too big to fit on a PC floppy. But thanks to the infinite transfer potential of a modem it wouldn't matter if the file was 5Mb too big.

The only limitation is of course the impact on your phone bill - assuming haven't convinced the client to dial into your system. Secondly, thanks to the format conversion options offered by the Amiga's huge arsenal of image processing packages, quite literally any file type can be delivered directly.

Obviously when it comes to mass file transfer, a modem becomes less attractive, however there are alternatives. Arguably the best all-round solution to the problem of format incompatibility and file transfer is the wonderful ShapeShifter Mac emulation package from Christian Bauer.

Thanks to this excellent emulation your

Amiga can instantly transform itself into a Mac. Add an external hard drive and you have an instant solution to the transportation problem. Simply take the external drive to your client and copy your creation directly.

Opticals such as the Zip drive are particularly good for long distance contracts as you can post the cartridge - obviously it's a good idea to check what they can handle beforehand...

Another must is a good printer. In an ideal world you'd have two. A laser printer for letters, flyers, invoices and other administration and a dedicated graphics printer with which to display your wares at their colourful best. Obviously this isn't an ideal or likely situation, so I'm afraid it's a question of priorities combined with cash-flow.

Finally, it's essential that you invest in some sort of 24-bit display device. Although Ham8 is great, it simply doesn't match-up to a true 24-bit display. The choice is yours, but it's worth ensuring that the board and accom-

FIRST STEPS

Before starting, or even agreeing to a job, give yourself some time to think things through. It's all too easy to agree to a job and then dive straight in, only to discover half-way through that you've gone about it completely the wrong way. Once you've decided on an approach, sketch it out on a piece of paper and fax it through to the client.

If everyone agrees with your approach it's time to get down to the serious work of transforming your concept into a creation. If the job revolves around a real-world object that needs to be incorporated into the work, it's essential to get either the item itself or detailed photographs.

It's incredibly easy to trust to memory and model away. Believe me this is a big mistake... No matter how well you know the subject matter it's virtually impossible to draw or model an object without overlooking some vital detail. And I can guarantee the client will spot the error and quite rightly demand that it's done right before they'll sign the cheque.

WEB WORK

Although the Amiga is a long way behind the front runners when it comes to Web development, that doesn't mean you can't apply the Amiga based skill and application to Web related work.

In order to be effective in this area something like ShapeShifter or a form of PC emulation is essential. The best option is probably ShapeShifter Mac emulation courtesy of the impressive array of Freeware and Shareware applications available on the Mac.

The most important tools are Graphics converter and GifBuilder, both of which you can find on any Mac FTP or software archive. Graphics converter is also essential for more general use as it has the ability to batch process files from one format to another - although you'll need to register the Shareware version to make the batch processing side of the soft-

ware active. GifBuilder, on the other hand, is ready to roll straight away. All you need to do is convert your IFFs to Gifs using Graphics Converter and then load them into GifBuilder to produce an animated Gif.

As for building and testing Web pages it's well worth using Netscape and Internet Explorer on the Mac to test your finished scripts as the vast majority of users will be viewing your creations using one of these browsers. Remember commercial work is all about PCs and Macs, so if you only test your pages using an Amiga based browser you're asking for trouble. More importantly, both IE and Netscape can handle the latest Web related add-ons such as frames, tables, Java, Java script, Shockwave and whatever else. If the client wants these features in their site it's important you can deliver the goods.



A combination of Amiga and Mac animation and imagery rendered down to depths and resolutions that work well on the Web



A fairly typical flying logo animation used as a front end for Mac based presentations on both portables and tape

▶ panying paint package you pick has both an alpha channel and some form of virtual memory.

The alpha channel is an absolute must when it comes to blending elements and touching up finished material. As for virtual memory, it becomes invaluable on larger images. If you are only ever likely to work in video resolutions, or smaller, it isn't a problem. However, if you land a commission to produce a cover image for a magazine, or in fact anything that demands very high resolution, it's a must.

As you are no doubt aware, most 24-bit boards have a range of pre-set resolutions. If you can't scroll or select an area larger than the maximum touching-up, a final can be a nightmare and sometimes impossible.

MOVING IMAGES

When it comes to animation for either tape or computer playback, you'll find yourself faced with a whole new collection of problems and pitfalls, not least of which is the ability to transfer the end results.

When it comes to tape based productions the holy grail has to be a Draco – this is the ideal solution, allowing you to transfer broadcast quality digital video directed to the recording system of the clients choice in either a composite or S-VHS.

However, if you don't have direct access to single-frame recording equipment it's worth

CLARITY IS THE BEST POLICY

It's vital that both you and the client are completely clear as to what's required to make the project happen. Once the ground rules are established make sure it all goes down on paper including deadlines, delivery dates of materials – to both parties – and last, but not least, the agreed payment.

It's also worth making some enquires about any accounting restrictions. Some larger companies require VAT registration from suppliers and may also take anywhere between 30, 72 or 90 days to pay your invoice. It's sometimes worth getting a name in the accounts department, as the person commissioning the work may not have a clear idea of company policy regarding the payment of invoices.

Equally important is to get a clear idea of how they want the end results to look, ensuring that any extra elements are included in the brief. Where will the text appear, are there any flashes to be added and so on.

Right through the project keep in close contact with the client with regular updates on your progress and

their requirements. But most important of all, never stray from the brief. It's very easy to get carried away and do what you think is best – unfortunately the client may not agree. Remember, the customer is always right

Another important point is to work with the person at their end who will be dealing with the work when it arrives. Make sure you can deliver the materials in a form that he or she is happy with. If the art guy or gal at the sharp end can simply flow your creation into a template you'll score some valuable brownie points. Keep the workers happy and the management will be a lot more likely to keep commissioning.

Once the project is underway, by far the most important element is time. The client will be working to a deadline and they'll be expecting you to deliver the goods as promised.

There's no point in griping about hardware or software failures. If you miss a deadline, you're a liability and nothing more. It won't matter how good the end results are, if they're not in on time you'll be lucky to get paid and even luckier to land another commission.

Thanks to the explosion of CD-Rom there is a huge market for intros and other graphic interludes.

enquiring whether the client has access to such facilities. If so, you could take your work to them and download your files courtesy of an external drive.

Having mentioned the videographic uses of animation, it's worth mentioning that there is another market that could prove profitable to the animator. Thanks to the explosion of CD-Rom there is a huge market for intros and other graphic interludes.

Examples of this being the IDG and Granada logos which were produced for a corporate presentation and interactive CD-Rom attraction within a theme park.

In addition there's a growing market for on-line education. Due to the expense and effort involved in producing and updating manuals and other traditional learning materials, many companies are turning to graphics. For example, a number of companies are now using computer animation to illustrate their products or to help explain how to install hardware or software.

Thanks to a five second animation, the need for a whole chapter of expensive text is removed. All the user has to do is watch the anim spool from hard disk or floppy and the mystery is removed.

Chips always go in the right way, nuts and bolts slide into the appropriate place and expensive tech support is slashed in a matter of seconds. This may not be glamorous but it pays well and usually leads to regular work.

AC



GETTING PAID

Actually getting paid is often one of the trickiest things about freelancing. It's not that the client is unlikely to pay, it's simply that they'd prefer to keep their cash as long as possible. This is why it's so important to get written confirmation of exactly when you can expect the cheque.

There are a few alternatives to the traditional invoicing approach. For example, with new clients you can ask for COD (cash on delivery). Another option is to insist on at least partial payment in advance. This can often be an essential on larger videographic productions which may require a substantial investment during production.

Once you're familiar with the company in question it's sometimes wise to drop the COD or partial payment options and join the unwashed masses in the 30 days-to-pay department. However if you do take this option, keep a close eye on the calendar and indeed the bank manager. An obvious stumbling block for

artistic work is exactly how much should you charge for the work itself. The first thing is to calculate the actual cost of your equipment, software, and general operating cost. The first two usually depreciate over a three year period, meaning they'll have to be replaced entirely in year three.

Once you've calculated your operating cost, the next job is your time. Work out a minimum hourly rate. Next, add any additional hardware or expenses you're likely to need or incur during the production. Look at the opposition and try and establish how much it would cost the company to get the job done elsewhere.

Finally, try to find out what the overall budget is for the project and how the client plans to recoup their investment. If the project is commercial it's sometimes worth trading up-front partial payment against a profit share in the product itself – for smaller operations this is often an attractive proposition.



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Epson Stylus 600 & Canon



Epson Colour Stylus 600
Without a doubt, the Epson Colour Stylus 600 is the best desktop printer when it comes to value, quality and performance. Just make sure you purchase a print enhancement package to complement these qualities, and plenty of spare ink

Over the last few years desktop printers have steadily improved to the point where photographic quality output is possible on some of the top models. Two of the best come from Epson and Canon and recently I had the pleasure of using both in anger. The two printers in question being the Epson Stylus Colour 600 and the Canon BJC-620.

Both printers look quite similar. Paper is loaded from the top and follows a fairly

The best quality from both the Canon 620 and the Epson 600 came when using GraphicsPublisher, part of the TurboPrint 5 package. Similar results can also be achieved using the picture printing application that comes with Studio II



Looking for the best printer on the market. **Larry Hickmott** puts two of the finest models available to the test and comes up with some interesting results

straight paper path to the front of the printer. The important differences between the Epson and the Canon are twofold. On the Canon 620, the inks are held in separate containers, which means you only have to replace the ink that runs out. If you do a lot of colour printing, this is very important and although Epson dispute the fact, I expect that consumables on the Canon 620 will work out cheaper in the long run.

The second major difference can be found in the printers' control panels. The Canon 620 still has a full set of buttons along the top of the printer while the Epson 600 has only a couple of buttons, making it simpler to operate. In use, I did end up preferring the Epson approach which is to leave it to the software to control most of the printer's functions and only when you need to clean the print heads or load/eject paper, do you need to touch the printer.

There is a third difference, although it will only affect those with a Macintosh or Macintosh hardware in their Amiga. The Epson 600 also has an Appletalk port on top of the normal parallel one while the Canon BJC 620 only has the parallel port for Amiga and PC use.

available that will drive the Canon 620. It is also available on Aminet. This free driver won't give you perfect results first time if the tests I did are anything to go by. Compare this to the near perfect results I got first time using CanonDisk's commercial cousin, Studio II Professional (01525 718 181) or TurboPrint 5 (01908 370 230) and you understand that nothing is really free in this world.

The good news is that you can get the registered version of CanonDisk for only £20 from HiSoft, and that I expect will give similar results to those produced by Studio II Professional. As for ease of use, I still prefer TurboPrint 5 which customers tell me is the easiest of the print enhancement packages to use.

With the Epson Stylus 600, there is no free printer driver available. You do however have three commercially available choices; EnPrint (01642 713 185), TurboPrint 5 and Studio II. Of these, I haven't seen a recent version of EnPrint (which is the cheapest option) and so can't say how well it works with the Epson 600. I have however been sent TurboPrint 5 and Studio II, and both produce excellent results. Certainly on par with the output from the PC, although only when using the picture printing applications in either TurboPrint or Studio.

This quality is achieved despite both packages not having a specific driver for the Epson 600 at the time of writing. In testing, I used the Epson 500 driver and it worked well even though it does not support the 1440 dpi resolution that the Epson 600 is capable of. This will no doubt come in time.

AMIGA LANGUAGE

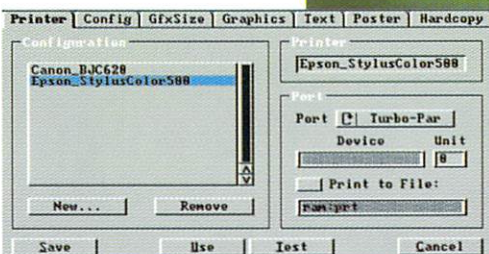
We now come to the really important part, the bit where we look at how these printers talk to the Amiga. Both attach via normal Centronics parallel cables – the sort generally used for attaching printers to PCs. Next we need a printer driver and this is where it gets a mite complicated. First of all, forget about your standard Amiga printer drivers because they're useless as far as modern printers go.

If you buy the Canon model, there are free specialised printer drivers (01429 521 009)

THE RESULTS

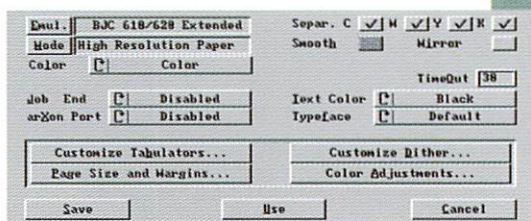
At the end of the day, the thing that matters to most is the quality that each printer can

Although TurboPrint 5 had drivers for the Canon BJC-620, I had to use the Stylus 500 driver with the Epson 600. I expect both Studio and TurboPrint to have Stylus 600 drivers soon though



Canon BJC-620
The Canon BJC-620 is an excellent printer in its own right, but when compared to the Epson Stylus 600, falls a little short in a number of key areas such as quality and speed

BJC-620



You can get a free printer driver for the Canon 620 but for the best results, you will have to register this free driver to get an upgrade which costs £20.

produce. With both printers being used at 720 dpi, it was interesting to see that with photographic output, the Epson 600 is better in terms of the fine detail it can reproduce.

This, I was told at a recent press briefing at Epson, is down to the control the Epson 600 and the Piezo technology it uses, has over dot size and shape. Put simply, because the Epson 600 uses electric current to create the dot of ink via piezo crystals, it is able to push and pull the ink to manipulate the process so it not only creates a perfectly shaped dot with very little misting (ink spray around the dot), but the Epson R & D folk have also brought down the size of the dot they can place on the paper to as low as 55 micron, which we are told is not far from being so small as being "invisible" to the human eye (which is 40 micron by the way).

The upshot is that the Epson 600's photographic output is better than the Canon 620's. When the Stylus 600 drivers become available to produce 1440 dpi, (using Epson's Super Micro dot) I expect the Epson 600's quality from an Amiga to be even finer. That isn't to say that the output from the Canon 620 isn't good, because it is. It just fails to match that of the Epson model.

SPEED DIFFERENCES

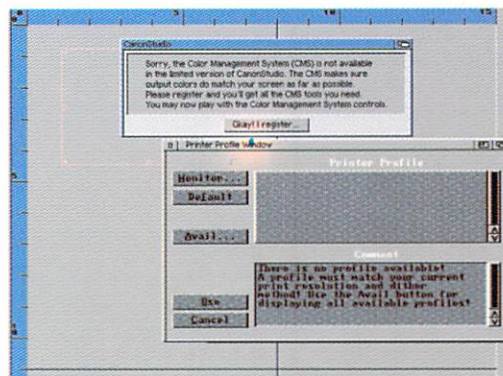
However quality isn't the only criteria used to judge a printer. Speed is also important and here too, the Epson 600 wins the race – or at least the one race I set them which was to print a full A4 image from an '060 based Amiga using TurboPrint 5's Graphic Publisher. The Epson was very much quicker and although the Canon was no slouch, the Epson still managed to do it in almost half the time. When you consider I used the same Amiga, the same program and page and even

the same dither and resolution settings, you can see that the test was as fair as we could make it.

As you might have guessed, the Epson 600 is doing very well so far in this review and it gets better because the Epson 600 is actually around £30 cheaper than the Canon BJC-620 – going from the prices I have to hand. A call to Canon tells me the price has just been slashed but none of the retailers could let me know what this would mean to high street prices.

What you also need to remember is that if you take the £30 you save on the Epson 600 and use it to buy a printing enhancement package, the total price is slightly higher than that of the Canon model although, as I have said, the free printer driver that you can get for the Canon 620 isn't the be all and end all. You will probably find buying the registered version a big help in improving the quality of the output. The upshot of all that is, in the end, the price ends up roughly the same.

So which is the best? Everyone will have different priorities in judging a printer, but with the Epson 600 ahead in so many areas, it's hard to see anyone choosing the Canon 620 above it, unless having separate ink containers is terribly important. That's not to say the Canon 620 is bad, it isn't. I have been using it for two weeks doing all the proofs for my own magazine, and have been very pleased with the reliability and output quality. I certainly doubt anyone will be disappointed with the Canon, it's just that it isn't as good as the Epson 600 in many areas and that's why, if I was asked to recommend one, it would be the Epson 600. In fact, I've already ordered the Epson Stylus 1520, an A2 model based on the same technology used in the Epson 600. At this point in time, you could say the Epson Stylus can't be beat – and you'd be right!



The Colour Management System (CMS) which makes CanonStudio a lot easier to set up for fuss free printing, is not available with the free printer driver you can get for the Canon BJC-620.

Bottom line

PRODUCT DETAILS

Product	Canon BJC-620
Supplier	Canon UK
Price	£351 Inc VAT
Tel	0121 666 6262

SCORES

Ease of use	93%
Implementation	90%
Value For Money	88%
Overall	90%

PRODUCT DETAILS

Product	Epson Stylus 600
Supplier	Epson UK
Price	RRP £329 Inc VAT
Tel	01442 61144

SCORES

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

Whether they be positive or negative, all the letters we get want the same thing – the **Amiga** bought and back in the shops



AMIGA OR PC

I too am worried about the Amiga. I have an A500, A1200, CD32 and a A2000. I also have a 486DX4, all in a full tower I built myself for \$1200. You may ask why?

Well the reasons are simple, support. I have a digital camera connected, a colour flat bed and Cannon BJ620 printer, all new. None of these peripherals would hook up to my Amigas and work without alot of trouble, if at all. If I did manage to get them to work, it was not at their full capacity.

I am a general contractor and project manager for a single family home subdivision. The only programs I can use on my Amiga are Procalc (no longer made) and FinalWriterII that I use to make hard copy bills and to keep track of costs and do the payroll.

The PC I use to do everything else including War Craft II, Command and Conquer and Duke Nuke Em. The Amiga is not used for games now, is something wrong with this picture? I don't mean to sound pro PC because I love my Amigas and they are still better and easier to use than Windows 95 and I will never sell them, I just need support

Tom Schiller, schiller@netnitco.net

It is a sad fact that just about all peripheral companies completely ignore the Amiga when it comes to any kind of software support. The only one of note is

WRITE IN!

If you have something you need to get off your chest then put pen to paper and write to ESP, Amiga Computing, Media House, Adlington Park, Macclesfield, SK10 4NP. You can also Email us at ESP@acomp.demon.co.uk We have various software bundles to give away for the best letters (please indicate whether you'd prefer serious software or games). We do try to reply to all Emails and letters, but at busy periods this is sometimes not possible so please bear with us



Cannon that will supply you with an Amiga print driver for its printers if you ask them, but it is not written by them and is an unregistered shareware program. Unfortunately it looks as if this is the way things will stay.

We have to help ourselves as no one else is going to help us. They do not see the Amiga as a worthwhile platform to support. Even though, as we know, it is perfectly capable of using scanners, printers, modems and digitisers to their full capabilities. What we need are existing programmers and Amiga companies to support these devices themselves.

Luckily this has already happened, to a certain extent. ImageFX has always provided excellent support for scanners. Miami has a built in list of hundreds of standard modems for simple set up.

TurboPrint and Studio II have done their bit for the best quality Amiga prints and, more recently, ScanQuix has done the same for scanners. The latest development is with the QuikCam, a low cost PC product that gives you a video camera connected to your computer. The company that makes the QuikCam was never intending to produce Amiga software, but there was no reason why an Amiga programmer could not write the software themselves, and that is what happened.

So it may be the case that Amiga does not get the support it deserves, but then why not just create that support ourselves? It would even be worth while approaching the original companies and get them to bundle this Amiga software with their peripherals.

PATIENCE IS A VIRTUE

Back at Christmas time I finally broke down and got a copy of TermiteTCP and iBrowse. At first I was happy and quite impressed with its performance.

Now I am feeling great frustration and anger. Everywhere I go "You must have frames", "This page requires Netscape or Microsoft explorer". I figured that soon an upgrade would be out. I was wrong. Not only have none of my e-mails to Omnipresence been answered, but I find that all the other Amiga Web browsers are getting these great features such as frames and better use of Chip memory, while the people at Omnipresence just sit there. Does anyone know when they are going to get a move on?

darkman@i-d.com

As you can see in this issue, frames have made it to iBrowse. Unfortunately I cannot agree with you, Voyager only just beat iBrowse as the first frame capable Amiga browser by a couple of weeks and I personally think iBrowse does a better job of laying out pages.

You should also remember that Omnipresence probably get hundreds of e-mails each week all saying the same thing, "When's the next version of iBrowse coming out?", "Why don't you add X to iBrowse?" and if they had to answer them all I doubt they would have time to do anything else, such as updating iBrowse.

Personally I am amazed Amiga browsers have kept up as well as they have (Java script is apparently next on the cards) particularly if you remember Netscape and Microsoft Explorer must be backed up by a huge programming team, compared to the single programmer for Voyager and the small group writing iBrowse.

The real bad news is that with the latest release of Netscape 4, there are now cascading style sheets which will be another thing = the poor old programmers will have to try and implement. If the first buggy half-finished Netscapes are any guide to go by, it might take them a little while to do.

OWNING IS BELIEVING

Some months back, I wrote you a letter which you printed (thanks!) entitled 'Seeing Is Believing.' At the time I mentioned that I intended to wait until Power Amigas were available and also indicated that other Mac users were similarly interested in such a machine.

As it turned out, I put my money where my mouth is much earlier and purchased a QuikPak A4060T. Among other things, I sold a well-specced P166 PC to help finance the purchase. I guess this means I'm doing exactly the opposite of some Amigans who are leaving the scene.

I'll confess that at first I had some troubles which caused me to second-guess the purchase. None of these have anything to do with the machine itself, which works perfectly. Instead, I lacked the proper display terminal. Without the ability to display Amiga screen modes, the machine basically just sat there for over a month, doing nothing. These problems were finally resolved by the arrival of a CyberVision 64/3D card and, most importantly, an AT M1764 monitor. As you can see, I have no intention of skimping on my miggy! At this point, I also have a Scan Doubler on order for the CV64/3D.

DIFFICULTY

Another thing I soon learned is that AmigaOS is a bit more difficult to use for a newbie than MacOS, especially in terms of installing software which requires some knowledge of the Shell. Now that I've had a chance to compare the two, I see MacOS as basically a power tool and AmigaOS more like a musical instrument.

It is obviously more difficult to master a musical instrument than a power tool, but for certain folks the instrument will deliver much deeper satisfaction in the long run. I can tell you that I have quite a ways to go with AmigaOS, but I greatly look forward to the journey.

What I'm saying is this, I knew the Amiga was superior to the PowerMac when I ran AMountains and a music Mod off a CD-ROM while simultaneously rendering three fractals with ChaosPro. The Amiga did this without any noticeable strain. By contrast, the PowerMac cannot even keep a 'magic eyeball' extension running smoothly while launching a program.

My PowerMac is a 9500 clone with a PowerPC 604 running at 132Mhz. It generates nearly 200 more MIPS than the '060/50 in my Amiga. It has a faster motherboard and its PCI bus is nearly four times as fast as the Amiga's Zorro. Despite this it opens windows and launches programs more slowly than the Amiga.

Also, any volume searching tool I've tried on the PowerMac is much more sluggish than MultiView, whose response is instantaneous. The PowerMac is consider-

ably quicker at vertical scrolling through documents, and its image viewers draw large images to screen much more rapidly and faithfully than anything I've yet tried on the Amiga.

Even so, when running on the CV64/3D, the Amiga's snappiness is at least comparable at every task and it performs many tasks much more rapidly. However, the incredible multitasking of the Amiga puts it head and shoulders above the PowerMac. Not only does this multitasking mean I can perform certain large jobs very rapidly, it is also more fun and exciting than using the MacOS.

Also, thanks to terrific British magazines such as yours (I'm in Seattle, USA), I have a tremendous amount of software at my disposal. I've done my first raytrace on the Amiga. I've used all kinds of creative software, too, things that would cost thousands to duplicate on the Mac or PC. For less than \$100 I have Aminet Set 4, The Utilities Experience and The AGA Experience Volume 2. Together, these contain enough software to keep me busy for the next year!

The bottom line is this, my early interest in the Amiga was primarily video oriented. Now that I have it, I plan on making it my primary platform. I'm a new Amigan and already a true believer. I will continue to spend my lean amount of cash on future upgrades, such as a PowerUp board or whatever else I may need (like a Toaster/Flyer, obviously!). Eventually, I'll probably purchase a second Amiga, perhaps a Siamese-type system. I suppose I should urge all Amigans to keep sticking it out until new machines with faster hardware are available, but everyone should make their own choice and do what they will.

Myself, I plan on blabbing about the miggy to everyone in earshot. After all, this is the most exciting computer I've ever laid

my hands on, and I'm damn sure not giving it up! Finally, I'd like to extend my thanks to the good folks at Zipperware, a real Amiga store on the Seattle waterfront. They've been exceedingly friendly and helpful in getting me started, and not surprisingly I buy Amiga Computing (and lots of other stuff) from them every month.

