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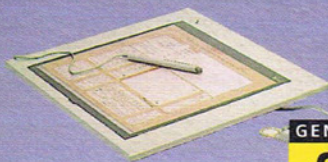
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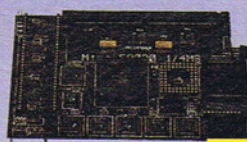
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The CD-ROM drive comes with a SCSI interface, PSU, manual, audio lead, mains lead and software which includes Audio CD, CD32 Emulator, MPEG Film Decoder and Photo CD.

AMIGA 600/1200

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x4 SPEED CD-ROM INC.SQUIRREL£219

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DUAL SPEED CD-ROM EXT.£139

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VIPER MKII SCSI ADAPTOR£69.95

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VIPER 50 BARE£199.95

VIPER 50 2MB£229.95

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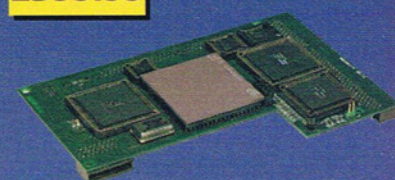
VIPER 50 8MB£329.95

VIPER 50 16MB£389.95

68040RC 25MHZ

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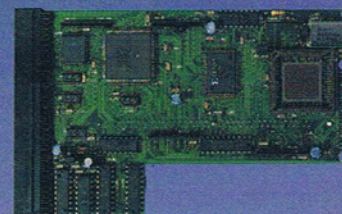
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VIPER



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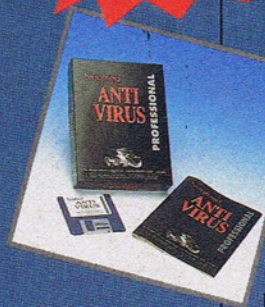
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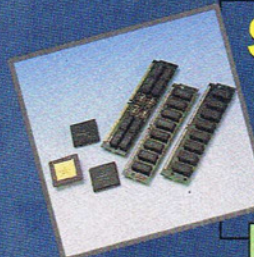
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NEW FOR 1996

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APOLLO 1220

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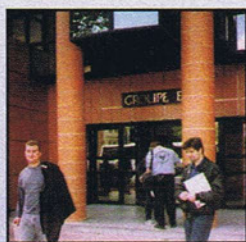
All prices include VAT. Postage and packing will be charged at £3.50 per order (U.K.), £7.50 Europe and £12.50 rest of the world.

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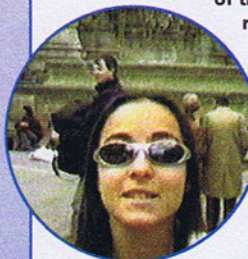
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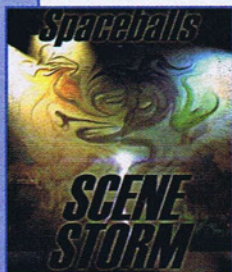
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Simon Goodwin examines the possibilities raised by adding industry standard, cheap, ATAPI CD-ROM drives to any Amiga. There are diagrams and complete instructions on installing the hardware, and obtaining the relevant software.



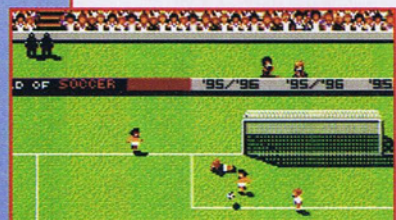
AF SCREENPLAY



Total Football: It looks like he's doing the can-can to me.



Primal Rage: You can have gore, or you can choose the less grisly option.



SWOS Euro 95/96: Can we ever have too much SWOS? (No)

31 Previews

Andy Smith takes a quick glance at what's on its way towards the Screenplay pages in the next couple of months.

36 Total Football

Martin Axford joins everyone else and gets caught up in football mania. This time it's not anything to do with Euro '96 but the latest footie offering from Domark.

38 Primal Rage

It's a massive beat-em-up with fearsome dinosaurs. Join **Andy Smith** as he steps back in time and encounters some *Primal Rage*. The impressive graphics and playability should appeal to everyone - whether you're a beat-em-up fan or not.

42 SWOS Euro '96

With the European '96 Championships already upon us it's time to tear yourself away from the TV and get out your Amiga. You've heard the single, you've studied the form, now it's time to get down to the serious business of playing the game.

45 Reader Games

Andy Smith hand picks another assortment of games written by you, the readers. Be prepared to take some outrageous criticism - but there are also some really promising efforts coming in.

48 Gamebusters

We've tried to include some hints on older games for those of you who haven't yet bought all the new titles. There's also some hints on tackling the *Amiga Format* Alien Breed 3D II Coverdisk.



Coverdisks

disk A

OctaMED Soundstudio

It's the Amiga's favourite music package. We bring you *Soundstudio*, the very latest version

p110



disk B
XP8

We reviewed this shoot-em-up for you last month and now we've got a massive demo for you.

Plus: PD favourite, *Breed 96*

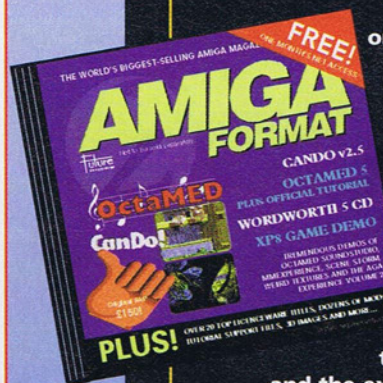
p108



CD-ROM

This month we not only have all the PD, pics, anims and resources that you have come to expect from the AF CD, but we also have some excellent full commercial software, such as *OctaMED 5* complete with the official tutorial, and the excellent multimedia authoring software, *CanDo* - **plus:** demos of *Soundstudio* and the superb *MMEExperience*

p112



Coverdisk Instructions

AMIGA p108

Pinball Prelude

A1200 Version

Quicker



Silky-smooth scrolling



2 Music tracks per table



Action replay



Manic animations



Easy level



Medium level



Ultra Hard level



Stereo sound



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JULY 1996

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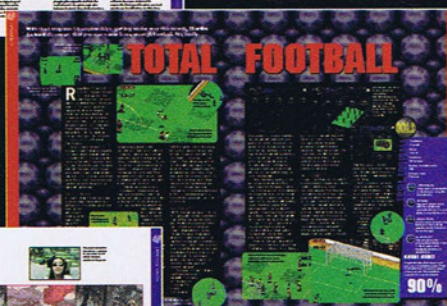
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PRIMAL RAGE P38
Before you skip past this page, can I just say that we all expected this game to be terrible, and were most surprised to find it emanently playable.



ATAPI P26
Continuing our tradition of finding ways to save you money Simon Goodwin shows you how to add cheap CD-ROM drives.



TOTAL FOOTBALL P36
It may seem rather superficial, but what Total Football lacks in options it certainly makes up for in playability. One of the most exciting footy games for an age.



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INTERNET P90
After many faxes, phone calls and emails, here is the tutorial you've all been waiting for - how to set up AmiTCP on your Amiga.



PD SELECT P53
Another selection of the finest offerings from the Public Domain. Many of these are also featured on the AFCD

Month In View

More surprises as this month we learn about the first true Amiga clone from Phase 5, and Viscorp's plans...

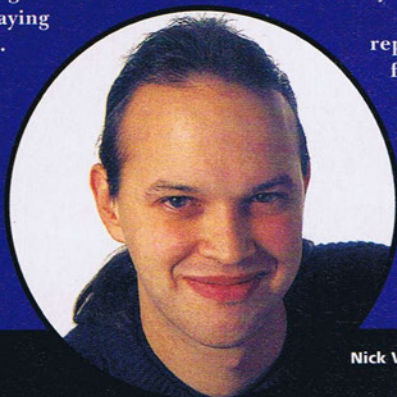
Well, blow me! I wrote an article for the industry magazine CTW suggesting that perhaps companies like Macro System or possibly even Phase 5 would consider producing a licensed Amiga clone. Three days later I receive a message from Wolf Dietrich of Phase 5 saying they are doing exactly that.

We should all be thanking them, not only for making me look clever, but for helping to keep the Amiga dream alive. While the Amiga is certainly much better off in the hands of Viscorp, their first

priority is the ED set-top box. They are committed to producing a new Amiga, and a new operating system, amongst plenty of other things (see page 12 for the full report) but having the platform supported by seasoned Amiga hardware manufacturers can only be a good thing.

Phase 5's machine would represent a huge leap forward for the Amiga. They deserve your appreciation, so please if you are able, send them a message of support - all the details are on page 14.

Well, that's cheered me up anyway!



Nick Veitch, Editor

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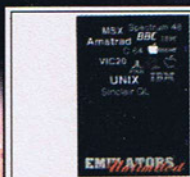
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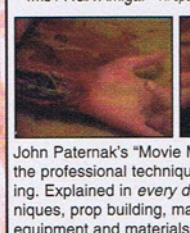


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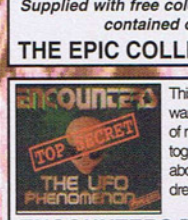
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THE NEW DEAL

The latest version of the ED is different from anything which has ever gone before: even the prototype Walker was designed as a desktop computer, relying on a keyboard and disk drives for the input. The Amiga version of Ed is a different concept entirely.

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AMIGA FORMAT news

- Viscorp reveal future plans for Amiga p12
- Phase 5 to release PowerPC based clone . . . p14
- Lightwave 5 on its way p15
- Bookmark publishing's offer to AF readers . p15

Viscorp Unveil Future at Toulouse



The Amiga is not dead. That is the message that representatives from Viscorp were keen to put across at their recent conference in Toulouse, France.

Bill Buck, head of Viscorp, opened the meeting with a flourish. Over 200 people from France, Spain, Germany, America, Italy, Norway and the UK had crowded into the Ecole Superior de Economic to hear what the future held for the Amiga, and everyone knew that some impressive rabbits needing pulling out of some large hats.

Bill got off to a good start by standing in the middle of the stage and announcing that, put simply, 'Viscorp is committed to the future of the Amiga computer'.

He went on to say that a new Amiga computer would be developed, but that it would not be the Walker – the Walker project has been cancelled. This is one

of the first steps which the soon-to-be-new owners of Amiga Technologies have decided on, mainly because it would not offer a significant technological advantage for the price, or for the



Bill Buck addresses the multitudes who gathered in Toulouse, May 19.

effort which would have to go into making it a reality.

SAY HELLO, MR ED

As reported in *Amiga Format* previously, the core of the Viscorp business is the so-called "set-top box": the marriage of television, telephony, the Internet and computers.

This is the way Viscorp see the personal computer evolving, and they have been working on the project for quite some time. They already have a three year old box, called ED, and tests in America have been extremely successful. But with the explosion of

- Viscorp will develop a new Amiga computer.
- The Walker has been shelved.
- Distribution will continue as it is at present.
- There will be an update to the Amiga operating system before Christmas.
- All Amiga documentation will be available on the World Wide Web.
- The PowerPC is only one option.

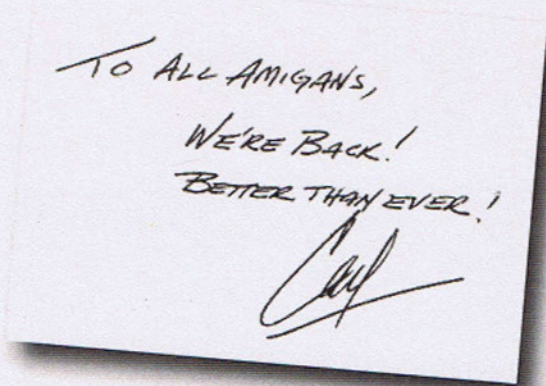
interest in the Internet, the fun is really about to start.

The aim of Viscorp is to develop a simple device which anyone can use to access the Internet, by offering a unit



FROM TOP:
The venue for the meeting, Carl Sassenrath, Curtis Gangi, David Rosen, Petro Tsychtschenko.





Carl Sassenrath's message to Amiga owners everywhere.



Viscorp's Director of Software, Carl Sassenrath, will be responsible for a new Amiga operating system, due for release later this year.



connected to (or built into) a TV set. With a press of a button you'll be able to telephone your friend, send a fax or call up a World Wide Web page. Viscorp plan to license the technology and then let others do the work of getting the disguised Amiga into homes worldwide.

Viscorp have plenty of rivals in the set-top box field, but their advantage is the ability to build devices which are powerful, flexible and most of all, cheap. This is why the original deal to license the Amiga operating system and chipset made so much sense.

As Amiga owners know, unlike Windows 95 for example, the Amiga operates in a tiny amount of memory and is so small and efficient it can operate without a hard drive – the entire OS and custom ED software will be included on ROM.

This set-top box will also be an Amiga, although it might not look like one. Viscorp are determined not to break existing software. Having many excellent applications available gives it a headstart on any rival system, and inheriting the fanatical support of Amiga fans world-wide is a bonus.

WHAT ABOUT US?

Where does this leave current Amiga owners? At the moment Viscorp are keen to point out that there is definitely a future for the computer. Amiga development is to continue alongside the set-top box project. Work will continue on the operating system, on peripherals and on custom hardware and an update to the OS will be available later this year. Best of all, there will be a new Amiga computer.

Looking further ahead, the development of the new OS will help shape the evolution of the most important part of the Amiga – the CPU it runs on. The long-term future of the Amiga computer is still up in the air, which was one reason for the meeting in the first place. Although the PowerPC is the natural choice, it is far from the only option. Several Viscorp people mentioned the DEC Alpha chip, which is already available in versions running at 300MHz.

The news that Phase 5 had announced work on their own PowerPC version of the Amiga was taken with a shrug from Bill: "If anyone wants to license the operating system, we will happily meet with them to sort something out."

The mention of the Dec Alpha could be significant. As reported in *AF* previously, Macro Systems are already working on an Alpha AXP card for the Amiga. The new "openness" at Viscorp could allow them to go one step further and develop full Amiga-clones based on the Alpha.

VISCORP SUPPORT FREEDOM OF INFORMATION

The new "open government" policy of Viscorp is an amazing transformation from earlier days. Bill Buck was keen to reiterate that the past is the past, and whilst there were many mistakes made by previous owners, Viscorp represent a new beginning. One of the first practical demonstrations of this policy is the decision to make all the Amiga technical documentation available on the Viscorp World Wide Web site. The intention is that this will be kept updated.

Previously, official documentation was released through books published by Addison-Wesley. Although a reasonable enough arrangement, it did lead to some problems for developers, as often the volumes weren't published for months after new hardware or operating systems were actually in use. Very little documentation for AGA machines ever appeared at all.

The new system should mean the provision of up to date information for developers and users worldwide, with the minimum of fuss and expense.

MOUSESTASTIC

AmiPC Power Mouse is a program that makes it possible to attach and, more importantly, use a standard PC serial mouse with your Amiga. The software costs \$14.95 and you can also purchase the software and serial convertor for \$24.95 or all this and a Microsoft "J" mouse for \$49.95. More info is available from Legendary Distribution on 001 519 753 5052 or at their website; <http://www.io.org/~legend>.

MONUMENTAL PROGRAMS

ProDAD International have just converted the excellent Monument Designer 2 to English and Clarissa 3 is set to follow. Monument Designer is a superb professional-quality titling package with plenty of useful features and spectacular effects. It costs 399DM and to find out more call ProDAD on 0049 2206 82728.

SX-32 IMPROVED

Following our review of the SX-32 in issue 84, Eyetech have made some improvements. A full and improved manual has been written and there's a new CD32/SX-32/Keyboard/disk bundle, with a CD32, an SX-32, a full Amiga keyboard, Workbench 3 and the choice of a 44Mb hard disk or floppy drive. All this costs £399.95 and is available from Eyetech on 01642 713 185.

THE REPORT

Eric Laffont had the unenviable task of reading through more than 2,000 emails from Amiga users the world over, keen to express their hopes and suggestions for the Amiga. At the World of Amiga show in London, Bill Buck asked for ideas – and he got them by the thousand.

Users from over 100 countries took part, and the demands were simple. "Don't ignore us!", "More documentation!", "New better, cheaper hardware!". Users wanted to express their loyalty, and yet they also wanted to make it clear that new and exciting hardware was essential to stop them drifting away to the PC platform.



Eric Laffont struggles manfully with IRC.

"Another flash bit of kit with no future?"

What does Dave Taylor think?

GLIDEPOINT

PAGE 67



EAGLES LANDING

Blittersoft are distributing a new range of tower-based Amigas called the Eagle 4000T. The basic unit will cost £1299.95 and to find out more call Blittersoft on 01908261466.

NEW MICE FOR OLD

Golden Image are currently running a special trade-in deal on their Hi-Resolution and three-buttoned Megamouse-Plus. The company will accept any mouse, whatever its condition and they will then supply you with the Megamouse-Plus for just £9.95. Contact Golden Image on 0181 900 9291.

STORM BREWING

Thunderstorm is a new game from Sweden that claims to be a combination of *Alien Breed*-style graphics and RPG gameplay. Featuring a 45° isometric view the game is set in the future and will no doubt feature lots of running down dark corridors looking for things.

Send in the Clones!

Even before the Toulouse conference, at least one major Amiga developer announced a commitment to developing a new Amiga. Phase 5, who are already working on a PowerPC upgrade card for existing Amiga machines, are now planning to manufacture a completely new Amiga based around this processor, hopefully launching in the early half of next year.

Explaining this decision, Phase 5's managing Director, Wolf Dietrich, told *Amiga Format*: "It is time for a radical leap forward in technology, that needs to be borne by a vision of a computer for the next millennium".

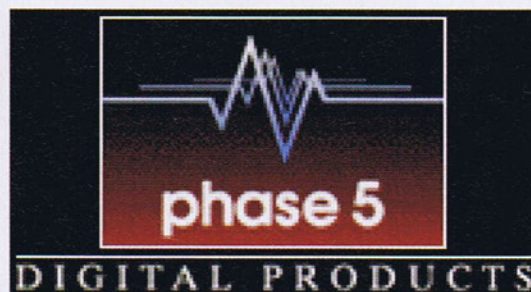
In line with this philosophy, Phase 5 promise that the new machine will use a highly redesigned chip set, enabling this new Amiga to achieve "hitherto unknown performance".

The operating system, which will have to be completely re-written to

work on the new processor, will not be such an obstacle to Phase 5. Gerald Carda, Technical Director of Phase 5 explains: "As we are already developing an Amiga compatible PowerPC-Exec with an expansion library and a PowerPC CyberGraphx version for the PowerUp developments, it is only logical that the next step will be the development of the other components."

COMPATIBILITY

"An operating system that is compatible with Amiga-OS 3.x makes it possible for the user to continue to use existing software under CyberGraphX while developers who already give massive support to CyberGraphX will be able to continue to maintain and develop their products. In this way we will be enabling Amiga users to switch to the



calculations we will be able to offer the good value for money for which our products are already renowned."

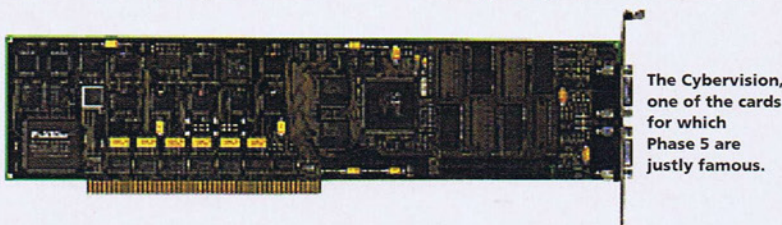
The price of the machine at launch, based on current market prices for the components will be around DM3,000 (£1,400) for a complete system and this would compete very favourably with current PC prices.

MOTOROLA BACKING

Perhaps most importantly for Phase 5, they also have the full backing of Motorola, the manufacturers of the PowerPC chip. "We appreciate the powerful and innovative concept that Phase 5 represents and we fully support the efforts of this company as a partner in our strategy," says John Letham, Technical Marketing Manager, Motorola RISC Microprocessors. "We have had a number of joint meetings now and we are impressed by their know-how and vision."

What can possibly hold them back now? "By the middle of 1997 we will have invested seven-digit figures in this project," says Wolf Dietrich. "We have the know-how, the development team, the technical equipment, the support from third parties (especially Motorola) and the financial basis for this project."

"The only thing that we still need is massive and positive support from Amiga users. After all, such a project only makes sense if there is still a large number of convinced Amiga fans. We therefore appeal to all Amiga fans to write to us, to send us faxes or emails (to the address specially set up for this purpose: aproject@phase5.de). Every positive reaction will strengthen this forward-looking project."



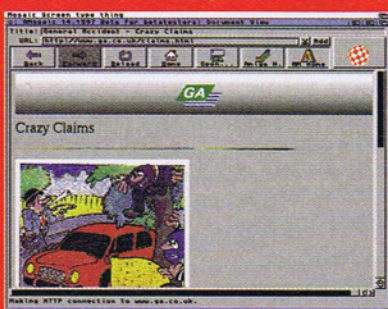
The Cybervision, one of the cards for which Phase 5 are justly famous.

N.E.T.c.o.r.n.e.r.

GET ON TO THE NET RIGHT NOW!

If you're interested in getting onto the Internet, but are unsure of the software that you need and how to set it all up, then you'll be glad to know that this month's cover CD has all that you need to get on-line.

This includes a free one-month trial account with the FirstNet Internet service provider and then the opportunity to continue if you are satisfied. There is also 1Mb of space for your very own web page. Turn to the Coverdisc pages right now to find out more information.