Steve Duff, sduff@wolffnet.com

It is really refreshing to hear a truly positive letter from an Amiga user, particularly one that has been poached from the Macintosh. It is true when you talk about the Amiga as being a musical instrument, particularly compared to the Mac. Macintoshes are designed for the lowest common denominator, which is good in certain situations, if you are an artist you just want to spend your time doing art not worrying about system conflicts.

Installing software has always been a problem with all computers. The Mac has got the processes almost perfect, with the most a user having to do is point a file requester where they want the program. Since Workbench 2 the Amiga has improved dramatically, with the Installer program giving a easy way for all levels of users. The Mac OS may be slow, but there are things a future Amiga owner can learn from it.

I do have to say, that having used Workbench, Windows 95 and System for a good while now the Amiga still 'feels' the best to use. When launching programs and moving through windows you are very rarely left waiting around, even with the slow processors Amigas are still stuck with. All this is a testament to how efficient the operating system is. When the PowerUp boards do finally arrive, I doubt you will want to go back to your old PowerMac. In fact why not just run one on your Amiga using Shapeshifter?

AMIGA SITUATION

I think I am the last living Amiga user in Japan! I am American and have been here seven years while serving in the U.S. Navy. In that time I have seen Amiga magazines disappear from the Navy Exchange, followed by the Amigas themselves, only to be replaced by Macs. Adverts in the base newspaper for used Amigas disappeared long ago and I have never even heard of any Japanese people using Amigas.

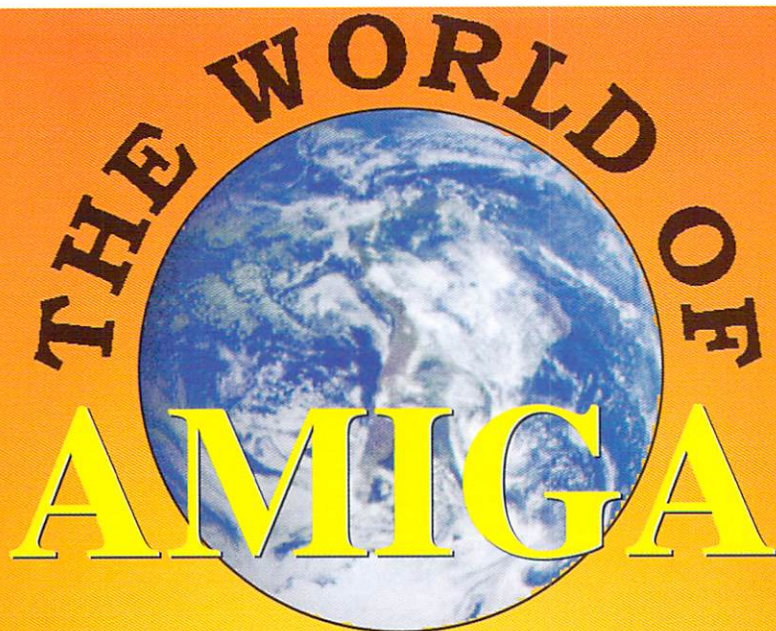
Well, so much for my sad situation, things should get better, in about 'Two more weeks'.

Richard Moore, rmoore@Japan.Co.Jp

It is very disheartening to see the Amiga disappearing, but this is because we are living in a Microsoft controlled world. As soon as you jump on the Internet you soon see a whole different

world. If I said the Amiga was positively thriving I would not be exaggerating. Along with the traditional Amiga IRC and news groups (which are some of the most heavily used) Amiga Web sites such as the Amiga Web Directory and amiCrawler constantly have new Amiga related sites added to their lists each day. This proves the Amiga still generates a lot of interest, and on Browserwatch in the list of machines used to access the Internet, the Amiga is running a close third place, with iBrowse being the third most used browser.

I know it is hard waiting and waiting and waiting that bit longer for someone to buy the Amiga, but that is the way liquidators work. They will wait until they get the best possible price, probably in a couple of weeks, yer right.



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Going Dotty

On its last release Turbo Print received a blue chip, will this latest version get the same

In computing, bits are everything. The more bits the better and when it comes to printing on the Amiga, 12 bits are just not enough. That is only 4096 possible colours or 16 shades of grey, including black and white. In the words of some kid, please sir can I have some more?

Unlike that poor unfortunate child, yes you can. TurboPrint is a system that enhances your Amiga's printing abilities or more precisely, replaces the Amiga's original printing routines for its own far superior ones. As TurboPrint provides a replacement for the

original printer device, it works invisibly in the background, so once installed you will never know it is working (apart from the improvements in print quality).

When I first looked at TurboPrint almost a year ago I was very pleasantly surprised by the huge improvement in print quality I got out of my trusty old HP-DeskJet 550C – a printer I am sure one or two of you out there has.

I was expecting an improvement in the colour output, as this could not get much worse than the traditional Amiga drivers produces, but the whole quality was excellent. What really surprised me was that even grey scale output was greatly improved. If you like numbers, colour output is in true 24 bit and greyscale is upped to 256 shades. So you can compare 16 million colours against the

normal 4096, and 256 to 16 normal shades of grey.

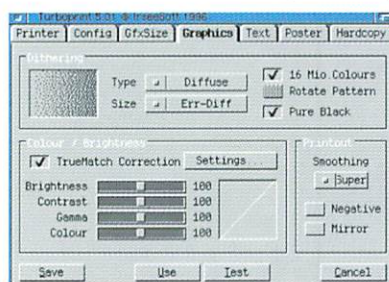
Unfortunately, as with a lot of other Amiga software, this is not as major an update as the jump in version number may suggest. All that has been added are the changes to the PrintManager and a number of new print drivers for the latest HP printers 6xx series and the support for the new Epson Stylus printers.

If you already own TurboPrint there really is not enough here to warrant upgrading, the GraphicsPublisher is nice and does its job but hardly offers anything new over the original PrintManager. The only reason would be for

the new printer drivers, if you are considering one of these new printers. On the other hand, if you do not already own TurboPrint and you feel your prints are lacking, it is exactly what you are looking for.



Oh tell me what you want, what you really really want. I want progressive Jpeg support, zig-a-zig ahhh



GRAPHICS PUBLISHER

The last version of TurboPrint included a utility called PrintManager that allowed pictures to be loaded sized, cropped and printed, providing the best possible quality. With this latest version PrintManager has been replaced with GraphicsPublisher. This program that allows images to be loaded sized, cropped and printed, providing the best possible quality.

Sound familiar? That is because, to all intent and purposes, they are the same program, even the project window says PrintManager, with only the program icon and about requester trying to convince me otherwise. To be fair there is not much point in IrseeSoft expending too much effort on developing PrintManager/GraphicsPublisher beyond what it already is: A handy straight forward picture printing tool.

The biggest plus on this version is the addition of virtual memory so images of any size can be handled, and it can also handle multiple images on a single project. These can be independently sized, moved around and a new cropping tool allows square sections of a loaded image to be selected.

All this works together very well, with all the extra settings windows and cropping occurring independently of each other. My only gripe with GraphicsPublisher is that though it supports all the Amiga IFF formats, GIF, PCX and basic Jpeg pictures. It has not been updated to support the new progressive Jpeg types that are rife on the Internet and would force you to use a secondary program to convert them and would sort of make a point of GraphicsPublisher redundant.

Bottom line

REQUIREMENTS

RED essential **BLACK recommended**



WB.204



RTG card

PRODUCT DETAILS

Product	TurboPrint 5
Supplier	Wizard Developments
Price	£49.99
Tel	01322 527 800

SCORES

Ease of use	90%
Implementation	90%
Value For Money	80%
Overall	86%

AMINET 17

The Aminet CDs keep coming in thick and fast. Aminet 17, the February CD compilation, has everything you'd expect, apart from any noticeable theme. Most of the CDs seem to focus on some aspect or other of Aminet downloads, this one however is a little different. Instead of focusing on mods, games or demos, this CD appears to cover each area equally.

The disk includes 237Mb worth of demos, 82Mb of games and 197Mb of pictures. The games include a wide variety of programs ranging from the good to the ludicrously appalling.

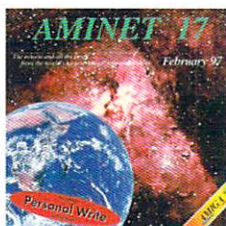
As usual, the mods and music section is pretty good. The software team Ambrosia (the team behind Vulcan's latest Doom clone, Genetic Species) is represented by its hilarious James Herriot meets the Prodigy demo. The demo starts off quietly circling a puzzled looking cow. As the music strikes up, the camera darts for the cows back passage, after which we see all manner of excellent effects that make for a refreshing change from the usual spinning cube with lifeless music.

In addition to Ambrosia's priceless journey through the arse of a cow demo, there is a 230bpm (imagine a two stroke engine at high revs) techno tune from an irate Italian who is apparently angry at Italian dance music being crushed by Robert Miles type progressive tosh.

On a more serious note, it is worth mentioning that the CD does only contain 50Mb of business software and 54Mb of communications software – combined this is only half the total demos on the CD. This was pretty much the same for the last two Aminet CDs.

This isn't a criticism, however. Although there isn't a huge amount of serious utilities on the disk, what is there is quality stuff. This CD has a full version of Cloanto's Personal Write word processing package, which alone, would make the CD worth buying.

As ever Aminet's latest release is a useful and interesting CD. However, if you're only going to buy one Aminet product this month, you might be wise to consider Aminet 4.



Laser guidance

Hugh Poynton takes a look
at the latest CD releases

AMINET SET 4

Although twice the price, Aminet Set 4 is unmissable. The set consists of four CDs covering all aspects of Aminet since Aminet 3 was released – well over 4 Gigs of software.

The first of the four CDs is made up of business software, hard disk tools and utilities and the second, pictures and animations. There is a staggering amount (nearly 1200 images) of 3D animations on the Gfx disk including a prodigious amount from Star Trek fanatics.

The fun disk is pretty good and even contains a game from the deep recesses of my childhood – Blitz. Anybody who didn't have a Vic-20 might dismiss the game as useless load of old pap. However, I would disagree. Although very simple, the game is really tense. You have to drop bombs on a city (very PC) in order to clear a landing strip for your descending plane. Timing and planning is everything and the game can be harder than playing Wipeout blindfold.

Other games delights include Kennedy Approach. It seems the point of this game is to impress upon you how stressful being a Air Traffic Controller must be. After playing

this you'll be damn glad they don't use Amigas at Manchester Airport. Your job is to direct various planes to land at Kennedy Airport. The



Our Captain Tina's boldly gone...

only problem is that there are loads of them and they take quite a while to respond to your directions.

The real jewel in the crown of this box set however, is the file management utility, Directory Opus 5.11. We use the Opus management system on the Amigas in the office and it's easy to use and well laid out. Rather than buy Aminet releases every couple of months, I would recommend investing in this excellent box set and saving yourself the hassle and money.

Bottom line

PRODUCT DETAILS

Product:	Aminet 17
Supplier:	Schatztruhe
Price:	£14.99
Phone:	0500 131 486

SCORES

Ease of use	80%
Implementation	80%
Value For Money	95%
Overall	83%

Ooops, broken it



Bottom line

PRODUCT DETAILS

Product:	Aminet Set 4
Supplier:	Schatztruhe
Price:	£29.99
Phone:	+49 6171 85937

SCORES

Ease of use	80%
Implementation	80%
Value For Money	90%
Overall	86%

HIDDEN TRUTH

I've got this weird theory. Admittedly it's a bit strange and when I tell people they just nod politely and say "OK Hugh, whatever". My theory is that JFK was shot by some nutter with a crap rifle. Look at the evidence. He was in a building with a gun just near where the prez was and, hey presto, Johnny gets a lesson in why not to buy a convertible. Not just coincidence, I think.

Despite the fact that I am about as far from a conspiracy theorist as it is possible to get, I was still secretly chuffed at getting a gold copy of Sadeness' new CD *The Hidden Truth* to preview. It boasted (in its unfinished form) over 600Mb of very interesting but most probably untrue information.

I didn't realise quite how interesting it was. The thing is, *The Hidden Truth* manages to combine completely fruit-loop, off the wall, Elvis is an alien stuff next to material that is meticulously researched and drawn from very respectable sources. For instance, on one page there might be a hilarious Ghost Hunter's Web page complete with the most unrealistic photographs you have ever seen of one of the denizens of the 'other side' (some badly blurred electrical flex), while on another you will find details of secret US military planes and their funding drawn from some surprising, not to mention respectable, sources.

The Secret History Of The USA is particularly interesting. Much of the material is drawn from the prominent left wing libertarian Noam Chomsky. Although what you read probably should be treated with a pinch of salt, the page allows you to rifle through the US' dark secret past. Many of the facts are difficult to deny and quite damning. The participation in the Nicaraguan civil war of US and US trained units and the attacks on Vietnamese 'strategic hamlets' (or to use a less euphemistic term, refugee camps) in the

1964. A fair amount of quite convincing evidence exists to suggest that the US wasn't the nicest country to cross during the cold war.

Also included are details of technological developments which few people have been afforded rare glimpses of in recent years. For instance, sightings in Scotland and other parts of Europe of a flaming 'flattened football' - thought to be a terrifying sounding unmanned external combustion airplane. This craft apparently squirts hydrogen fuel from tiny perforations half-way down its length that combust at supersonic speeds, driving it to an even faster hypersonic speed of mach 10.

Less serious topics are also covered including ghosts, Loch Ness and alien settlements on Mars. However, for me, the highlight of the CD is the chunk on Paul McCartney's death in 1967. Paul McCartney's death? Surely he wrote the excellent Frog Chorus and Mull of Kintyre a good 15 years after the alleged event?



It had a sorta Vee Dubblya sign on it. Stupid hicks get mixed up between flying saucers and German cars again

Paul McCartney. Icon of the 20th Century. Crap driver



APC & TCP VOLUME 1 AND 2

In a similar vein to the Aminet offerings is the APC & TCP CDs, brought to this country by Epic marketing. I wish they hadn't bothered.

Volume 1 contains a large selection of games that, on first inspection, look quite good. Nemac IV is there and a few other half-decent programs. However, I couldn't believe my eyes when I saw a game called Child Murder included on the CD. I accept the fact that you can't regulate the amount of sicko crap on the Internet, but to see games with titles such as this on a commercially available

CD is unacceptable.

Volume 2 is basically a large collection of quite duff pictures. There is a fair amount of those weird and quite dodgy cat/large breasted woman pictures, all of which are pretty sad. Duff is really the only word to describe these two CDs.

Somebody should tell him that this is really quite unhealthy



Bottom line

PRODUCT DETAILS

Product:	Hidden Truth
Supplier:	Sadeness Software
Price:	£29.95
Phone:	01263 722169

SCORES

Ease of use	80%
Implementation	82%
Value For Money	78%
Overall	80%

Well, there are people who reckon that, at 5am, one Wednesday shortly before Sgt. Pepper came out, Paul (distracted by a fit sort with nice legs) drove his car through a set of traffic lights on red, crashed and died. Subsequent albums, according to Beatles aficionados, are jam-packed with references to Paul's accident. These range from tongue-in-cheek references to the downright horrifying (such as in the very weird, Manson inspiring, *White Album*).

The material on the CD suggests that there was a big hoax, one which reflected their true ingenuity and inventiveness (and the fact they were taking skip loads of drugs). The purpose of the hoax was in fact to represent the metaphorical 'death' of the old Paul and his conversion to the ways of the Maharishi.

The whole thing is a fascinating compilation of the weirdest and most fascinating facts, photos and sounds on the Internet. The only problem I found was that I kept reciting bits of it down the pub which probably got annoying for my friends. Definitely worth a look.

Bottom line

PRODUCT DETAILS

Product:	APC & TCP Volumes 1&2
Supplier:	Epic Interactive
Price:	£7.99
Phone:	0500 131 486

SCORES

Ease of use	50%
Implementation	50%
Value For Money	50%
Overall	50%

It is the eternal cross that every Amiga owner has to bear, PC software. You can't live with it, you can't live without it, but apart from going out and buying your own PC what are you supposed to do if you need access to the software? Well they do say you should keep your friends close and your enemies closer, and what could be closer than to actually have a PC running on the same computer you are already using?

This little miracle is achieved through software called an emulator. Anyone who has used and Amiga for a while could not have missed the large number of emulators already doing the rounds. The most famous ones out there are Emplant and Shapeshifter both excellent Macintosh emulators and PC-Task is a close runner-up. Whereas the former have the advantage of the Mac using the same processor as the Amiga, PC-Task has no such luxury and has to translate all the Intel instructions used by PC programs.

Packaging with PC-Task is rather simple; just a manual with a number four stuck over original three and a single disk. The provided Amiga installer will simply copy all the files over to your Amiga and shove it all in a new drawer.

The whole of PC-Task is deceptively simple to set up, select what screen modes you want, how much memory the PC should have and what hard drive partitions or hard disk files it has. Once that is done you can click start and away you go. This is where the real fun begins – you can now experience the joys of setting up a PC from scratch.

If you have an HD floppy drive, you will have no problem setting things up as just about all PC software now comes on HD floppies. It is possible to get DOS on DD disks, but you will normally have to send off for them.

Adding mouse and CD-ROM support is as straight forward as it is going to get on a PC. Supplied drivers are provided with PC-Task and you are just left with the task of configuring the PC side's Config.sys file. This is helpfully explained in the manual, though a second file has to be obtained, via FTP.

This time around there are two versions of PC-Task for you to choose between. One is called interpretative and the other is dynam-

Purporting to run everything from Windows to Quake on your very own Amiga, does PC-Task 4.1 make the grade?

Sleeping With the

ic. The new dynamic version is the major addition for version four and works in a completely new way. The old interpretative emulator works as most traditional emulators; as each instruction is run it is translated to 680x0 code, just as an interpreter translates each line they get it.

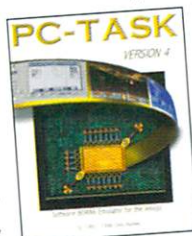
Dynamic emulation goes about things in a very different way. Instead of having to interpret each separate instruction (which means if a program gets in a loop the emulator could end up interpreting the same lines thousands of time over), the dynamic emulator takes a large chunk of the program and converts it to 680x0 code. This section of pre-compiled code is then used until program execution jumps to another section of the program, where another chunk of code is compiled.

This means that section of code will run a lot faster. There is, of course, a price to pay. Firstly this compilation process takes additional

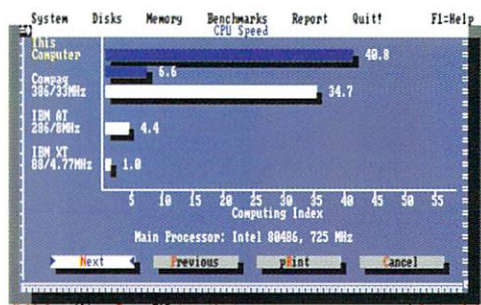
time and you do notice a large increase in the time it takes for programs to load. As PC-Task compiles the program code, the other is memory. The compiled code has to be stored separately and this requires memory, quite a lot of memory in fact.

The smallest memory cache possible is 512k, so if you add this on top of the basic PC memory requirements, the memory need to run PC-Task itself and you can say good by to 2Mb. Add on the memory used by the Amiga side and you can see that an expanded Amiga is necessary to get the best out of this version of PC-Task, not only speed wise but so you can run software.

In use, the dynamic version has its pros and cons. The obvious bonus is the added speed and depending on what you use, you will get different results back. As it compiles programs in memory, running a simple benchmark will show what sort of speed increase you will get of programs that fit into the memory cache and, on average, you get over a five fold speed increase over the interpretative version. More realistically you can



Even an 060 can only manage just under five frames a second, quite painful to watch



You can see what a large difference the Dynamic version of PC-Task has on the benchmark. In reality it normally runs around twice as fast



DOS programs show as edit zoom along on even a fast 030

I couldn't resist putting a little speed comparison in. I only ran two bench marks, but for both versions of the emulator. One is a straight forward speed bench mark compared to a basic 8086 XT, while the other is a complex 3D bench mark showing the frames per second reached. You may be surprised by how close the dynamic A1200/030 and the A4000 benchmarks are, but this relies heavily on fast memory access that the A400 does not have, unless you have an accelerator fitted.

Machine	Interpretative		Dynamic	
	XT	FPS	XT	FPS
030/40Mhz	1.2	0.5	12.1	1.6
A4000/040	3.0	0.9	15.5	1.9
A1200/060	6.6	2.1	40.5	4.6

Enemy



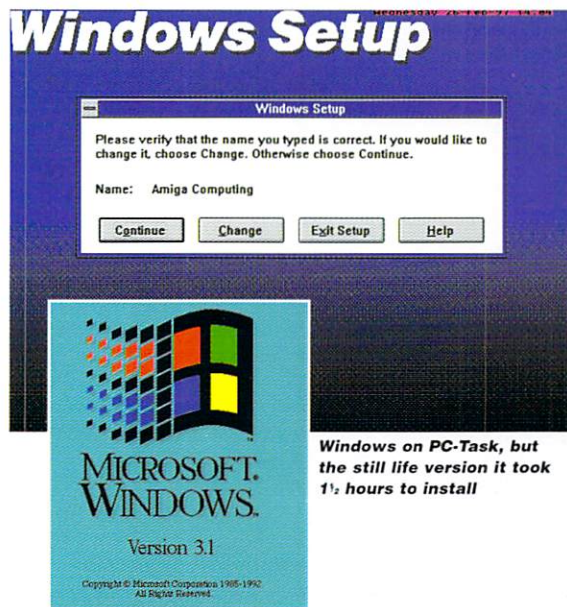
expect the dynamic version to run programs around twice as fast.

The major down side is the time taken to initially load programs, even small programs have a delay of a second or two as they start up and when it comes to access new areas of a program you will also notice a slight delay as the new code is compiled. However, once this is done everything flows along very nicely.

Memory speed also plays a role with the dynamic version as it has to be accessed frequently. This shows up in the dynamic benchmarks where an A4000 running 25Mhz 040 only just out performed a 40Mhz 030 based A1200 and I would imagine a 50Mhz system would probably match an A4000. This is down to the poor memory

access that the A4000 has been lumbered with. If however you have an accelerator with on board memory this is not a problem and the A4000's own memory bus is bypassed.

As far as PC emulators go, PC-TASK does everything you want; 486 emulation with virtual memory paging supported in the dynamic version. The drawback is that even with an 040/060 you are going to have to stick with DOS based packages, basically you get back the performance of a decent 286. This is no bad thing, as there are still plenty of good DOS packages out there including CAD and programming programs. I could have installed Windows 3.1, but to be honest I couldn't be bothered sitting around waiting for it to load. **AC**



Windows on PC-TASK, but the still life version it took 1½ hours to install

HOW DO THEY DO THAT?

Unless you have had your head buried in the sand for the last few years you should know that your standard IBM compatible PC runs off the Intel range of processors that have a incompatible set of instructions to that of the 680x0 processors used in the Amiga. So to be able to run PC software on your Amiga, you at least need a program that will translate the Intel instructions to those understood by the Amiga's processor. This is essentially what an emulator does, it allows the Motorola processor in your Amiga to run PC programs. So your Amiga can emulate a PC. Sounds simple doesn't it? It is far from a simple task however, and requires a mighty load of processor power to pull it off.

If all that was required of the emulator was to interpret the Intel processor, that might be alright, but the story does not end there. The emulator has to fool programs into thinking that devices connected to your Amiga are actually PC devices, and that the memory on your machine really belongs to it. This is done through the PC's BIOS. This is a little piece of software that, on a PC, normally lives on a small ROM and is what actually allows the PC to get up and running and boot Windows or DOS. The Amiga has its own version of a BIOS called Kickstart, as it kick starts the machine identifying what drives are attached to the machine and what sort of boards are plugged in.

Bottom line

REQUIREMENTS

RED essential		BLACK recommended	
PCDOS	2 Mb RAM	RTG card	HD Drive
020 Workbench	2/4	8 Mb RAM or above	030/040 80Mb HD

PRODUCT DETAILS

Product	PC-Task 4
Supplier	Wizard Developments
Price	£69.99
Tel	01322 527800
Product	E-Mailsales@wizard-d.demon.co.uk

SCORES

Ease of use	95%
Implementation	89%
Value For Money	85%
Overall	90%



Thank the Lord for the Internet – this month's selection of troubled souls come courtesy of the Information Super Highway

TOWER MADNESS

I was wondering if it was easy and safe to have your Amiga 1200 put into a tower case. How does this work, who makes them, which one would you recommend to get? I can't stand having all sorts of things hanging onto and off my Amiga 1200.

darkman@i-d.com



There are a number of different solutions available depending on what you want. If you want to go for the full solution of motherboard and everything in, there are a number of options. You could go for your own solution, buy your own tower, sort out the power supply and connections, but I would strongly advise you not to try this unless you know exactly what you are doing.

If you do it yourself you will have problems fixing the motherboard in place and also connecting up the power. A good tower will allow you to connect up two 3.5" IDE drive and power them off a PC power supply. A better system will come with an EIDE adapter so up to four IDE devices can be used. The extra power is also needed if you want to get one of the 40Mhz 040 cards that are around.