Have a good laugh at some of the more outrageous insurance claims that have been made over the years.

INSURANCE ON-LINE

General Accident have launched a web site that has apparently attracted over 500 visitors a day. Not only does the site contain details of the company's insurance

services it also features a section called Crazy Claims, which has examples of some of the more bizarre insurance claims that have been made. General Accident's website is at: <http://www.ga.co.uk>.

new system without any problems."

A high degree of component integration should allow for dramatic improvements. Based on the PowerPC as the main processor, the new computer, is planned to include: hardware support for MPEG and 3D graphics, 24-bit graphics at a resolution of up to 1600x1200, 16-bit stereo sound input and output, video and genlock compatible outputs and some audio and visual processors built in. The system will be rounded off by a Fast SCSI-II controller, a network port and an ISDN interface.

COMPETITIVE PRICES

Wolf Dietrich proudly claims: "In terms of performance the processor has no problems in keeping up with a Pentium. However, there is no sign of any comparable graphic performance anywhere on the PC - the features of our systems will be difficult to match."

In spite of the extravagant specification, Phase 5 believe that their Amiga will not be a dream machine at an unreal price. In the words of Wolf Dietrich: "According to current price



The PowerPC603e is the processor Phase 5 are planning on using for their clone Amiga.



The latest version of *Lightwave* will be here very soon and you too will be able to create images like these.



See the Light Again

Newtek have just finished work on the latest version of their excellent 3D program *Lightwave*. After being premiered at the NAB show in the States earlier this year version 5 boasts several new features.

Premier Vision will be distributing this new version by the end of June and are expecting upgrade prices to be in the region of £265. The program will have all the features of the previous versions as well as 200 more. These include metanurb modelling, advanced bone and inverse kinematics functions, muscle controls and loads of new HIIp modules. For more details either visit NewTek's website at: <http://www.newtek.com> or call Premier Vision on 0171 721 7050.

Rub the Lamp

Look out for *Aladdin 4D* due for release by Nova Design in the third quarter of this year.

One of the most powerful and elusive 3D packages on the Amiga, *Aladdin 4D*, has been bought by Nova Design, the creators of *ImageFX*. *Aladdin 4D* is known for its spectacular particle systems and realistic gas and liquid effects. As well as adding several new features Nova Design will also be changing the appalling interface.

This should mean the program will come closer to reaching its potential and also become more widely available.

The company is also working on *ImageFX 2.6* which will also contain a range of new features and you should expect to see both of these products later this year. Contact Nova Design on 001 804 282 5668.

SPECIAL OFFER

To celebrate the release of two new Amiga books, Bookmark publishing are making a special offer to readers of *AF*. *First Steps Amiga*, written by Paul Overaa, intends to inform new users how to set up and use their Amiga, assuming they know nothing about computers.

First Steps Amiga Surfin' by Karl Jeacle

is about starting on the Internet with your Amiga.

Both books retail at £6.99, but if you use this voucher, you can order either or both books at £1 off including post and packaging (add £3 to overseas orders). Contact Bookmark publishing at: Bookmark Publishing Ltd., The Old School, Greenfield, Bedford MK45 5DE. Tel: 01525 713671 Fax: 01525 713716

The Bradford Column



Someone was telling me that, within a few years, there could be as few as ten software publishing operations left. How ridiculous, I thought, there are well over 100 publishing firms and many of them are doing extremely good business. His reasoning though, was based on

the fact that to develop a new title these days can cost anything between £500,000 and £10M with a two year gestation period. Therefore it will only be the super-publishing groups who will have the cashflow necessary, and many of today's smaller publishers will be swallowed up by the bigger ones and be solely development groups.

I'm not convinced, but it's a reasonable argument – and, if nothing else, it surely proves how foolish some of these companies are to write off the Amiga. What other machine can anyone (with a little application and a copy of *Blitz Basic*) design and write a commercial-quality package on for less than £500? Okay, the end result may not have the sales potential of some of the newer formats, but there are very few titles which sell in huge numbers these days.

It is so often the 'one bloke with a dream' who came up with the original ideas

Publishers should actively encourage Amiga coders as it is so often the 'one bloke with a dream' who came up with the original ideas (Lemmings, Worms, to name but two – both written originally on the Amiga).

With such huge budgets having to be apportioned to new CD-ROM concepts, there is every likelihood of publishers 'playing safe' and producing endless variations on previously-successful themes and this only results in the consumers becoming increasingly jaded with the end product.

I don't know of any successful title, on any other format, which was written by a so-called amateur programmer. And if someone asked me how they could write a game on Saturn, PlayStation, or even PC, I wouldn't be able to tell them. But Amiga, that's a different proposition altogether.

The other thing in its favour, from a publisher's point of view, is that there are many people out there actually writing games at home. They may need a bit of tidying up but with programmers funding their own development in their own time, the need for huge budgets is eradicated – they're being presented with an almost-complete product.

I don't know, perhaps the answer is for me to start a publishing operation specialising in Amiga. Actually, that's not such a bad idea. Written any good games lately? Shoot Dale Bradford down in flames via fax, if you want to on: 01633 896087.

The opinions expressed in this column are those of a fine, upstanding individual who will hopefully call off his solicitors after we mistakenly described him as a Keith Chegwin lookalike...

"You're a future hacker (it's 2054). You work for a corrupt organisation called 'The Company'".

Join Andy Smith on his mission

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PAGE 51



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Join us!

Networking is something which is shrouded in mystery on the Amiga. Is it really possible to link Amigas together? How? How fast is it? How much will it cost?

WHAT'S IN THIS FEATURE

Easy PC Linking	page 18
ParNet	page 19
TCP/IP	page 20
Master Mac Linking	page 21

The answers are usually confusing and full of jargon – although in this case they are “yes”, “lots of different ways”, “depends” and “as little or as much as you like”. We’ve gathered together as much information on Amiga networking as we could find. Everything from hardware to software is covered. It’s time the Amiga stopped working on its own, and became a team player.

WHAT IS NETWORKING

A lone computer is a powerful thing, but a computer which is linked to other computers is more powerful still. A network is so much more than a convenient way of copying files. A network opens up entirely new and exciting ways of working.

We’ve all seen how the Internet has exploded in popularity, giving everyone access to more information than ever before. Information access is what networks are all about. A network will let you share files with other users, so you can all work together on a project. Or many computers can make use of expensive peripherals such as large removable hard disks, CD-ROM drives or printers. Networking makes it possible for many Amigas to work together as one, rendering frames for an animation for example.

It’s not just Amiga’s which can benefit either. Networking has several standards which are cross-platform: in other words, you can connect your Amiga to PCs, Apple Macs, UNIX boxes or even the biggest network of them all: the Internet.

CHEAP AND CHEERFUL NETWORKING

If you want to quickly copy some small files between two Amigas, the easiest way is often to copy the files to floppy disk and walk over to the other machine. This no-tech approach is often called “sneakernet”, and the great advantages are that it works well and it’s very cheap.

However, when you want to copy lots of files or files which are too big to store on single floppy disks you start to run into problems. Yes, you could use external Zip or Jaz drives and sneak across with the cartridges. Or you could use Split and Join utilities to chop a file into parts and transfer each one at a time. It’s not a fun solution though.

Computers are supposed to be good at moving information, and relying on moving magnetic disks from one place to another isn’t particularly impressive.

If you have used a modem to dial into a Bulletin Board or the Internet, you’ll know that moving data is what they are designed to do. One way to copy files between two Amigas is therefore to use two modems, and set one to dial the other. Using standard terminal emulation software you can then copy files using ZModem protocols.



Some members of the Amiga family are a little harder to network than others – but there are solutions, even for the recalcitrant CD³²

EASY PC LINKING

Swapping files between Amigas and PCs is such a common occurrence that many Amiga owners have CrossDOS permanently installed on their Workbench. However, networking between the machines is a little harder.

As always, Ethernet offers the easiest and fastest solution. Windows95 has built in support for TCP/IP which makes a basic file-swapping link possible. If you like other operating systems, the freeware UNIX clone Linux is another option. It runs on the PC and with it you can do all sorts of clever things from linking via SLIP, using the Amiga as a terminal or running an XWindows system.

Thankfully, there are less expensive and techy solutions. The null-modem trick works perfectly, but the program *TwinExpress* is even easier to use and makes swapping files relatively straightforward.

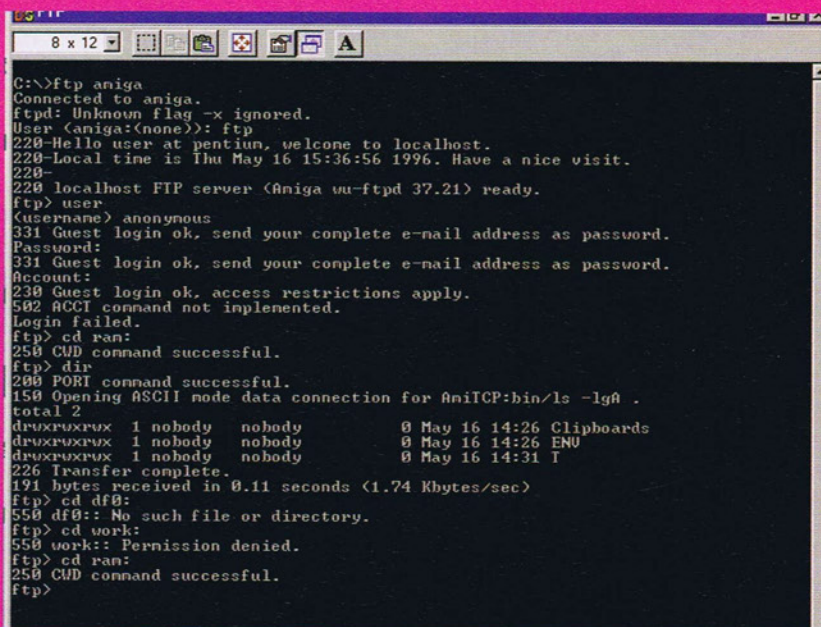
Networking makes it possible for many Amigas to work together as one, rendering frames for an animation for example

This solution has the disadvantage of costing money as the modems need to be dialed into BT’s network.

So, do without the modem. Use the Amiga’s serial ports, but do without the modems. For this trick you need a null modem cable, which is wired in such a way as to make the Amiga’s believe they each have a modem attached. Run the terminal software of each machine, and then you should be able to copy the files across.

Any problems? Yes, two. First of all this serial link isn’t particularly fast. Serial links send one bit of information at a time, and this is a slow process. Secondly, it’s quite a nuisance to use a terminal emulator and mess around with baud rates, bit protocols and Zmodem uploads. Serial links are great for games (*Stunt Car Racer*, *Lotus*, *Knights of the Sky*) but for serious data transfer they leave a lot to be desired.

Copying files between machines on a TCP/IP network is made possible with FTP. Here a PC has logged into an Amiga and is getting ready to send some files over.



PARNET

ParNet is a budget-basement networking solution for connecting two Amigas. It works using a special cable linking the parallel (printer) ports, and only works between Amigas: not with Amigas and other machines (that said, a program called *ParNet-PC* is available although it looks quite scary and is not recommended for beginners). There are various versions of the *ParNet* software available, and these are as follows:

PARNET – the original *ParNet* software.

PARBENCH – *ParNet* with a new and easy to use installer.

PARNFS – an updated version of *ParNet*, slightly more stable.

Various utilities are available which run on top of *ParNet*, and these allow machines to send electronic mail to each other and take control of the mouse and keyboard on the remote machine. It is important to use a cable constructed especially for the job: do not use any other kind of parallel cable! The cable has the following connections. Try to keep it as short as possible, and use high-quality shielded cabling.

CABLE: Connect D7-D0, SEL, POUT, and BUSY across,

Connect ACK (FLAG interrupt) to SEL locally:

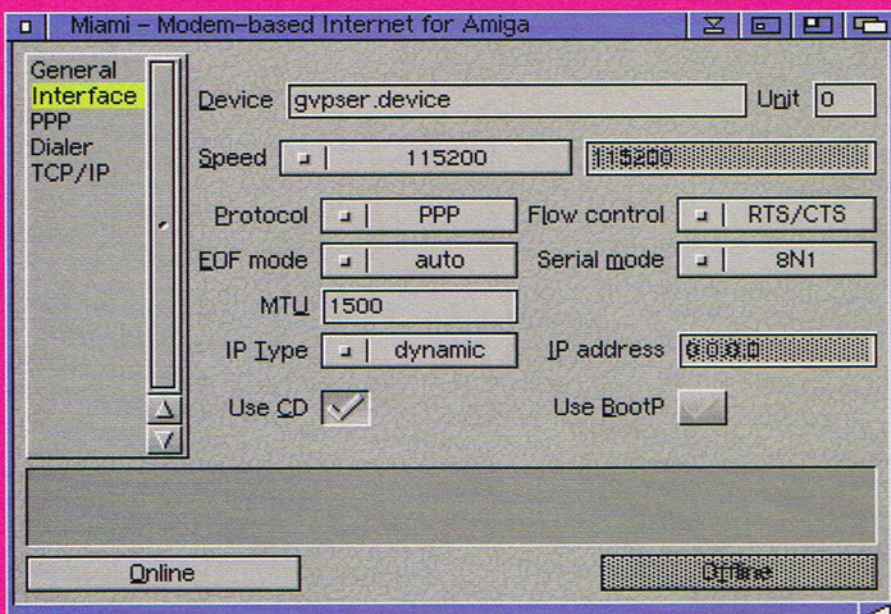
(2-9)	D7-D0	————	D7-D0	
(12)	POUT	————	POUT	
(11)	BUSY	————	BUSY	PARALLEL PORT
(13)	SEL	→-----←	SEL	
(10)	ACK	-/-	ACK	
(18-22)	GND	————	GND	(18-22)

Double check the gender for the DB25 connectors you'll need to connect to your Parallel Port.

A500/A2000 Parallel port is Female so you need a Male connector.

A1000 Parallel port is Male so you need a Female connector.

ParNet is useful when one machine lacks a hard drive. It's possible to make a minimum floppy disk for this machine to boot with: it loads *ParNet* and then boots the rest of Workbench from the hard drive of the other Amiga. *ParNet* has also given a new lease of life to CDTV's. These were Amiga 500's in a smart case with a CD-ROM drive. Using *ParNet*, other Amiga's could access the CDTV's CD-ROM drive.



Miami is a new piece of software that aims to end the confusion surrounding setting up networking software such as *AmiTCP* by providing a clear and simple graphical interface.

Networking systems which use the Parallel ports are going to be faster by definition, as they can shift eight bits at a time, instead of one.

One of the first parallel port networking programs was *ParNet* from the Software Distillery. Using a special DIY cable, *ParNet* is a very clever piece of programming. It creates a "networked filesystem", in that the devices of the first Amiga are available from the second and vice versa. For example, imagine an Amiga 1200 fitted with a hard drive with two partitions called *hd0:* and *hd1:* connected up to an A500.

With *ParNet* running, the A500 can access the two drive partitions on the A1200. Icons for them will appear on the A500's Workbench. The A500 can load and save programs. The A500 can even access the A1200's floppy disk port and RAM disk. This is the nearest to "real" networking you can get for free, and it's well worth investigating.

Over the years, there have been advances made to the *ParNet* system. New installers have appeared which make it a lot easy to get the software up and running (*ParBench* for example).

Continued overleaf →

Jargon

10Base2:

A class of cabling used with Ethernet hardware. Also known as "Thin" Ethernet or "Cheapernet" as it uses relatively inexpensive co-axial cable.

10Base10:

So-called "Thick" Ethernet cabling, using largish D-style plugs and sockets.

10BaseT:

Ethernet cabling using plugs which look the same as those on the end of telephone wires.

ARCnet:

A now defunct networking system similar (but not compatible with) Ethernet.

AS225:

An implementation of a TCP/IP stack for the Amiga, originally developed by Commodore.

AmiTCP/IP:

An implementation of a TCP/IP stack for the Amiga.

Baud:

The number of state changes on a communications line per second. Often confused with BPS.

BPS:

Bits per Second. The actual number of bits that are transmitted across a communications link per second.

Client:

A program which is used to extract information from a server.

CSLIP:

Compressed SLIP. See SLIP. Then compress it a bit.

Demon:

The UK's first (and one of the largest) dial-up Internet access providers.

DNS:

The database which contains all the Domains and their corresponding IP addresses.

Domain Name:

This is an address of a given computer system on a network such as the Internet.

Driver:

Software which is written to control a piece of hardware, such as a modem or a networking card.

Dynamic addressing:

A system whereby the IP address of a dial-in Internet account is allocated from a pool every time the user dials in.

Envoy

A peer-to-peer networking package for the Amiga.

Ethernet

A networking system, using hardware which can transmit data at up to 10Mbit/second.

Continued overleaf →

NULL MODEM CABLE

A null modem cable is used to connect two computers together via their serial ports. The computers can then run standard terminal emulation software and upload and download files using *XModem* or *Zmodem*. Serial leads are also used by many games to offer a "link" so that two players can play at once, or play against each other. Making a null modem cable requires two suitable connectors, and a length of cable. You need to connect GND together on both machines, and then connect RX on one to TX on the other, and vice versa. On a 25 way connector, this means connecting pin seven together, and swapping around two and three. Some software requires additional connections to be made for "hardware handshaking". This means that RTS and CTS need to be swapped (four and five) and sometimes DTR and DSR (twenty and six). Some systems require a Carrier Detect signal. If so, connect pin eight to pin five.

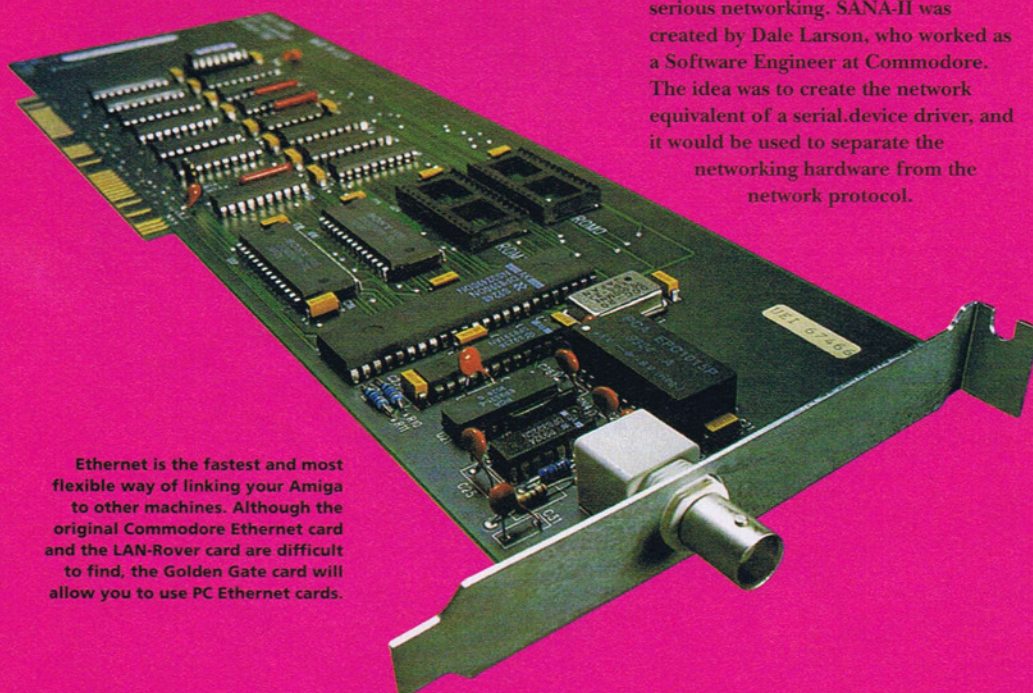
← New versions of the software which are faster and more reliable (*ParNFS*) or which make use of the serial port (*SerNet*) are also available.

REAL NETWORKING: THE SANA-II STANDARD

It was only when the

It was only when the SANA-II standard was developed that the Amiga had any real chance of serious networking

SANA-II standard was developed that the Amiga had any real chance of serious networking. SANA-II was created by Dale Larson, who worked as a Software Engineer at Commodore. The idea was to create the network equivalent of a serial device driver, and it would be used to separate the networking hardware from the network protocol.



Ethernet is the fastest and most flexible way of linking your Amiga to other machines. Although the original Commodore Ethernet card and the LAN-Rover card are difficult to find, the Golden Gate card will allow you to use PC Ethernet cards.

Here's how it fits into the grand scheme of things:

Networking Application
(e.g. Printer sharer)



Network Protocol
(e.g. Envoy)



SANA-II Driver
(e.g. driver for Ethernet card, brand X)



Network Hardware
(e.g. Brand X Ethernet card)

The Amiga is a very flexible system, and so is the SANA-II standard. The SANA-II drivers are designed to allow multiple protocols to be used at the same time, and even use the same piece of network hardware. For example, a single Ethernet card with a single SANA-II friendly driver could be used both by a Web browser running on TCP/IP, and share a printer using Envoy.

The advantage of using the intervening SANA-II driver is that it completely divorces the hardware from the software. For example, imagine you have an Amiga running the *Envoy* networking system, fitted with an Ethernet card. The Ethernet card came with a SANA-II driver, which *Envoy* happily uses. Now, remove the Ethernet card and fit an *AmiLink* system which

TCP/IP FOR BEGINNERS

TCP/IP is a networking protocol. It looks after how data is transmitted and received, and makes sure it gets to where it is supposed to. It splits data up into little packets, and addresses each one using a unique "IP" address. If the data arrives in the wrong order, or if a packet is missing, TCP/IP will take care of it. This robustness makes TCP/IP ideal for dealing with very large networks such as the Internet, but it can also be used on smaller scale local networks too.