It is possible to convert a standard PC power supply so that you can run your Amiga of it and so power all these bits. However, as with anything electrical that is mains powered, I would not recommend you try it. What I will say is that there are files on Aminet detailing how to perform

the alterations, but you will have to find them yourself. Anyone willing to try this should have enough brains to find the files themselves.

Currently there are two ready made solutions – one by Microvitech and the other from Eagle Computers. Both are German companies so you may have trouble getting hold of their products unless there is an US distributor. I have looked at the Microvitech tower and it was very well made; all custom moulding so it fitted the Amiga perfectly. The motherboard is attached to a cradle that then slides into the tower for easy removal and you get the big advantage of additional of Zorro II slots and a video slot. A version with Zorro III slots was on the cards, so you could get access to all the latest 'big box' Amiga cards.



Micronik's custom tower snugly takes all your A1200 bits, adds Zorro II slots and more

WORKBENCH 3.1 vs 3.0

I have used Workbench 3.0 for a long time, but now I can boot my Amiga with a 3.1 ROM image, using a great program called BlizzMagic (a program for Blizzard boards). Anyway, now that I have the 3.1 ROMS I thought it would be nice to upgrade to 3.1.

I am worried to do so however, as I have done a great deal of upgrading already, such as the New version of SetPatch, Various Libs, and other small aspects of Workbench. If I do upgrade some of the files on my system may already be newer versions than on the 3.1 disks. My question is, will all the Workbench programs in my current system be replaced? Or will the Installer check each version before installing?

darkman@i-d.com



Talk about paranoid. Personally, I wouldn't worry too much about Workbench files being replaced with older versions as really the basic Workbench installation only has a small number of files, especially when compared to something like Windows.

You are correct in thinking the installer will just copy over the files without checking, it could do and it might, but as far as I can remember it simply spams over the Workbench files.

If you are so worried about upgrading, why not make a backup of the files and libraries you have upgraded, install Workbench 3.1 and then copy any files you find that are older than the ones you have? This would probably include SetPatch, the library files and Datatype classes. I doubt that, even if newer libraries are overwritten, you

SMTP MAIL

I have just read the letter on page 43 in the February edition, about the problems of getting SMTP mail to work with MiamiTCP. I use Miami on a Demon account, and was one of the first to setup Miami with Demon and helped a few people out with setting theirs up. So many in fact, that I decided to write some instructions for it.

On my homepages software section is a file called Miami4Demon.lha, it includes all the instructions to get SMTP incoming mail, NNTP news and outgoing mail/news via Mailkick, all working using Miami.

It also includes an ARexx script to do this automatically on connection (registered version of Miami only, can be run manually if unregistered). It is freeware, seeing as its only a bunch of instructions and the ARexx script is only a couple of lines long.

Mark Boothroyd, boothy@weirdness.com>



Cheers for that, so anyone having problems receiving SMTP mail under Miami, or such like, here is an end to your problems. Point your browser to <http://www.boothy.demon.co.uk/software.html#miami> and download the Lha file there.



SMTP mail, Miami ooh must be in heaven

A FEW QUESTIONS!

I have a few questions. Recently I bought an A1200 and I was wondering if it is possible to run all A500 games and demos on the new machine?

If I am going to buy a monitor, which one shall I buy? I don't care so much for the games but I would like to have a sharp screen when using WB.

Finally, I am planning to buy a CD-ROM. I have heard that I will need another power supply for the CD. Is that true? Thank you very much.

Petter Flemberg, flemberg@hem.passagen.se

In a word, no. Generally compatibility between the A1200 and the A500 is poor, many games do not run and most demos will simply hang. You could blame the A1200 but the problems occur due to a number of things. Firstly the programmers have made vast assumptions about the Amiga's display and when it comes to running on the AGA chipset, results in a corrupt display.

Other problems can crop up with regards to the operating system, some programmers assumed parts of the operating system will always be in the same part of memory or the ROM. Also the A1200 processor can give certain games and programs problems. As it has a cache, certain types of code can cause errors and the program to bomb.

There are certain things you can do to alleviate the problem, allowing you to run more programs than you would normally be able to. At the most basic level you can use the Amiga's early startup menu, accessed by holding down both mouse buttons when you turn on or reset your machine. From here you can turn off the CPU cache and also turn off

the advanced parts of the AGA chipset. This does help running older programs but will not work for everything.

There are other programs available that help run even more A500 programs, one is called Degradar and has lots of options, another way is to get hold of a copy of the old 1.3 Kickstart ROMs - this can get certain programs running. However, as you go through these different ways the number of programs you are going to get working gets smaller and smaller.

Monitors on the Amiga always cause problems. You have two real choices. Firstly you can get a multi-sync monitor that will allow you to use all the Amiga's display modes. This has to be one that can sync down to a 15Khz horizontal refresh rate, and your choice is really limited to one of the old Commodore 194x or the new Microvitec range, that are not brilliant but are good enough.

The other option is to go for a VGA monitor, unfortunately the AGA chipset can only reach the lower limits of the VGA display rate around 30Khz horizontally and you are limited to the Euro72 or Multisync monitor modes. Just to have a moan, if games did use the operating system you could play them on a monitor as the screen would be promoted to a mode that could be displayed. Any new SVGA monitor will give you a good sharp display.



Jargon box

SMTP - Simple Mail Transfer Protocol, an old way of transferring files between Unix machine. Now used to transfer your e-mail to your ISP

POP - Post Office Protocol, a protocol designed to allow single user hosts to read e-mail from a server. Lets you get your e-mail from your ISP, widely used as a replacement to SMTP

Refresh - Used to explain how quickly the screen image is re-drawn

VGA - Video Graphics Array, a display standard set by IBM. Originally limited to 640x480 in 16 colours at set display rates. This has slowly been upgraded as hardware allowed

Workbench - The Amiga's native graphical user interface that allows you to access drives, devices and programs on your Amiga

GoldenImage provide a simple solution to Amiga CD-ROM without the extra power leads

WORMED

I have always fumbled my own way around any problems I've encountered or asked friends for advice. Now that most of my friends have taken the PC road however, I thought I would turn to you.

I've been having problems with Worms - the game, not the disease! (thank god! - ed) It seems it's looking for a CD32 joy pad and won't work with my mouse. I borrowed a joy pad and changed the settings, but the next time it still didn't accept my mouse.

The only time I got it to work was when I booted without the startup-sequence, disconnected my CD-ROM, removed my CD files (mountlists, DOSDrivers etc.) and started it from shell. Oh yes, it also works if I disable my hard drive and run it from floppy but then it takes yonks to load and I don't have access to all those custom levels.

I don't want to have to do this every time, so could you help? Am I using the wrong device drivers? Should I remove my joysticks first? Do I wear the wrong socks? Anything you could suggest would help as I am being deprived of the best game since the last brilliant game came out.

I am a Web designer for an Internet provider. What software would you recommend to manipulate graphics. I have PPaint6,

Photogenics 1, DPaint 5 and others but they don't have the features I need to produce decent Gif images. What would you suggest? Thanks for 'listening'

Daniel Warner, dwardner@dialin.net

It sounds to me as though you have a CD drive which came with CD32 emulation, so when you run Worms it finds the extra CD32 system libraries thinks it's being clever and assumes you will want to use a CD32 joy pad. Most games on the CD32 auto-detect if you are using the joy pad or mouse, but obviously Worms does not.

As you have already found out, removing the CD from your system allows Worms to run. The way you went about it was a little extreme, but it worked. The normal way of disabling the CD is to move the CD0 DOS driver from the DOS driver drawer into the storage directory. Hopefully this will provide an easier way to disable your CD.

What features do you need to produce decent Gif images? Here at Amiga Computing we use Photoshop on the Mac to prepare all our Web images. This generally is a simple matter of scaling down pictures and grab to a suitable level for Web access, with the odd drop shadow thrown in by

PRINTER PROBLEMS

A while after I upgraded my A4000 desktop to Workbench 3.1, I found that I could not print to my HP-540 from any application when the modem (US Robotics Sportster 288 vi) was turned on. As soon as I turn it off, the printer comes to life. In as much as one's parallel and the other's serial, what's the connection?

Gary Goldberg, Gary@ix.netcom.com

That is a very good question, but unfortunately I have no idea. It could be an indication of a hardware problem, but the best advice I can give is do not use the printer and modem at the same time.



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

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

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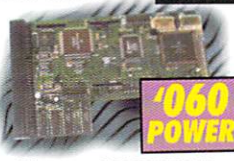
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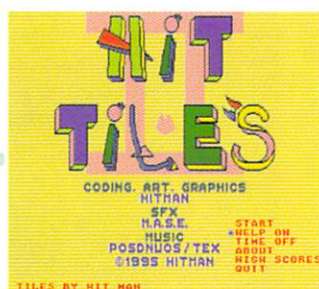
Once again, Public Sector has been rather peppered with PD offerings this month, so Perfect PeeDee Past must quietly wait in the wings while the creme de la creme de Mai take centre stage. Rest assured, it will be back next month, as Public Sector triumphantly returns to its once customary four page format. In all probability next month will also see the debut of the Public Sector Reader's Submissions section, with a lucky reader winning some miscellaneous gubbins from the Amiga Computing cupboard. Until then, dear readers, please sup heartily from this month's helping of PD perfection...

public sector

Dave Cusick's
got a mate who
eats cold beans
from the tin,
so there

HIT TILES 2

Programmed by: Luca Ciccotelli
Available from: Classic Amiga Software
Disk No: G452



there are plenty of options to play around with

There are certain frequently recurring themes in the world of PD games. Arcade clones, age-old classics like Minerunner and puzzle games like Tetris and Solitaire have been remade countless times. Over the years there have also been plenty of versions of Shanghai, a well known oriental game. The latest, Hit Tiles 2, is among the better ones.

There are 15 levels, each consisting of a screen containing 120 tiles stacked in piles of up to four. The tiles feature designs, with four tiles bearing each design. The objective is to remove all the tiles, but they can only be removed in pairs and a tile can only be removed if there is a blank space on either the left or the right side. There is a time limit, which can be toggled on or off depending on how challenging you would like each level to be.

Hit Tiles looks attractive, boasts better music than the majority of puzzlers, and even comes with a special program called If2Tile which allows you to design screenfuls of tile designs using up to 32 colours, which can then be imported into the game. It is a challenging, cerebral game thoroughly worthy of investigation.



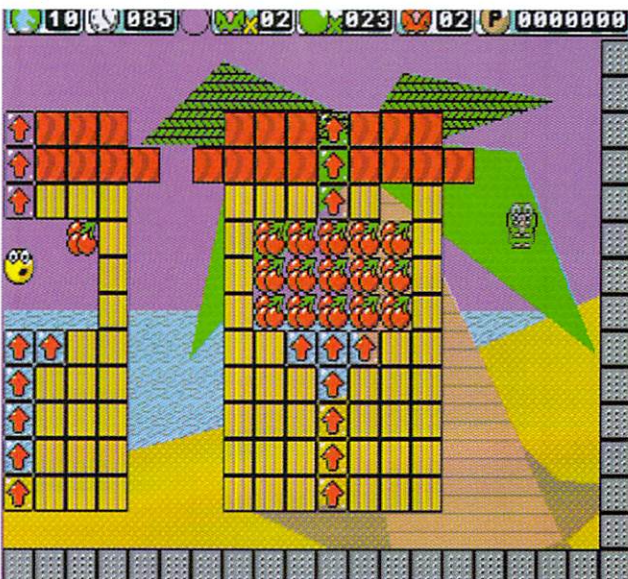
Hit Tiles is a competent version of Shanghai...

BURTON BIRD

Programmed by: Matthew West
Available from: 5th Dimension Licenceware

Burton Bird has received something of a warm reception amongst the Amiga community. One magazine gave it their monthly Reader's Game Award, whilst another felt it warranted 95 per cent. It is certainly true that I have seen a lot worse during my tenure in the Public Sector cupboard (shoebox - ED) and, at £3.95 plus 50p P&P, it would have to be pretty terrible not to represent reasonable value for money, but in my book for a game to score 95 per cent it has to be only a whisker short of perfection. Burton Bird is good, but not that good.

The fundamental problem I have with wholeheartedly recommending this perfectly playable platformer is that the control mechanism, deliberately made fiddly in an attempt to incorporate aspects of Breakout into what might otherwise have been a distinctly average runny-jumpy outing, rather succeeds in shooting itself in the foot. Burton's task is to collect all the fruit scattered around each of 87 levels within an extremely strict time limit. Some of the fruit is, however, tricky to reach and when Burton plummets for the fifth time through a one-way door whilst attempting to leap towards a pesky bunch of berries, an otherwise appealing platformer can come dangerously close to turning rational human beings into bawling lunatics.



then Burton Bird will no doubt make happy bunnies out of a fair few action-starved gamers. However, unless you have the patience of a saint, I would strongly advise padding the walls and removing any non-fluffy objects from the immediate vicinity before putting Burton Bird anywhere near your drive.

...but too frustrating for me

DARK CITADEL

Programmed by: Rob Massey
Available from: F1 Licenceware
Disk No: F1-151

Heavily influenced, if not directly inspired, by Valhalla-style role playing games, Dark Citadel is one of the best licenceware games to appear in a long time.



Ysadora might have been a lovely girl, but she had some bad habits

As with so many role playing masterpieces, Dark Citadel is set in a distant and magical past. While in this day and age a chap might win the affections of a lass by wining and dining her or taking her to the pictures, in fantastical days of yore courting would be a rather more demanding process. Typically a bloke might have to release the object of his desires from a spell cast by an evil wizard with an unpronounceable name, thereby winning her eternal gratitude and often (if her father was suitably impressed too) her hand in marriage.

Thus the player here assumes the role of the dashing but presumably desperate knight Marlon, who must enter the titular Citadel to procure an elixir with which he can free the



Dark Citadel presents a gripping challenge to role players

delectable young maiden Ysadora from the malevolent Gnaxar's spell. Formulaic it might be, but this suitably exciting storyline is a passable enough excuse for some top-drawer adventure gaming.

Dark Citadel is immaculately presented and features some nicely drawn graphics. Without a doubt though, the single most impressive aspect of the game from a technical standpoint is the wonderful sampled speech, utilised beautifully as a means of having the on-screen hero give the player feedback. Through the intuitive joystick-driven interface there are plenty of puzzles to be solved, some of which are fiendish but none of which are unfair or hopelessly obscure.

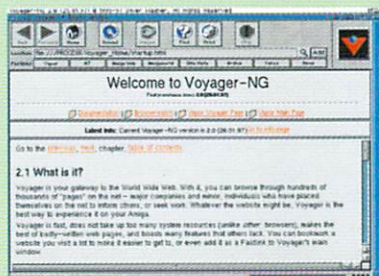
Engrossing, challenging and professionally presented, Dark Citadel is absolutely unmissable. It costs £6.99 plus P&P but offers a great deal more entertainment than many commercial offerings. A megabyte of chip memory is essential and a hard drive is definitely recommended.

MAGIC USER INTERFACE v3.7

Programmed by: Stefan Stuntz
Available from: Classic Amiga Software
Disk Nos: UT158 A/B

When, in issue 108, Public Sector looked at v3.6 of what has become the single most essential Shareware program in the history of the Amiga, I described MUI as "a force which has helped galvanise the Amiga community in the face of fierce competition from first consoles and now PC contemptibles." The only reservations I expressed in an otherwise worshipful review were with regard to stability, an aspect in which MUI, in my personal experience at least, had deteriorated since the long-reigning v3.3.

Fortunately, v3.7 seems to have successfully addressed numerous bugs in the Magic User Interface libraries. Not only have various problems with 68060 processors been



rectified, but a whole string of technical problems have been dealt with to ensure that programmers in particular, and users to only a marginally lesser extent, will want to update their MUI installation as soon as possible.

Magic User Interface is of course Shareware, and if in your entire lifetime you only ever register a single program that program ought to be Magic User Interface. If the

slick registration program (which has been visibly enhanced over the last few MUI releases) does not succeed in convincing you to register, consider that the £15 UK registration fee is a nominal amount to be sending to an individual whose efforts have gone a considerable way towards keeping the Amiga alive this long.



THE BLACK CHURCH

Produced by: Ben Wright
Available from: Roberta Smith DTP
Disk Nos: SM818 A/B

I have ranted at length in these pages before now about dark guitar music. With two good friends having recently rediscovered their Black Sabbath record collections, I have been subjected to a higher dosage of dark guitar music than I would normally consider to be safe. Fortunately no ill effects have yet resulted - I've not rushed out and murdered any close relatives or taken any evil drugs (other than those I would have taken anyway). I'm still not keen on the vast majority of metal-lesque Rawk (says he in his best Tommy Vance voice).

The Black Church contains eight atmospheric Med modules, all composed using similar guitar samples and none of which really offers anything out of the ordinary. As such they will appeal to fans of the genre, but won't do anything for anyone else at all - although give me any of these over the tedious Eternal tat that's playing on the radio as I write...

The Black Church: More to listen to than there is to see



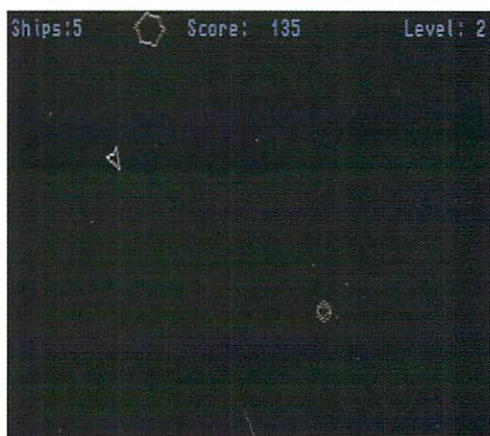
WBSTERIODS

Programmed by: Heiko Muller
Available from: Aminet

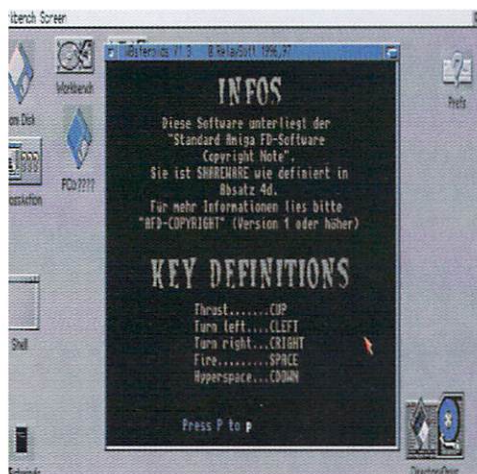
Asteroids was always one of my favourite arcade machines. In recent years, arcades have become full of fancy, expensive, graphically superb games without any genuine addictive qualities, but in days of old, machines such as Asteroids changed lives. Many young innocents who, until entering an arcade one evening, might never have looked at a monitor again, were drawn in by mesmerising video games such as Atari's Asteroids.

Featuring charming simple monochromatic graphics coupled with some of the most fiendishly captivating gameplay ever conceived, Asteroids was one of the all-time classics. Consequently numerous programmers have attempted to bring the same magic to home computer users - on the Amiga, perhaps most noticeably in the visually stunning Super Stardust, which only failed to grab the imagination of the masses thanks to its discouragingly high difficulty level.

WBsteroids offers the possibility of playing a perfect



WBsteroids is a cracking conversion of the coin-op...



...and the keys are even configurable

Asteroids clone on your Workbench screen. The vector graphics are as smooth as silk even on a standard A1200, the sampled sound effects are superb and there is even a charming Deutschlandler periodically chirping "Asterweeds".

Your craft is controlled using the cursor keys, with down engaging your Hyperspace drive, and you can fire bullets by hitting the space bar. If the standard keys do not suit, it is possible to redefine them by pressing Help. If you are competent enough you might manage to earn yourself a place on the obligatory high-score table.

The WBsteroids window is scalable, so you can shrink or enlarge the screen to suit your personal preferences. Unfortunately, once the game is running it is not really possible to start flicking between screens because WBsteroids will seize control of things to the extent that other screens will freeze until you press Escape to kill WBsteroids off. However, this is the only criticism that can really be levelled at what is, in all other respects, a superb version of a truly great game.

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CCI #5

Produced by: Jose M Munoz
Available from: Jose M Munoz

It's been a while since I have covered a diskmag in these pages - principally because the vast majority of them are either aimed at enthusiasts (especially of the Amos and Blitz BASIC languages) or are simply too unexceptional to warrant coverage. However since CCI (which stands for Custom Chip International) was new to Public Sector and the standard of presentation and broadness of coverage was refreshing, I thought it high time to rectify the situation.

Although CCI has plenty of spelling mistakes and grammatical errors, these are forgivable considering the diskmag is put together in Spain - the producer's English is infinitely superior to my Spanish. Like so many other diskmag, CCI is written in Amos, and the result is an easily navigable menu system leading to an array of tidily arranged articles embracing a wide range of subjects - articles in this issue covering everything from hardware and software reviews to information on constructing your own audio and video digitisers. There are also a couple of minor competitions and a small gallery section.

Whilst diskmag cannot really hope to compete with mainstream publications (or indeed the Internet) as sources of up-to-date Amiga information, they do still play an important role. They allow enthusiasts to communicate with one another, thanks to their open submissions policy and the ease with which they can be disseminated throughout the Amiga community. They also tend to offer more stories of personal experiences, which can prove both interesting and informative to other users. CCI fulfils all of these functions fairly admirably and is available for £1 from the address below.



CCI: A readable enough diskmag

HO HUM

Each month Public Sector tries to bring you the very best of the latest PD and shareware releases. Consequently I want to hear from you if you have any program, whatever its purpose, which you consider worthy of review. Whether it will be freely distributable Public Domain, Shareware or Licenceware, if you feel it is of sufficient quality to merit coverage then cram it onto a 3.5", slap it into a jiffy bag with a cover letter and wang it with all haste in my general direction. Some days later when said jiffy tumbles gently through my letterbox, I'll tear open the envelope, shove it in my drive and don my evaluating cap, with the creme de la submissions earning reviews in these pages.

If you've written the software yourself, you could even win yourself a prize if it earns a review. Reader Submissions of this kind should, surprisingly enough, be clearly labelled "Reader Submission", and they should be sent to the usual Public Sector address. So don't delay - get those submissions in the post before Neil changes his mind about those prizes...

Dave Cusick
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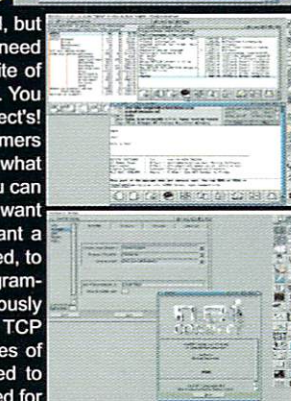
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Despite all the trouble that arrays and pointers seem to cause the C newcomer, both are conceptually simple. An array is a collection of objects of the same type arranged in such a way that we can access any one of them by specifying its position. A pointer is even more straightforward – it's just the address of an object.

When you declare a variable such as `int` result, the compiler will arrange to set aside some memory for storing the value of the variable as and when you provide one. To declare an array of 10 such items the compiler will need to set aside 10 times as much space, so it has to be told how large the array is going to be. It's done like this:

```
int result[10];
```

C always regards the first array item as having a subscript of zero, so for an array of 10 objects you'd use subscripts from zero to nine. You can, incidentally, initialise arrays by following their declarations with values separated by commas and in this case it's not necessary to include the array size because the compiler works it out for you. Declarations can therefore be written in this style

```
int days_in_month[] =
{31,28,31,30,31,30,31,31,30,31};
```

With C it's also possible to declare multi-dimensional arrays. Each subscript has to be placed in separate square brackets and so if you wished to declare an array representing the eight rows and eight columns of a chess board you might use

```
int chess_board[8][8];
```

C, unlike languages such as Basic, does not have a built-in string data type. As we saw last week, however, it does recognise sequences of characters ending in NULL as strings and so the declaration `char error[45]`, could therefore

More C help as **Paul Overaa** puts arrays and pointers under the spotlight

be used to reserve space for an error message of up to 44 characters – and it's the programmers responsibility to ensure that the bounds of such an array are not exceeded during use.

When a character array like this is used, C associates its name with a pointer which contains the starting address of the string. It's because of this that, rather than explicitly specifying the starting address, we can write statements such as:

```
printf(error);
```

The standard library contains a number of routines, including `printf()`, which operate on strings in this way. Because aspiring C coders can also easily make use of string-oriented pointer array declarations however, it's also useful to learn a little about pointer operations early on.

POINTERS

C's pointer facilities are based on the use of two operators, `&` and `*`. The first, so called address-of operator, does exactly that – it allows you to find the address of a variable. The `*` operator goes the other way, given the address of a variable it allows you to discover its contents.

In the following discussions, incidentally, you'll see that I use a `_p` suffix on pointer variables names. This is not a C requirement but it is a useful convention to adopt – most of the problems with C's pointers result from programmers inadvertently confusing the

C

Part 3

programming

addresses of variables with their values (despite the fact that ANSI C compilers can catch most slips of this nature there are the odd occasions when they can't).