As far as the Amiga is concerned, there are several implementations of TCP/IP. Perhaps the most popular is *AmiTCP*, which is available in demo form from Aminet and in full commercial form from Blittersoft. Escom managed to put together their own Internet pack, and this was based on a version of AS225r2 (sound familiar?). There are other versions available as well: a version called *Miami* is due very soon. (See our Amiga.net tutorial on page 80).

Installing TCP/IP is not a problem: configuring it is an entirely different matter. In

order to work properly, The TCP/IP needs to be set-up with vital information which is unique to your system. These settings are contained in various files scattered throughout the installation. This isn't really done to annoy you, it's a consequence of how flexible and powerful the TCP/IP protocol really is.

The first information you need sets the name of your machine and its IP address. If you are setting up TCP/IP to interact with the Internet via a Service Provider, they'll probably already have supplied you with this information. They'll also provide the address of the machine acting as a gateway. If not, you can usually make up your own values – although within reason.

Some IP addresses have special meanings, so stick to using those within the following ranges:

>172.16.0.0 through to 172.31.0.192.

>168.0.0 through to 192.168.255.0

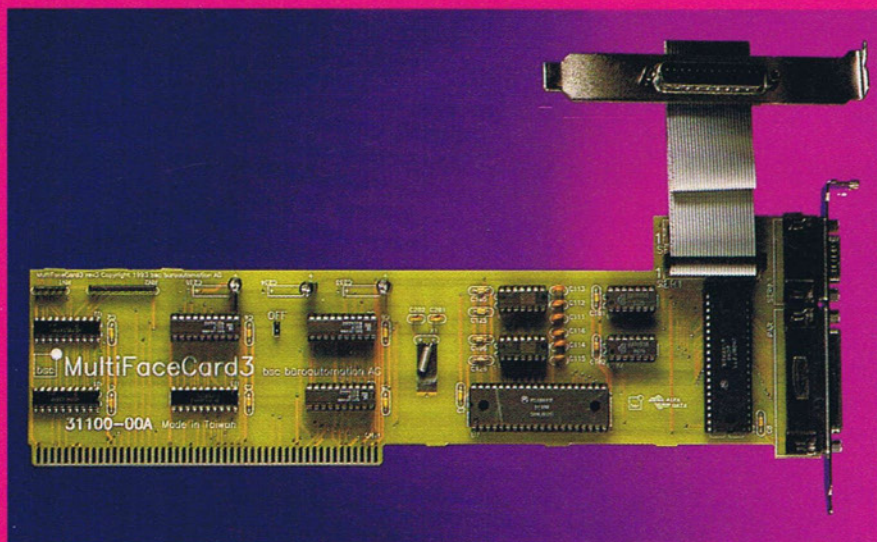
When using these addresses in your own networks, stay clear of x.x.x.0 and x.x.x.255.

I have had most success with the group as a "Class B" address, and most software is happy with these values without messing around with sub-networking and subnet masks.

You will also need to define the device driver to be used. Again, if you are setting up a serial link via a modem to a service provider you'll need to specify SLIP, CSLIP or PPP. If you are setting up a local network you should specify the device driver which came with your hardware: for example, an Ethernet card driver or a magPLIP driver.

Using TCP/IP can be a nightmare as there are so many things that can go wrong. One common area of confusion is the use of Dynamic addressing. Some service providers give their customers a different IP address every time they log in. To take this into account, you need to write a script which can detect the chosen IP address and set up TCP/IP appropriately. It turns out that PPP is the dial-up protocol for these situations, so find a PPP driver and devour the documentation.

Jargon



If you feel the need to network lots of machines, you might consider an extra Zorro card such as the MultiFace, which provides extra parallel and serial ports for your big box Amigas.

connects via the floppy-disk ports. However, *AmiLink* also comes with a SANA-II compliant driver which means you don't need to stop using *Envoy* – you simply adjust the settings to make it use the new *AmiLink* driver instead of the Ethernet driver.

What SANA-II can't do is magically allow different network protocols to talk to one another. You cannot connect an Ethernet card to an *AmiLink* card, or an *AmiLink* card to a serial link. There are ways to get these systems to talk to each other however, and we'll look at those later.

YES, AND?

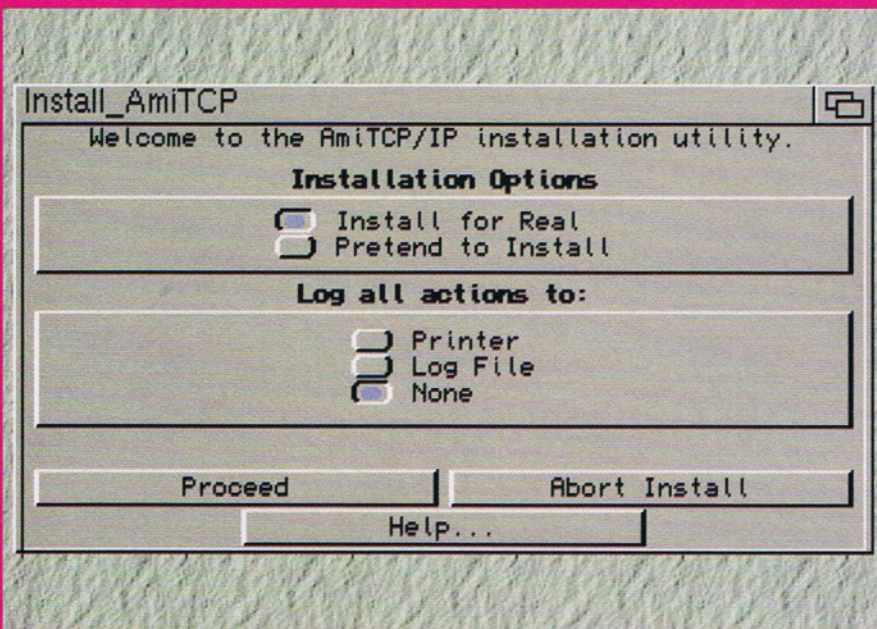
You might be wondering why all this talk about SANA-II is important. You might feel that you are unlikely to ever buy an expensive piece of networking hardware. That's fair enough, but there is still a very good chance that you'll come across the SANA-II driver. Remember, networking software

doesn't care about the hardware, as long as there is a SANA-II compatible driver – and there are a lot of drivers available. One of the simplest is a version of our friend, *ParNet*, called *magPLIP* by Marius Groger.

The *magPLIP* consists of a SANA-II compliant driver and a description of the special parallel port cable you need to make. Once *magPLIP* is installed on two Amiga's and the cable has been connected, you are free to run whatever network protocol and application software you wish.

If you would rather trust a commercial package, Blittersoft in the UK sell *Liana*. *Liana* consists of SANA-II drivers for its own special (supplied) parallel cable. Again, once you have installed it you can run what you like: however, *Liana* comes with the *Envoy* system which makes for an easy life. *Liana* is the cheapest commercial

Continued overleaf ➡



AmiTCP is perhaps the most popular implementation of the networking protocol TCP/IP. You can get hold of a demo version from AmiNet or a you can buy the full commercial package from Blittersoft.

FTP

File Transfer Protocol – used to swap files over a TCP/IP network.

Gateway

A machine which acts as a link between networks. For example, a machine could be acting as a gateway between a local network and the Internet.

Host

A machine on a network.

HTTP

Hyper Text Transfer Protocol. This is the protocol used for data transfer by Hypertext based systems such as WWW and Mosaic.

Internet

The Internet is the worldwide network of computers. Open any newspaper, switch on the TV or ask your granny for more details.

IP

Internet Protocol. This is the data communication protocol used as a common layer throughout the Internet.

IP address

Every machine in a TCP/IP network must have a unique, 32-bit address. The address is usually written "w.x.y.z" where each number is in the range of 0 to 255. Some addresses have special meanings.

LAN

A Local Area Network is one in which the machines are located physically close together.

LINUX

Free version of UNIX, available for many platforms including the Amiga.

Modem

A piece of hardware which connects to a computers serial port, and allows information to be transmitted on the plain old telephone system (POTS). Thankfully no-one cares what it stands for these days.

NFS

Network File System: software which allows computers to share hard drives over a network.

Null modem

A cable which connects between two computers using their serial ports. The computers are given the impression they are linked by modem.

ParNet

A set of programs and a special cable which provides a basic NFS for two Amigas, connected via their parallel ports.

Peer-to-peer

A network in which there is no central server: all machines are equal and are both clients and servers.

Plip

Parallel Line IP – a standard for connecting an Amiga to a TCP/IP network via the parallel port.

Continued overleaf ➡



networking system, and is worth considering if you need to connect any two Amiga computers.

If you use the Internet, you'll also have heard of some more drivers: SLIP, CSLIP and PPP. It is the job of these drivers to provide a link via the serial port and usually a modem. They are mostly used by a TCP/IP implementation in combination with a dial-up connection to an Internet Service Provider, like this:

Networking Application
(e.g. Mosaic the WWW browser)



Network Protocol
(e.g. TCP/IP)



SANA-II Driver
(e.g. CSLIP)

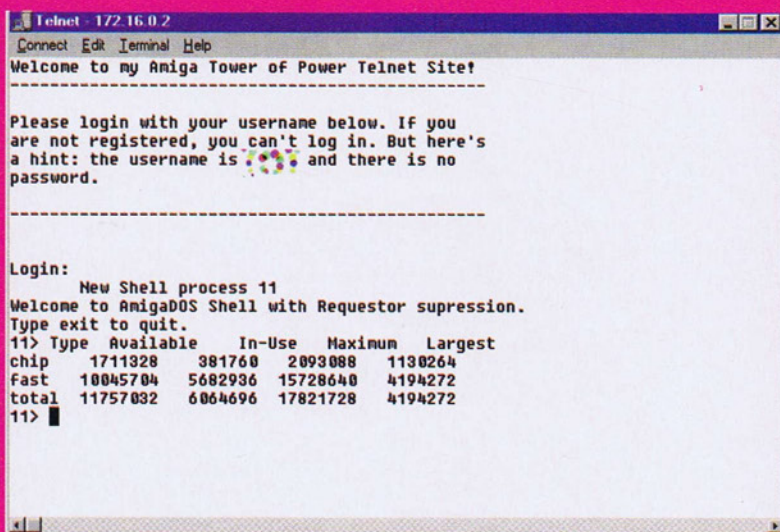


Network Hardware
(e.g. modem)

Systems which are linked via parallel or serial ports aren't perfect. They are still quite slow, and of course a standard Amiga only has two of each. This means that trying to network three or more Amiga's isn't possible. These Amiga-specific networking solutions are also

Ever wanted to swap a lot of data between your Amiga and an inferior machine such as the PC or an Apple Mac?

Here's a PC networked to an Amiga using TCP/IP. At last, the PC is able to have a sensible operating system on it by logging into the Amiga using Telnet.



MASTER MAC LINKING

Networking with ordinary, common or garden Apple Mac's is a little tricky. The main reason is that the Mac has a serial port which uses a special plug, unique to Macs. However, a visit to a local Apple Dealer will sort that out, and you can then knock up a Null Modem. Using any terminal emulation program on the Amiga and a program such as Zterm on the Mac, you can upload and download files using Zmodem.

More advanced Mac networking requires a little extra hardware. It is possible to fit Ethernet cards to most Macs (SCSI to Ethernet adaptors are relatively common), and the Mac OS understands TCP/IP which means FTP and other tools are available. You can have a little more fun though if you can make your Amiga think it too is a Mac.

The Zorro-card based Emplant emulation includes hardware emulation of the AppleTalk system, which makes it easy to link the Amiga/Mac into an existing Mac network.

The shareware emulator *ShapeShifter* supports SANA-II drivers which means any networking hardware already present on your Amiga will function, although Ethernet cards are the only option when linking up to other Macs.

Rumours of a hardware based AppleTalk adaptor have yet to amount to anything. The latest *ShapeShifter* is quite clever though, in that it allows two Amiga's to be networked using a PLIP-style link -- which means two Amiga's running *ShapeShifter* can be networked using AppleTalk.

incompatible with other non-Amiga platforms.

NOW WE'RE TALKING

Ever wanted to swap a lot of data between your Amiga and an inferior machine such as a PC or an Apple Mac? Bored to the back teeth using *CrossDOS* to carry floppy disks back and forth? Getting irritated trying to build a suitable null modem cable and then waiting for *Zmodem* to upload over a slow serial link?

How would you like to be able to send files back and forward at speeds of 400K a second or better? It can be done -- although you will need to invest in some hardware: namely an Ethernet card. Ethernet is a networking hardware standard which has a theoretical speed on 10Mbit/second. It's relatively cheap and easy to use and it's widely available on PC and Apple systems. We'll look at some of the Ethernet solutions for the Amiga next month in a lot more detail.

Now that the machines are communicating, what can you do? That depends a lot on what the machines actually are, and the protocol stack used to network them together. Let's take a simple example to start with: two A1200's networked using *magPLIP*. One choice is to use *AmiTCP* to provide a TCP/IP link.

If this is the case, then to check if each machine can "see" the other on

THE AMIGA AND NETWORKING

The Amiga has always been embarrassingly poor at networking, and the implications meant a lot more than not being able to use a four player Doom clone with your mates. The lack of networking support has always damaged the Amiga in the "serious" application sector.

Apple Macintosh computers have extra fast serial ports as standard, and the built-in software provides a system called "AppleTalk" which allows Macs to be easily inter-connected.

Ever since Windows for Workgroups appeared in 1992, networking on the PC became easy. A room full of PCs can be networked together in an afternoon using cards which cost less than £50 each. All the PCs can share printers and files, and data transfer is fast and reliable.

The ability to share data and peripherals is essential in the business world, and it's one reason that despite excellent word processing and graphics applications, an Amiga is not an ideal office machine.

Commodore did develop a networking

protocol, AS225. It was a TCP/IP package originally developed by a company called "Ameristar". Release one was finished in 1991, and work on the more useful release two started. Sadly, although various betas were made available, the full package was never released. This has got to be one of the many times Commodore failed the Amiga community.

The problems with networking go back further, right to the point when the Amiga Operating System was created. Remember that the Amiga was ahead of its time, in providing a flexible multitasking graphical user interface when most people used DOS prompts. However, the Amiga was never designed to be a "multiuser" system. Unlike, say UNIX, it is impossible to mark files as for use by only specific users. The memory management system, also adequate for most single-user applications, isn't up to looking after different programs running for different users. To be blunt, the Amiga doesn't make a great network server -- and this hampers its use in network environments.

```

AmigaShell
7.Bigboy:Dump/AmiTCP4/bin> ping 172.16.0.1
PING 172.16.0.1 (172.16.0.1): 56 data bytes
64 bytes from 172.16.0.1: icmp_seq=0 ttl=32 time=2 ms
64 bytes from 172.16.0.1: icmp_seq=1 ttl=32 time=2 ms
64 bytes from 172.16.0.1: icmp_seq=2 ttl=32 time=2 ms
64 bytes from 172.16.0.1: icmp_seq=3 ttl=32 time=2 ms
64 bytes from 172.16.0.1: icmp_seq=4 ttl=32 time=2 ms
64 bytes from 172.16.0.1: icmp_seq=5 ttl=32 time=2 ms
64 bytes from 172.16.0.1: icmp_seq=6 ttl=32 time=2 ms
64 bytes from 172.16.0.1: icmp_seq=7 ttl=32 time=2 ms

--- 172.16.0.1 ping statistics ---
8 packets transmitted, 8 packets received, 0% packet loss
round-trip min/avg/max = 2/2/3 ms
7.Bigboy:Dump/AmiTCP4/bin> ping pentium
PING pentium (172.16.0.1): 56 data bytes
64 bytes from 172.16.0.1: icmp_seq=0 ttl=32 time=2 ms
64 bytes from 172.16.0.1: icmp_seq=1 ttl=32 time=2 ms
64 bytes from 172.16.0.1: icmp_seq=2 ttl=32 time=2 ms
64 bytes from 172.16.0.1: icmp_seq=3 ttl=32 time=2 ms

--- pentium ping statistics ---
4 packets transmitted, 4 packets received, 0% packet loss
round-trip min/avg/max = 2/2/2 ms
7.Bigboy:Dump/AmiTCP4/bin>

```

Listing One: Here is the Amiga testing its link with a nearby networked machine. The first time, the raw IP address is used. The second time, the domain name is used.

the network, one of TCP/IP's many tools can be used. For example, if the two Amiga's have been given IP addresses 172.16.0.1 and 172.16.0.2, then each can "ping" the other like the example shown in Listing One.

This confirms that the hardware is working, and the software has been configured properly. The next stage is to actually try and do something, such as copying a file. To achieve this, it is necessary to use the TCP/IP tool "FTP". On one machine you must run an FTP daemon program, and on the other an FTP client. When they are talking, you can copy files backwards and forwards.

There are dozens of other TCP/IP tools available. You can open a Shell on the remote machine, or play games such as *Noughts and Crosses* and *Chess*. You can even set up your own World (well, "Room" in this case) Wide Web system and send electronic mail backwards and forwards.

An alternative to TCP/IP is to install the considerably more integrated package, *Envoy*. *Envoy* is a network filesystem which means, like *ParNet*,

you can read and write to the disks on the remote machine. *Envoy* also includes support for printer sharing and a whole host of other goodies.

However, *Envoy* only works on Amiga's -- what if you want to connect up to PCs or to Macs?

On other platforms, the easiest thing to do is return to the land of TCP/IP. Getting TCP/IP running on other platforms is frighteningly easy: Both the AppleOS and Windows95 have support built in and it's only a matter of clicking a few boxes to get it set up. Assuming the network hardware is compatible (i.e. it's Ethernet).



NEXT MONTH:

We'll be taking the most comprehensive look at networking hardware ever, and exploring how you can get your Amiga connected to other computers. Don't miss it!

John Kennedy is co-author of the book "UK COMMS", published by Bruce Smith Books.

Jargon

POP

Post Office Protocol -- an electronic mail standard.

PPP

Point to Point Protocol -- used to allow a computer to connect to the Internet via a dial-up line. Similar to, but better than, SLIP or CSLIP.

Routing

Finding the path from one host on the network to another.

SLIP

Serial Line Internet Protocol, a way of sending TCP/IP signals down a serial line and hence through a modem.

SMTP

Simple Mail Transfer Protocol, used to send mail over TCP/IP links.

Static addressing

When your Internet Service Provider gives you a unique and un-changing IP address which you use every time you dial-up. You therefore have a static address.

TCP/IP

Transmission Control Protocol / Internet Protocol. The networking system used by the Internet.

Telnet

A program which allows a computer to log in to a remote host over the Internet or other network.

Terminator

Item of hardware sent back from the future and attached to both ends of an Ethernet network to stop signals from bouncing around and becoming corrupt (and evil).

WAN

Wide Area Network. A network spread over a large physical distance.

World Wide Web

The collection of linked pages of text, graphics and sound distributed all over the Internet. Access with a program such as *AMosaic*, *IBrowse* or *AWeb*.

UNIX

Powerful, multitasking operating system. Very popular amongst Internet users.

Usenet

Huge bulletin board system which uses networks such as the Internet to propagate around the world.

ON-LINE INFORMATION

Check out my own home page where I'll put pointers to on-line networking resources. The address is:

<http://www.webzone1.co.uk/www/johnk>

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ATMOS	12	2.6
CHART	6	3
CHIP	78	2.3
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DREAM	38	6.8
DREAM	4	6.2

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- * Printers
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SCENE STORM

CODE: CD286
PRICE: £18.99

It is an new Amiga Scene CD produced by Digital Candy and the legendary scene crew - Scene Storm.

The CD is packed to bursting point with the most jaw dropping Scene productions. Released from over 20 Parties, held throughout the world are featured including the famous Party 5.

Only those of the highest standard have been chosen, all of them proving that the Amiga is still the machine for artists & coders, to enhance your own Bulletin Board sys.

SLIDESHOWS - From the Scenes big name groups.

DISK MAGES & CHARTS - From Europe are ready, including latest issues of Raw, Rom, Grapvine & Scene Talk.

EXCLUSIVE

Software direct from the authors - several people contributed exclusive software.

FIRST Demo of Alien Breed 3D 2 The Killing Grounds - CD!

SEVERAL Special Worms levels - made especially!

MORE AGA Demos than you'll find anywhere! Downloaded straight from the Internet.

ALL AGA Doom-clocks released since Volume 1.

MODS

To play and use from the CD or in your own trackers. Exclusive Mods taken from the coolest demos as well as entries from Digital Candy BBS Music Competitions.

MUSIC DISKS - Straight from the keys of the finest groups around including Razor 1911, TRS, Suburban Base & Grass Hopper Development.

A pleasant cross section of material from the underground UK Scene. Features fascinating material that the military & government have tried to keep under wraps. Find out for yourself what is really out there!

ASCI ART & BBS DOORS - Produced by the leading artists & coders, to enhance your own Bulletin Board sys.

DEVELOPMENT - A complete suite is included that allows you to learn how to code your own mind blowing Demos. You will find development tools and exclusive.

easy to follow source code with which you can create the effects seen in the latest ground breaking demos.

SCENE STORM - Is the most concise and easy to use Scene CD ever released. The files are presented in Ready-to-Run format, with a fantastic Magic Workbench Interface featuring custom icons. Pointing and clicking is all that is required to run the files which are all individually commented with compatible details and the ability to abort back to the WB.