So, how do we use these pointer operators? Here's one example involving some error text strings. Because of the way C handles these items you might expect that, to form an array containing a series of strings, a two-dimensional declaration similar to that shown in listing 1 would be needed.

This approach certainly works – but in practice there are snags. In the above example `error[0][0]` then would represent the start character of the first string (Function Complete), `error[1][0]` the start character of the second string (Usage... resetdates) and so on. To print the first string using `printf()` we could therefore identify the start of the string using the `&` operator and write a statement like this

```
printf(&error[0][0]);
```

Luckily C allows a shortcut form which allows the above statement to be written

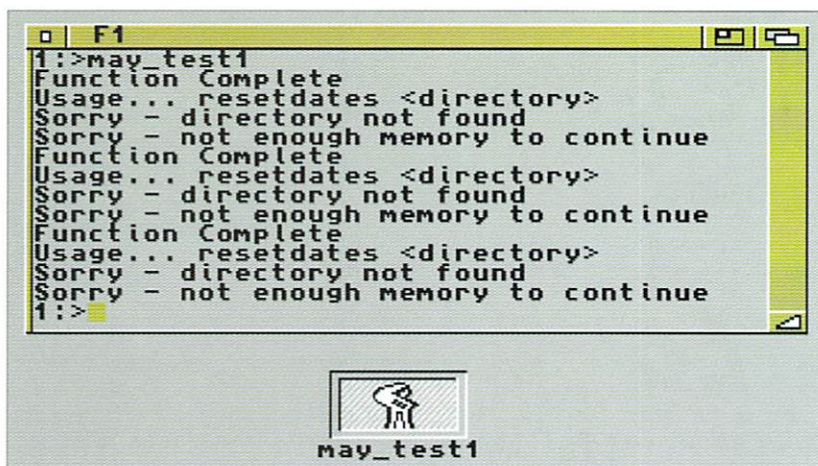
```
printf(error[0]);
```

But the real problem with the two-dimensional approach is that the space allocated for each string needs to be that of the longest string in the set (in this case 44+1=45 characters). A more memory efficient alternative however is to declare the text strings using the pointer array shown in listing 2. This then ensures that strings of different lengths will be stored without wasting memory and tells the compiler that we are declaring a one-dimensional array of pointers to char type objects. To print that first entry we'd use a similar statement to that used before

```
printf(error_p[0]);
```

but the compiler however would have allocated just the 19 characters required for this string entry (rather than the 45 set aside by the earlier declaration).

You'll find a couple of example programs on disk along with a few additional notes. Next month (which brings us to the end of this introduction) I'll be explaining how the text strings that we've been discussing can be displayed using the Amiga's Intuition library. Nothing too fancy of course but it will give you a glimpse of how Amiga windows are created and used.



One of this month's example programs displaying a series of text items stored as an array

```
char error[4][45] = {
"Function Complete\n",
"Usage... resetdates\n",
"Sorry directory not found\n",
"Sorry not enough memory to continue\n",
};
```

Listing 1: A two-dimensional string declaration

```
char *error_p[4] = {
"Function Complete\n",
"Usage... resetdates\n",
"Sorry directory not found\n",
"Sorry not enough memory to continue\n",
};
```

Listing 2: A more memory efficient string declaration

The assembler and C routines discussed last month certainly work but are, in essence, the beginning of the story, not the end. Tiling large areas using small images is all it takes to show that these obvious loop methods aren't really efficient enough. There are however, a variety of alternative methods around and most coders, at some time or other, find or devise particular variants best suited to their own needs. To be honest, my interest in this area wasn't fuelled by any practical need – I just started playing around with a few ideas one day and suddenly realised that tiling was quite an interesting problem to look at from a mathematical viewpoint.

The main execution time cost of the simple loop routines is related to the image drawing function calls and, because functions like DrawImage() use the blitter for their drawing operations, the bulk of the execution time

penalty is in setting up the required blitter calls rather than the 'blit' operations themselves. In short the areas of graphics being drawn are far less important than the number of function calls made and, if improvements were to be made, the secret would lie in reducing the number of times any drawing/copying functions were used.

So how do we go about making such changes? The general ideas behind the approach I adopted are straightforward – once at least two copies of the original tile have been drawn we just start to copy successively larger parts of the currently tiled area into portions of the screen that have yet to be tiled.

BENEFITS

The arithmetic alone tells you that benefits are to be had: The simple loop approach to the drawing of an M rows x N columns grid requires M x N drawing function calls. One improvement then would be to draw a row of M tiles and then

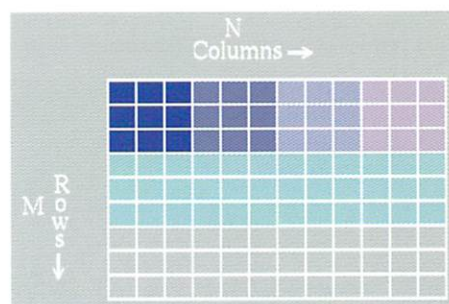
use the blitter to copy that row N times down the screen. That would require M initial tile drawing operations followed by N copy operations. M+N is of course much less than MxN (e.g. for a 100 row x 200 column grid the original approach would need 20,000 function calls whereas the new approach would need only 100+200=300).

Further improvements can also be made by thinking about how a row of tiles is drawn. A row of 100 tiles, for example, needs 100 draw operations. Supposing however, we created a two tile block (which would require two drawing operations) and then copied that block 50 times (another 50 copy based draw operations). That would allow us to draw 100 tiles using only 52 draw/copy operations. If we created a four tile block (which would need four drawing operations) then only 25 copy operations would be needed making the total number of function calls 29!

How do they do that?

Tiling – Part 2

Paul Overaa dishes more dirt on those tiling effects with this month's instalment, especially for the experts



Once the tiled area starts to grow in size blitter operations can use successively larger parts of the currently tiled in their copy operations

SNEAKY OR WHAT?

So, there are plenty of possibilities for reducing the amount of copying work involved by creating intermediate blocks of images and copying them rather than the original tile image. I'm not going to go into the mathematics, but I was able to show that the lowest number of functions calls are needed when the block size is the nearest integer to the square root of the number of tiles in the row. And further improvements were also possible because the number of row copy operations that need to be performed can be reduced using the same ideas as those used to reduce the work of generating a row of tiles in the first place.

In writing the routine to test these ideas I

added another crafty twist, best explained with an example: Imagine you are drawing a grid of 100 rows by 200 columns. The first job is to draw a row of 200 tiles and it turns out that this is best done using by creating a block of 14 tiles, copying this block 14 times and then adding the four extra single tile copies needed to complete the row. But a block of 14 tiles can be drawn with less than 14 operations – the square root of 14 is 3.74 and so we really ought to be drawing this first block by initially creating a block of three tiles, copying this block four times, and then copying the two residual tiles needed.

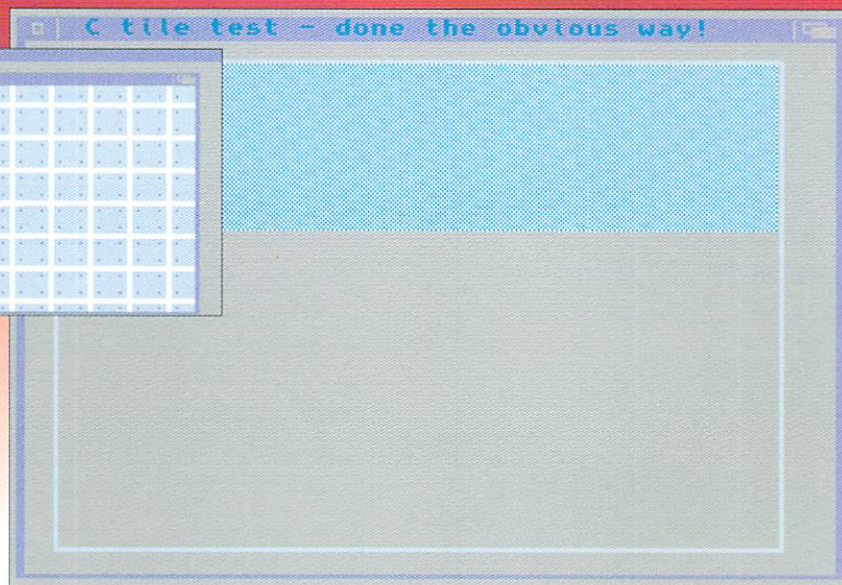
When larger numbers of tiles are involved this

nesting goes further and it soon became obvious that the way to get the ultimate minimum as far as the number of function calls is concerned would be to devise a routine that recursively calls itself to generate its tile blocks as efficiently as possible. What this means is that, in the case of the example mentioned earlier, only 39 draw/copy operations are needed in order to create a tile arrangement of 200 x 100, ie 20,000 tiles. In this case our recursive routine is only doing about 0.2 per cent of the drawing/copying function setting up work that those simple loop routines were doing. In other words it is about 500 times more efficient!



You won't notice a lot of difference speed-wise when reasonably large tile images are being used...

...But when last month's loop code is used with a small image you really do begin to see the benefits which the recursive approach to tiling can offer.



A WALK THROUGH THE CODE

The DrawTiles() routine that you'll find used in this month's main example is a high-level entry point that makes calls to support functions called DrawRow() and CopyRows() and it is these latter pieces of code that perform the drawing and copying operations. DrawRow() first works out the optimum number of blocks needed and the number of residual tiles that will need to be drawn to complete the row like this...

```
block_size=(WORD)floor(sqrt((double)columns));
block_count=columns/block_size;
residual_tiles=columns-
block_size*block_count;
```

And then, if the value of the blocksize is one, it simply draws a tile. If however the blocksize is greater than unity DrawTiles() recursively calls itself again recomputing a new block size and so on. The 'guts' of this area of the code therefore takes this sort of form...

```
if(block_size>1) left=DrawRow(...);
else {
    DrawImage(...);
    left+=width; /* set left position of
next tile to be drawn */
}
```

Once a complete block of tiles has been drawn the remaining blocks can be copied to produce the required row of tiles and, in the example code (see listing 2), the graphics library `ClipBlit()` function has been used for the copy operations. `DrawRow()` concerns itself only with determining the best way of producing a row of tiles but, once this row is complete, `CopyRows()` then works downwards in an identical way although this time it is copying optimum sized blocks of rows down the screen.

SEEING IS BELIEVING

The method outlined this month is considerably more involved than the simple loop code provided in the previous issue and it's fair to ask whether the added complexity involved is worth it. If you are only ever going to use relatively large tiles (perhaps 10-20 pixels wide or greater) and moderate size window areas – then

chances are that simple loop approaches will usually prove adequate. If however, your tiling needs are more demanding then the recursion based approach may well be worth looking at and this latter method will of course become increasingly more attractive as tile sizes get smaller and window areas get larger.

```
void DrawTiles(struct Image *image_p, struct
RastPort *rastport_p, WORD rows, WORD columns,
WORD left_offset, WORD top_offset)
{
    WORD row_width;
    row_width=DrawRow(image_p,rastport_p,columns,l
eft_offset,top_offset,TRUE);
    CopyRows(image_p,rastport_p,rows,row_width,l
eft_offset,top_offset,TRUE);
}
```

Listing 1: The highest level of DrawTiles() looks deceptively simple but in reality this is the start of two dimensional recursion.

```

for (i=1;i<block_count;i++)
{
ClipBlit(rastport_p,left_offset+left-block_width,top_offset,
rastport_p,left_offset+left,top_offset,
block_width,height,0xC0);
left+=block_width;
n++;
}
for (i=0;i<residual_tiles;i++)
{
ClipBlit(rastport_p,left_offset+left-width,top_offset,
rastport_p,left_offset+left,top_offset,
width,height,0xC0);
left+=width;
n++;
}
return(left);
}

```

**Listing 2: The graphics
ClipBlit() function is used to
copy the various tile sections.**

THE COVERDISK CODE

You'll find both source and runnable version of a test program on the coverdisk. It allows you to select one of a number of images and then uses that image to tile the program's window. As with any Intuition program, there is quite a lot of code involved but this is only because all the usual screen and window allocation/deallocation, menu and other event handling code needs to be present. DrawTiles() and its support routines however can all be found in the source file called amiga.c so you only really need look at the other files if you're interested in the more general aspects of the code.

I've included all the example images on disk as iff files so you can view them in their original form. Image5 is the one to concentrate on because this is the image that has only four pixels in it and, by way

of comparison, you'll also find a modified version of last month's C example (now called `loop_code`) which also uses `Image5`. This provides a clear example of how slow the conventional loop-based tiling arrangements are when put under pressure.

While I think you'll be impressed with the speed of this month's routine, there are however still a number of refinements that could be made. The square root calculation for example, which is used to determine the block size, could be better performed using a table lookup method rather than the `sqrt()` function. To some extent though any such changes would just be icing on the cake - they would not make the sort of massive speed improvements that occurred when that first move to the recursive approach was taken.

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Snippets

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Phil South talks about the creation of menu structures in AMOS



Me'n' You

These days you can just plug in an Intuition library and code your own utility programs right there on the Workbench. But you may not really be aware of how to create menus in regular AMOS, without all the fancy Intuition hooks. You may find, especially if you're not of a technical bent, that this is a better way to do it. Getting a screen together is easy enough with the Screen Open command, but what do you have to do to make the screen and its windows act like a normal Amiga program? I've been doing a lot of this sort of thing lately, so try this listing for size:

```
Screen Open 0,640,256,16,Hires
```

It's nice and simple to start with. Just a medium res screen to give you that utility look. Now we can start to define our menus:

```
Menu$(1)=" Project "
Menu$(1,1)="Load "
Menu$(1,2)="Load As... "
Menu$(1,3)="Save "
Menu$(1,4)="Save As... "
```

That's the Project menu done and as you can see, it's a very simple procedure to name the menus, with (1) being the menu title, and (1,1) being a sub menu and so on. We do the same for the next menu, but with a subtle twist:

```
Menu$(2)=" Warp Drive "
Menu$(2,1)="Engage! "
Menu$(2,1,1)="Are you certain, Captain? "
Menu$(2,1,1,1)="Yes, Mr Data - GO!!"
Menu$(2,1,1,2)="No, sorry - @! = Abort"
Menu$(2,2)="Transporters "
Menu$(2,3)="ID scan "
Menu$(2,4)="Alter ID "
```

You can go on adding sub menus like 2,1,1,1,1 to infinity, (or to the edge of the visible screen area) but bear in mind anything other than one or two sub menus really gets on the user's nerves in a very short time. Limit yourself to two as a maximum.

Finally we turn the menus on and kick the program off: Menu On and at this point the menus are active. You can of course turn them off later if you don't want anyone using the menus at a certain point in the program. Finally, for the benefit of our listing, a few cosmetic and diagnostic details:

```
Curs Off : Cls 0
Do
    Print "Menu= ";Choice(1);
    Selection=" ";Choice(2)
Loop
```

You can now run the program. Notice how the menu and selection numbers change when you select a different menu item. This is how you know what the user has selected, and it's simply that. Find out what choice 1 and 2 are and you know what menu item was under the pointer when the user let go of the right mouse button, or RMB.

But to really make menus fly, especially if you have a few running, you should use the AMOS auto menuing system with ON MENU ON. This takes a little bit of practise, but it's really very simple. The revised program is similar:

```
Screen Open 0,640,256,16,Hires
Cls 0 : Curs Off Menu$(1)=" Project "
Menu$(1,1)="Load "
Menu$(1,2)="Load As... "
Menu$(1,3)="Save "
Menu$(1,4)="Save As... "
Menu$(2)=" CyberSpace "
Menu$(2,1)="Engage! "
Menu$(2,1,1)="Are you sure? "
Menu$(2,1,1,1)="Yes - GO!!"
Menu$(2,1,1,2)="No - Abort"
Menu$(2,2)="Morph "
Menu$(2,3)="ID scan "
Menu$(2,4)="Alter ID "
```

But at this point it diverts into new territory:

```
On Menu Proc PROJECT,CYBER
On Menu On Menu On Wait Key
```

This turns on the auto menuing system and waits for

you to either make a selection from the menus or press a key on the keyboard. The PROCs you mentioned in the ON MENU ON statement are then defined somewhere else in the program, like right now for example:

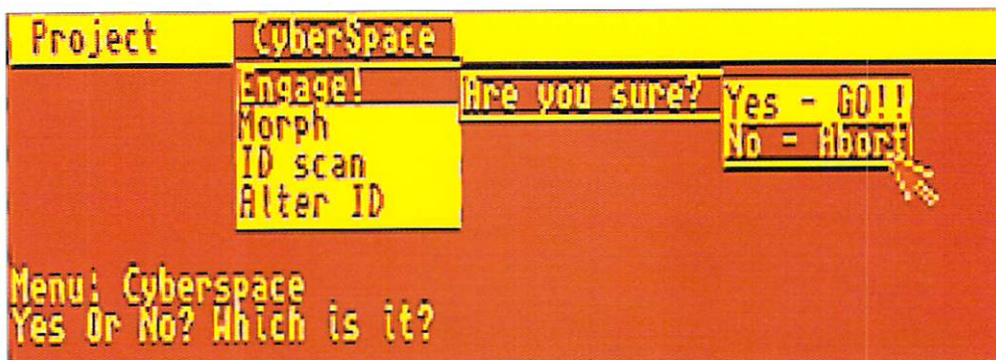
```
Procedure PROJECT
    Cls Y=Choice(2)
    Locate 0,22 : Print "Menu: Project"
    Locate 0,23
    If Y=1 Then Print "Load what?"
    If Y=2 Then Print "Load as what?"
    If Y=3 Then Print "Save what?"
    If Y=4 Then Print "Save as what?"
    OM
End Proc

Procedure CYBER
    Cls Y=Choice(2)
    Locate 0,22 : Print "Menu:
Cyberspace"
    Locate 0,23
    If Y=1 Then Print "Yes Or No? Which
is it?"
    If Y=2 Then Print "Morph yourself"
    If Y=3 Then Print "Okay you're
scanned"
    If Y=4 Then Print "You can't change ID"
    OM
End Proc
End Procedure OM
On Menu On End Proc
```

And there you are; the responses are put into PROCs making the whole thing a lot simpler. You only have to look for one variable CHOICE(2) as the first one, the menu itself is chosen for you automatically and you're sent directly to the PROC that deals with that menu. Once you have subroutines accepting input from menus, you've got yourself the basis for a good menu driven utility program. Now all you have to do is invent the utility. That's the easy part...

WRITE STUFF

If you have any other AMOS programs or queries about AMOS, please write to the usual address, which is: Phil South, Amos Column, Amiga Computing, Media House, Adlington Park, Macclesfield, SK10 4NP. Please send routines on an Amiga disk with notes on how the program works on paper, not as text files on the disk. Make the routines short enough to appear in print (i.e. no more than about 30-40 lines of code) and if possible, no external graphics. That is, any graphics which have to be loaded. If you want to send the graphics too, provide them on the disk in IFF format, the same goes for sound files.



Paul Overaa takes a look at a piece of software for tackling Midi snags



When it all goes pear shaped!

Let's face it, it's happened to the best of us. You set up your Midi gear, mentally wave that magic Midi wand, press the start button on your sequencer or computer and ... nothing! Well, either nothing happens at all or you hear 'sounds from hell' that tell you something is going badly wrong.

To be honest if that's your worst nightmare, you ain't lived. In my early Midi days I got the band's gear set up one night, popped out to get the A2000 being used for the sequencing and, on the way to the stage, tripped. Now this particular Amiga had a built in Midi interface which included a switch that swapped the serial output from the Midi connectors to the conventional D connector. And guess what had broken off as I tripped - yes, that damned switch. And it was in the D connector position.

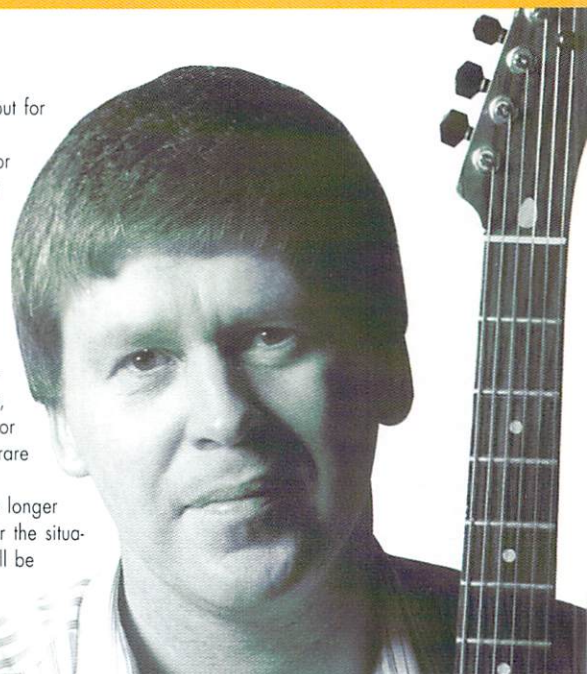
So there I was stuck, 30 minutes before a gig, with a band that was totally and utterly dependent on Midi, no spare external Midi interface and a Midi system that was about as useful as an ice cube to an Eskimo. Luckily, I was able to get the A2000's case off, by-pass the Midi interface switch and we got through the night with no further hitches. Those 30 minutes before the start of the gig however were probably the worst in my entire Midi life, but they sure taught me a

valuable lesson - hope for the best but for plan for the worst!

I've been working with Midi now for more years than I care to remember (since the Midi standard was first created in fact). But, whilst Midi problems do undoubtedly crop up from time to time, I can truthfully say that Midi itself is not prone to being unreliable as such. In most instances when things go wrong, it's usually something very simple - wrong connections, faulty leads or perhaps a Midi unit or sequencer incorrectly set up. It is very rare for Midi equipment itself to go down.

Any odd snags that can occur no longer worry me, but if you are a newcomer the situation will be different. Any problem will be worrying, but before you panic however it's worth getting into the habit of making a few simple checks. Even though most pieces of equipment have their own quirks, fault finding will usually follow the same basic pattern.

First, check the lead's connections are OK, ie the right way round: Sequencer's Midi Out to the first unit's Midi In and then Midi Thru to the Midi Ins of any successive units (assuming you are



Paul Overaa - working with Midi for more years than he cares to remember

daisy chaining Midi unit connections). Sequencer's Midi Out to your thru box Midi In and then a Midi Out to the Midi In of each unit if using a star network arrangement.

If this check doesn't show up any obvious fault the next step is to find some evidence that Midi data is actually pumping through the system. Some sort of visual indication is needed here and many professionals use units such as Studiomastr MA36 Midi Analyser for this. To methodically check connections, leads and channel/mode assignments will, on the average Midi system, take only a few minutes.

Midi Analyzer v2.1 by Michael Dosa			
System Common	Channel Voice	Channel	Data1 Data2
MTC Qtr Frame	Note On	1	F5 0
Song Pos Ptr	Note Off	2	64 0
Song Select	Poly Pressure	3	64 0
Tune Request	Control Change	4	64 0
End Of eXcl	Program Change	5	64 0
	Aftertouch	6	64 0
Sys RealTime	Pitch Wheel	7	64 0
Timing Clock	Channel Mode	8	64 0
Start	Reset All Ctr	9	64 0
Continue	Local Control	10	64 0
Stop	All Notes Off	11	64 0
Active Sense	Omni Mode Off	12	64 0
System Reset	Omni Mode On	13	64 0
Sys Exclusive	Poly Mode Off	14	64 0
Undefined	Poly Mode On	15	64 0
		16	64 0

Michael Dosa's Midi Analyser tool makes use of the famous Bill Barton's Midi library. You'll find both on this month's coverdisk

DOING THINGS THE AMIGA WAY

On the Amiga there is in fact a utility that is equally useful as a diagnostic tool. It's called the Midi Analyser (clever choice of name eh?) and was written by Michael Dosa. Basically you just plug Midi gear into your Amiga's Midi interface and any messages that are transmitted will show up as little squares on the program's display.

This sort of feedback means that, in many cases, you'll be able to check settings and correct any faults almost immediately. Problems can, of course, often be caused by you thinking that particular items of Midi gear have particular settings in place when, in reality, they haven't because settings

have been changed. Depending on what you've been doing you might have reassigned and memorised different controller settings or changed the program's mapping characteristics. It shouldn't happen, I know, but the fact remains that occasionally, due to the Almighty Foo Bird, it does. Quite simply, the Midi Analyser lets you check those settings easily and quickly.

Suppose, for example, you are manually switching to different synth voices on your Midi keyboard as you record a sequence, but on playback your synth doesn't change voices. You check your sequence data and find that program change commands aren't

being stored. But is this due to the fact that the synth is not generating them in the first place, or is your sequencer filtering them out for some reason?

With the Midi Analyser it's dead easy to find out. Just load up the software and manually change the synth's voice - you'll instantly see whether or not a program change message gets transmitted because the appropriate program change box will appear on the screen. Either way, the Midi Analyser can instantly point you in the right fault-finding direction and, needless to say, this saves time by taking the guesswork out of it.