This CD simply oozes quality from the very moment you see it. The programs on Scene Storm will give your Amiga the biggest workout it has ever had, all without cluttering up your work disk.

AGA machine (at1200/a4000) is required to obtain full benefit of this CD.

Order SCENE STORM today - its the best thing to hit the Amiga this year!

C64 VOL 2

CODE: CD301
PRICE: £19.99

Remember the good Days - Contains all the Software that we have collected during our great times on the C64. Dating from 1984 to present day.

* Surprising as it may seem to a lot of people there is still a lively C64 scene today. Although very different from a few years ago there are still a lot of people still heavily into the C64. And the rest of you, like us, have a lot of great memories.

* That is one of the reasons why we compiled this CD.

So anytime you want to reminisce the old days you can just pull out the CD, plug it in

AGA EXPERIENCE 2

CODE: CD302
COST: £18.99

After the great success of The AGA Experience Volume 1, comes the long-awaited successor.

EXCLUSIVE 'Internet' style documents - using a special version of AWeb!

FASTER Unpacking of DMS files - some DMS will unpack in around 2/3rds the time!

MORE Exclusive software. Including several exclusive multimedia Amiga Guide docs - created by ourselves!

DEMOS Now have compatibility info - & even tells you if it will exit back to W/bench!

VIRTUALLY No software repeated from the 1st CD!

UNDMS

Files RAD: If you have an CD32, you can now unpack DMS files to RAD!

MORE CD32 Friendly! If you have a CD32, you will find this CD easier to use.

FLOPPY DRIVE Friendly! Everything is now set-up to for any HD-less Amigoids.

MORE Ready-to-run software - less time spent extracting boring DMS files!

100% Full CDROM again. Why pay for a half-full disc?

EVEN Better interface. Less directories, and a more logical lay-out.

MORE indexes. Now almost everything is fully indexed and described!

BETTER artwork - a lot better look to the packaging - it's now

AGA EXPERIENCE 1

CODE: CD210
PRICE: £16.99

The Best Selection of AGA Software anywhere.

NFA - Famous for their 'Word' disk-mag, & Bodyshop slideshows, are very proud to present their first Amiga CD-ROM disc - First CD dedicated to AGA owners.

EXCLUSIVE NFA - These quality titles were created by leading Amiga magazine NFA specifically for this CD. These titles are all AGA.

READY-TO-RUN - Most of the content run straight from the CD. There is no need to spend ages extracting disks. Well over 300MB of ready-to-run utilities, mags, text files, demos, games & more.

MAGIC WORKBENCH - Colour scheme and icons. We have spent months making this CD the very smartest looking CD available today.

WORLD ATLAS

CODE: CD305
PRICE: £28.99

Woodmen Limited presents the first new World Atlas designed exclusively for the Amiga market.

The atlas will run on all AGA machines (CD32, A1200 and A4000) and it is based on the Mountain High Maps collection incorporating state-of-the-art enhanced satellite maps.

The pages used have been specially designed to operate most effectively with the control system on CD32 as well as a mouse on other systems.

Economic, cultural, and historical facts are fully and clearly represented. Over 190 countries are included, each supported by 2-6 maps separately depicting major cities, rivers, mountains, and geographical position, together with national flag.

The Atlas has been extremely well received by the experts. Here are just a few quotes.

'If you ever wanted to find out about the World you won't find a better package than the World Atlas' - Amiga Computing 90%.

World Atlas... Must have taken a very long time to compile... The maps are of excellent quality and the final round up of details including population, religion, languages and GDP are very interesting' - Amiga Shopper 90%.

Whether you are looking for an atlas for educational or recreational purposes you can't do much better than opt for this well presented program' - Amiga Format 91%.

This Latest package from Woodmen is one of the best reference titles yet to appear on CD32. Quality and ease of use are the watchwords' - CD32 Gamer 92%.

THE AMINET

All round best cdrom collections.

Aminet 4 CD064 - £ 4.99
Aminet 5 CD171 - £ 2.99
Aminet 6 CD184 - £12.99
Aminet 7 CD208 - £12.99
Aminet 8 CD238 - £12.99
Aminet 9 CD240 - £12.99
Aminet 10 CD263 - £12.99
Aminet 11 CD282 - £11.99
Aminet 12 (NEW) - £11.99

Aminet Set 3 (NEW) £19.99 Pre-order for release in three months.

Since the release of Aminet 10 more than 500MB of new software has appeared.

The excellent user-interface has also experienced further improvements.

The Aminet continue to collect some of the best reviews from all major Amiga Magazines.

TURBO CALC v.2.1

CODE: CD218
PRICE: £9.99

Is the unique software solution that defines a new standard.

DESIGN - Extensive formatting options, all supported font formats allowed, no colour restrictions, various cell frames etc.

FUNCTIONS - More than 100 functions covering arithmetical & financial.

DIAGRAMS - All common chart types supported, footer and header, legend and axis label-in, output as IFF-file or graphic printout.

PRINTOUT - Out in built-in printer font (draft mode) or as freely scalable graphic (res 052.0 or higher).

TEXTURE PORTFOLIO

CODE: CD169
PRICE: £29.99

Compiled over a five year period by Photomasters.

Who have produced this collection of hundreds of original high quality photographic images for use with 3d raytracing & 2d art programs. Comes with a colour print out covering all pictures.

WEIRD TEXTURES

CODE: CD315
PRICE: £14.99

All files come in 256x256 pixels & 32bit various formats.

Idea for 3d raytracing. Multimedia, web page design, Desktop publishing, and general 2d illustrations.

* Includes a 24 page colour booklet featuring a thumbnail index.

W/B ADD-ONS

CODE: CD289
PRICE: £24.99

The Best utilities CD for use with your workbench.

This is the ideal companion to your workbench. Not only are there the best programs on this CD for the Amiga, but they are also ready to run.

There is also an installer that installs the programs to the Hard Disk.

This CD covers all areas of interest: The programmer, the user, the creative and the gamer will all find what they need.

There are many shareware programs on this CD that are a special price if you register them.

AGA EXPERIENCE 2

CODE: CD206
PRICE: £19.99

Not only contains 4,000 new colour computer games but also includes a lot of other adult related software.

Contains Music Samples, Music Modules, lots of adult stories, adult animations, back & white 70's photo's Adult games and much much more. (Over 18 Only)

NOTHING BUT TETRIS

CODE: CD278
PRICE: £9.99

Tetris is the most loved and played computer games of all time.

This CD contains almost 100 variations of the worlds most played game, nearly all the games are ready to run directly from the CD, and archived versions are also at have for easy install.

ADULT SENSATIONS

CODE: CD072
PRICE: £19.99

Over 10,000 high quality colour high resolution pictures and videos for all machines.

Colour images in the following subjects: Animals, Vexicals, Sports, Technology, cartoon, Raytraced, Fantasy, Science fiction, Art, Space and hundreds of more.

The perfect CD set for presentation and DTP.

GIF SENSATIONS

CODE: CD273
PRICE: £19.99

Over 10,000 high quality colour images in various formats sorted together on a Single CD Set.

Colour images in the following subjects: Animals, Vexicals, Sports, Technology, cartoon, Raytraced, Fantasy, Science fiction, Art, Space and hundreds of more.

The perfect CD set for presentation and DTP.

WORLD OF CLIPART

CODE: CD291
PRICE: £19.99

Over 40,000 high quality colour images in various formats sorted together on a Single CD Set.

Colour images in the following subjects: Animals, Vexicals, Sports, Technology, cartoon, Raytraced, Fantasy, Science fiction, Art, Space and hundreds of more.

The perfect CD set for presentation and DTP.

GATEWAY! VOL 2

CODE: CD294
PRICE: £8.99

This CD offers NetBSD 1.1 which is a full featured UNIX-like operating system for the 386/Amiga, Sun3, Atari, VAX, DEC and sparc. There are also additional programs and source packages.

NET NEWS (OFFLINE)

CODE: CD298
PRICE: £9.99

This is the first in a series of CD published quarterly. All Amiga related news-groups from Usenet and other networks are published on this CD. NetNews Offline is one of the most interesting CD released in 96.

* A must have for every owner.

BLANKERS COLLECTION

CODE: CD295
PRICE: £13.99

This CD contains Blankers that have been released for the Amiga. Many of the blankers are ready to use as well as some for graphics cards and KS1.2. Also included the latest Shareware programs, lots of modules, animation's and fonts.

ADULT SENSATION 2

CODE: CD206
PRICE: £19.99

Not only contains 4,000 new colour computer games but also includes a lot of other adult related software.

Contains Music Samples, Music Modules, lots of adult stories, adult animations, back & white 70's photo's Adult games and much much more. (Over 18 Only)

AMINET SET 2

CODE: CD220
PRICE: £27.99

Feel access to the wealth of the Aminet. Its a Good Disc Set with the most comprehensive collection.

Utilities 120MB 1,000
Documents 270MB 870
Text 40MB 210
Business 75MB 170
Pics & Anim 630MB 2,000
Graphics 170MB 430
Misc 150MB 270
Demos 630MB 2,000
Game 250MB 530
Dev 110MB 340
Disk 10MB 110
Hardware 3MB 60
Comm 150MB 1,000
Music 30MB 120

AMINET SET 1

CODE: CD112
PRICE: £24.99

Quite simply the best CD compilation around "CD" Disc Set.

Dev 141MB 800
UI 103MB 1,800
Gfx 134MB 900
Pics & Anim 337MB 1,100
Text 87MB 500
Dex 39MB 400
Demo 336MB 900
Game 160MB 1,000
Comms 68MB 1,100
Hardware 6MB 100
Business 63MB 300
Disk 12MB 200
Misc 109MB 500
Modes 35MB 2,700

MEETING PEARLS 3

CODE: CD224
PRICE: £8.99

Germany's most popular Amiga CDROM has grown by a new addition!

3MB CD Utilities
35MB Graphic Programs
21MB Comms & Networking
5MB Debugging Tools
29MB Development Tools
12MB Floppy disk, Hard Disk, SCSI
8MB Educational Programs
10MB Grunters & Archivers
30MB Internet Movie Database
7MB MIDI Tools and Programs
30MB Music Modules & Software
13MB AmiTCP and Networking
60MB Docs, CD Databases, etc.
96MB PasTAX v1.4
45MB Utilities & HTML-Pages.

THE SOUND LIBRARY

CODE: CD011
PRICE: £19.99

Over 1.500 Music VOC Files.
Over 1,000 Music WAV Files.
Over 1,000 Music Samples.

Ready to Run - 100's of Music related software packages, Editors, Music Converters, Sequencers, Drivers, Players, Trackers, etc.

* Also includes loads of ready to run software.

SCI-FI SENSATIONS

CODE: CD207
PRICE: £18.99

Is an exciting new Double Disc Set

Containing over 1000MB of Science fiction related software, Images, Music, Anims, 3D objects (Imagines & Lightwavs), Sound FX, Documents, Tunes, Information and Games.

- * Thunder Birds
- * Aliens
- * Next Generation
- * Deep Space 9
- * Star Trek
- * Voyager
- * Dr Who
- * Blade Runner
- * Total Recall
- * Battlestar Galactica

PCX CLIPART 2

CODE: CD083
PRICE: £17.99

With a 250 Page Book

Is a crammed full of clipart etc.

Everyone from Juniors to adults will simply love flicking through the 250 page book selecting the pictures.

* Directories such as Animals, Toys, cultural Images, floral and natural Images, literary figures, mythological Images, and work Images. Bears, cats, dinosaurs, dogs, insects, horses, Egypt, Native Americans, Polynesia, Persia, Floral & natural images include blossoms, plants, sky, the sun, trees, & weather.

COLOUR LIBRARY

CODE: CD182
PRICE: £9.99

Download up into categories for easy selection.

We have included several useful utilities to enhance the performance

- * Animals
- * Bikes
- * Buildings
- * Boats
- * Cars
- * Birds
- * Fish
- * Flags
- * Dogs
- * Dinosaurs
- * Flowers
- * Maps
- * Computer
- * Houses
- * Helicopters
- * Men
- * Medical
- * Insects
- * Misc
- * Military
- * Paintings
- * Places
- * Planes
- * Raytraced
- * Sci-Fi
- * Smartart
- * Ships
- * Sports
- * Things
- * Trains
- * War

AMINET SET 2

CODE: CD220
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Feel access to the wealth of the Aminet. Its a Good Disc Set with the most comprehensive collection.

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30MB Internet Movie Database
7MB MIDI Tools and Programs
30MB Music Modules & Software
13MB AmiTCP and Networking
60MB Docs, CD Databases, etc.
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45MB Utilities & HTML-Pages.

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Over 1.500 Music VOC Files.
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* Also includes loads of ready to run software.

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Containing over 1000MB of Science fiction related software, Images, Music, Anims, 3D objects (Imagines & Lightwavs), Sound FX, Documents, Tunes, Information and Games.

- * Thunder Birds
- * Aliens
- * Next Generation
- * Deep Space 9
- * Star Trek
- * Voyager
- * Dr Who
- * Blade Runner
- * Total Recall
- * Battlestar Galactica

ATAPI DAYS

Simon N Goodwin looks at the latest hardware standard which allows the cheap attachment of CD-ROM drives to the Amiga without an SCSI interface.

Until recently, with a few exceptions, there was really only one way to attach a CD-ROM drive to your Amiga – add a SCSI interface and use that to control a SCSI CD-ROM drive.

Cheaper solutions, such as the Tandem controller, allowed big-box Amigas to add an inexpensive IDE mechanism. However, this does not enable many drives to be used to their fullest potential. Now, however, with the introduction of a new hardware standard and some Amiga software by Oliver Kastl of Elaborate Bytes, you can add bargain drives intended for PC clones, via the cheap and cheerful IDE interface built into all Amigas since the A600.

Advanced Technoligised Attachment Package Interface (ATAPI) drives are an important development, because quad speed IDE drives now retail at bargain prices – under £40 for a double speed Sony drive, and under £50 for a quad speed Mitsumi.

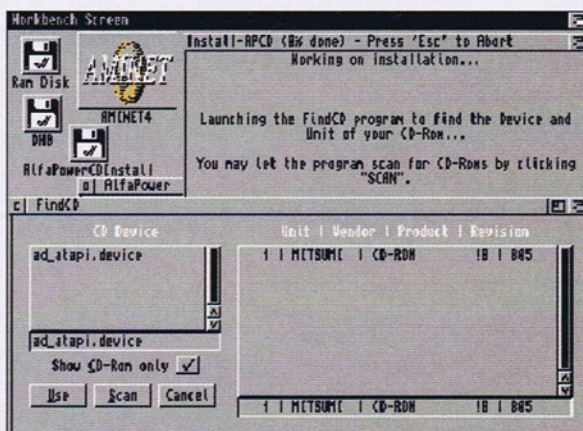
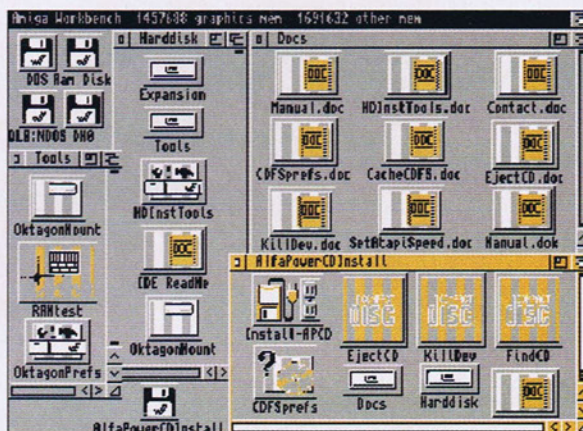
In recent months I've bought half a dozen ATAPI drives, at All Formats Computer Fairs and the Stafford All Micro Show, and they've all worked fine, on Amigas from the A500 to A4000/060.

WHAT IS ATAPI?

To understand ATAPI you have to refer to the PC. ATAPI drives plug into a PC interface called IDE which was intended to simplify and standardise the disk interface. This meant you could upgrade your hard drive without needing a new interface card or software. IDE was a success, and now most PC hard drives work that way.

The IDE interface is very simple and cheap at the computer end, which led Commodore to build an IDE interface into all Amigas from the A600 onwards. However PC makers were not content using IDE for hard disks. When CD-ROM drives came along they needed an easy way to connect them, and the first CDs, with custom interfaces, were soon supplanted by models that co-opted the IDE hardware.

The snag was that IDE was never designed for CD drives, and the manufacturers found a variety of ways to adapt it. Eventually ATAPI was born – a software standard for IDE CD-ROMs. ATAPI CD-ROM drives are now



Top: Installing the bundled software is easy.

Above: The FindCD utility is indispensable for locating your ATAPI device.

common, cheap and (usually) compatible, and all available to Amiga owners with an IDE port and standard ATAPI software.

HARDWARE

A600, A1200 and A4000 Amigas have IDE interfaces built in, all supported by ATAPI. In hardware terms they're much

the same, but the A600 version is limited to two drives. A special cable can be used to connect another two drives to the Commodore IDE port, but they must be CD-ROM drives, as they are not recognised by Commodore's hard drive software. Most people will get by with one of each, and have no need for the special cable.

Alternatively AlfaData offers an external IDE interface which plugs into PCMCIA. This sticks out of the side of the Amiga but saves delving inside the machine to make an IDE connection. If your computer lacks an IDE interface you can still add one. Special versions of the ATAPI software are available for users of Tandem and AlfaPower expansion. A500s require Workbench 2 and the latest version 6.8 of the AlfaPower interface ROM, available from Golden Image.

PERFORMANCE

The performance of an ATAPI drive matches that of SCSI drives connected via PCMCIA or the Dataflyer which stacks onto the internal IDE port. It cannot match the speed of a Direct Memory Access (DMA) SCSI system based on a Zorro card or processor accelerator, but that only matters if you need full processor power while the drives are busy. The IDE interface is quite fast enough to keep up with quad speed drives, even on an A500. In practice even a double speed drive is quick enough for Amiga applications, such as CDXL, Commodore's impressive proprietary scheme for FMV.

CD DRIVES

CD drives known to be compatible with the Amiga ATAPI software are listed in the table. Other modern IDE drives should work, but for safety pick one from this list, and confirm the exact model number before you pay up. Early 1996 show prices ranged from £29 for

CD DRIVES KNOWN TO BE COMPATIBLE WITH AMIGA ATAPI SOFTWARE

MANUFACTURER	MODEL	SPEED	NOTES
Acer	6825-P	2x	
Chinon	CDS-525I	2x	
Chinon	CDS-545	4x	Favourite of Oliver Kastl.
Goldstar	GCD-R542B	4x	Digital output; fits A4000 well.
Mitsumi	FX-001DE	2x	The DE suffix is important!
Mitsumi	FX-300	3x	
Mitsumi	FX 400	4x	'A' suffix = no headphone output.
Sony	CDU-55E	2x	Audio needs CacheCDFS 2.5+
Toshiba	XM-5302B	4x	Very short, so fits A4000 nicely.
Wearnes	CDD-120A	2x	
Wearnes	CDD-220A	4x	

ARE HERE

the double-speed Sony, via £39 for the quad-speed Mitsumi FX400-B1 (the B1 suffix indicates no headphone output) to £45 for the very nice Goldstar version. Lesser points to check are drive power consumption, the number and type of audio connections, disk carriage and squeaks when the laser head moves, from the drive and sometimes through the audio outputs.

If you've got a desktop A4000 your 5.25" drive bay is only about 200mm deep, allowing room for the leads at the back of the drive. Most models can be squeezed in, albeit tightly. Toshiba and Goldstar leave more room than most. Other drives should also work as long as they support the full ATAPI IDE spec, but steer clear of the Elitetgroup Vertos 300SSD, which comes close, but not close enough. Whatever model you choose, make sure it is configured as a 'slave' unit. You normally do this by positioning little jumpers on the drive. You should not need to adjust the jumpers on your existing hard drive.

POWER USERS

CD-ROM drives vary in their power consumption but typically need about an amp on both the +12 volt and +5 volt rails. The newer the drive, the less the power requirement. The five volt supply is generally adequate, but Amiga +12V rails have little spare capacity.

You're asking too much if you expect to power the CD-ROM drive from the standard Amiga A600 or A1200 supply but if you're using an accelerator or external floppies you've probably already invested in a souped-up supply, and may well have enough spare power to run the CD-ROM drive

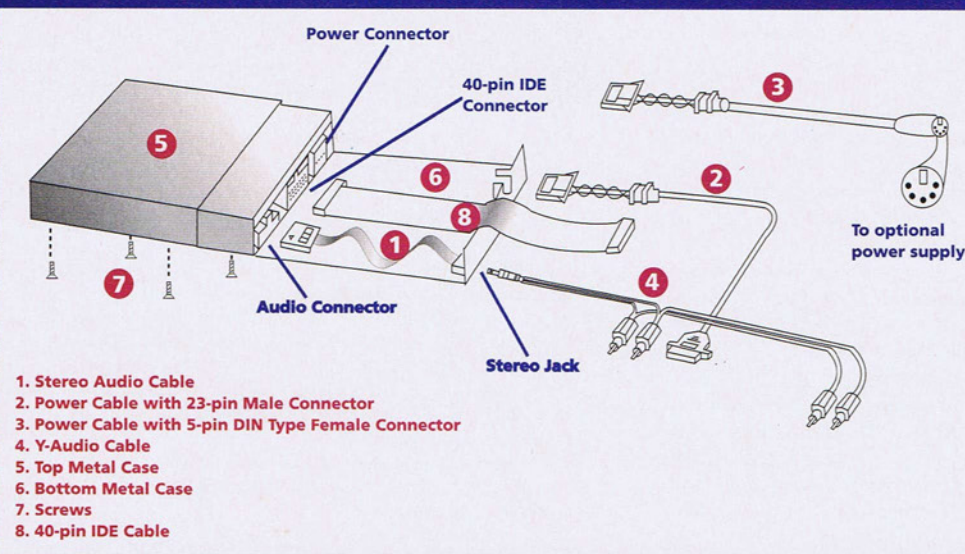
You're asking too much if you expect to power the CD-ROM drive from the standard Amiga A600 or A1200 power supply

as well. The A500 power supply is much more substantial and often recommended as a stop-gap upgrade for A1200 owners.

GETTING WIRED

One attractive option is to buy a cheap PC tower box, and put your drives in there, using the hefty internal supply to power them, and maybe your Amiga as well. These cost around £30 at an All Formats Computer Fair and give bags of room for expansion. But you'll need to keep the IDE cable from the computer to the tower fairly short, as IDE – unlike SCSI – is really only intended for

CD-ROM UPGRADE KIT MOUNTING



CONTACTS

GOLDEN IMAGE (UK) LTD.

CD ROM Upgrade kit	£39.00
Kit with full ATAPI Software	£59.00
Tandem Zorro 2 IDE + CD controller	£69.00
Software and PCMCIA CD1200 Controller	£69.00
Kit, Software and PCMCIA CD1200 Controller	£110.00

Prices do not include the CD ROM drive.

65 Hallmark Trading Estate, Fourth Way, Wembley, Middlesex HA9 0LB, UK.

Tel: 0181 900 9291

ELABORATE BYTES (OLIVER KASTL)

Am Westpark 5, 81373 Munich, Germany
Compuserve: 100447,3361

Internet: 100447.3361@compuserve.com

ALL FORMATS COMPUTER FAIRS

UK show information: 0181 856 8478

the spare 3.5" bay at the front, under the floppy drive. Either way, ensure that pin 1 corresponds on the motherboard, cable and both drives.

There's no obligation to put an ATAPI CD-ROM drive in a case – they come fully enclosed and all they really need is connections for IDE and power to make them work – but they look a bit ugly. DIY enthusiasts could convert a box intended for one or two old 5.25" disk drives, although they'd need to make up their own audio cable. Golden Image have a neater answer, in the form of a CD Upgrade Kit which includes mixing audio, data and power cables, a sturdy metal case and simple pictorial instructions.

SOFTWARE

The ATAPI software is available in versions for four IDE hardware configurations: AlfaPower, Tandem, Amiga 4000 and Amiga 1200, which also supports the A600. The code for each is very similar, but you must use the one that matches the address of the IDE hardware on your system. All four are available in demonstration and commercial versions. The demos are on Aminet, in the disk/cd-rom directory, and also available from bulletin boards and PD suppliers. The demo is fully working, but limits you to one hour of continuous use of the CD drive, putting up a requestor every ten minutes or so to remind you. This is not as annoying as it sounds, as you only need to respond to the requestor when you next want to use the CD drive, and the time limit does not include the intermediate waits. It's worth shopping around for

Continued overleaf ➔

the software as prices vary from £20 to almost £50 depending on the supplier, and there are 'crippled' versions around which lack CD³² emulation and support for disks in Mac HFS and the old PC 'Rockridge' format.

The full software comes with a good printed manual, explaining all the software options however, this only covers the software, and says nothing about how to connect the drive. The installation software is first rate. It uses the standard installer and a program called *FindCD* to scan any device of your choice, looking for a CD drive. This works just as well on SCSI as with IDE.

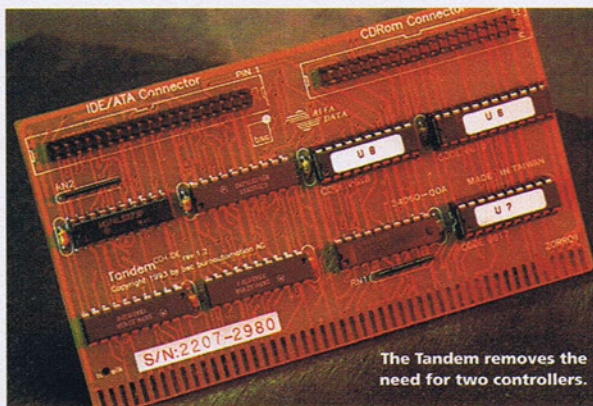
The software itself has four major components. You get the ATAPI device, which translates messages from the Amiga file system to the ATAPI drive. This is a small file, around 7K in size, vital because it adds the necessary CD functions onto Commodore's own IDE control software.

The CD File System puts the CD icon on your desktop and lets you manipulate CD files as if they were on floppy or hard disk. In theory the ATAPI device will work with any CD File System, but it comes bundled with Oliver Kastl's own *CacheCDFS*. There are lots of CD File Systems for the Amiga but *CacheCDFS* supports a sophisticated scheme to speed up access by removing the need to re-read data.

The third component is a CD player which works like a Hi Fi controlled from your desktop. You can select audio tracks and program them to play in sequence. Other gadgets let you set the volume and eject the current CD from the drive, but these do not work on all drives – it depends on the model. Again there are PD alternatives if you don't like the interface or want extra features such as track names or ARexx control.

COMPATIBILITY

The ATAPI package also includes CD³² emulation software. It's not totally CD³² compatible, even with the add on software from Elaborate Bytes, but no less good than SCSI-based systems. The CD³² emulator works with SCSI drives as well as ATAPI. Real CD³²s have Workbench 3.1, a small non-volatile memory to store level and high score information, special eleven button



ACRONYMS

AGA Advanced Graphics Array. Commodore's 32-bit Amiga chip set.

ATAPI A protocol allowing an IDE interface to control CD drives in a standard way regardless of manufacturer.

CD Compact Disk – digital data delivery system invented by Philips and refined by Sony, used for audio and later computer and video data.

CDFS Compact Disk File System – a program that converts the blocks of data on a Compact Disk into a form accessible to all Amiga programs.

DMA Direct Memory Access – a device capable of loading or storing data in memory without requiring continuous processor intervention.

IDE Integrated Drive Electronics – a drive designed to interface directly with PC expansion (earlier drives needed a relatively complex control unit).

PC Personal Computer – Used to refer to machines designed to be compatible with a 1980 IBM/Intel design.

ROM Read Only Memory. Information that computers can read but not alter.

SCSI Small Computer System Interface. A way of connecting computers and peripherals, allowing communication between devices that share control and connections as required.

A1200-owners who would like to add IDE CD-ROM drives to their machines needn't feel left out, as there is an external version of the Tandem especially for them.



The full version of the ATAPI software may cost more than the drive, but at least you can try before you buy

keypads and a graphics conversion chip called AKIKO. All these can be emulated in software, along with the 'cd.device' code that controls Commodore's decidedly non-standard drive mechanism, but many CD³² programs need tweaks to get them working on a 'real' Amiga.

The CD³² emulator has a start up menu to control processor acceleration, fast memory and keyboard emulation of the extra controller buttons. It can take a while to find the right combination for some titles. Other options divert data intended for the non-volatile memory to disk and control data buffering. Similar caveats apply to CDTV emulation, except that in that case the real thing runs Workbench 1.3, a 68000 processor and 16 bit graphics. Some programs intended for Workbench 1.3 object to Workbench 2, but ATAPI requires Workbench 2 or better.

Titles intended for the whole Amiga range, from CDTV upwards, including PD collections such as

Aminet, usually work fine. *Pandora's CD*, from Optonica, ran perfectly on the A500. The CDTV welcome disk also worked, but CD³² titles fell over on the A500, expecting a faster processor and 32-bit graphics.

CONCLUSION

If you want a CD-ROM drive, and have not yet bought an SCSI interface, ATAPI deserves serious consideration. The full version of the ATAPI software may cost more than the drive, but at least you can try before you buy. It's a pity that the software is only available bundled with *CacheCDFS*, *CD Player* and *CD³² emulator*; *atapi.device* is all you need buy to put together a working system, and the extras just push up the price. You can save money on the software by buying it with extra hardware, but if you've got an A600 or later Amiga all you really need is the CD drive, IDE cable and an uprated power supply. The demo version works fine – the only problem is the time limit and periodic requestors.

At least A4000 owners can see what their extra hundreds bought them, because their machines come with a cable, ample power and even a hole the right size to fit most ATAPI drives. In this case you really can add a quad speed CD and be up and running for well under £50. But as you've got the potential for fast Zorro 3 expansion, you may prefer to take the SCSI route. If you're an A500 user with Workbench 2, the combination of AlfaPower Hard disk and ATAPI CD is very attractive. One reliable expansion unit provides extra memory, hard drive and now CD

control. The only snag is the number of Amiga CDs that only work on AGA machines. A600 and A1200 owners need to delve inside the Amiga to route their IDE connection to the outside world. If that's a daunting prospect, and your PCMCIA port is free, the external CD1200 controller is just what you need. It also saves you worrying about hard drive configuration as it provides an entirely separate IDE interface for the CD.

The add-on kits from Golden Image are aimed at people who want a professionally packaged system and don't mind screwing it together themselves. The CD drive case may seem expensive, especially as it doesn't include the necessary power supply, but you do get a lot of Amiga-specific kit, including two power cables and a through port that mixes the CD audio with the Amiga's own sound output. The total price is still good value compared with a SCSI set up, although you lose the further expansion possible with a SCSI adapter.



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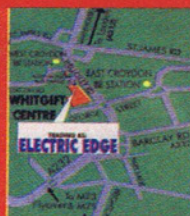
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Andy Smith

A sad fact, widely known, is that the Amiga games market isn't as healthy as it was. We're aware of that but we're more aware that whatever games are released still, more than ever in fact, deserve to be reviewed with your buying decisions in mind.

One of the temptations many lesser magazines succumb to is to give inferior games a 'higher than they deserve' mark, simply to make their readers feel better about their machine and to keep them interested in the whole games scene. It's a temptation all right, but not one that we on *Amiga Format* fall into.

We'll continue giving fair reviews to EVERY game that comes our way – and we've had some quite excellent stuff over the last couple of months – but we're not going to let the crap games get away with it either. Twenty quid wasted on a rubbish game is twenty quid wasted on a rubbish game and we're here to steer you away from the dross, and onto the path of righteous gameplay.

(First in a series of Soapbox lectures by A.K. Smith, 17 3/4).

AMIGA FORMAT'S REVIEW POLICY

Every month we scour the world's software houses for the latest and greatest Amiga games. We try to ensure we keep you as up-to-date as possible and we'll stop at nothing to bring you the best, definitive, no-nonsense reviews of the games that matter.

WHAT OUR REVIEW SCORES MEAN

- 90+%** The crème de la crème. Only the very best, most playable and original games are awarded an AF Gold – the most highly prized rating there is.
- 80-89%** These games are very good, but due to minor flaws are not the finest examples of their genre.
- 70-79%** Good games which are worth buying, especially if you have a special interest in a game type.
- 60-69%** Average releases with somewhat limited gameplay and appeal. Games in this category tend to be flawed.
- 50-59%** Below average games which are unlikely to impress your mates or your wallet. Avoid.
- 40-49%** Overwhelmingly poor quality games with major flaws and appalling gameplay.
- Less than 40%** The absolute pits.

Reviews

The Amiga games floodgates may well be shut, but there's still a healthy trickle of good-looking games nearing release.

WORLD OF FORMULA ONE



■ So here's where things stand after three rounds. Bagsy the Williams-Renault team.

All Amigas ■ Apex Systems
If the fast-paced world of Formula One car racing is your thing then you'll be pleased to learn of Apex System's *World of Formula One* management sim.

This one's due on the starting grid in October (just in time for the erm, end of the Formula One season) and Apex reckon they've got the level of detail just right. They don't want to tie the player

down with ridiculous minutiae like how tight the driver's seat belts are, they want to concentrate on letting the player have realistic decisions to make (wing settings, gear ratios etc).

Features include all the teams and drivers from the '96 season, practice and qualifying sessions and pit-lane strategy. We'll bring you a full review a bit nearer the chequered flag.



■ Jacques looks like he's having a bit of trouble with his rear end (Ho ho!).

ACCESS DENIED AGAIN

A1200, A600 ■ Solo
Software ■ 01293 411929

Access Denied Mission One is reviewed on page 51 of this very issue and Solo are hard at it working on the follow up.

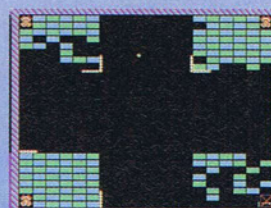
Mission Two offers a much improved game task and better graphics, speech and soundtrack.

The premise for the game is basically the same as the first one, in that you're a future hacker-type person who's using the Globe Net to do heinous things that should be left well alone.

There's also a sub-game included in *Mission Two*



■ The all new interface page for *Globe Net* in *Access Denied Mission Two*.



■ Here's the *Net Warriors* sub game. It looks a bit to us like some kind of weird pong variant.

called *Net Warriors* and this joystick controlled affair supports one or two players. The idea in *Net Warriors* is to protect your power sources (of which you have four, one in each corner) from the death sphere (a small projectile that bounces around the screen).

We liked the idea of *Access Denied* but the game had its shortcomings (check out page 51) which is why we're looking forward to the new-improved mission and we will bring you a full review when the game's finished.

Continued overleaf ➔

I WALLABY A KANGAROO!

CD AGA Amigas ■ Great Effects Development ■ 00 3153 434 3608

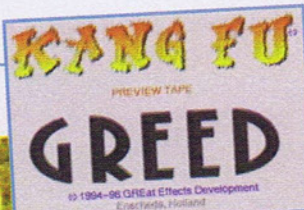
GREED are the Dutch bunch behind a new platformer heading our way very soon. Despite the fact that the gang have actually been working on this game, *Kang-Fu*, for a couple of years now, it's their first release.

We've only seen a preview video of the game (designed for CD AGA Amigas – A1200, A4000 and CD32) but as you can tell from the grabs we've got here and over the page the game looks a bit spesh.

The Kangaroo's the hero, armed with a machine gun, boxing glove and boomerang (like kangaroo's do) which can be switched between at the player's discretion, the idea's to work your way through the 10 levels of bouncing baddies, collecting various power-ups and tokens.

All very much the usual run of the mill platform action, but the graphics are the key as *Kang* (as we'll call him until GREED tell us otherwise) progresses through the game. Dual playfield HAM screens abound – that's HAM piccies in the background with normal 2D sprites running over the top, for all us non-technical peeps – and are put together extremely well.

The video demos one stage where Kang



■ No prizes for guessing where in the world Kang is now. Yes, you guessed it, Swindon.



■ Kang en France. Oui, oui, il pleut comme une vache qui piss...



■ There's our Kang, complete with machine gun, on holiday on Easter Island apparently.



■ Kang's back in Easter Island and it looks like the Elvis convention has finally hit town.

is happily tripping through some jungly-type undergrowth when one of the leaves of a big erm, bush-type thing (useless info No1: The banana plant is actually a herb, in fact it's the largest herb in the World), turns into a chomping kinda Little Shop of Horrors affair and starts snapping at our chum.

It's actually done extremely well. There is none of this very obvious *DPaint* sprite plonked on top of a Hi-Res background, oh no, not at all. It's all extremely well blended together.

Another scene shows Kang fighting an end of level guardian – a HAM picture of a dirty great gorilla – where parts of the gorilla are animated while he attacks Kang. OK, so the animation's not exactly smooth, it's more from the cardboard cut-out Captain Pugwash school of animation than your Wallace and Grommit, Oscar-winning school of sophistication, but it still looks all right.

We're looking forward to getting our hands on the full blown version of *Kang-Fu*, which should be in the office in the next few weeks, when we can give it the full *Amiga Format* review treatment.



■ Kang lunges with his boxing glove and another baddie bites the dust.



■ A statue of our very own Andrea. She often comes in dressed like this...

TIN TOY CAN DO IT



■ Tin Toy heads through the dark and spooky woods towards the House of Fun at the start of his great adventure.

AGA 2Mb Amigas ■ Mutation Software
■ 01705 672616

In keeping with what's rapidly becoming the theme of this month's Previews section we've got the first, exclusive, look at Mutation Software's first independently published game – *Tin Toy in The House Of Fun Adventure* (Amiga Format tip: make your



■ A fine shot of Tin Toy getting himself out of trouble by making like a blow-fish. Yes, well I'm sure it makes sense in the game...

game names a bit shorter mate!).

Mutation have been around for donkey's years (five actually) coding games for other people but *TTITHOFA* (which we shall now refer to as *Tin Toy* for the sake of brevity) is the first one they've decided to publish themselves. The game's compatible with all AGA 2Mb Amigas and is due for a mail-order only release sometime in June.



■ Erm, this will be Mushroom Land at a guess. Tin Toy uses his 'let's make a top hat' spell to cross over the spikes.

There are some 20 levels of platform action for the player to indulge himself in and as you can tell from the pictures, each level has it's own special theme.

Again, as with *Kang-Fu*, the essence of the gameplay is very much in the normal platform mould but with a couple of



■ Now, a bathroom level's fine with me. I don't have a problem with that at all. I just don't understand why anyone would keep their toothbrush in an old tea mug!



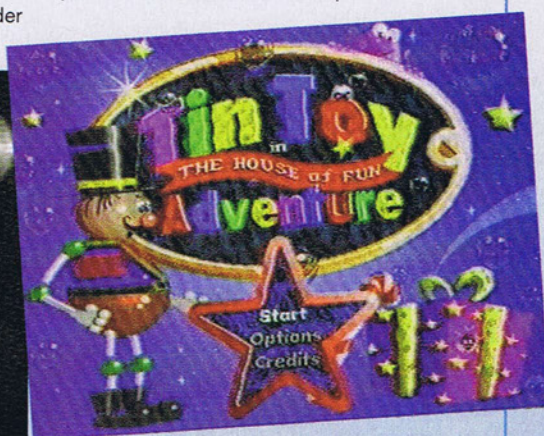
■ Tin Toy's been frightened by a bottle of tomato sauce and green jelly ganging up on him. Ahem.



■ Riding the top hat again, this time over a much tastier background of cakes and ices.



■ Ouch! A vicious letter C gives our hero a slap in the kisser. This'll be some sort of kiddie's bedroom then...



special tricks to make it somewhat different.

Most noticeable in *Tin Toy* is the way the player can get his character (Tin Toy, I presume), to invoke special powers to get out of tricky situations. Got stuck down a hole? Simply blow yourself up like a balloon and float out of the hole! Can't cross that river of spikes? Create a magic top hat and sail straight across the spikes on that! You get the picture.

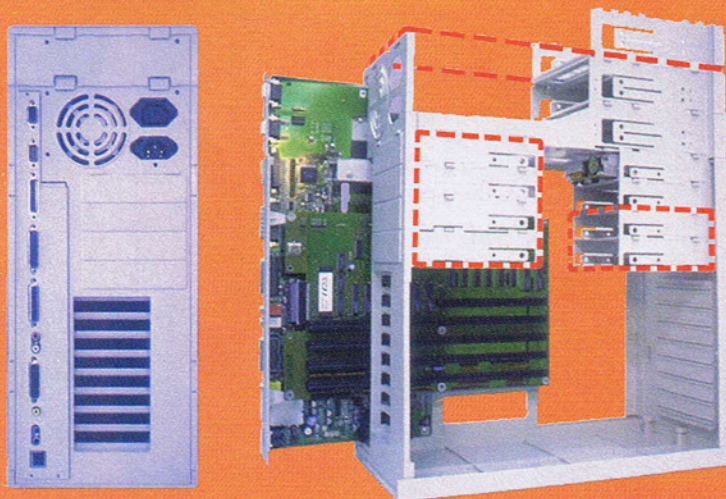
Mutation have come up with a guarantee of value 'n' fun for their range of games which they reckon will supply gamers with full-on gameplay at super low prices. Very good news if it happens and we'll be giving *Tin Toy* the full *Amiga Format* treatment as soon as we jolly well can.



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the left pictures give you an imagination of the internal construction of the infinitiv™ tower system. The red marks and lines show some extended drive frames in both the front- and the back area of the tower. Further, you can see an Top-Case™, mounted on the towers' top, which explains the expandability of our solution. Each Top-Case™ expands your infinitiv™ tower for an 5,25" / 3,5" drive bay, ready to use and easy to assemble. Additional drives such as CD-ROM harddisks, streamer tapedrives etc. will snap in easily using our sophisticated „click and snap“ system.

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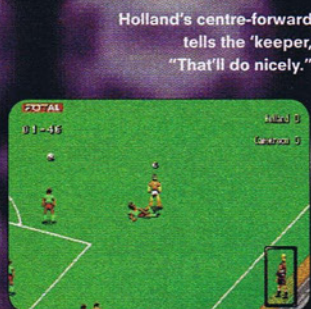
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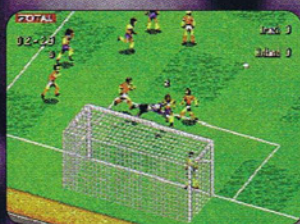
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With the European Championships getting under way this month, **Martin Axford** discovers that you can never have enough football. No, really.



Holland's centre-forward tells the 'keeper, "That'll do nicely."



TOTAL

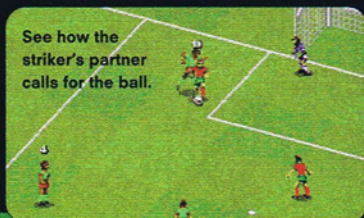
The ref never appears on the field of play, preferring the comfort of his black box.