Neil Mohr takes a quick look at a load of DOS drivers



Drives me mad

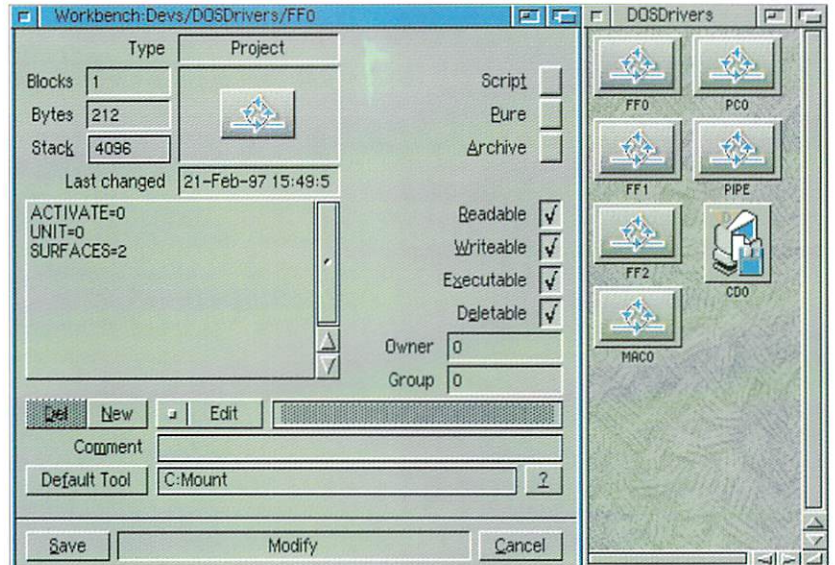
It sometimes amazes me how little some people know about the Amiga. Such things as the existence of the startup-sequence I take for granted, while some people can go on using their Amiga and never even know what it is. But as computer software advances this sort of (unnecessary) complexity is hidden away from users.

Having started using the Amiga back in the bad old days of Workbench 1.3 and floppy based disk systems, I had to know about the startup-sequence, libraries, devices and the rest. I'm sure long term PC users bang their heads against the wall at the void that is some users knowledge of DOS. And let's face it, if you use 95 you have to know DOS, because as soon as something goes wrong Windows runs off to the mothering protection that is the DOS prompt.

RELIANCE

Even though Workbench is not as bad as Windows, it is still reliant on AmigaDOS to initially set up specific parts of the system. Usually if these fail, Workbench will still run but you will be lacking the part that failed. One part of the Amiga operating system that constantly seems to perplex users is DOS drivers. These allow new devices to be added to your Amiga and let the operating system know they are there. If you add a CD-ROM or Zip drive a new DOS driver has to be created to let the Amiga know the device is there.

Back in Workbench 1.3 days all this information had to be stored in a single text file called the MountList, stored in the Devs drawer, and had to have a specific entry in the startup-



All those handy dandy DOS drivers can be found in the Devs drawer, we have one or two in use

sequence. With the advent of Workbench 2 things were improved somewhat, the Devs drawer was totally overhauled and DOS drivers updated. From Workbench 2, every DOS driver is a separate file stored in the DOS driver directory (found in the Devs drawer) and when your machine boots, any drivers stored in here are automatically mounted.

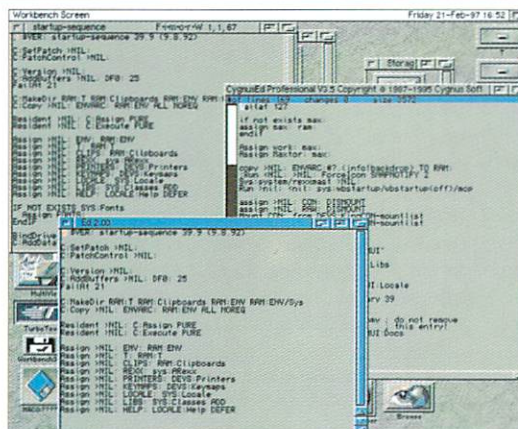
As standard you will find two icons in here called Aux and Pipe. These are just two plain text files that contain the data necessary to

mount the Aux and Pipe devices and you can load these into any text editor you like. If you do, you won't see anything very exciting, but those few lines are very important. They 'describe' the device that should be added to the Amiga's list of mounted devices. At the minimum, this states the software that handles the device. In the case of Pipe, this is the Queue handler. This information is used by the **mount** command to create the new AmigaDOS device that you can access.

USE YOUR ED

Whenever you start playing around with these 'hidden' parts of the Amiga you have to use a text editor. As standard the Amiga is shipped with two editors called Ed and Edit, both of which are bobbins and provide the barest of editing tools and are awful to use. Slightly better is MicroEmacs that also comes on the Tools disk, but again lacks even basic things such as file requesters.

So if you are planning on tinkering with System bits and bobs get yourself a more up to date editor. My personal favourite is CygnusEd, a full version of which was given away on our November 95 issue (issue 92). For a more up to date program, try TurboText or possibly GoldEd, a shareware program crammed to bursting with top features, highly recommended for programmers.



One of these editors is doing its own thing, one of these editors isn't like the others. That is because it's poo

CLICKETY-CLICK

Normally DOS drivers are mounted automatically when you boot your machine, but by double clicking on the DOS driver icon you can run the driver separately (but do not do that now as those drivers are already mounted). If you pop up the icon information requester you will see the default tool is **C:Mount** and is the command used to set up the driver. Another way would be to type in a shell **mount** and the name of the driver followed with a colon: So for the pipe driver you would type **mount pipe:** to set it up.

One further thing to take note of is that the new **mount** command can handle a couple of tool types in the icon. The main one you will see is **ACTIVATE**, if you set this equal to zero you can suppress AmigaDOS displaying the device until it is requested. Well, I seem to have run out of room for this issue, next month we will delve into things a little more.

Dave Cusick
looks at the
problems
facing e-mail
directories



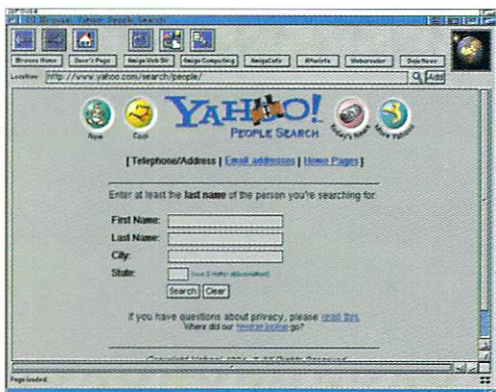
Addressing the world

When a friend gets connected to the Internet it can often be weeks before they finally get around to telling other people their e-mail address, if only because they have not yet committed it to memory and they forget to write it down so they can pass it on. In such situations, or whenever it might be necessary to find the e-mail address of an individual working for a particular company, e-mail directories suddenly become a very attractive idea.

Essentially the e-mail equivalents of telephone books, Web-based e-mail directories have been around for several years now. However, there are all sorts of problems which arise when attempting to use or produce such a resource. Firstly, there are so many different directory services in existence. They generally each contain a smattering of entries from around the world meaning that, in actual fact, finding the person whose e-mail address you really want can be a nightmare, even with the larger directories such as BigFoot and Four11.

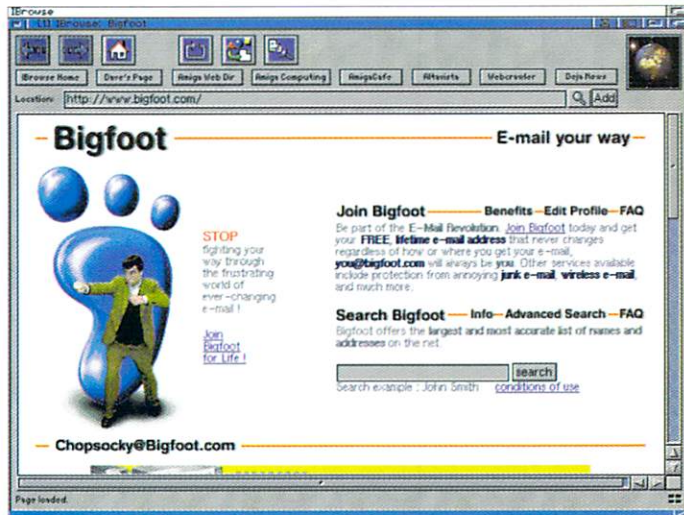
Secondly, because electronic directories can be searched very quickly and easily, in comparison to conventional telephone directories, not only are the potential uses greater, but also the potential misuses. This misuse might amount to ploughing through thousands of addresses to compile mailing lists for irritating but relatively harmless junk mail, or something altogether more sinister.

A few months ago Yahoo announced what it



The Yahoo service listed three of my e-mail addresses...one of which I haven't been using for over 18 months now

Bigfoot, one of the more famous directory services



promised would be a highly valuable and totally revolutionary e-mail directory service. Simply by entering someone's name into a special Yahoo search engine it would be possible to discover not only their e-mail address, but also their postal address - and in the case of American addresses, to locate their home on a map of the area. Unsurprisingly, there was an outcry and within a couple of weeks Yahoo was forced to shelve the service.

Yahoo had, of course, thought that such a service could have a great many valuable applications. Obviously, people would be able to quickly look up the addresses of friends and family whilst on-line, but another more unconventional use I heard suggested was that a suicidal IRC user could be traced and emergency services deployed accordingly. However the vast majority of Net users seem to be opposed to such directory services, and the reasons they put forward are extremely convincing.

On a basic level, when people talk about the possible benefits of meeting people over the Internet, anonymity generally comes across as being an important factor. I know people who will happily ask an anonymous stranger on the other side of the world for advice via the Internet, but they would not dream of doing so if they thought for a moment that the stranger could ever

know for certain who they were and where they were from.

Moreover, it is argued that e-mail directory services constitute an invasion of the privacy of the individuals whose names and addresses are included in the database. When playing with some of the bigger Web-based e-mail directories, many Net users are surprised to find that their names are already included, even though they haven't given their e-mail address to the directory in question.

The fact is they do not always have to - names and e-mail addresses are sometimes taken from newsgroup postings or from lists produced by companies whose Web sites feature fill-out forms. Imagine for a moment that your home address and telephone number are already available on the Web for any individual to discover simply by entering your e-mail address - not a pleasant thought, is it?

For instance, it would be relatively simple for an unscrupulous computer user to obtain lists of other users in their locality and use this as something of a burglary hit list. Even more worryingly, those strange souls who inhabit the more sordid newsgroups and IRC channels would suddenly have a great deal more power at their disposal than simply the ability to write flaming e-mails to the masses.

CONTACT

If you wish to contact me, my e-mail address is dave@dcus.demon.co.uk. Questions, suggestions and feedback are all more than welcome. I also have a homepage, which can be found at <http://www.dcus.demon.co.uk/>.

BOTTOM LINE

The bottom line is that the idea of including people's names and rough geographic locations in an e-mail directory is not in itself a bad one. However,

the unfortunate situation is that when it comes to Net security, a little paranoia in the short term will probably pay dividends in the long term.

Paul Overaa solves a Scala-related problem, and discovers a little known utility



Rexx View

I had an email from a guy in the States recently who, though being primarily PC-based, deals with Amiga's (4000/030) in connection with a local broadcasting station running 24 hour cable TV via Scala's Infocannel IC500. Scala's Infocannel apparently offers the user the possibility to execute ARExx-scripts and the bottom line is that this was something that, even after six months of trying, they still couldn't get to work. Even simple scripts such as this delay loop failed to work:

```
/* script */
do i = 1 to 15000
end i
```

I'm not a Scala user so I didn't expect to be able to offer much help but it turns out I got lucky, helped mainly by the fact that some output from a utility called REXxView had been provided. REXxView, which at the time I hadn't seen, was

apparently able to monitor the flow of ARExx messages and in this particular case produced the following output:

```
Frontask: Infoplayer
Action: RXCOMM
Modifier: RXFB_NOIO
Arg: HDO Workbench:/S/WILLEM5.REXX
```

My guess was that this represented the first, so called command invocation message, that Scala doubtless sends to the ARExx resident process asking for a script to be executed. RXCOMM, incidentally, is just a standard flag in the ARExx message packet that indicates a command. The Modifier RXFB_NOIO is telling ARExx that the dos process, which ARExx sets up to run the macro, should not inherit the host's (Scala) input/output handles. Again this is normal – macros run from Workbench started programs don't have Shell style I/O handles.

The key point is that all this information really only means that ARExx has been asked to run a script – it doesn't mean that the script was actually executed. In fact immediately I looked at the filepath/filename that ARExx was being provided with, it made me suspect that the script was never even getting off the ground. The argument...

```
HDO Workbench:/S/WILLEM5.REXX.
```

is supposed to be a normal reference to a runnable script. But it isn't – the monitor program is suggesting a reference to HDO, a space and then Workbench:/S/WILLEM5.REXX. This could have just been a fault in the program's display but, on the face of it, seems as though, somehow, the macro path name had been set up incorrectly. If, as presumably it is, HDO was the Workbench partition then the macro's file path, as every self-respecting Amiga user will know, needs to be something along the lines of:

```
HDO:/S/WILLEM5.REXX
```

or...

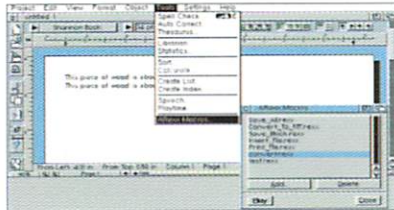
```
Workbench:/S/WILLEM5.REXX
```

or simply...

```
S:/WILLEM5.REXX
```

So without knowing anything about Scala or (RExxView), it seemed quite likely that these six months of problems have stemmed from a wrongly specified filepath.

The fact that delays weren't being produced fits in with this theory quite nicely – obviously if the macro filepath has been wrongly set – then the macro would not be found and so no delay would occur!



Almost everyone will find REXxView handy on the odd occasion when it's necessary to figure out why some macro hasn't been executed!

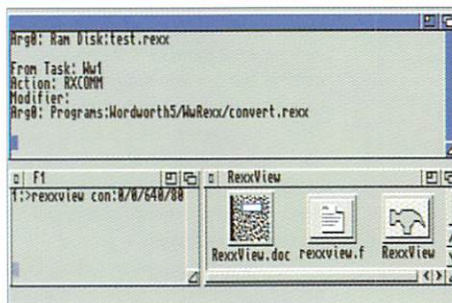
AND THE UTILITY ITSELF

After seeing the reference to REXxView, I got curious and FTP'd into AmiNet to find out more about it. Sure enough, in the rexx section of the utilities area sat a REXxView.lha archive. Turns out that the program was actually written in 1991 by Martin Kees using JForth and it is indeed a shell utility that monitors the REXX port. What's more, it allows the received information to be displayed on screen, printed or written to a file using commands such as:

```
rexxview con:0/0/640/80/rexxview
```

It's easy to use and of course, for many users, REXxView provides a simple way of seeing exactly what commands strings are transmitted. Certainly anyone new to ARExx will find this sort of visible feedback quite useful.

The other information provided, namely that found in the Modifier and Action fields, may also occasionally be useful although I suspect that, most of the time, it will not be. What sort of info gets provided? If, for example, you were testing a script that made use of



RExxView – a simple utility but one that does its job perfectly well!

an external function library, you might see an Action RXADDLIB message occur when the script is first executed. In any subsequent script use however, this message should not occur (if it did this would mean a new entry was being added to the library list each time the script was executed). Similarly, a RXFB_RESULT indicator in the modifier field would mean that OPTIONS RESULTS had been set in the macro being executed.

It might be imagined then that REXxView would be of use in catching all manner of subtle script and macro errors. In practice though, whilst these Action and Modifier names may sound impressive, the use of libraries, options settings and so on are always going to be perfectly obvious from examining the script itself. Minor niggles aside, REXxView does its job well enough and, since it is a handy tool to have around, it deserved a mention for that reason alone.

When you've finished using REXxView you just terminate it by sending the string 'closerexxview' to the REXX port. This, of course, you can also do from the Shell using the rx command:

```
rx closerexxview
```

That's really all that needs to be said about REXxView – except to point out that the program can be freely distributed. You will in fact find the utility, its documentation and even the source code on this month's coverdisk.

Parting is such sweet
sorrow, so here's
just one more
Photogenics tutorial
from Neil Mohr



For old times

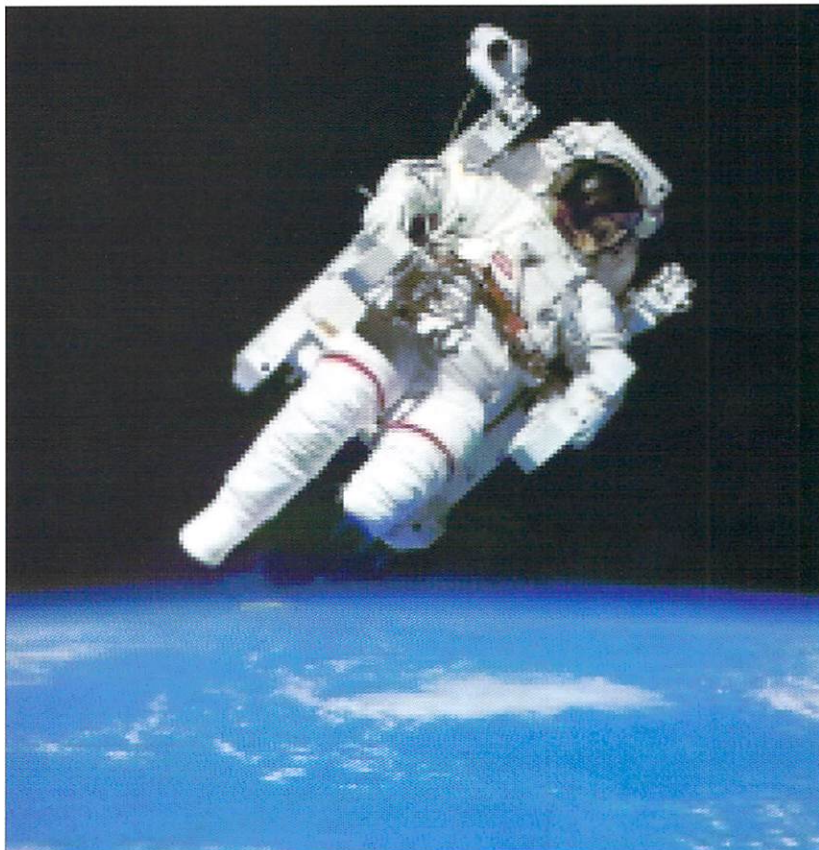
God is in the details, so they say, but it's true it is those little extras that can be so easily overlooked that make all the difference. So I thought I would round things off by mentioning some of the easily over looked tools and techniques in Photogenics. (I know I said last month's would be the final one, but if a woman can change her mind why can't a bloke?)

First up on the list for a belated mention is the Transparent Gradient Tool. Once you realise what this does and how to use it, it can become quite useful for helping create smooth gradients – either for direct use on a picture or with alpha channels. Select the Transparent Gradients from the Windows menu. This gets you a new window with a number of radio buttons and selecting any of the buttons (apart from Normal) will activate what is essentially a new paint mode that will be applied to any of the drawing tools, other than the line tools. What now happens when you draw, say a filled rectangle, a smooth 24 bit gradient is applied over the rectangle area going from full colour to fully transparent with the background.

MARKING OUT

It is advisable to experiment with the Transparent Gradients, but if used in conjunction with the Freehand Draw Tool, it becomes very easy to mark out an area you want to effect and allow the gradient tool to do its work. Remember that the brush transparency still affects how heavily the gradient is laid down on the paint layer, so if you need to lighten the effect just increase the brush transparency level.

If you need to touch up images or carefully cut back a border or edge of an image, the most powerful tool available is Smudge. This allows you to 'drag' over a neighbouring area of colour in a similar way to the Rubber Stamp tool in Photoshop and ArtEffect, but is not quite as flexible. Using the Smudge tool allows you to 'cover



up' speckles that can appear on digitised pictures or simply remove blemishes from an existing picture. When you need to expand or reduce an area of a picture, by working at the edge of the area and carefully nudging the colour into the new area, you can easily increase or reduce the covering area.

If you find too much or too little of the area is being effected you can adjust the brush size and pressure to alter the overall effect. The one thing you have to keep in mind is that Smudge works directly on the image by passing the paint layer so as soon as you have made a single change you only get one chance to undo it. As soon as you make another, the previous change is permanent.

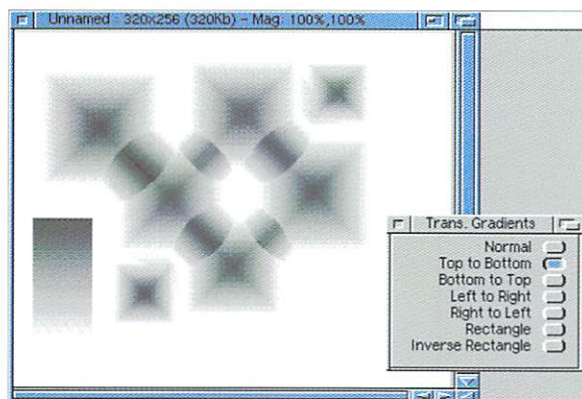
One of Photogenics' less useful functions, that may come in handy now and again, is the Warp tool. Once selected it can pull off two different types of effects; twirl and bulge. The amount the image is effected depends on two factors, first and most obviously are the actual warp settings themselves. You can alter these by clicking on the warp tool after selecting it, this pops up a new requester that allows you to alter the values. The other way is by the actual area you select for the

warp tool to effect. The size of the circular area you choose alters the overall area effected and the cross selects the centre point of the effect.

Finally, Photogenics has a couple of handy ways to select specific parts of images. Both ways essentially give the same result but are arrived at via different routes. The first is from the Image menu – the Select Similar option allows area of colours on the image to be selected on the paint layer. This can be applied to either the current brush colour or by allowing you to select a specific colour from the image.

FILL TOOL

An alternate way of going about this is to use the Fill tool. You may notice the options for both these methods are the same, allowing you to determine how close a match or wide a selection of the image will be chosen. This is called the tolerance and denotes how close a match to the original colour any part of the picture has to be selected. The smooth value tells Photogenics how much blending there should be at the edges of the final selection. If you want a sharp distinct area, set this low and if you want a gradual blend, set the smooth value higher.



Paul Overaa explains how the conversion of internal file date stamps into readable text form



Stamp On IT -

The key element in this month's discussion is the translation of AmigaDOS time stamps from their internal form into readable text strings. There is a dos library function, `DateToStr()`, that takes a pointer to an entity known as a `DateTime` structure and performs the necessary magic. The function itself is easy enough to use although the initial setting up of the structure (see listing 1) does require a little care. Hopefully, the following notes will help.

The first field represents a dos date stamp, ie the internal form found in the file info block (note, incidentally, that this is the date stamp itself - NOT a pointer to it). Following this comes a `dat_Format` field which can be set to a number of standard values. `FORMAT_DOS` for example produces a date in dd-mmm-yy style whilst `FORMAT_INT` provides the reverse yy-mmm-dd form. USA style dates (mm-dd-yy) are produced by setting the field to `FORMAT_USA`!

The remaining fields are pointers to buffers which will be used by the `DateToStr()` function for storing the generated date and time strings. The rules are simple: Any buffer pointer that is non-null (ie non zero) is expected to point to a valid buffer area. Set the pointer to NULL however, and that particular string will not be generated. This arrangement does of course make `DateToStr()` extremely flexible. In our date stamp application

```
STRUCTURE DateTime,0
STRUCT    dat_Stamp,ds_SIZEOF
UBYTE    dat_Format
UBYTE    dat_Flags
CPTR     dat_StrDay
CPTR     dat_StrDate
CPTR     dat_StrTime
LABEL    dat_SIZEOF
```

Listing 1: The dos/datetime.h defined DateTime structure

```

//\\\\\\\\\\
lea    datetime_struct,a4
move.b #FORMAT_DOS,dat_Format(a4)
move.b #0,dat_Flags(a4)
move.l #NULL,dat_StrDay(a4)
move.l a5,dat_StrDate(a4)
move.l #NULL,dat_StrTime(a4)
jsr    ConvertDate
adda   #LEN_DATSTRING,a5      next name space
addq   #1,filename_count     count this item
bra.s  .loop                  check for next
\\\\\\\\\\\\\\\\\\

ConvertDate movem.l    d0-d1/a0-a1,-(a7)
move.l    a4,d1
CALLSYS   DateToStr,_DOSBase
movem.l   (a7)+,d0-d1/a0-a1
rts
```

Listing 2: This code sets up the DateTime structure and produces a readable date. The DateToStr() call is sandwiched between movem's to protect the scratch register contents!

Part 3



Getting serious now, we've even got a brand stamping new boot pic



This month you'll see StampOnIT displaying both file names and creation/last-edit dates

for instance, only the file's date is needed, so we just allocate a buffer for the date information whilst setting the `dat_StrDay` and `dat_StrTime` fields to zero.