Regardless of how much you love the Amiga and its stack of football games, I don't believe anyone could have failed to be disillusioned by the recent dearth of footy action games and management sims. Re-releases, bundles and updates which are out-of-date before they hit the shelves have done nothing to rejuvenate a struggling market. As for new talent, *Treble Champions 2* (AF84, 5%) was as likely to lift the market as Torquay United are to lift themselves off the bottom of the Endsleigh Third Division.

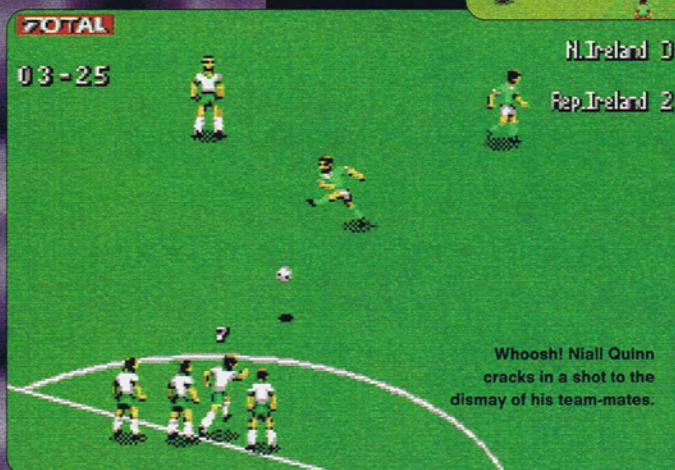
None of this bodes well for Domark's *Total Football*, a megadrive conversion, which originally claimed to look like *FIFA Soccer* and play like *Sensi* – a claim which has been made too many times in the past to be taken seriously. But having spent the past week playing *Total Football*, growing callouses on my once baby-soft finger tips in the process, my scepticism has vanished and been replaced by a rather silly grin instead.

LESS IS MORE

In *Total Football*, Domark have taken a gamble. Many things which have appeared in other similar games have been ignored with the end result, a rather plain looking game. For instance, there is no option to view replays; to



See how the striker's partner calls for the ball.



Whoosh! Niall Quinn cracks in a shot to the dismay of his team-mates.



A poignant shot of the agony and the ecstasy.

Total Football affords you the opportunity to celebrate goals in style.

declare a tactical war on the opposition; to view the opposition's formation; to alter a team's formation during the match (other than at half-time); to substitute players; to choose the number of teams entered into a league or tournament or to change the standard isometric view. These are all things you won't find in *Total Football* and while that should matter, it didn't bother me one jot.

While its predecessors have concentrated on implementing as many options as they possibly can, and at best making the game look like a third-rate ITV Sports presentation, one major sacrifice has always been

made – playability. I don't care if I can watch my centre-forward score the same goal from various angles, at different speeds or have to read a tedious commentary

describing everything from his initial run into the box to the colour of his underpants, if the game isn't fun to play. Such features, I believe, have been used in the past to disguise the fact that football games on the Amiga are rarely anything more than a poor excuse to capitalise on a growth area in a dying market.

FEWER STUNTS

But *Total Football* is different. Its only gimmick is in allowing players who have scored to celebrate in a

befitting manner. As if scoring a goal isn't going to annoy your opponent enough, you are provided with the opportunity to somersault to your heart's content, simply leap and turn or frolic with team-mates on the ground in front of adulating fans. For an unlimited amount of time. Or, at least, until your opponent thumps you. Not only is this great fun, but it also reflects the fact that whereas fans used to do the elaborate goal celebrations on the terraces (reflected in *FIFA Soccer*'s whistles and fog-horns) it's the players who get more excited now.

PLAYABILITY

With 50 international teams to choose from, along with the dubious inclusion of an All Star team, and the option to play friendlies, in a league and either cup competitions or tournament, *Total Football* adheres to a strict formula. The same formula which allows you to alter the length of the matches, the standard of refereeing and the type of pitch (there's a choice of six though the difference they make is negligible). But as soon as you've gone through the motions and altered your team's formation, the recurrent formulaic approach suddenly falls apart.

The beauty of *Total Football* is that it has a high level of playability, noticeable from the first kick of the ball. The joystick controls allow



Two Brazilians execute a perfect crab kick.

FOOTBALL

Cup

Zambia	0	2-1	Nigeria	0
Cameroon	0	3-0	Morocco	0
N. Ireland	0	1-0	Poland	0
Tunisia	0	4-1	Rep. Ireland	0
U.A.E.	0	1-3	Argentina	0
Russia	0	0-2	Croatia	0
England	0	0-2	Brazil	0
Austria	0	1-0	Sweden	0



LEFT: Results from one of the three knock-out competitions.

FAR LEFT: Altering your formation is the only hint of tactical strategy.

BELOW: There are 50 international teams to choose from. Don't you feel spoilt?



short passing movements, searching through balls with swerve from the after-touch option, or hopeful hoofs upfield on the off chance that your front men can capitalise on the fact that the defence are still backtracking from your own half. At times the action can be painfully slow yet choosing different combinations of teams and mixing up the short ball with the long can easily increase the tempo substantially.

Crisp, sweeping passing moves are the game's showpiece. Each player is afforded the talent to either control the ball and set off on a jinking run or pass first time. And yet the ball fails to stick to players' feet. One can easily rob the opposition with a sliding tackle or intercept passes. Every player appears to have a different capacity for speed and each presents an obstacle for the ball. (The ball will hit you rather than travel through you.) Too many footy action games work on the premise that if a tackle isn't committed within a certain radius of the player with the ball, then tough luck. Which is hardly realistic.

However, there are things which niggled me the first time I played *Total Football* and continue to do so. There

is no option to manually change the player you control. And this creates one major problem because sometimes the switch between players isn't made fast enough. Often I have been controlling a player off the screen when trying to shoot or tackle in the opposition's half and then given away a free-kick just outside my own area.

NO SCORE

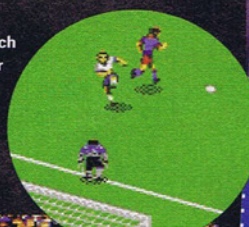
I've also found it almost impossible to execute headers or significant volleys, the like of which a computer opponent manages. Then there are the goalkeepers. Never have I played a game in which the 'keepers are so good. Again, there is no option to control them manually, which would have eliminated the problem, or even a choice of difficulty levels. Instead, prepare yourselves for more no-score draws than Grandstand's vidi-printer.

Another moan in the direction of the goalkeepers is their inability to kick the ball anywhere other than straight down the middle of the pitch.

While they have no problem passing it to a defender, their kicks out to the wing (and this goes for their throws too) sail straight into touch. Great.

Such complaints may leave you in doubt whether to buy this but, however frustrating it may get sometimes, *Total Football* is also one of the most rewarding footy games I've ever played and certainly the finest of its kind the market has seen for a long time.

A French defender mocks the English forward's chances of scoring.



Notice the Dutch forward swinging at the ball which is ten yards behind him? How I laughed. A-ha.



Will he? Won't he? Pah, you'll never know. Actually, I can't remember if he scored or not.



Publisher
Domark

Price
£29.99

Versions
All Amigas

System requirements
1Mb

Release date
Out now

8 GRAPHICS
10 Crisp and colourful with footballers moving like they should.

7 SOUND
10 Sampled crowd effect with the additional sporadic shout for a goal kick, corner, full time etc.

9 ADDICTION
10 You're sure to become the Renton of the football gaming world. One fix is never enough.

9 PLAYABILITY
10 This should be the primary ingredient of any football game and thankfully it's here in abundance.

OVERALL VERDICT

Despite its simplistic approach and some frustrating flaws, *Total Football* is the footy action game of the moment. The definitive companion for your summer.

90%

PRIMAL RAGE

Camels Ordinarily Sit Down Carefully is the first part of a mnemonic referring to the age of rocks (Cambrian, Ordovician, Silurian, Devonian, Carboniferous). **Andy Smith**, along with the rest of the dinosaurs, first appeared in the Triassic period.



Vertigo takes to the air and swipes at Diablo with his tail. Tail swipes are good for knocking down the opponent's brain strength, but not much else.

Everyone, surely, knows the word dinosaur comes from the Greek *deinos* meaning terrible and *sauros* meaning lizard, but I bet you didn't know that actually dinosaurs were only around during the Mesozoic Era which finished with the end of the Cretaceous period. Then they all died. Suddenly and without explanation. Well, without an explanation that's been completely accepted by the scientific world.

Until now of course. What actually happened you see was this: some wizard bloke (wizard as in like, a magician type, not the Seventies term for a guy who's sort of good at things and cool and stuff) from a parallel dimension looked at the young Earth (which was then populated by

dinosaurs ruled by a handful of warring Gods) and decided that it was going to grow up to be something of a tearaway and threaten the nice peaceful balance of the galaxy. This wizard then hit on the wizard idea (that was the Seventies term then – I hope you're keeping up) of banishing one of the Gods to the middle of the moon. Like you would.

And to cut a long story short, this caused all the Gods to be imprisoned. Then a meteorite slammed into the Earth, killed all the dinosaurs and released the Gods who are now going to fight it out for control of the planet. Which is now called Urth.

A beat-em-up then. For one or



Yeeees! Armaddon hits Blizzard into the middle of next week with a stunning rolling special move.

two players. Based on the coin-op of the same name. We'll deal with the one player side of things first because there are a couple of subtle differences.



Diablo bites Vertigo's head and the worshippers bow theirs in despair. This looks like that scene from the end of Planet of the Apes, except that should be the Statue of Liberty, not the Acropolis in the background.



The fun doesn't last long for Armadon though as Blizzard flexes his muscles and whams him right in the kisser.

BRAIN DEAD

Right then, pick your dinosaur and prepare to fight all the others, one after the other. Every time you win a contest (you can decide the number of bouts but the game defaults to the logical three) you win one of the new Urth's seven continents and along with that you gain some worshippers. Worshippers don't actually figure

Another shot of a couple of monsters fighting. This time they're in the middle of a decimated city though. You'd think someone would notice.



Bizarre knocks Sauron for six. As you can see, the 'gore on' option has been selected for these screenshots. Please don't show them to children.



This happens when one fighter manages to take out the other fighter without them getting a single hit in. Erm, if you know what I mean.



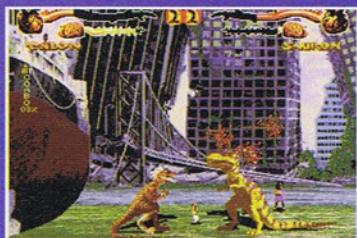
much in the game, apart from the comedy smacking them around when you're in the middle of a bout, but they are important if you've got the gore option turned on because just before you fight the final battle (when you have to fight each of the other dinosaurs in a single bout contest) you get to chomp as many of them as you can. The more you chomp, the more spent energy you can replenish before that final battle.

During a fight you'll notice that as well as the normal life meter, your dinosaur also has a Brain Stem bar. Basically, this is a kind of reaction thing. Every time you take a smack you lose energy and some brain power. If you lose all your brain power you're vulnerable to attack because your dino' is too thick to stop it. Again, you're not going to worry about this brain stuff when you first start but as you peel away the layers of the gameplay you'll find it can become quite important.

In two player mode things are kinda the same really, except you and your opponent are fighting each other for control of the planet. One thing to bear in mind here is that if you've played a couple of rounds with one dino' and won a couple of territories and then you go and switch characters you're going to have to fight for those territories over again. This is good because it sort of encourages you to stick with the same dino' for as long as possible.

This is great fun to play. Our very own Graeme here is the regular beat-

Sauron's ears have exploded! Talon gets his own back, and no mistake.



AND THE CONTENDERS ARE...

Knowledge is power and to get the jump on your mates here's a quick guide to what the various dinosaurs do. Don't show this page to your mates or you'll be wasting your advantage.



ARMADON

Good chap this one, curls up nicely for special attacks and launches the spikes from his tail. Does a mean jump in the air to use the spikes on his back in one special move.



BLIZZARD

Your journeyman fighter. He hasn't got much of a range and he's a bit vulnerable to attack from the dinosaurs that have long tails or necks but he's got a quick punch and a nice roundhouse special move.



CHAOS

Spookily similar in appearance to Blizzard. Fights a lot like him too. Chaos has a much better name than Blizzard though so pick him given the choice.



SAURON

Long tail, long neck and a good hind leg gouge. He can do a Primal Scream too which is also the name of a rather good indie band. Or at least they were, because they could have split up now for all I know.



DIABLO

Same as Sauron really except Diablo means devil or something and that's a bit scarier than Sauron, which probably means lizard-like or something.



TALON

Small but fast. A bit like a Peugeot 205 GT - I should know because I've got one. A Peugeot that is, not a Talon.



VERTIGO

Very long neck and a very long tail. The tail is good for reducing the brain power of opponents. Also spits a lot which hurts your opponents. Use Vertigo against Blizzard and Chaos especially.

Continued overleaf →



And, of course, when you do win you get the chance not only to deliver the *coup de grace*, but to gloat about it afterwards. Hurrah!


← em-up expert and he doesn't like the game at all but I reckon it's great fun. Hitting combinations takes practice but they aren't so impossibly complex you never get 'em and each of the characters has their own strengths and weaknesses which take a while to discover and exploit. Even if you're not much cop at this highly specialised genre you'll still find you can actually play the game because you can rely on the simpler stuff to get you through.

HIDDEN DEPTHS

What really works though, and this is what separates the men from the boys in the world of beat-em-ups, is the hidden depths contained within the game. *Primal Rage* has gameplay that really does reward practice and that means you can get better at playing it, and we all know that if you can get better at playing a game you're going to enjoy it for longer. Witness that dreadful game *Rise of the Robots*,

great graphics (even if the characters couldn't turn around – tee hee), but the gameplay was bloody awful because it took absolutely no skill to finish the thing.

At the end of the day, *Primal Rage* is good stuff. It's not quite *Amiga Format* Gold material but it does get very close. You'll enjoy this just because you're a beat-em-up fan and you should still enjoy it, even if you're not.

The only downside is that you really do need a second disk drive and even with one you'll find the amount of disk swapping becomes a bit of a pain (the game comes on four disks and is not hard disk installable), so bear that in mind if you're an impatient type who can't be doing with changing disks every couple of minutes. Otherwise, enjoy. 

Chaos feels Armadon's wrath. Note how the little worshippers run from one side of the screen to the other to follow their particular hero.



Just to prove that dinosaurs really did stand on their tails and use their hind legs to gouge their enemies, we have photographic proof.



Vertigo hits Talon. In the jungle. Yesterday. Note the worshippers in the background.



Same bout and Talon fights back. Notice how Vertigo's brain strength meter has also suffered.

PRIMAL RAGE

Publisher
Time Warner

Price
£29.99

Versions
A1200

System requirements
2Mb

Release date
Out now

7 **10** **GRAPHICS**
Rather excellent dinosaurs, OK backgrounds and good animation.

5 **10** **SOUND**
Sparse spot effects, but they're OK. There's no charge in the voice of the chap who shouts RAGE at the start but it's adequate.

7 **10** **ADDICTION**
Jusk keeps you coming back for one more bout.

8 **10** **PLAYABILITY**
Gets better the more you discover. A quick blast on the training option should have you bitin' and scratchin' with the best of 'em.

OVERALL VERDICT

A very enjoyable beat-em-up with gore if you want it and no gore if you don't. Should appeal to hardcore fans as well as fair-weather fighters because there are loads of combos to be found and used. Damn jolly fine.

88%

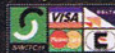
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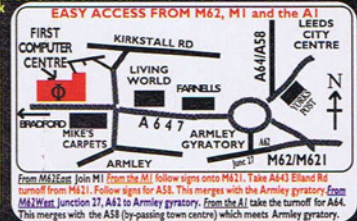
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Sensible World of

European Championship Edition

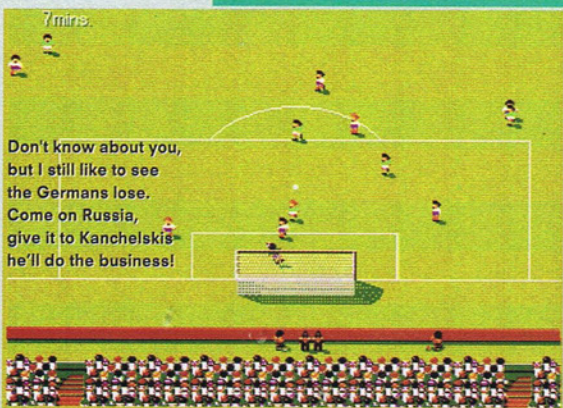
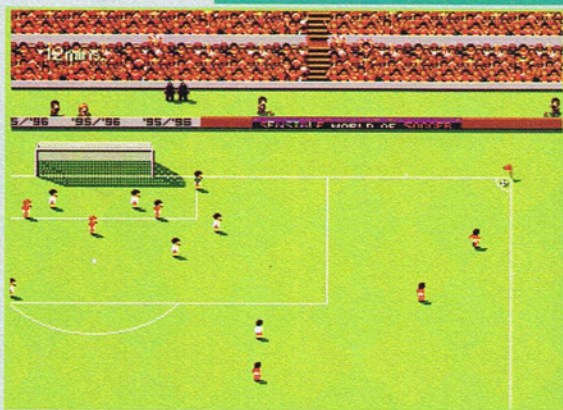
Andy Smith sews three lions on his shirt, sings a bit and prepares to fail to qualify for the second round.

Euro '96 is billed as the biggest sporting event to be held in Britain for 30 years which is strange, because last year's Youth Olympics were also hailed as the biggest sporting event to be held in Britain for the last 30 years. Ho hum. Marketing eh? It's a funny old game all right.

Euro '96 is going to be absolutely brilliant. England versus Scotland at Wembley is going to be incredible. I can hardly wait. The Quarter Finals and onwards are going to be particularly exciting – due to the major rule change being introduced.

After 90 minutes the game goes to extra time and the Golden Goal

My chaps get ready to exploit a corner. Nick has a fiendish diving header trick for corners, or so he claims. We have yet to see it in action.



Ferdinand rattles the post against Holland in the first round of the European Championships. Are you watching Mr Hoddle?

rule has its first showing in a major European competition. The Golden Goal is the Euro '96 organisers way of saying sudden death and it works as you'd expect. From the Quarter Finals onwards, if the scores are level at the end of 90 minutes the teams play a maximum of 30 minutes of extra time and the first side to score, wins. If there's no score at the end of the period of extra time then the game goes to penalties as usual.

GOLDEN RULE

The Golden Goal changes the whole shape of the game, that 90 minutes now becomes very important. You don't want to be playing for extra time at all because any kind of fluke goal can have you heading home. I reckon it's about time this rule was introduced anyway because penalties have always, always been a lottery.

Sure, they may be exciting for a few minutes, but then the game is exciting enough without having your progress in the competition decided by a single kick.

GOLDEN ERROR

This Golden Goal has been in debate for a long time but it's definitely happening according to the Euro '96

GRAEME

As a non-football fan the significance of rulings such as the "Golden Goal" and the like, pass me by. However as a devoted *SWOS* acolyte, new developments in *Sensible Soccer* always grab my attention – if only for me to squeal "that should have gone in, it always used to". *SWOS 95/96* certainly had me crying after a number of sure-fire goals had been saved, but after a few exiting and high-scoring games against Nick, I discovered there are new "scoring-spots" (which I will not divulge). It's a shame that you still can't install the game to hard disk though, as I could happily sacrifice a few Mb on my computer to get Liverpool performing just the way I want, and reduce the amount of disk-swapping needed.

Soccer Euro 95/96

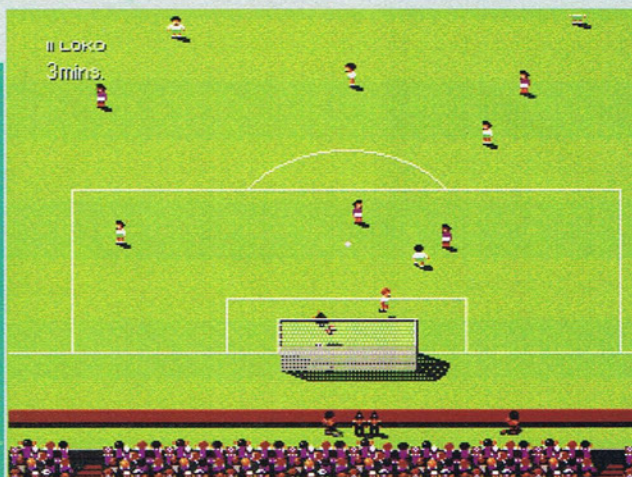
JONESY

On a brief journey from the 'real' world of *Total Football* back to the familiar clutter of the AF office, it was a joy to be helping little sprites rush around the pitch once again. All right, getting stuffed when playing Bristol Rovers is always disappointing, but by the time I had got rid of the joypad and had a sweaty joystick nestling in my palm, the old magic was back and I humiliated Andy 2-0 playing Croatia against Denmark. Sensible is brilliant. The Euro '96 hook is a rip-off - you certainly don't need this game if you've already got yourself a version of *SWOS*, but you DO need *Sensible World Of Soccer*.

Press Office, who I rang to check with just this morning (May 17).

Maybe someone at Sensible should have rung them too because then maybe they might have included this crucial rule change in the game.

In Sensible's *European Championship Edition* of *SWOS* '95/'96 they've stuck to Quarter Final and beyond matches going on for the full amount of extra time. Sorry chaps, this isn't true. First goal in extra time wins.



POOR EXCUSE

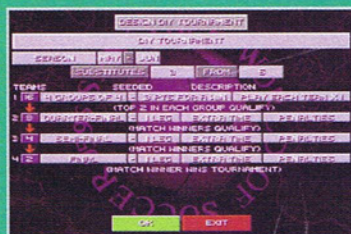
Sensi would, presumably, defend themselves with a 'Well no firm decision had been taken when we were putting the competition together and we had to get the game out and on the shelves before the competition started'. Reasonable enough you'd think but it isn't.

Today is Friday May 17. I have a boxed copy of the game (exactly like the one you're going to find on the shelves) and Euro '96 doesn't kick off until June 8th which is 22 days or just over 3 weeks away. Yes, things might have been a bit tight but I reckon there was plenty of time to get this rule included (the decision about the

Golden Goal was taken long before today, incidentally), so Sensi will have to come up with a better reason/excuse.

I have another problem with this game. In *SWOS* '95/'96 you can create a European competition yourself using the game's DIY Competition option. You can pick 16 European teams, have them in four groups of four, have the top two teams qualify for the quarter finals when the competition becomes a knockout contest. Hmm, isn't that just a little bit like Euro '96? Well, yeeess, but the major difference here is that you don't get to choose which teams go in which groups.

The smart money's on France to win the European Championships this time round and here they are banging one in against Bulgaria.



Here's a shot from *SWOS* '95/'96 where I'm creating a competition involving 16 European teams divided into four groups of four. Ho hum.



I've got a lot of time for Croatia, and they've got the best footy strip I've seen in a long time. Unfortunately that isn't obvious from this shot.



Here I've managed to buy Asprilla, Yeboah and Juninho for Blackburn without spending a penny. This top trick will be revealed next month.

At the end of a hard season it's good to check out what's been happening in the rest of the world. I wish I'd put a five on Quezal Tepeque to win the El Salvadorian third division.

EL SALVADOR DIVISION 3								
		PL	W	D	L	F	A	PTS
1 2 3 4 5 6 7 8 9 10 11 12	QUEZALTEPEQUE	22	12	5	5	30	20	41
	C.D.SANTIAGO	22	10	7	5	37	27	37
	CENTRAL IZALCO	22	9	8	5	29	25	35
	ONCE LOBOS	22	9	10	3	27	22	34
	C.D.SAN RAFAEL	22	9	7	6	32	35	31
	C.D.SALVADORENO	22	7	9	6	22	25	30
	ISIDRO MENENDEZ	22	5	11	6	24	22	26
	C.D.MALACOFF	22	7	5	10	32	30	25
	CALVARIO-METAPAN	22	5	5	11	19	23	23
	C.D.HURACAN	22	4	10	8	19	25	22
	FUERTE AGUILARES	22	5	7	10	14	20	22
	ONCE MUNICIPAL	22	4	8	10	25	37	20



A version of *SWOS Ed* can be found on the CD, in the Games/Editors drawer - but don't blame us if it screws up your saved games!

Continued overleaf →

They're not commercial releases, they're written by you. They are the...

Reader Games

There is one sure way to make sure every game that you play is tremendous and that is to write the game yourself. Some of our smarter readers have already thought of this and done exactly that. Then the really,

really smart ones send their creations into the Amiga Format office for us to offer some constructive criticism. And then we have a good laugh at the really bad ones too. Here goes...

GAME: TIMECORPS AUTHOR: CHRIS HOSIER LANGUAGE: AMOS

Laser Squad is the inspiration for this action-points style skirmish combat game. If you're unfamiliar with the format for this type of game, it's basically this: your character(s) have a set number of points that can be spent by moving, shooting and generally carrying out actions. Once you've used all your action points you end your turn and the computer forces have a go. The game continues in this fashion until either everyone's dead or the scenario objectives have been achieved.

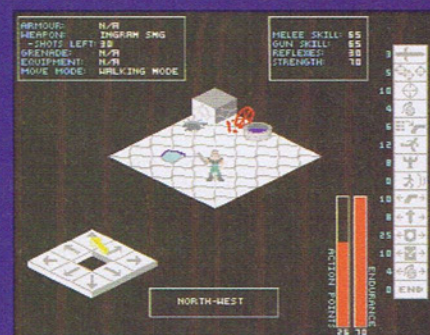
Chris Hosier has made a valiant attempt to produce a game using the above formula and mostly it works. The only real gameplay criticism that could be levelled at it is the limited view the player has. The (dreadfully misspelled) mission briefings let you know

exactly what you should be doing, but you're dumped in the middle of the action with very little to let you know who or what's around. This could be rectified with a small mission map, or some kind of 'let me scroll around the place to see what's about' feature.

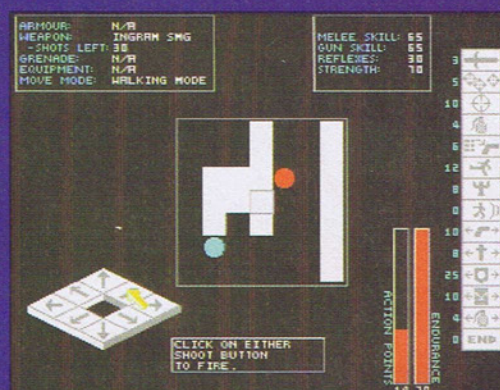
The graphics are crude, to be polite, and the menu interfaces are clumsy and awkward, but the gameplay's there and though it's very simple, it's fun.

Right: Here you are in combat mode. You're the blue dot, trying to kill the red dot.

VERDICT: IT LOOKS TERRIBLE AND IT'S VERY CLUMSY AT TIMES BUT THE GAMEPLAY IS FINE. WITH MORE POLISH AND THOUGHT THIS COULD BE A LOT BETTER BUT AS IT STANDS IT'S A GOOD FIRST ATTEMPT.



Above: Here's your character at the start of a scenario. The view volume is way too low which means you wander into trouble unwittingly.



Right, well that helps.

GAME: LOGIC AUTHOR: GUY MOODY LANGUAGE: EASY AMOS

Like last month's text-only *Elite* variant, this game is absolutely bonkers. It's just plain crazy! The idea's as simple as this: the computer thinks of a number and you have to



So it's somewhere above 12 and below 59. This will take approximately 10 seconds to work out...

guess what that number is. Got it?

Suppose the computer has thought of the number 78, your first effort is, say, 630, the computer tells you to keep your guesses below 100, so you then guess 25. The computer then tells you to go higher. You go 85. The computer says lower. You say 70. The

computer says higher and so on and so forth until you arrive at the number 78.

There's even a tournament mode, when several people (or computer opponents) try to guess the number in the fastest time. If you're the slowest to guess then you're booted out.

It's very well put together and it's all very plain and easy to play (the Amiga speaking to you is dreadful though), but there's no reason on Earth why you'd want to play it and, like the text-only *Elite* game, it's incredibly addictive. Boot this game up and you'll find yourself playing the damn thing over and over again and enjoying it too!

VERDICT: AN INSANE IDEA THAT'S WELL IMPLEMENTED AND ALSO TREMENDOUSLY ADDICTIVE. THE ONLY REAL PROBLEM WITH LOGIC IS THE SIMPLE FACT THAT NOBODY IN THEIR RIGHT MIND WOULD PAY GOOD MONEY TO PLAY THIS.

Continued overleaf →

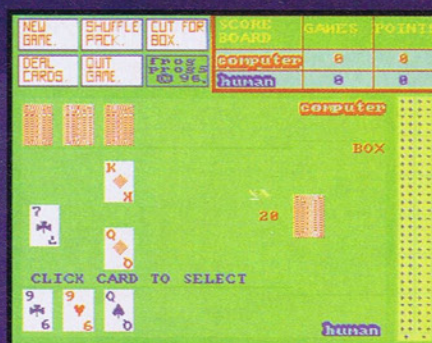
GAME: CRIBBAGE

AUTHOR: M. FRENCH

LANGUAGE: UNKNOWN

All right, so it's cribbage. You either enjoy playing cribbage or you don't. If you do, then surely every computer cribbage game is going to be like every other computer cribbage game, so why have we picked this one out?

Someone once said "Less is more, and God dwells in the details" and that's the phrase that springs to mind with this offering from FrogProgs (a butcher from Witney in reality), as it's a classic example of how just a tiny detail can make all the difference. The tiny detail in this game is the mouse pointer – you can't see the damn thing!



You see that funny blur above the number 20 in the middle of the screen? That's the mouse pointer that is.

The game plays cribbage fine. The graphics are adequate and everything else is as it should be, if only the bloody mouse pointer was visible when you needed it (when

discarding cards for example – as soon as you move the pointer down to pick one it disappears. You then have to move the mouse around randomly until a highlighted border appears around one of the cards).

We know that all games have limitations, but the key to great game design is to put yourself in the shoes of someone who's never played the game and make it as easy as you can for them. And that means if you're using a mouse pointer, make it easy to see.

VERDICT: REMEMBER THE DETAILS. IF THERE'S A LOT OF TEXT IN THE GAME, MAKE IT BIG AND EASY TO READ. IF THERE'S A MOUSE POINTER IN THE GAME, MAKE IT BIG AND EASY TO SEE.

GAME: RAZOR

AUTHOR: DANTE MENDES

LANGUAGE: AMOS PRO

Here's a game from that well known hotbed of amateur Amiga talent – Brazil. It's a horizontally scrolling shoot-em-up and as such it's got all the bits you'd expect, including power ups and end of level guardians.

The background graphics are generally good but the screen does jerk a bit. The sprites are also of a high quality and there's a large variety of 'em that come at ya. Sound and music are good but have definitely come out of the 'horizontally scrolling shoot-em-up music library'.

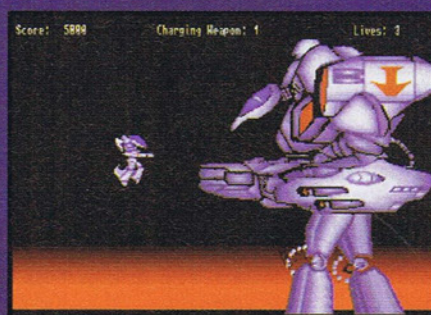
Altogether the game's extremely well done, so there's not much more to say. I doubt the



Dig those groovy background graphics. Dig those groovy enemy sprites. Dig the strikingly familiar gameplay.

game's good enough to become a commercial release primarily because it's just another horizontal scroller which offers nothing above and beyond the usual.

Dante informs us that there's a healthy Amiga user base down Rio De Janeiro way (actually he lives in Florianopolis but no-one's



For some reason best known to the Brazilians, you change shape when you come up against the end of level guardians.

ever heard of that), and if that's the case then let's hope his mates send some more of this high-quality stuff.

VERDICT: A VERY COMPETENT HORIZONTAL SCROLLER. THE SCROLLING COULD BE SMOOTHER BUT THAT'S THE ONLY TECHNICAL IMPROVEMENT IT REALLY NEEDS. IT COULD DO WITH AN INJECTION OF NEW IDEAS IN THE GAMEPLAY DEPARTMENT THOUGH.

GAME: PIPEZ

AUTHOR: DARREN MYATT

LANGUAGE: AMOS

Here's a genre that's been tackled by many a reader – the *Pipemania* clone. This one's especially good though because it's been well designed and implemented. The levels start just taxing enough and become very difficult.



Finish certain levels in Pipez and you're given route choices. As you can see here though, we managed to fail all of the choices available. Ahem.



With the pipes rotated in the right direction and dropped in the correct place any fool can see the ball is going in the goal. Hurrah! Score one for AF.



This one's a bit trickier than it looks because you have to use all of the pipes (or is that pipez?) available. Hmmm, not as easy peasy as it looks.

say that as you progress through the levels you're given route choices to the next levels (including bonus ones – cool).

Darren's done a great job here, everything's all very straightforward and easy to use (although new pieces of pipe and obstacles do take some trial and error to discover exactly what they do, but then that could be sorted out if there was some kind of small manual to go with the game). Not quite up to the high standard set by last month's puzzle-em-up *Jinx*, but not far off. Keep it up Darren and let's see some more real soon.

VERDICT: A FINE EXAMPLE OF A SIMPLE PUZZLE GAME FROM A WELL EXPLORED GENRE. VERY WELL PUT TOGETHER AND GREAT FUN TO PLAY. THE WORST THING WE CAN SAY ABOUT THE GAME IS THAT THE SOUND EFFECTS (STRAIGHT FROM AMOS) ARE RUBBISH. TOP STUFF.

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GameBusters

If you haven't got all of the latest Amiga titles then this month's Gamebusters is for you. We've included some hints and tips for some older games.



ALIEN BREED 3D II: The excellent demo from Team 17. We've got some tips for you already.

AB3D II - THE KILLING GROUNDS

George Robinson from Norwich has discovered a cheat for the issue 84 demo of *Alien Breed 3D II*. All you have to do is play the demo normally, collect some ammo and then when you press escape to quit or die, you will keep the same amount of ammo you collected the last time. This will allow you to clock up huge amounts so that you never run out.

George also has some other general tips on the game: To kill the red floating blobs, side step round the corner a bit so that your

gun can just fire past. Then fire quickly when the red blob comes into view. If they try to fire, quickly side step out of the way. They usually take about five shots to kill.

Use the same tactics to kill the big red robots, but never position yourself directly in front of them because they'll drain your energy faster than you can kill them. They take about four or five shots to kill.

The small blue robots are fairly easy to kill, but avoid their shots none the less. It takes about two or three shots to kill them.

Alex Carr from Maghull in Merseyside has sent us these cheats for the following old classics.

following keys will then be activated: F1 to F6 - to skip from world to world.

- 1 - for invincibility
- 2 - to skip to next level
- 3 - to jump to the same level on the next world.
- 4 - for suicide

There is also apparently a secret shoot-em-up section on level 2-1. To get to it, you'll need to get past the first two crumbling platforms with spikes underneath, then just after the second, drop down next to the spike and onto the platform above your head to the right.

PRINCE OF PERSIA

Pressing caps and the number 2 - skips levels one to four.

BART VS THE SPACE MUTANTS

Type 'COWABUNGA' on the title

■ they'll drain your energy faster than you can kill them.

ZOOL

Type 'GOLDFISH' on the title screen to access the cheat mode. The



ZOOL: The game where little Ninjas do battle with a selection of brightly coloured sweets.



PRINCE OF PERSIA: You really don't want to fall down there. No, you really don't.

HELPING HAND

THE SECRET OF MONKEY ISLAND 2

I am completely stuck on the *Secret of Monkey Island 2*. I am trying to get the third map piece from the man in the antique shop. I think you have to win the spitting competition to get money for Kate Capsize so you can rent a glass-bottom boat and get the figure-head of the Mad Monkey to swap for the map. I can get to second place by swopping the flags and taking the green drink but whatever I do I just do not seem to be able to get to first.

Bette Neven
London



Go and join the library on Phatt Island - this will provide you with the ID necessary to get a drink at the bar on Scabb Island. Order a Blue Whale and a Yellowbeards baby and mix them together to form a thick green liquid which will improve your spitting power considerably. Return to Booty Island and buy the ship's horn from the shop. Blow this at the spitting contest to distract the referee. While he's away pick up the flags and switch them around. Finally take a sip of the green drink using the crazy straw and take your place at the line. Wait until the wind blows the scarf off the woman on the right and then spit. You should come first. Sell the trophy in the shop to get the necessary six thousand pieces-of-eight.

SIMON THE SORCEROR

I am stuck on *Simon the Sorcerer* and I have a couple of questions:

1. What should I have and what should I do to get the wax from the beehive?
2. What should I do to get the gold coins from the dragon's cave and help the talking tree?
3. And finally, how can I pass the sandman in the mountains?

Shy Nimtean
Israel, Hadera

1. Enter the house and grab the hat and the smokebox. Use the smokebox on the beehive and get the wax. Return to the pub, chat with the bar person, request a drink and while he is busy use the wax on the barrel at the back of him.
2. Use the hook on the boulder above, go up and use the magnet on a rope (thrice) on hole, you now have a gem, exit and locate the dodgy dude and request 20 pieces of gold if he wants the gem. Use the white spirit bought with the gold from the shop on the pink mark on the talking tree. In return the tree will utter some magic gibberish to use against the witch later on.



SWOS: Having problems beating Manchester Utd? We could have the answer.

screen, 'EAT MY SHORTS' during play or 'SHEEP IN A GROUP WEARING HATS' somewhere else to get you infinite lives.

To jump straight to the end of level one, enter the tool shop and buy a key. Then go and buy some rockets from the novelty shop. Go though the red door in the grey building with the washing line. Next, stand adjacent to the door and push upwards. Hey presto, look what happens.

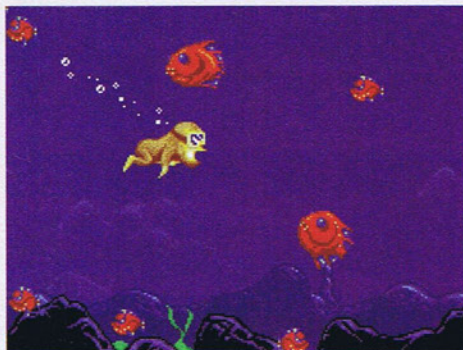
TOKI

Typing R, turns the playing screen upside down, activating the function keys as level skippers. Press N to get the screen the right way round again. Also, if you type 'KILLER' while playing F1-F8 will level warp.

PREMIER MANAGER 3

John McConell from Inverness in Scotland has sent us the following cheats for his favourite footie games. This cheat will give you a good team and loadsa dosh:

At the start of the game start a TWO player game. Pick the team you want to manage and any other team. When the game starts SELL the good players from the numpty team to your team. Do this by offering the club nil dollars. Pay the player more than he wants so you can buy him. Next go to the TELEPHONE screen with the



TOKI: If you didn't know, it's a monkey in scuba diving gear. And yes, the monkey can swim.

numpty team, phone the good team and try to buy one of their rubbish players. Offer the club 9999999 dollars for him.

Offer the player enough money so that he will move teams. Do the same for his WAGE and CONTRACT. Keep doing this until you cannot buy any more players. You should now have a good squad and lots of money. Make the manager of the numpty team resign so you do not have to bother with the other team.

SENSIBLE WORLD OF SOCCER

This cheat makes you win any game you want. When you start to play a match and the players run onto the pitch, press W. You will now go to the match results screen and you will have won 2-1.

BREATHLESS

Tiziano Cappiello has sent us these treasured access codes.

FIRST WORLD

First Arena
181CG3HML13JSE2W
Second Arena
181CG3HML13JSE2W
Third Arena
18LCIE5UL7HJSEQV
Fourth Arena
17EC6F14MWHJSEQQ
Fifth Arena
18SCSTSC4THSDQP

SECOND WORLD

First Arena
18QSJP3KMJIHSGPD
Second Arena
181CKCO401PHSGPG
Third Arena
183CHJ3GMC1HSCPF
Fourth Arena
181BBU28MC1HS8PA
Fifth Arena
181B2N7UHG1HS8P9

THIRD WORLD

First Arena
1818G9HGT6DNS8PT
Second Arena
181BFV28M8VNQ8PW
Third Arena
1818H8KUHSBNQ8PV
Fourth Arena
8N28LP00K9RNQ8PQ
Fifth Arena
17AQIP8WOGRRW8PP

LAST WORLD

First Arena
17JA8JOUBBRW8SD
Second Arena
176BTAQMJJRWOSG
Third Arena
17984198UBBRWOSF
Fourth Arena
173RRS92R73RWOSA
Last Arena
8CLQ9J66S7RRWOS9



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CRUISE FOR A CORPSE



Please, Please, PLEASE can you help me finish the above game. I cannot defeat Karaboudjan in the Secret Room. The clock time is 5.50pm (i.e. 10 minutes or one clue away from the end). The code on the mermaid is 23C which according to Helpline requires you to speak to Hector in his cabin and not to speak to Dick. However there are two reasons why I cannot achieve this: Firstly, Hector's cabin door is locked. Secondly and more importantly, Hector died earlier in the game. I would be eternally grateful for the final solution.

M J Abbott
Leamington Spa

To find out all the information you need to talk to all the characters, with all characters, with all lines of dialogue whenever your path crosses with them.

23C means go to the study. The secret passage opens. Throw the soap (to be found in the toilets on the right) or go into the passage and fight the man you find there. Go into the secret room, examine the puppet, search mafioso. Take the puppet, show it to Daphne and then point out the guilty party.

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THE FUTURE: 2054
THE NEWLY FORMED GLOBE-NET SPANS THE ENTIRE PLANET. ALL DATA ON IT IS CLASSIFIED. HACKERS LOVE TO EXPLORE THE VAST NETWORK, HOPING TO FIND ANY DATA WHICH MAY BE USEFUL. ALL MAJOR COMPUTER SYSTEMS ARE HEAVILY PROTECTED. USER I.D.'S AND PASSWORDS HAVE BEEN ENCRYPTED ALONG WITH ANY IMPORTANT FILES. IN A FUTURE WHERE INFORMATION IS MORE IMPORTANT THAN HUMAN LIFE ONE HAS TO BE CAREFUL.
FUTURE BEWARE...

Press any key

Ah ha! That all important background, scene setting type atmosphere building screen...