BUFFER TRICKS

In the interests of simplicity I've made a minor modification to last month's arrangements by extending the buffer space used to hold the date stamp information so that both the `DateTime` structure info and the converted date string can be stored. In effect then, the buffer is being regarded as a series of data blocks which look like this:

(includes the date stamp)

After date stamp information for a file has been copied to the start of the associated buffer block we just fill in the appropriate `DateTime` structure fields (setting the `dat_StrDate` field to the address of the first byte reserved for the converted date string. Having done that we then call the `DateToStr()` function and the dos library performs the conversion for us. The result is that by the time the file handling loop is complete we've got one buffer holding all the files names and another holding the associated dates in printable form.

I've mentioned before that it's useful to maintain some sort of visual feed back when writing any 680x0 utility - just to help keep things on

track. When you examine this month's source you find therefore that I've modified and extended the routines originally used to display file-names.

I've actually decided to keep the Print/Clear routines as a permanent fixture (since they'll be adequate for our purposes) but have added extra `IntuiText` structures for displaying and clearing the date stamp information. The `IntuiText` structures are now all linked so that both the file-name and corresponding date stamp displays are produced with just one `PrintIntText()` call (and also removed in a similar fashion).

Listing 3 shows the basic loop arrangements for stepping through the newly arranged buffer areas. This produces the display that you'll see when you use the latest version. The next step of course is to build a set of files that store this data and it's this task we need to tackle next month.

You'll find various other minor code changes in the coverdisk code as well. A few extra labels have been introduced and so on. The delay setting has also been reduced so filenames and dates appear only briefly. This is in readiness for the sort of rapid display that will be used when date stamp files are actually created. If you prefer to slow things down a bit however (perhaps in order to convince yourself that you are seeing the correct dates), just increase the `DELAY` setting at the start of the source and reassemble the code.

```

move.w    filename_count,d0
beq.s     .exit                      NO FILES!
cmpi      #MAX_FILES,d0
bhi.s     .exit                      TOO MANY FILES!

.loop
jsr        PrintFileName             print filename and date

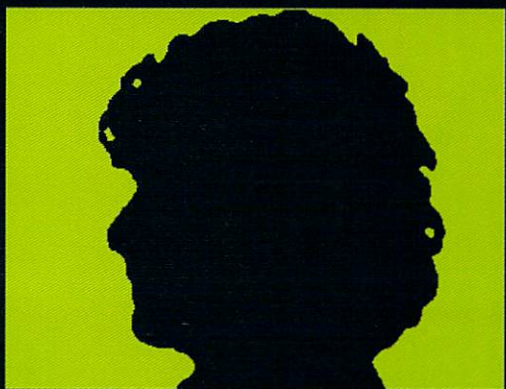
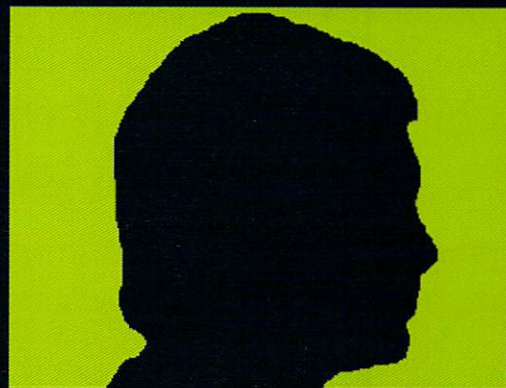
adda.w    #FILENAME_SPACE,a0
adda.w    #LEN_DATSTRING,a1
dbra      d0,.loop
.exit
rts
```

Listing 3: The main framework of the new name and date printing loop.

AMIGA ACTION

Tell me about it...

**ex-SAS
ex-Police**



**they're
ruthless...
...they're
hard!**

Get on their good side, read it....

AMIGA ACTION

news

Power Amigas, Quake, things are looking up.

Hugh Poynton investigates...

CASTLE KINGDOMS

Mutation Software is set to release its latest title, *Castle Kingdoms* in the next month. Coinciding with this is the announcement that the Fun 'n' Value series of games, currently priced at £14.99, will be reduced to £12.99 from Spring '97.

Castle Kingdoms is an adventure shoot 'em-up in which you have to recover five magic talismans to save your kingdom. From the screen-shots the game looks pretty impressive.

In addition to *Castle Kingdoms*, Mutation Software has announced it will be releasing a further three titles throughout the spring, *Monster Football*, *Kartoon Racers* and *Tin Toy 2*.



QUAKE FOR THE AMIGA?

If we printed this last month you would have credited it as being an April fools wind-up. Well, it's not.

It is now possible to play *Quake* on an Amiga. Some demo coders have converted the PC version of *Quake* onto the Amiga. Using a downloaded file called *Amigaquake.exe* you can play the PC version of *Quake*.

The news is excellent for the Amiga as it

shows that hundreds of games could be ported over to the Amiga - potentially revolutionising the games market. Initial reports suggest that the game runs at quite an acceptable speed on top of the range Amigas - 25 fps on 060/Cybervision3D.



DIRECT POWER

Direct Software has announced that it is selling ready-to-use Power Amigas. The machines utilise AGA chip, 3D chip and 64 Bit Chip technology, make use of a 1Gb Hard Drive and 22Mb of RAM. The Power Amiga will also boast CD Rom, 3.5" disk drive, 7 Zorro slots, 5 PC ISA slots and will be able to emulate both Mac OS and PC Windows. For further details contact Direct Software at 01623 455398

DIRECT SHOPPING

Direct Software is continuing to establish Amiga software and hardware stores not just in the UK, but in Germany as well. Working with IAT international, Direct Software has been able to assure the co-operation of companies within the Amiga scene. The news will be a great relief to those finding it ever more difficult to find Amiga products in the UK.

In addition to existing stores, it plans to open a further 10 stores in the UK and Germany. Stocking Amiga software and hardware, the chain should help to fuel the revival of the platform.

Direct Software plan to open shops in next three years in Newcastle, Leeds, Wales and also Germany. The next shop to open will be in Mansfield (Nottinghamshire) and will open in April.

APEX SHAKE-UP

Dave Kirk, the man behind Apex Systems has announced that Apex will probably become a third party developer rather than a software manufacturer and distributor in its own right. Reluctantly Dave has decided to branch out and dedicate time to alternative careers as the future of the Amiga looks undecided.

Apex Systems will however, continue to develop games for other publishing companies and work is well underway on the strategy/trade game Alien Presence: Dawn of the Sixth Sun. Hopefully a publisher will have been decided, a release date of August 97 has been pencilled in. For further details contact Dave on: 01709 890552

FUBAR

FUBAR (apparently a military term to mean things have gone pear shaped) is a new multi-player C&C style action strategy game currently being developed by a software team called Q-Group.

The aim of the game is to, quite simply, conquer the world. As in Risk, the world can be divided between the individual players and the game played until each individual country has been conquered.

In order to rule the world you must first blow the stuffing out of your opponents. You have a huge array of hi-tech weaponry and the ability to cause massive explosions to help in your quest. All in all it looks like it'll make C&C look like a fight in a sand pit. At this stage all the design work of the game is finished and the actual coding is set to begin. Q-Group is currently looking for new ideas as to weaponry and 3D rendering. Also a publisher wouldn't go amiss. Anybody interested should contact: 101330.1207 compuserve.com



GREAT ESCAPEE

Details of an exciting new action adventure game from Hungarian software team have emerged. The Invictus team hails from the Eastern Hungarian city of Debrecen (also the home of Forgotten Forever programmers, Charm).

The game, OnEscapee, is an action adventure mix of the 1993 PC hit Another World and the Amiga based Flashback. The graphics look superb, much of the graphics and animation having been drawn by hand.

Work on the game has been slow but steady and as a result, the finished product looks very polished and professional. According to Invictus, "The code has been rewritten and the graphics re-drawn many times, as we go over our work from time to time. The game was planned to fill 3 floppy disks, now a CD is required, the music modules have been replaced with digitised pieces of music, the main character's graphics became huge, some rendered elements were included and the CD32/2Megs restriction ignored".

A playable preview is apparently ready which will take up a beefy 50Mb. For more details take a look at Invictus' homepage on: <http://dragon.klte.hu/~dakos/#Team>



ACTION FEATURE

WORK IN PROGRESS

The Strangers

'Iron Man' Hugh Poynton sneaks a look at Vulcan's latest beat 'em-up.

A few months ago a disk from a software development team called Ablaze Entertainment found its way into the Amiga Action offices. Ablaze, after months of work on its Renegade style beat 'em-up, *The Strangers*, thought it was about time to drum itself up some publicity. The ploy worked, after sending disks to magazines and software publishers all over Europe, Ablaze found a publisher in the shape of Vulcan Software Limited.

A couple of months later, it looks like *The Strangers* is almost ready for release. Unlike the single disk demo I played back in December, Vulcan's latest 'work in progress' version offers multiplayer support, a large variety of scary looking baddies and a fair number of cunning fighting moves. In total, the finished game will include eight levels, six player deathmatch and, so I'm told, even more moves.

As it stands, the game is looking pretty impressive; a good old fashioned beat 'em-up. The storyline is simplicity itself. You are confronted by a bunch of homicidal maniacs in a variety of locations (disused factory, deserted subway and so on) and, by using your cunning and fists, you have to kill them before they kill you.

The game will probably annoy some people because of its almost cartoony approach to violence. Some sequences remind me of a Ren and Stimpy cartoon. At



Hi-yaa!

one point my character, after defeating all but one of the bad guys, got shot by the remaining bloke. Although totally unrealistic, the sequence was a little grim. He got one arm blown off, then the other and finally his head blown in two. Another, more enjoyable, but still quite violent touch to the game is the distinctly ungentlemanly groin kick move. Press the right keys and your character will hoof a bad guy in the nuts so hard he doubles up clutching his crown jewels with a rather pained expression on his face.

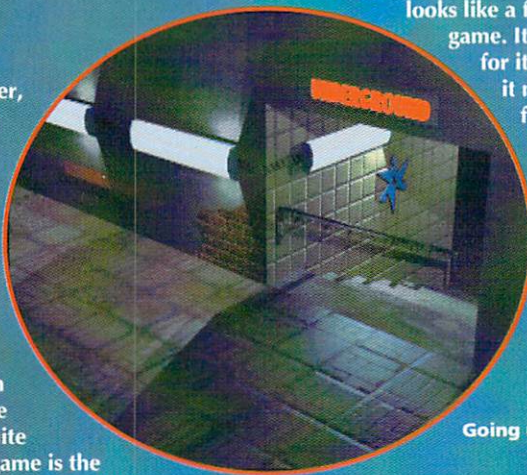
Another amusing feature is that the baddies look distinctly scary. They seem to take their fashion hints from East 17 and Jeff Banks (at least there won't be any bobbling) and having either a slap head or a mullet seems to be an essential part of the '97 bad guy look. Something I have to congratulate Ablaze on is the fact that, unlike many beat 'em-



Practise your sporty Spice Girl high kick

ups where you can simply thump keys in a random manner and turn your character into some sort of human Tasmanian Devil, *The Strangers* does require you to be actually use a tad more skill.

Although I've only played a work in progress version of it, *The Strangers* looks like a fun little action game. It could do well for itself, especially as it now boasts features such as the six player deathmatch. Release is scheduled for 30 April 1997, so keep your eyes peeled.



Going underground



My bird looks like a what?



Take that!

Siamese

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ACTION REVIEW

REVIEW

Super computers are a right pain in the butt. I mean look at HAL in 2001: A Space Odyssey. Sounding for all the world like some effeminate, attention seeking, patronising pedant, the stupid thing gives Dave Bowman tips on drawing shortly before trying to lock him out of the spaceship billions of miles from earth. Once rumbled does HAL face his demise calmly and coolly? No rather he pops his computer clogs whilst singing nursery rhymes in a stupid voice. Very dignified. Or the defence computer in Terminator – gets bored one Friday afternoon and decides to start juggling ICBMs. Nice one. Even KIT, David Hasslehof's swish looking TransAm sounded like an English teacher.

Your job in Nemacs IV is to stop another of these neurotic, anal retentive computers from destroying the world. The year is 2048 and the world's three remaining nuclear powers have decided to club together and form a series of huge, but manic depressive, global defence super computers. Bad move. Before the warranty's even run out, the thing is on the blink and thinks a big nuclear war is going on. The only way to stop Marvin the Paranoid Android's big brother from blowing up the world is to enter the huge complex he is housed in and pull the plug. Unfortunately for you, this complex is jealously guarded by legions of robots all



intent on blasting the bejeezuz out of you.

You are in control of a remotely operated walker droid armed with a huge array of weapons including lasers, grenades, machine guns and bombs. All this makes for a fantastic, if unusually difficult game. The thing you should understand before buying this game is that



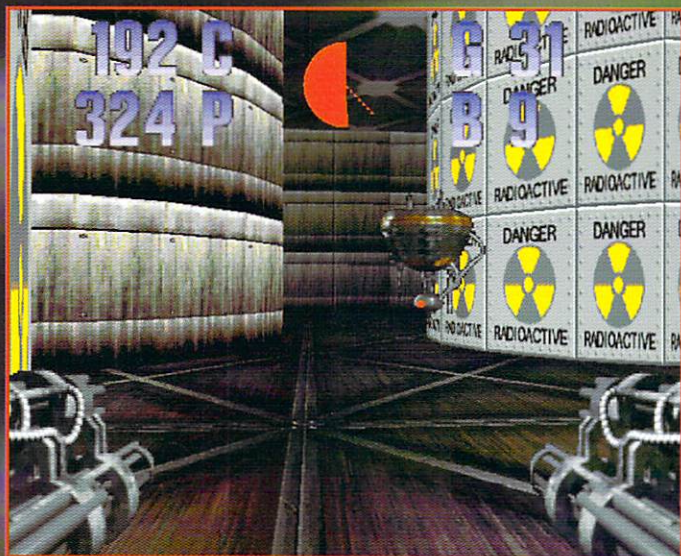
even the first level on an easy setting makes a Platoon-style firefight look about as dangerous as a load of kids flicking elastic bands. The action is intense. As there are 40 levels on the CD, the game is pretty challenging.

Nemacs IV is pretty easy to get the hang of. The robot you control has an arsenal of

Taking a break from running around shooting robots all day whacked up on Scooby snacks, Hugh Poynton reviews the new automaton shoot 'em-up.

Nemacs IV





weapons slung on each side of it that would make Arnie jealous and, unlike Doom, you don't have to find these weapons, just make sure you keep the ammo topped up. Also, unlike Doom, all the weapons can be fired at the same time, meaning that if you aren't particularly skilful you can simply run from room to room with all guns blazing until you run out of ammo. Not very effective but at least it looks like you're doing well. There is a very subtle puzzle element to the game – hitting a switch to open a door might mean that the door only stays open for a couple of seconds, so you have to find the quickest route before it slams shut.

Graphically it's stunning. From the start the game looks fantastic. The intro sets the

scene and generates anticipation just like a film. Before being transported into the cockpit of the strider we are treated to a film of two mean and ugly looking transports skimming low over a barren desert to deliver you to the heart of the complex. Once actually in the strider the graphics are still excellent, the passage ways and tunnels look suitably dank and the explosions and laser beams look the business.

Naturally this graphical excellence means the game really requires quite a high spec computer. For the 3D rendered intro you will need a quad-speed CD-Rom with a decent processor and for the game

itself an AGA Amiga with 4Mb RAM, a 68020 CPU, Amiga 2.0 and a hard disk. Nemac has been designed to support any graphics card and the new DRACO from Macrosystem. In addition to this, the game actually supports the Virtual i-O glasses (see our peripherals article).

All in all Nemac IV is an impressive looking game that will keep you hooked for months. After a days playing I'd only reached level three, so actually completing the game will probably take longer than brokering a middle east peace accord.

The game has been particularly successful in America and Germany but unfortunately Parnat software hasn't found a distributor for the game. If you want to get your hands on Nemac IV contact Parnard Hard and Software at:

Parnard Hard and Software

Schillerstr. 24

D-72810 Gomaringen (Germany)

Phone: (49) 7072/8510

Fax: (49) 7072/8511



THE LOW-DOWN

PUBLISHER Pernart Hard & Software

DEVELOPER Pernart Hard & Software

PRICE £29.99

DISKS 1 CD

HD INSTALL Yes

SUPPORTS AGA only

GRAPHICS 90%

SOUND 85%

PLAYABILITY 88%

REVIEWED BY HUGH

OVERALL SCORE

86%

Guildhall Goodies...

After re-releasing a number of Microprose games, Guildhall Leisure has started buying up the rights to old Electronic Arts games. Although old, many of these games are absolute masterpieces. Take for example, this month's offerings, *Desert Strike* and *Road Rash*:

ROAD RASH

Guildhall definitely knew it was doing when it bought up these two titles. Both *Desert Strike* and *Road Rash* were classics when they came out and, in terms of addictiveness, playability and general coolness, beat many of PlayStation products hands down. The proof is in the pudding, as they say because, not only is *Desert Strike* still alive and kicking on the PlayStation, *Road Rash* has been reincarnated as a multiplayer hyper realistic title for the PC market.

I've mentioned this game before 'cos it's one of my favourites. Like all the best games, it enables you to do the things you'd love to do in real life but would result in fines, imprisonment, injury or shuffling your mortal coil. The aim of the game is simple enough, burn down the road knocking your opponents off their bikes in a very unsporting fashion.

To add that extra element of danger, the roads you bomb down are public highways and along every stretch, one of six highway patrol men is waiting on a fast, but rather crap looking, to nab you (call that a bike, it's

Oh no, it's the pigs!



Using the road is



a fa*kin hair drier, as Phil Daniels said in *Quadraphenia*). Huge American saloon cars are also using the same roads but at a considerably more sedate pace (no doubt full of innocent sweet young families on their way to the holiday of a lifetime at Disney World). However, bummer the families, crash into these lumbering behemoths and you will not win the race.

Playing *Road Rash* is a task that requires the reactions of a nervous cat and excellent hand/eye co-ordination. Although the graphics are now outdated and rather crude, it just doesn't seem to matter when you are attempting to squeeze between two cars going in opposite directions at stupid speeds. Superb timing is also required if you are to cosh your opponents over the back of the head as you pass.

Road Rash is everything a game should be; fast, furious, gratuitously violent and, most importantly, great fun. Like *Desert Strike*, it'll keep you amused for hours and provide twice the gameplay of many recent console releases. Same advice here I'm afraid - go buy it.

The dirty beggar

The joy of the open road



The Road Rashers celebrate with lashings of Newkie Brown and cheap cider

THE LOW-DOWN

PUBLISHER Guildhall Leisure

DEVELOPER Electronic Arts

HD INSTALLABLE Yes

PRICE £14.99

SUPPORTS Any 1Mb Amiga

GRAPHICS	82%
SOUND	82%
PLAYABILITY	90%
DIFFICULTY	Average

OVERALL SCORE

86%

DESERT STRIKE

This is as refreshing now as it was when first released four years ago. Much as I like flight sims, they do have a tendency to take themselves a little seriously with every switch and dial reproduced with sometimes tedious accuracy. Rarely do you find a sim/arcade cross over, but when you do they are always immense fun.

Desert Strike is like playing an episode of the classic '80s TV show, *Airwolf*. That was the one with the pathologically quiet but nevertheless dashing Stringfellow Hawke and his fat, ugly but still quite cool sidekick, Fat Bob (or something). The helicopter shoots around the screen producing menacing noises and picturesque explosions and the action never gets too bogged down in technicalities. You just fly about blowing up tanks and buildings with your Hellfire missiles while rescuing hostages with a James Bondesque rope ladder.

The storyline and gameplay are both simplistic. A mad dog Middle East dictator called General Kilbaba has invaded a small neighbouring Arab Emirate. Your mission, as the pilot of a souped up Apache, is to fly in and destroy SAM sites, radar installations, trucks and the odd camel. In addition to this there are a liberal amount of hostages dotted about the playing area for you to rescue.

The game is immense fun to play. Unlike most 'blow up the Arabs' style chopper games, Desert Strike has a much more arcade feel to it owing to the isometric view. The chopper is pretty easy to fly although changing direction suddenly can cause it to slew slightly. A sharp turn to the right for example would cause your Apache to continue to skid, altering it's direction. This definitely adds to the game and it lets you do some mean looking stunt flying. The sound is excellent with little shouts of 'over here' issuing from the mouths of the MIA's whenever you fly past them and explosions that the IRA would be proud of.

A fair bit of thought has to go into Desert Strike. Although the game looks like a simple arcade shoot 'em-up there is a certain amount of skill involved and you have to use similar tactics to



those needed in a 'proper' flight sim. For instance, if you're shooting up an airfield, you have to get rid of any missile batteries on the ground first so they can't hinder your attack. I've been playing this game ever since it arrived in the office and I can still only complete a fifth of the game, so don't be surprised if you end up playing it until you've got a headache.

There is a certain amount of forward planning involved in the game. Ammo crates, fuel drums and hostages are dotted around the combat zone. Unfortunately your chopper doesn't have the necessary fuel or ammo to accomplish all the

stated objectives. You will need to blow up barracks and hangars to seize what you need. Rescuing and safely delivering a hostage buys you more lives.

The beach head is where you drop off MIA's to gain more lives

As proof of the success and the enduring appeal of Desert Strike, consider the fact that Soviet Strike is proving to be a raging success on the PlayStation four years after this game made it big on the SNES.

Although I'm more of a flight sim fan, I found Desert Strike fantastic. It's great fun and more addictive than unadulterated heroin. It will keep you occupied for ages - half the time overjoyed your doing so well, the other half head-butting the monitor because you just got shot down by a Rapier for the twentieth time. Buy it now.

Stop touching my chopper!



This little ship is your home base

THE LOW-DOWN

PUBLISHER Guildall Leisure

DEVELOPER Electronic Arts

HD INSTALLABLE Yes

PRICE £14.99

SUPPORTS Any 1Mb Amiga

GRAPHICS	80%
SOUND	85%
PLAYABILITY	90%
DIFFICULTY	Average

OVERALL SCORE

90%

Fanning the

Hugh Poynton investigates the best Amiga dedicated games Web site on the Internet, Amiga Flame

Amiga Flame is, it's fair to say, the greatest source of information on Amiga games available over the Internet at the present time. Updated every week, the site prints details of games both with and without publishers and provides much needed publicity for budding coders and developers. I talked to Philip Cosby, creator of Amiga Flame, about his site, the games industry and future trends in the Amiga games industry.

Q. Can you tell us a little about the history of Amiga Flame?

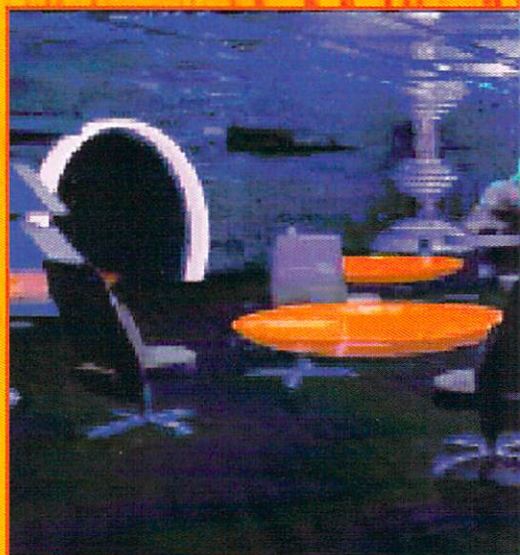
A. The first ever computer I bought was the Spectrum. In those days you didn't buy a game for its graphics, but for the gameplay. I stayed with the Spectrum right to the end and it is awful watching your favourite machine die.

After I was over the death of the Spectrum, I bought the computer that had killed it, the Amiga. This was the machine which showed me not only can you have brilliant gameplay, but you can have excel-

lent graphics too. I grew up with the Amiga and used it for my school work – with its excellent word processors such as Kindwords, it was so easy to use.

My favourite use however, was for games and this is what led to me getting the A1200. After looking at its astounding graphics and hearing about all these exciting games in development I thought it was time to move with the times. I then got connected to the Internet, after all it meant that I could get game demos faster. But while I was on the Net, I started to learn of more and more games in development.

After a month of pre-production, the Amiga Flame was launched in September 1996 to bring games news to the Amiga Community. It started off with only four sections entitled: Amiga News, Future Game Releases, Web Links and Past Releases of 1996/97. The Amiga News section contained all the latest games news and was updated every single week. At first I could only get details of games but later I obtained screenshots and are now regularly used to



The site includes some impressive screen shots

show off the high quality of the games. There are about three new articles up every week.

The Future Games Releases section has given me the opportunity to show just how many games are in development. There are around 90 games mentioned in this list and there are links to developers homepages to give people the opportunity to get more info.

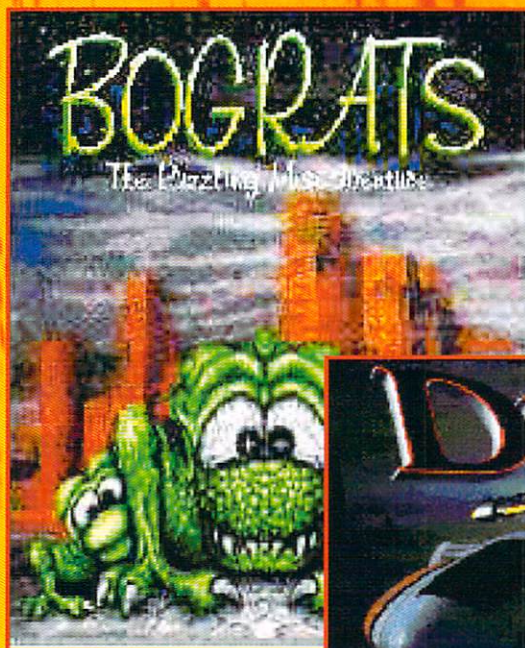
It has now grown to include Demo of the Month, Game reviews and will soon include a special section to help Games Developers link up with publishers. It will give advice on how to approach a publisher and much more, which will hopefully benefit both the developers and publishers.

The Amiga Flame Web site is always trying to expand and help out more of the Amiga Community, but it is mainly down to the readers to ask for something new. For example, I was recently asked to add a Cheats section – this is now being considered. It's all down to reader input and this way I don't run out of ideas.

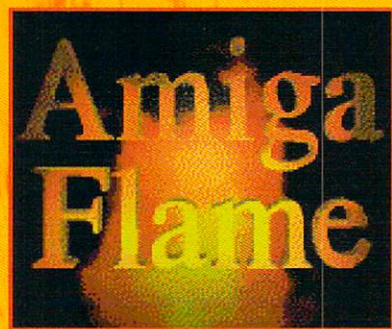
Q. What inspired you to start Amiga Flame?

A. I had seen the Amiga games magazines getting thinner and thinner until some of them actually closed. Games users were getting more depressed and games development activity appeared to be low. Some Amiga journalists seemed to think the end was nigh, even I thought things were going wrong.

My opinion changed after I got connected to the Internet. Over a period of one month



Amiga Flame features games both published and unpublished



Amiga Flame



good contacts throughout the Amiga community and they have helped me get more games news. Without the help of those contacts and the co-operation from games developers, Amiga Flame wouldn't be as good as it is now. They have helped to make Amiga Flame one of the top Amiga Games Web Sites to visit.

Currently I have no contacts outside the Net, but I hope to soon gain more contacts in companies and in this way I can double the amount of news.

Q. Would you consider yourself almost as a 'match maker' between independent developers and software companies as well as a journalist?

A. Since the first time I used the Internet, I have always passed info about games to publishers. However I did have a bad experience with a company that went Shareware. The game was brilliant and they had decided to go Shareware, so I tried my best to help news of the game get about.

Later I asked them how it was going. Sales were really low; less than 50 copies had been sold. The developers had hoped for so much more and seemed really depressed. Luckily, after contacting a publisher they linked up with a developer and now the game will be developed into a full commercial product. I realised then that

Shareware is very bad for the Amiga games market and I didn't want to see any more games developers going Shareware.

Some of the info and screenshots I received on certain games were unbelievable. The graphics were stunning and these games deserved to be commercially published. Someone had to help these developers link up with publishers and I wasn't prepared to sit by and wait for someone else to do it. Details of every game that has been mentioned on the Amiga Flame Web site have been passed onto publishers. I hope that most of these games will eventually get published. I have to emphasise this point. **DON'T GO SHAREWARE**, send the game to publishers. If you go Shareware you will always wonder whether your game could have been something bigger.

These developers had helped me complete my main goal and it was about time for me to pay them back. It also meant the Amiga Flame readers would eventually be able to buy these games. What's the point of doing a news article on a game if the game isn't going to ever get released?

I saw that publishers were looking for games and it gave them a reason to stay with the Amiga. So when I got details and screenshots I simply passed it all onto a publisher and did a news article on the game. Many developers don't even know I have tried to help them. I am not really a match

searching, I found that there were plenty of games in development, more than I ever imagined. I saw that the games magazines had got it wrong and I thought it was time to get the news out. In September 1996 Amiga Flame was born.

I set myself up with one goal – to bring positive up-to-date games news to the Amiga community. There was one problem though. Many Amiga owners were convinced the games market was doomed. It was as though they were in a dark room and could see no future, only darkness. I had to light up that room and show them that there are many amazing and exciting games in development. Every week I put up games news to prove this was the case.

You must remember that I don't get any money for this, I am doing it because I want to help the Amiga Community in any way I can and see the Amiga in its rightful place as the number one computer in the world. It may take a while but it will get there eventually.

Q. What has the Amiga community's response been to Amiga Flame?

A. When I first started it wasn't very good, many people didn't think I could bring them games news every week. After a month or so it all changed and e-mails of support started coming in from all over the world. I think this was due to the new section I opened called "Demo of the Month" and had plenty of e-mails saying how this had influenced people to buy certain games.

I have now got support from games developers throughout the world. I have built up



Vulcans genetic species



Explorer 2260 and Demistar

maker, I am just trying to help the Amiga community.

It's a good feeling to know that you have helped get a game published. It not only helps developers and publishers, but magazines, retailers, wholesalers, hardware manufacturers, distributors and many other companies. It helps to make a stronger games market.

Q. What do you think the future holds for the Amiga?

A. I see a very bright future, particularly with so many companies wanting to buy the Amiga. Personally, I would like to see Quikpak buy the Amiga. I was talking to a games developer who told me that he was getting vast support from the company.

It surprised me to know that Quikpak

was helping games developers and it showed it cares about the Amiga. It hasn't been shouting this out to the games magazines and isn't using it as a point to get support. Quikpak appears to be keeping its plans for the Amiga secret, but I have heard that it plans to use the DEC Alpha Processor. I have also been told it is working closely with HiQ Limited and it's good to see it is co-operating with other companies.

Ultimately I would like to see hardware developers like Phase 5, Quikpak and HiQ Limited come together and pool their resources and money to make the new Amiga. Together they can rebuild the hardware market faster and stronger, divided they can weaken the market.

The software market is starting to get stronger and there are many games in devel-

AMIGA

For Amiga News, Future Game Releases
Past Games of 1996/97, Amiga

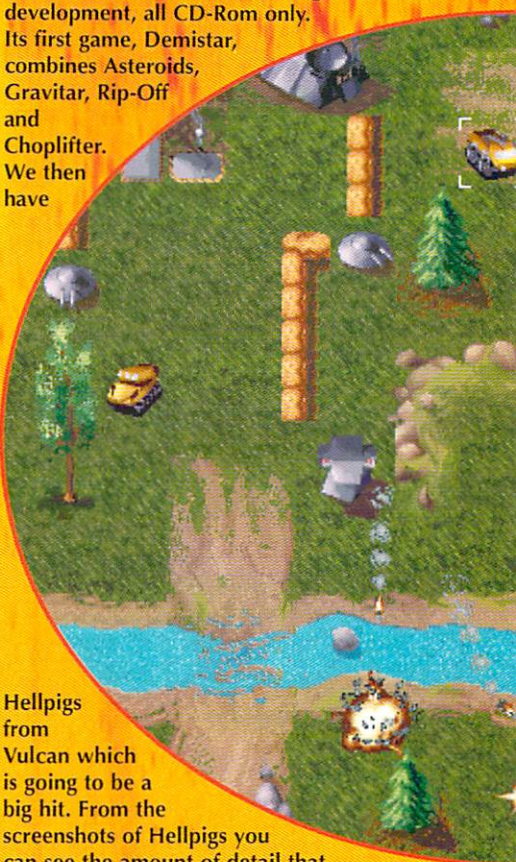
opment but the important thing is that these games get publishers.

Q. Is there definitely a move towards CD-Rom based games such as DemiStar and the game under development by BlackBlade?

A. I think the CD-Rom market is set to explode. Everyone with CD drives should prepare themselves for some of the most awesome games they have ever seen. People who don't have CD drives will probably upgrade after seeing the graphics in these games.

The RIOS/LEBED Project is developing Demistar and has another four games in development, all CD-Rom only.

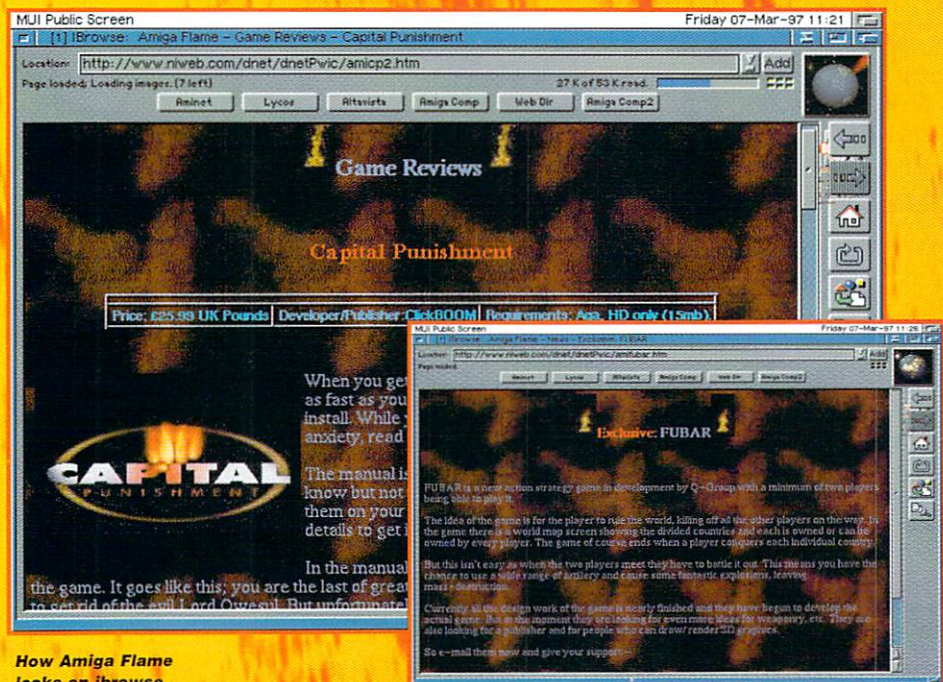
Its first game, Demistar, combines Asteroids, Gravitar, Rip-Off and Choplifter. We then have



Hellpigs from Vulcan which is going to be a big hit. From the screenshots of Hellpigs you can see the amount of detail that has gone into it.

Black Blade is developing a game with a Comanche-like flight simulator and a mission system similar to X-Wing. Aurora Works is developing Betrayed, an adventure game on CD-Rom only. We also have The Hunted being developed by Direct Software (CD-Rom) which may come on up to 5 discs in different parts. Effigy Software is currently developing two CD games but this is for dual format. We should see the first one, called Ffigy, sometime in the Spring.

There is a good possibility that there may be CD-Rom versions of Foundation and Phoenix. Foundation is a real-time strategy war game; a type of Settlers/ Civilisation for the Amiga. Phoenix is a game in a similar vein to the famous PC Privateer series.



How Amiga Flame looks on ibrowse

FLAME

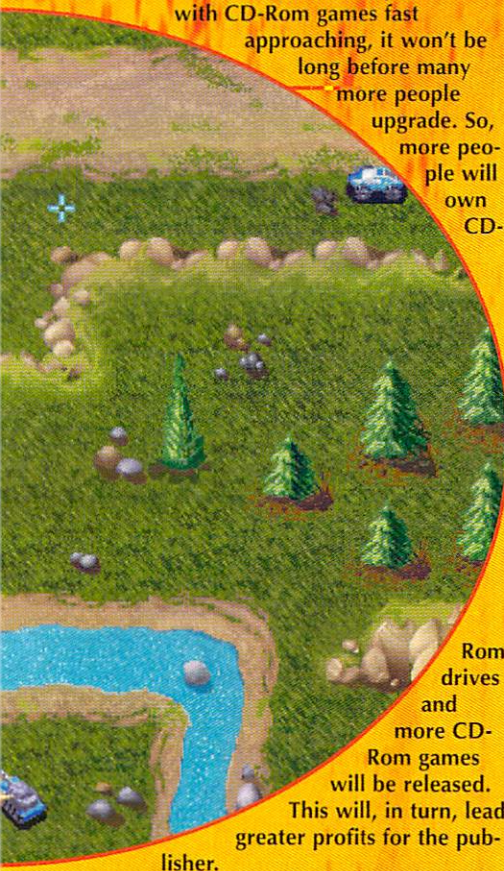
Demo of the Month, Game Reviews, Links and much more.

Q. Do you think these games will sell in big enough numbers to make them economically viable or is the Vulcan approach of aiming games at slightly more bog standard machines always going to win out?

A. The days of low spec machines are numbered. When people saw Breathless and Alien Breed 2 3D they all wanted to buy accelerators to play them and plenty of people did upgrade. But you must remember that this influenced people to buy them.

If publishers show off these CD-Rom games then people are obviously going to want to play them. The price of CD drives has come down to a reasonable price, and with CD-Rom games fast

approaching, it won't be long before many more people upgrade. So, more people will own CD-



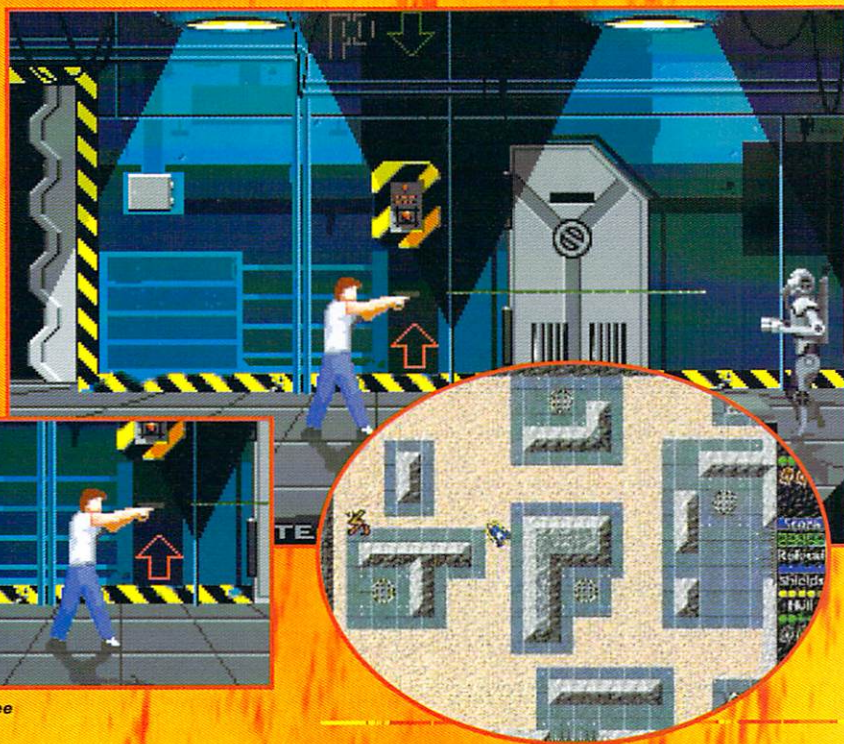
Q. In your opinion which developers and games look like being the stars of 1997?

A. That is very hard question to answer, not because there are too few games but because there are too many to choose from. Of course, we should watch out for all the games from Vulcan Software, particularly Hellpigs which is going to be a super game. They have tonnes in development and everyone should watch out for Strangers AGA which is a beat 'em-up in the old Renegade style. From the graphics I have seen, it looks like a really addictive game and something to look forward to.

Forgotten Forever could also be a massive hit this year. It is the first C&C type game



Onescape



for the Amiga. There are other C&C clones in development, but this has got to be the furthest. We have games from Epic marketing such as Sixth Sense Investigations, a funny adventure game and Testament which is another Doom clone. Other games to watch out for are Phoenix, Foundation, Explorer 2260, Zone 99, Fortress Of Fear, Castle Kingdoms, Flying High and another ninety odd games, all of which are going to be all stars in their own right.

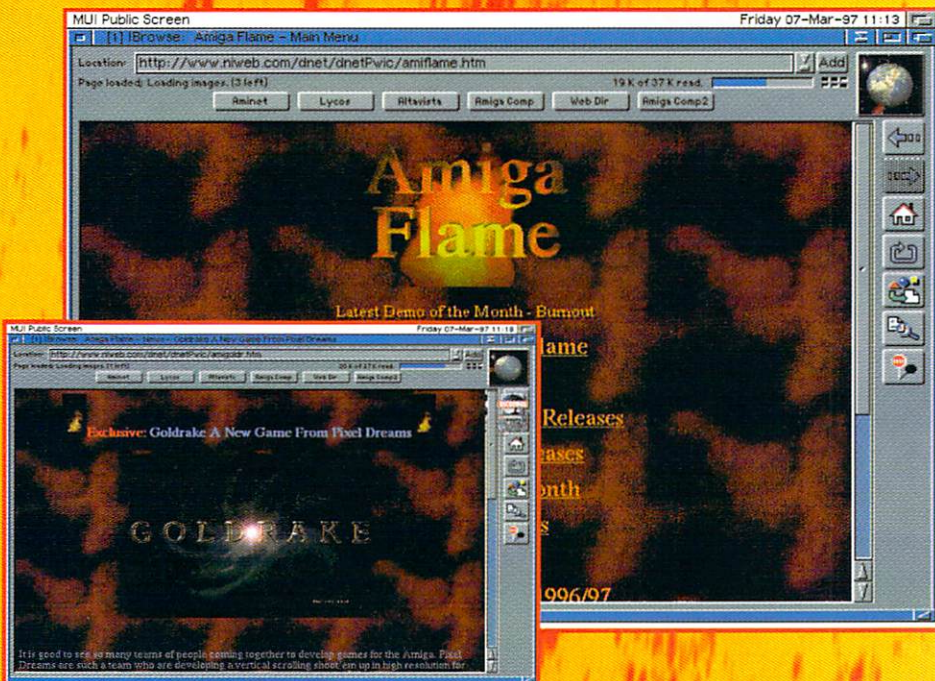
There are plenty of CD-Rom games I have listed already which will certainly cause a lot of excitement. We have definitely got to watch out for The RIOS/LEBED Project who are developing plenty of CD-Rom products and I think who will definitely be a star of 1997.

This year, and last, has seen many artists, programmers and musicians coming together from all over the world to make games

for our favourite machine, the Amiga. The games they development are certainly some of the best the Amiga has ever seen and we must give these developers and publishers our support. 1997 could be the best year for top quality games for the Amiga.

Check out the Amiga Flame site at: UK Site - <http://www.niweb.com/dnet/dnetPwic/amiflame.htm>
US Mirror - <http://www.geocities.com/TimesSquare/ArCADE/6437/amiflame.htm>

You can contact Philip by e-mail at: philip@mailman.dnet.co.uk or Amiga Flame, 65 Harmin Park, Glengormley, Newtownabbey, County Antrim, United Kingdom.



Virtual Ins

**Hugh Poynton's ultimate guide
to Amiga peripherals**

20

years in the future. Little Johnny sits at his desk in his bedroom, his 400 MHz, 100 Gig, Power Amiga humming away at his desk. Gingerly he slips on his VR glasses. In the urban decay and blight of 2017, reminders of the 20th Century seem to offer some kind of refuge from the stress of modern life. Reflecting this design trend, Johnny's glasses are modelled on a pair of NHS tortoiseshell horn rimmed spectacles that were popular back in the old days. Next come the gloves, these too emulating design classics of the 20th Century (Marigolds). Finally, he carefully affixes the deely bopper ear pieces to his head. Resplendent in the blue white glow of his monitor, Johnny slips into the digital ether that is Cyberspace.

In Cyberspace, Johnny's disembodied hand floats before his face. Stabbing his digitised finger at the Deathblade 2010 icon, he prepares himself to be launched into the blood and adrenaline soaked world of 21st Century motorised lawnmower racing. Rumours persist that people have experienced fits, persistent nightmares, even post traumatic shock after playing this ultra violent and realistic game. Johnny braces himself...

A vision of the future. Who knows, it could happen. One thing is for sure – the future of gaming must involve advances in the field of computer peripherals. What is the point of creating increasingly realistic games unless you can overcome the fact you're seeing it on a small telescreen, inputting your commands with a plastic stick.

Here at Amiga Computing we have decided that the future can't wait. Our mission, our goal, our raison d'être has been to investigate just how many futuristic peripherals exist to create the

ultimate Amiga experience.

Here's the set up. I call it Slight Immersion:

Quickshot 137F Python Joystick

The Python Quickshot is a pretty good, honest, straightforward peripheral. A squat, stocky looking base promises not to give way even under the heftiest punishment and stops the thing wobbling about while you're playing. The stick itself is made out of quite tough looking plastic and is moulded into a nicely scalloped, ergonomically pleasing shape. Two functional fire buttons top off this inexpensive, quality peripheral. The only criticism that I could make is the fact that the thing is so noisy. Whenever the stick is pushed back or forth it makes a noise reminiscent of somebody cracking their knuckles.

In short: Quality stick that looks like it can cope with some serious gaming punishment.

Contribution to Slight Immersion: 7/10

Price: £11.99

QuickJoy Foot Pedals:

What an invention. Feet definitely don't have enough fun in the playing of computer games and I think it's excellent news that somebody has finally redressed the balance. If you're playing a smart driving sim, being able to use foot pedals definitely makes the experience that little bit more realistic and enjoyable.

Despite its garish appearance, the QuickJoy Foot Pedals is a quality product. Designed to be used in conjunction with a joystick or steering wheel, the pedals can be

Quickshot
137F Python
Joystick



sanity

programmed to your particular preference. Luckily they are fairly sturdy – a definite advantage as they will receive a pretty good stomping in their lifetime.

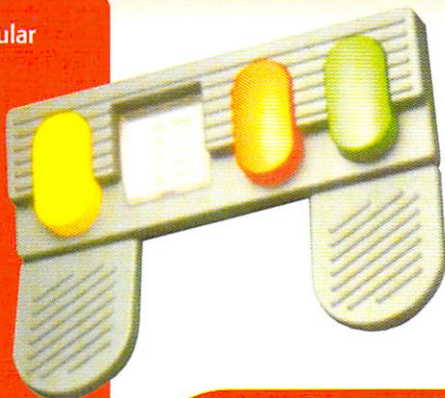
The only problem is that the grip on the bottom of the pedal unit isn't adequate to stop the whole caboodle slipping across the floor when you stomp the pedal to the metal. However, wedge it against the edge of your desk (or Slight Immersion console), and you'll be sorted. Special Reserve is actually giving these away as free gifts when people order products from them.

In short: A quality device that allows you to literally 'floor it' instead of just wiggling your index finger. Contribution to Slight Immersion: 8 out of 10
Price: £12.99

Aura Interactor:

The secret of Slight Immersion is to bombard as many of the senses as possible. You need to be bombarded both visually and audibly. The Aura attempts to go one step further. Its bass speaker thumps you all over so that explosions and gunshot feels just like the real thing (mmm great). Plugged into the sound port of an Amiga, the Interactor channels vibrations via electro magnetic

Aura Interactor:



QuickJoy Foot Pedals:

the middle of a game – this thing could be used to hit baseballs with and it still wouldn't break (probably).

In short: It looks a million dollars, feels great and is a must for flight sim fans.

Contribution to Slight Immersion: 9/10
Price: £12.99

actuators onto the plastic turtle shell fixed to your back.

Sounds impressive doesn't it? Well it isn't. If your idea of a hyper realistic gaming environment is one where you keep getting thumped then go play kiss chase in Moss Side. Providing you don't stuff your wallet the experience would probably be cheaper as well because the Interactor costs £69 or thereabouts.

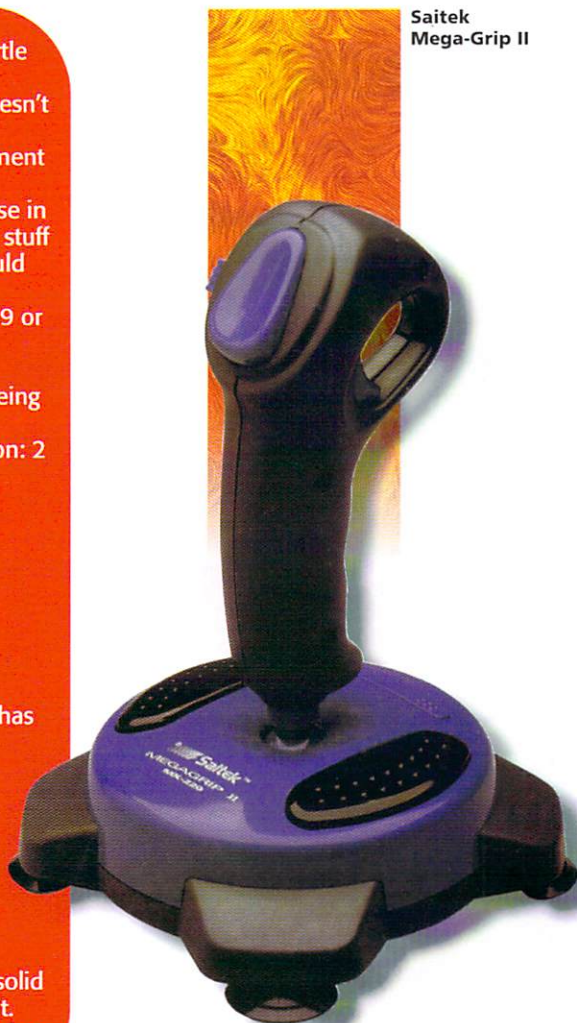
In short: Less enjoyable than being beaten up and robbed. Contribution to Slight Immersion: 2 out of 10
Price: £69.99

Saitek Mega-Grip II

This is truly the king of Amiga joysticks. The stick looks like it has been pinched from a parked X-Wing, with its smart pistol grip, huge fat base and shiny finish. Unlike other sticks, the Mega-Grip doesn't just move a few degrees, this thing can be wangled about madly which, for some reason, strikes me as being really cool.

The Saitek has a very solid and reassuringly tough feel to it. Some joysticks you could imagine coming apart in you hand in

Saitek Mega-Grip II



Some of the slightly weirder peripherals that seemed like a good idea at the time.



Product: ThunderSeat
Platform: All
Price: \$159.95
Product Description: A stylish Jimmy Saville-like chair made with flight simulators in mind.

If you expressed your intention to sit on a big fat woofer in public, you would probably have the police, RSPCA and lots of old grannies on your case before you could say 'cruelty to animals'. Luckily the woofers in question here are bassy speakers that rumbles the body to such a degree it feels as though your in the middle of that exploding spaceship, MiG or Rally Car.

Judging by its scarcity (have you ever seen one?) it probably died a death because eating a bowl of mushy sprouts could probably assure the same 'bass rumble' for a fraction of the price.



Product: Virtual i-o Glasses
Platforms: All
Price: About the price

of a small second hand car (£600-£800)
Product Description: A very trendy, 21st Century looking pair of VR shades.

Only a couple of years back Virtual Products

GmbH, a subsidiary of Escorn AG, unveiled its Virtual i-o glasses – a virtual reality headset weighing only eight ounces. The glasses allowed the punter to view not just computer and video games but TV and video as well. With all this going for them, the glasses looked like they would sell like hot cakes. Hot cakes made out of dog poo that is.

One mail order computer firm told us that they sold only one pair of the glasses. One reason for this less than impressive sales record could be that often the glasses cost more than the computer running them. Another reason could be the fact that, despite being compatible with most platforms, there was only about one piece of software written for the glasses.

You've probably got about as much chance of getting hold of a pair nowadays as you would of finding the lost Ark of the Covenant. The i-O's scary UK retailers seem to need samples of your DNA before they even tell you whether they still sell the darned things.

Product: X-Specs 3D Stereoscopic Glasses.



Platform: All
Price: \$100 (ish)
Product Description: Rather bulky wrap-around 'trendy circa 1985' shades.

Attached to head using headband. Very Bjorn Borg.

When you talk about VR glasses for the Amiga you really only think of the Virtual i-o

glasses. However, before this elegant but costly white elephant came on the market, this remarkable little product became available for the Amiga. In 1988 to be exact – a time when the VR specs concept itself was in its infancy.

The X-Specs were admittedly low-tech. The glasses comprised of a pair of LCD lenses that could be darkened and lightened very quickly via software. The software running the glasses was configured so that the right eye saw a right eye perspective and the left eye saw a left eye perspective, creating an image of 3-D. They were originally distributed by Haitex Resources Inc. but where, and if, any of these glasses exist is anybody's guess. If they do they're probably worth a fortune.

Product: Mattel PowerGlove

Platform: All (ish)

Price: \$100 (ish)

Product Description: A glove with a load of buttons on it. Tacky Power Rangers accessory.

Back in 1989 Mattel introduced a revolutionary control device for its Nintendo Entertainment System. Although it was adaptable for other platforms, including the Amiga, you would need to be somewhat of a technical genius to get it to work. Obviously the glove couldn't work in conjunction with a VR headset because no software exists to make this possible. An amusing oddity to own but, to be totally honest, the PowerGlove would probably be about as

useful as a condom dispenser in the Vatican.



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Super Leagues

Oh no, it's those bloody lists again. To stop me getting RSI and dying from boredom, I'm going to launch a letters page if I can get enough letters. Write in with any requests for cheats, gripes, complaints or recommendations.

Sports Simulations

1. **SENSIBLE WORLD OF SOCCER**
- Renegade
2. **ULTIMATE SOCCER MANAGER**
- Impressions
3. **SPEEDBALL 2**
- Renegade
4. **PGA EUROPEAN GOLF TOUR**
- Ocean
5. **MANCHESTER UNITED: THE DOUBLE**
- Krisalis
6. **PRO TENNIS TOUR 2**
- Ubisoft
7. **PREMIER MANAGER 3/ DELUX**
- Gremlin
8. **PLAYER MANAGER 2**
- Anco
9. **FOOTBALL GLORY**
- Kompart
10. **SENSIBLE GOLF**
- Virgin
11. **JOHN MADDEN'S AMERICAN FOOTBALL**
- Electronic Arts
12. **MANCHESTER UNITED PREMIER LEAGUE CHAMPIONS**
- Krisalis
13. **SENSIBLE SOCCER**
- Renegade
14. **BRIAN LARA'S CRICKET '96**
- Audiogenic
15. **PGA TOUR GOLF**
- Electronic Arts
- WEMBLEY INTERNATIONAL SOCCER**
- Audiogenic
16. **PREMIER MANAGER 2**
- Gremlin
18. **GOAL!**
- Virgin
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- Audiogenic
20. **WINTER OLYMPICS**
- US Gold
21. **ON THE BALL**
- Daze
22. **JIMMY WHITE'S WHIRLWIND SNOOKER**
- Virgin
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- Audiogenics
24. **MICROPROSE GOLF**
- Microprose
25. **WORLD CLASS RUGBY**
- Audiogenic
26. **ARCHER MACLEAN'S POOL**
- Virgin
27. **WORLD CLASS LEADER BOARD**
- US Gold
28. **SPEEDBALL**
- Renegade
29. **PREMIER MANAGER**
- Gremlin
30. **EUROPEAN CHAMPIONS**
- Ocean
31. **BULLY'S SPORTING DARTS**
- Admiral
32. **GAMES: SUMMER EDITION**
- US Gold
33. **CHAMPIONSHIP MANAGER '93**
- Domark
34. **PLAYER MANAGER**
- Anco
35. **LINKS**
- US Gold
36. **KICK OFF 2**
- Anco

37. SIERRA SOCCER

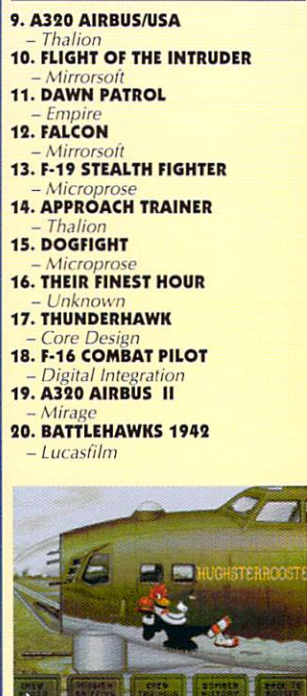
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- Challenge
39. **TENNIS CUP**
- Loricel
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- Team 17
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- Audiogenic
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46. **RBI 2 BASEBALL**
- Mindscape
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- Daze
48. **TOTAL FOOTBALL**
- Mindscape
49. **TV SPORTS BASKETBALL**
- Mindscape
50. **DISC**
- Loricel
51. **CALIFORNIA GAMES**
- US Gold
52. **WINTER SUPER SPORTS '92**
- Flair
53. **CHAMPIONSHIP MANAGER ITALIA**
- Black Legend/Kompart
54. **TV SPORTS FOOTBALL**
- Mindscape
55. **NICK FALDOS CHAMPIONSHIP GOLF**
- Grandslam
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- Mindscape
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- Black Legend/Kompart
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- Ubisoft
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- Ocean
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- Grandslam
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- Psygnosis
66. **THE GAMES: ESPAGNA '92**
- Ocean
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- Empire
68. **WAYNE GRETZKY ICE HOCKEY**
- Bethesda
69. **STRIKER**
- Rage
70. **MEGA SPORTS**
- US Gold
71. **BRUTAL SPORTS FOOTBALL**
- Millenium
72. **LIVERPOOL**
- Grandslam
73. **WILD CUP SOCCER**
- Millenium
74. **MASTER BLAZER**
- Rainbow Arts
75. **SUPER SKI 2**
- Microids
76. **GRAHAM TAYLOR'S SOCCER CHALLENGE**
- Krisalis

- Krisalis
77. **CLUB AND COUNTRY**
- Boms Games
78. **PURPLE SATURN DAY**
- Infogrammes
79. **ADVANTAGE TENNIS**
- Ubisoft
80. **AMERICAN GLADIATORS**
- Gametek
81. **SOCCER STARS**
- B.U.B.
82. **FIENDISH FREDDIES TOP OF FUN**
- Tynesoft
83. **JOHN BARNES EUROPEAN FOOTBALL**
- Krisalis
84. **GRAND MONSTER SLAM**
- Rainbow Arts
85. **WORLD GAMES**
- US Gold
86. **PROJECTYLE**
- Electronic Arts
87. **CALIFORNIA GAMES II**
- US Gold
88. **TOP OF THE LEAGUE**
- Digital Warehouse
89. **EUROPEAN FOOTBALL CHAMP**
- Domark
90. **TACTICAL MANAGER 2**
- Black Legend
91. **TRACKSUIT MANAGER 2**
- Alternative
92. **KICK OFF 3 EUROPEAN CHALLENGE**
- Anco
93. **CLUB FOOTBALL: THE MANAGER**
- Boms Games
94. **TACTICAL MANAGER**
- Kompart
95. **WORLD CUP USA '94**
- US Gold
96. **JAHANGIR KHAN SQUASH**
- Krisalis
98. **BILLIARDS II**
- Infogrammes
99. **I-PLAY 3D SOCCER**
- I-Play
100. **INTERNATIONAL GOLF**
- Summit Software



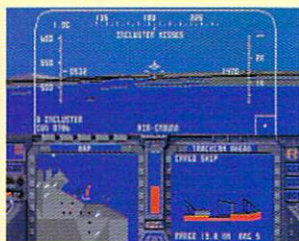
Flight Simulations

1. **TFX**
- Ocean
2. **COALA**
- Empire
3. **GUNSHIP 2000**
- Microprose
4. **F117A**
- Microprose
5. **TORNADO**
- Digital Integration
6. **COMBAT AIR PATROL**
- Psygnosis
7. **OVERLORD**
- Virgin/Rowan Software
8. **REACH FOR THE SKYS**
- Virgin/Rowan Software
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- Thalio
10. **FLIGHT OF THE INTRUDER**
- Mirrorsoft
11. **DAWN PATROL**
- Empire
12. **FALCON**
- Mirrorsoft
13. **F-19 STEALTH FIGHTER**
- Microprose
14. **APPROACH TRAINER**
- Thalio
15. **DOGFIGHT**
- Microprose
16. **THEIR FINEST HOUR**
- Unknown
17. **THUNDERHAWK**
- Core Design
18. **F-16 COMBAT PILOT**
- Digital Integration
19. **A320 AIRBUS II**
- Mirage
20. **BATTLEHAWKS 1942**
- Lucasfilm
21. **BATTLE OF BRITAIN**
- Lucasfilm
22. **KNIGHTS OF THE SKY**
- Microprose
23. **FIGHTER BOMBER**
- Activision
24. **EMBRYO**
- Kompart
25. **B17 FLYING FORTRESS**
- Microprose
26. **GUNSHIP**
- Microprose
27. **PROFLIGHT**
- Hi-Soft
28. **INTERCEPTOR**
- Unknown
29. **FLIGHT SIMULATOR 2**
- Sublogic
30. **MIG 29M SUPER FALCRUM**
- Domark
31. **F15 STRIKE EAGLE II**
- Microprose
32. **A-10 TANK KILLER**
- Sierra
33. **F29 RETALIATOR**
- Ocean
34. **SHUTTLE**
- Virgin
35. **AIR SUPPORT**
- Psygnosis



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- 36. BIRDS OF PREY**
- Electronic Arts
- 37. MIG 29 FALCRUM**
- Microprose
- 38. TOWER FRA**
- Thalio
- 39. WINGS**
- Cinemaware
- 40. SKYCHASE**
- Microprose



Racing

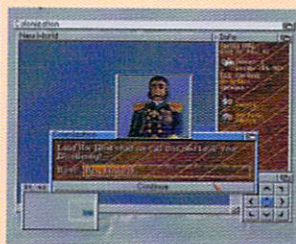
- 1. JAGUAR XJ220**
- Core Design
- 2. SUPER SKIDMARKS**
- Acid Software
- 3. FORMULA ONE GRAND PRIX**
- Microprose
- 4. LOTUS III: THE ULTIMATE CHALLENGE**
- Gremlin
- 5. TURBO TRAX**
- Arcane
- 6. SKIDMARKS**
- Acid Software
- 7. NO SECOND PRIZE**
- Thalio
- 8. LOTUS ESPRIT TURBO CHALLENGE**
- Gremlin
- 9. STUNT CAR RACER**
- Microstyle
- 10. LEADING LAP**
- Black Legend
- 11. EXTREME RACING**
- Black Magic/Guildhall Leisure
- 12. SUPERCARS 2**
- Gremlin
- 13. ROADKILL**
- Acid Software
- 14. ATR**
- Team 17
- 15. POWERDRIVE**
- USGold
- 16. NITRO**
- Psygnosis
- 17. LAMBORGINI**
- Titus
- 18. BILL ELLIOT'S NASCAR**
- Gametek
- 19. CRAZY CARS 3**
- Titus
- 20. TOP GEAR 2**
- Gremlin
- 21. HARLEY DAVISON**
- Mindscape
- 22. LOTUS ESPRIT TURBO CHALLENGE**
- Gremlin
- 23. ROAD RASH**
- Electronic Arts
- 24. F17 CHALLENGE**
- Team 17
- 25. MICRO MACHINES**
- Codemasters
- 26. INDIANAPOLIS 500**
- Electronic Arts
- 27. BUMP'N'BURN**
- Grandslam
- 28. NIGEL MANSELL'S WORLD CHAMPIONSHIP**
- Gremlin
- 29. VROOM**
- Lankhor
- 30. TEST DRIVE 2**
- Accolade
- 31. TEAM SUZUKI**
- Gremlin
- 32. TOYOTA CELICA GT RALLY**
- Mandarin

- 33. SUPERCARS**
- Gremlin
- 34. LOMBARD RAC RALLY**
- Mandarin
- 35. PRIME MOVER**
- Psygnosis
- 36. COMBO RACER**
- Gremlin
- 37. SUPER HANG-ON**
- Activision
- 38. RED ZONE**
- Psygnosis
- 39. INDY HEAT**
- Storm/The Sales Curve
- 40. SUPER MONACO GP**
- US Gold
- 41. OUTRUN EUROPA**
- US Gold
- 42. PSYBORG**
- Loriciel
- 43. HARD DRIVIN' 2**
- Domark
- 44. F1 WORLD CHAMPIONSHIP EDITION**
- Domark
- 45. JUPITER'S MASTERDRIVE**
- UbiSoft
- 46. RVM HONDA**
- Microstyle
- 47. TURBO OUTRUN**
- US Gold
- 48. HARD DRIVIN'**
- Domark
- 49. VIRTUAL KARTING**
- OTM
- 50. CHAMPIONSHIP DRIVER**
- Idea
- 51. BADLANDS**
- Domark
- 52. 4D SPORTS DRIVING**
- Mindscape
- 53. GRAND PRIX CIRCUIT**
- Unknown
- 54. THE CYCLES**
- UbiSoft
- 55. CHASE HQ II**
- Ocean
- 56. POWERDROME**
- UbiSoft
- 57. OVERLANDER**
- Elite
- 58. TEST DRIVE**
- Accolade
- 59. BURNING RUBBER**
- Ocean
- 60. MOONSHINE RACERS**
- Millenium

Strategy

- 1. SIM CITY 2000**
- Maxis
- 2. SETTLERS**
- Kompart
- 3. THEME PARK**
- Bullfrog
- 4. DETROIT**
- Impressions
- 5. POWERMONGER**
- Electronic Arts
- 6. CIVILISATION**
- Microprose
- 7. UTOPIA**
- Gremlin
- 8. COLONISATION**
- Microprose
- 9. MEGA LO MANIA**
- Mirrorsoft
- 10. FIELDS OF GLORY**
- Microprose
- 11. D-DAY**
- Impressions
- 12. VOYAGES OF DISCOVERY**
- Black Legend
- 13. A-TRAIN**
- Maxis
- 14. PERFECT GENERAL**
- UbiSoft
- 15. POPULOUS II**
- Electronic Arts
- 16. LORDS OF THE REALM**
- Impressions
- 17. GLOBAL EFFECT**
- Electronic Arts

- 18. DREADNAUGHTS**
- Turcan Research
- 19. DUNE II**
- Virgin
- 20. GENGIS KHAN**
- Infogrames
- 21. GENESIA**
- Mindscape
- 22. HIGH SEAS TRADER**
- Impressions
- 23. HILLSEA LIDO**
- Vulcan
- 24. SIMCITY DELUXE**
- Impressions
- 25. SIMCITY (and terrain editor)**
- Impressions
- 26. CAESAR/CAESAR DELUXE**
- Impressions
- 27. SUPREMACY**
- Unknown
- 28. GLOBAL DOMINATION**
- Impressions
- 29. K240**
- Gremlin
- 30. CELTIC LEGENDS**
- UbiSoft
- 31. SABRE TEAM**
- Krisalis
- 32. POPULOUS**
- Electronic Arts
- 33. RAILROAD TYCOON**
- Electronic Arts
- 34. BATTLE ISLE**
- Blue Byte
- 35. RAGNAROK**
- Mirage
- 36. REUNION**
- Grandslam
- 37. BANDIT KING OF ANCIENT CHINA**
- Unknown
- 38. BREACH 2**
- Impressions
- 39. REALMS**
- Virgin
- 40. CENTURION**
- CCS
- 41. HARPOON**
- Mirrorsoft
- 42. ROME AD92**
- Millenium
- 43. SIM EARTH**
- Ocean
- 44. SIM LIFE**
- Ocean
- 45. MURDER**
- US Gold
- 46. LASER SQUAD**
- Krisalis
- 47. PALADIN**
- Impressions
- 49. WARLORDS**
- Unknown
- 50. DUETEROS**
- Activision
- 51. GETTYSBERG**
- Mirrorsoft
- 52. AMARDA**
- Mirrorsoft
- 53. HISTORYLINE 1914-1918**
- Blue Byte
- 54. THE BLUE AND THE GREY**
- Impressions
- 55. FIGHTER COMMAND**
- Impressions
- 56. BURNTIME**
- Kompart/Max Design
- 57. THE PATRICIAN**
- Daze
- 58. 1869**
- Flair
- 59. BORODINO**
- Mirrorsoft



- 60. RISK**
- Unknown
- 61. WHEN TWO WORLDS WAR**
- Impressions
- 62. BATTLE CHESS II**
- Intercom
- 63. BATTLEMASTER**
- Unknown
- 64. AIRFORCE COMMANDER**
- Impressions
- 65. MOONBASE**
- CRL
- 66. BATTLECHESS**
- Electronic Arts
- 67. LORDS OF CHAOS**
- DMI
- 68. BRIGADE COMMANDER**
- Unknown
- 69. VENGEANCE OF EXCALIBUR**
- Virgin
- 70. VIKINGS**
- Thalio
- 71. AIR BUCKS**
- Impressions
- 72. HILL STREET BLUES**
- Krisalis
- 73. KINGMAKER**
- US Gold
- 74. CHESS CHAMPION 2175**
- CDS
- 75. FLOOR 13**
- Virgin
- 76. STARLORD**
- Microprose
- 77. GOLD OF THE AMERICAS**
- Starbyst
- 78. HALLS OF MONTEZUMA**
- US Gold
- 79. ARNHAM**
- CCS
- 80. TOWER OF BABE;**
- Microprose
- 81. LIFE AND DEATH**
- Mindscape
- 82. RED LIGHTNING**
- SSI
- 83. CONFLICT EUROPE**
- Mirrorsoft
- 84. INTERCEPTOR**
- Electronic Arts
- 85. STORM ACROSS EUROPE**
- SSI
- 86. FORT APACHE**
- Impressions
- 87. RAMPART**
- Domark
- 88. DISCOVERY IN THE STEPS OF COLUMBUS**
- Impressions
- 89. WARRIORS OF RELEYNE**
- Impressions
- 90. SIMANT**
- Ocean
- 91. GERM CRAZY**
- Electronic Arts
- 92. CONFLICT: MIDDLE EAST**
- SSI
- 93. NO GREATER GLORY**
- SSI
- 94. NAPOLEON I**
- Impressions
- 95. AFRIKA CORPS**
- Impressions
- 96. BIG BUSINESS**
- Rainbow Arts
- 97. CRIME CITY**
- Impressions
- 98. COHORT II**
- Impressions
- 99. CONFLICT KOREA**
- SSI
- 100. COVER GIRL STRIP POKER**
- The Sales Curve

Amiga: The Next Generation

The Amiga games renaissance is being led by the new generation of CD-Rom games. Over the next two issues Hugh Poynton rounds up the stars of tomorrow

If something doesn't evolve, it dies. This is a general basic unarguable fact. The history of evolution is full of branches of species that died out because they just couldn't adapt to their recently changed environment. Technology is no different – if something can't compete, it will fall by the wayside.

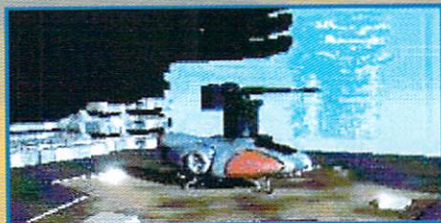
In recent months, news of exciting new Amiga based projects has emerged. Projects endorsed, not by large software houses with an interest in revamping the fortunes of the Amiga market, but rather by small independent developers and recently formed young hopeful companies.

All these software companies and developers share an interest in using the software they write to help boost the evolution of the Amiga from a late '80s home computer to a fast powerful machine capable of meeting the spec of the latest Pentium. With this month seeing the launch of Direct Software's 1 Gig hard drive, 64 bit chip Power Amiga, we take a look at a few of the leading players in the rebirth of Amiga gaming.

Demistar

Demistar is the first of four CD games that the Rios/Lebed Project plan to bring to the Amiga. It's impressive and technically advanced and Demistar still manages to combine elements of such classic games as Asteroids, Gravitar, Rip-Off and Choplifter.

Demistar is about a deep space mission to destroy asteroids that cause navigation hazards for flight traffic. However, some members of the team meet with a suspicious end and the final remaining crew member is



Demistar



Hellpigs

pressed into military service to lure into the open the unknown force that has destroyed his team. The plan works and the alien enemy emerges, but the remaining crew member is left without backup and it is up to him to battle the enemy single-handedly.

Demistar is unique in its use of Lightwave (the graphics package behind Babylon 5 and SeaQuest DSV) to generate the large, beautifully textured sprites. In addition to this the game has video sequences which, among other things, feature the very same Lightwave generated sprites used in the game.

At the moment the exact requirements are not known, but all those CD-Rom owners could be in for a real treat.

Hellpigs

Vulcan Software's speciality, until now, has been producing games that, although encourage Amiga owners to upgrade, aren't really built for truly high spec machines.

This is all set to change with the long awaited release of Hellpigs (probably some time in March). Although the game will be available on floppy disk, this version will require 22 disks in total which will entail quite a lot of disk swapping and won't have all the features of the CD version.

The CD release of Hellpigs will include

hundreds of Megs of FMV footage, actors, full speech and top quality graphic animation. The game will also be rated 18 Certificate due to the strong language (and perhaps, dare I say it, as a bit of a publicity stunt). It will be a landmark in Amiga games history as, although it may not be the most advanced game in development, it is



produced by the biggest company ensuring that it reaches the largest market possible.

Blackblade

An impressive looking CD-Rom is currently under development from Italian developers Blackblade. The pictures and technical specifications of this fantasy flight sim definitely make it look like an Amiga game of the 21st Century. It will, so Blackblade tell us, use a revolutionary graphics engine and storyline management device somewhat similar to X-wing and a techno CDDA soundtrack.

Hopefully the game will become available sometime in the late spring of this year. However, it is not known whether the game has a UK publisher.



Blackblade

Check out Blackblade's Web site at: <http://www2.shiny.it/~yagg/>

Next week we look at three more Next Generation CD Rom Amiga titles.

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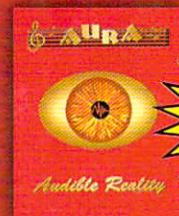
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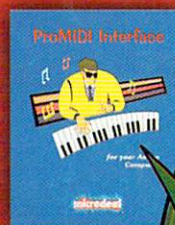
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