We have provided you with the necessary information and computer system. You have been given an advanced mission. You have been assigned to find out a secret code. If you succeed or are betrayed in any way then you will be eliminated. (The code is as follows):

- 1 - Get to Zone 0 - 4 as soon as possible, then make your NAME Bomb and save safety deposit box number 187-0 provided you with the key card.
- 2 - Inside the box is the identification number of a man called 'The Company'. We have been informed that working as a complex virus eliminator program that a number of deliveries of known viruses to the system allow this software to be completed as it would prevent our own viruses to the future. Should we need to do so, objective is to insert a Logic Bomb into Mr. Bullish's computer. The Logic Bomb is held on a disk which is also in the safety deposit box.
- 3 - Mr. Andrew Bullish's password is not known by us, therefore it is up to you to decrypt it and use it to access Mr. Bullish's personal files. After you have decrypted the logic bomb you are advised to log off.

Press any mouse button...

Your mission Jim, etc etc. There's another page of this yet...



The Future is, and always has been, an interesting place. I wrote that incredibly cringe-worthy intro way back in *AF4* (November 1989) for the game *Interphase* and it's been a constant source of amusement among my reviewing chums ever since. I've included it here to give any newer readers the chance to chuckle along too because, for the sake of balance, there has to be at least one deliberate laugh included in this review.

You're a future hacker (it's 2054). You work for a corrupt organisation

We're into the game now and things are panning out just fine. I think I've had enough of this particular cab driver...

...tell your taxi driver that you need a ride to the Cyberzone. You're right, the Cyberzone Pub... that's roughly 15 kilometres away. You are going to need a travel card so that you can travel cheaply through the zone, your travel card will expire at 6.30pm. They cost 15 credits, I'll need the money first though before I can take you anywhere. Do you have 15 credits?

- 1 - Do you offer any discounts?
- 2 - No problem, here's my cred-card.
- 3 - Take me to the Cyberzone Pub or I'll blow your head off. (You point your gun at his head)

Yes I do. For trips over 400 kilometres the fares go down by a quarter. But I don't expect that you'll be travelling that many kilometres and so the fare still stands at 15 credits.

- 1 - O.K. then, here's my cred-card.
- 2 - Take me to the Cyberzone pub or I'll blow your head off. (You point your gun at his head)

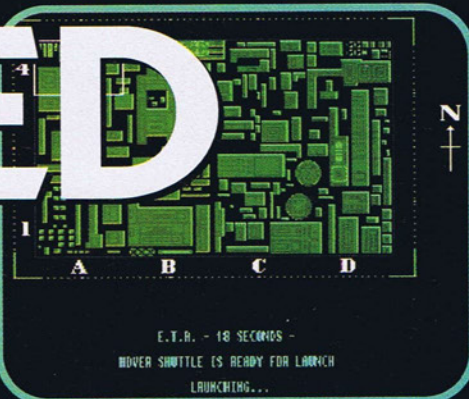
ACCESS DENIED

Andy Smith's too thick to play on the Information Superhighway (he'd get run over), but at least he gets the chance to pretend...

...you have guessed it, not by the clothes that you're wearing. Really shouldn't dress like that in this kind of place. It's a little bit like you're a stranger, and in a joint like this people don't like kindly to strangers. Another piece of free advice my friend, always carry a gun, I always do, you can't be too careful these days, if you haven't got a weapon then you become easy prey for all these muggers and snipers out there. Harvey Williams, an old friend of mine, was mugged down in broad daylight a couple of months ago. The Police never found out who did it or why. Harvey only had a blade on him at the time, but that wasn't much defence against the firepower of an assault rifle. He was killed in cold blood, the Police reckon that it was a professional hit, but I don't believe that. Harvey was a good man, liked everyone, why would anyone want him dead? After his funeral I tried to trace down his killer, but there were no clues, not a single one. It would have been a sniper, situated in a nearby building. Harvey was a big man and an easy target. The strange thing is that the first bullet fired did not hit him, it left a deep indentation in the pavement several feet in front of him. The second bullet fired ripped into his chest and the third bullet hit his source in the forehead...killing him. Harvey would have been a good man, I'd better be going now, I've got to catch up with my work. Thanks for catching with me. I really appreciate it. If you ever need a favour or just someone to talk to then my cell phone number is 37-28-11. If you don't manage to get out of there for a couple of days and try again.

A screen of text.

Actually it's full of clues - well, no not really. Not even the code is useful.



Look! Here you are travelling around the city! Thrill!

called 'The Company', who tell you to do hacker-type things on the 'net (called Globe Net in the year 2054). If you do the things they tell you to do you get some money and the chance to do more things.

The one mission included with *Access Denied* involves you tracking down a floppy disk which contains a logic bomb, that you need to set off, in the source code of a programme which has been designed to fight all viruses. Because your bosses like computer viruses and other mean stuff, they want the anti-virus programme destroyed.

This then involves you taking text-only cab rides to Cyberpubs and Cyberbanks, text-only interaction with a few people before logging on to Globe Net and doing various bits of simple detective work to hunt down passwords and other bits that enable you to proceed further.

And that's the basic problem. Just when you think you're starting to get somewhere and are actually having a kinda text-only bit 'o fun you discover you've done what you're supposed to do and the game comes to a complete stop. This process should take anyone over the age of 12 about 30 minutes. 15 if they've played any kind of text adventure in the past.

The hardest part of *Access Denied*, and in fact the only

reason why it takes that long to play is because there are screens and screens and screens of text to be read. They're good screens of text, the writing is good - atmospheric, well paced and entertaining - which is nice. And there are a lot of them. Nice, if you like reading.

I don't want to kick Solo when they're down, because *Access Denied* does actually show promise. It's not innovative or full of amazing visuals (ahem) or anything, but it's better than your average PD offering in this vein.

I am appalled though that they have the gall to charge some £13 (inc P&P) for a game that's going to take minutes to play. Solo are actually planning an *Access Denied Mission Two* for the end of the year and I'm looking forward to it because I'm sure there's going to be loads more depth and challenge to it. As for *Access Denied Mission One*, It's not good, big or clever and I can't recommend anyone buy it. The price is £12.95 including post and packing. Send cheque/IMO/PO to: Solo Software 35 Lee Street Horley Surrey RH6 8ER

ACCESS DENIED

Publisher
Solo Software

Price
£12.95 (inc P&P)

Versions
A600 A1200

Release date
Post to Solo

- 6 GRAPHICS
10 Readable text, but it could have been in a bigger font.
- 3 SOUND
10 A dreadful background drone interspersed with a very rare piece of good speech.
- 7 ADDICTION
10 While it lasts, yes.
- 5 PLAYABILITY
10 Generally all right. Hardly exceptional, but adequate.

OVERALL VERDICT

So much promise, so little delivered. There are good PD games around that are more fun, will last longer and are a whole load cheaper. *Access Denied*? I wish it was.

15%

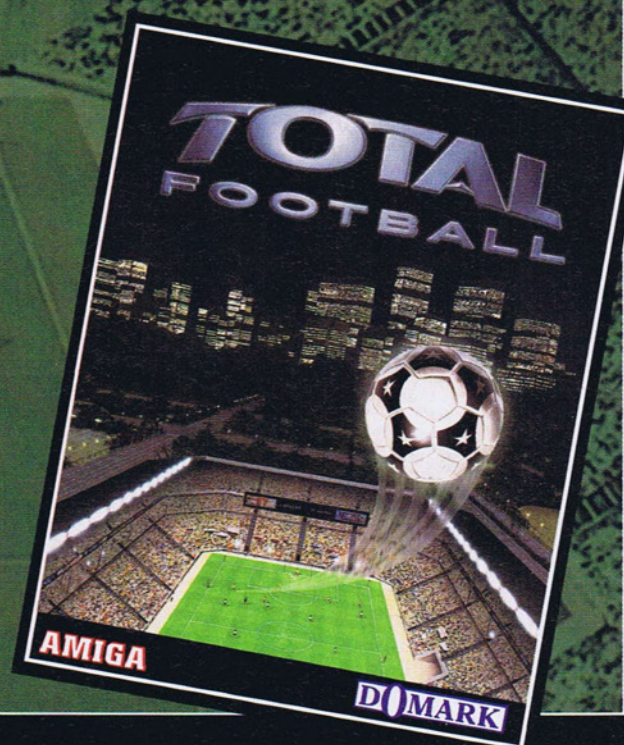
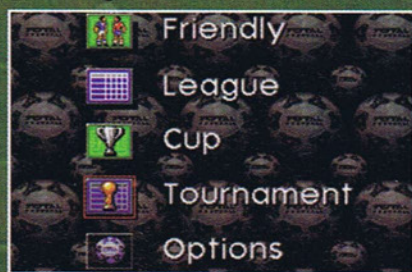
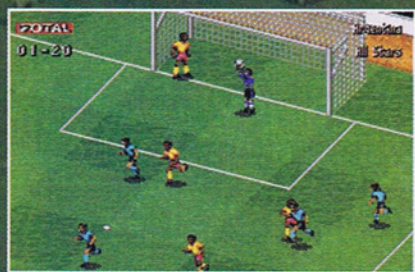
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AMIGA

PD select

What's lingering in the depths of the Public Domain? We pick out the best of this month's offerings and **Robert Polding** guides you through them.



It seems like the rabbit prefers chocolate flavour milk.

NESQUICK

GAME

ByScodz
WareFreeware
PD Library17 Bit Software
No of DisksOne
Price£1.50

Platformers, I have to admit, aren't my favourite games. I can, however, still recognise a great achievement in a good one. This German number is excellent fun, and presented with style. It starts with a funny digitised

advert for Nesquik (in German). The character of the game moves much like those in the now ageing 'Scooby & Scrappy-Doo', with great fluency. The aim of the game is, like many platformers, to collect objects while shooting or avoiding enemies, but it won't satisfy shoot-em-up fans as you have to collect shots, so you can't just run and blast! The game is designed for the younger player but, thanks to the graphics and playability, it can be enjoyed by almost anyone (unless you really can't stand

platformers.) A problem that does arise during the game is that the messages that appear on the screen are all in German. Although not a great flaw, this could have been avoided. The introduction of the Locale preferences in Workbench would break the language barriers, and in many games there are startup menus that allow the player to choose their preferred language. Apart from this little quirk this is an excellent effort that is highly above average for a PD game.



Above: I'm not entirely sure if this sort of outrageous advertising is ethical, but then, if the game's good it doesn't really matter.

Left: The graphics are bright and cheery and the music's bearable if you don't play for hours at a time.

Continued overleaf →

ROTATOR

GAME

ByTimothy Gilbert
WareLicenceware
Library5th Dimension Licenceware
No of DisksTwo
Price£3.95 + 50p p&p

Licenceware games are often better than PD offerings, and this game is certainly no exception. Following in the style of the now ageing *Executioner* and *Exile* (re-released a

small time ago), this floating platformer has an added challenge when moving: gravity.

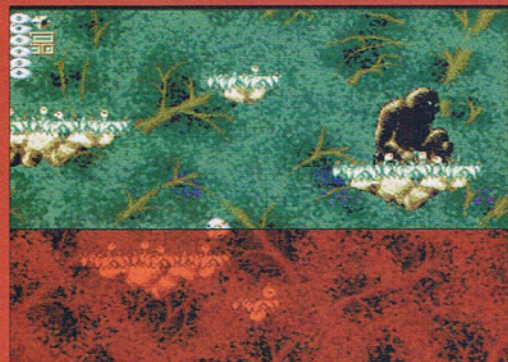
The aim of the game is to collect all the crystals on each level while avoiding the spikes and obstacles. It sounds like it should be easy but the game certainly isn't easy. However you will play it for hours (as I did) just trying desperately to get onto the next level and then ultimately the next world.

The animation is perfect, as are the graphics. The sound is also excellent, for example, when you finally collect the last three of the crystals you are rewarded with a

little speech, which I thought was a very nice touch.

There is a hard disk installer provided, so if you enjoyed the game as much as I did it can stay on your HD. There are options for saving, so you can continue where you left off, and the ability to choose your levels from all the worlds when you complete them.

The controls are a bit tricky at first as you have to get used to being careful with the gravity, but this is soon mastered and once done manoeuvring becomes easy. £4.50 is great price for an excellent game.



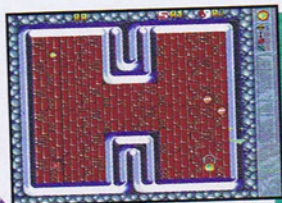
If you haven't managed to get off the first platform before the tree fills with blood then you're in big trouble.



If you can't tell, you're the small round blob to be found hurtling towards a nicely textured brick wall.



MARBELOUS: The aim is to roll around the board collecting items and avoiding obstacles.



← MARBELOUS

GAME

By

APC&TCP

Ware

Freeware

PD Library17 Bit Software

No of Disks.....One

Price£1.50

Most puzzle games are simple, boring affairs that can be finished in seconds, but this one matches many commercial efforts and is highly addictive. The major falling point on first loading is the apparent lack of speed, but this was soon rectified when I got onto the second level, and the ball began to launch all around the screen.

The concept of this game is to guide a ball around using arrows. These are made by pressing the mouse and moving it in the direction you want, then waiting for the ball to move onto it. You must stop the ball hitting walls and other obstacles placed around, and finally make your way to the exit. The graphics aren't incredible, but adequate for the game, and the sound is much the same. The high points are easy controls, mindbending levels and the addiction. Again the presentation is excellent, the titles at the start look stunning and the game has a polished feel.

MENUS & MORE (M&M) UTILITY

By

Axel Sodtablers

Ware

Shareware

PD Library17 Bit Software

No of Disks.....One

Price£1.50

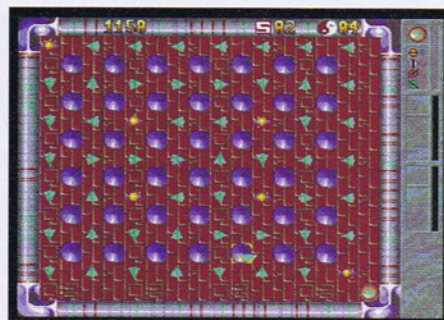
MENUS & MORE: It's not *ImageVision*, but it's still a useful and effective utility.



MENUS & MORE: Ideal for disk magazines, hard disk menus or simple presentations. It's not often you find this sort of utility in the Public Domain.



MARBELOUS: The impressive graphics on this opening screen are, quite simply, marvelous.



MARBELOUS: Once you've completed the first screen, it all gets rather confusing.

to see a Public Domain programme with these abilities, and with an excellent interface. It isn't *ImageVision*, but it does have the ability to create programmes you could use for disk magazines, hard disk menus, simple presentations and even complex ARexx utilities, that could control your applications. Even the installer script is written using the programme, and it shows what it can do by having a real-time progress bar, standard Amiga requestors and ARexx to copy the files. There are several examples included, and looking at them allows you to become quickly acquainted with the programme, but it may still be too complex for first time users. If you need a utility for a presentation or a menu and can't fork out for *ImageVision*, then this is an easy and well-programmed utility. Please note the Shareware status, and if you like the programme then you must register.

PIC-IT

GAME

By

Rob Massey

Ware

Shareware

PD Library17 Bit Software

No of Disks.....One

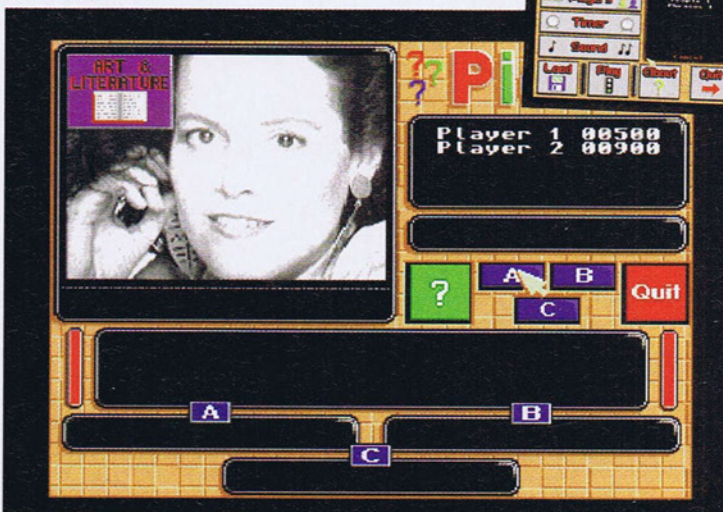
Price£1.50

This is one for fans of day-time quiz shows and trivia. The game basically

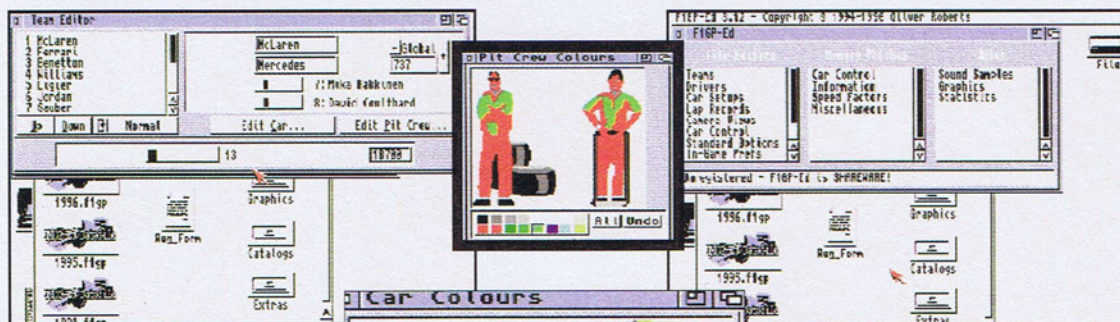
PIC IT Right: A quiz game in the style of Catchphrase style

is a quiz with the look and feel of an American game show. I have to say this is one of the first P.D. quiz games I have enjoyed using, although after answering all the questions it lost its initial appeal. It only really becomes fun if you have a pal around, a few beers and some good music.

By answering the questions, part of a digitised picture or a famous phrase is revealed. It's very much in the style of Catchphrase and the winner is the first person to guess the identity of the person in the picture or what the phrase is. The control is easy and the questions vary in difficulty. The game can become quite close and exciting, and you also learn the answers when you get them correct (so you can practice and thrash your mate next time). If you have a small general knowledge this could help a bit (there aren't too many questions) or you could become incredibly annoyed because you can't answer any. The shareware charge is just £3, and this includes an extra disk with new questions and pictures.



PIC IT: Answer the questions correctly and the identity of the person behind the squares will be revealed. In this case I think I'd rather it had stayed hidden.



FORMULA 1 EDITOR: One of the best racing games of all times has now been made even better.

FORMULA 1 GRAND PRIX EDITOR V3

EDITOR

By*Oliver Roberts*
Ware*Shareware*
PD Library*17 Bit Software*
No of Disks*One*
Price.....*£1.50*

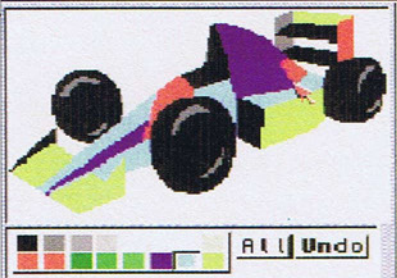
F1GP has become a cult game across all platforms. However, the Amiga version lacks some of the speed and impact of the PC version. Now, thanks to the introduction of F1GP-Ed, this has changed. Now you can customise almost every part of the game. The most impressive feature of the programme has to be the ability to increase the frame rate, allowing you to play at 25 frames per second (on a fast machine). As a result the game is much smoother and more enjoyable to play. In this third version there is also the ability to edit the car, the crew and the helmet colours on the workbench (as long as you have enough free colours). The interface is easy to use and looks fantastic. Also included in this version is the 1996 data, extra sound samples and new cockpit designs. There have also been several bug fixes and documentation improvements. This shareware package is excellent and an essential add-on to Formula1GP.

CHARLIE J COOL

DEMO

By.....*NRC Software*
PD Library*17 Bit Software*
No of Disks.....*One*
Price*£1.50*

This game seems to be popping up all the time. You might remember the



review in AF84 when it was deemed "stunningly average". This demo lets you decide for yourselves. Despite the low rating, platform buffs will be able to try it, without forking out £10. The demo consists of four levels, one for the A1200, and they are reasonably good fun to play. If you can ignore the flaws in the game engine you may like it, but if you like a game that is well programmed then I can only recommend you avoid this title. The graphics are bright and the game has Mario-style levels, with springs and enemies galore. For younger players the technical problems will not pose a problem, and they could find a great deal of enjoyment from playing. The full game is available via mail order for £9.99. For more information see the review.

SLIDER V2

GAME

By*Joseph Carlson*
Ware*Shareware*
PD Library*17 Bit Software*
No of Disks.....*One*
Price*£1.50*

On loading this game I was overcome by the unbelievably cool interface and presentation. The whole look spells 'slick'. When I started to play with the controls and look at the graphical touches I began to realise that this is the best version of the Slider-style game I've ever seen (where you have

FORMULA 1 EDITOR

Above: A multitude of decisions to be made before embarking on F1GP.

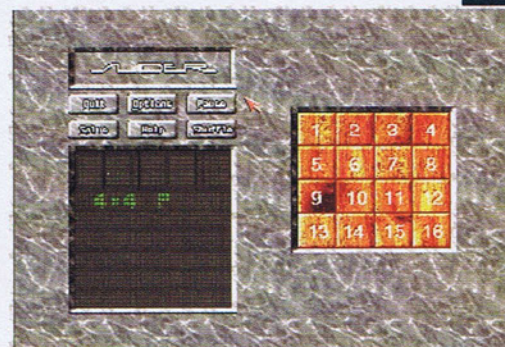
FORMULA 1 EDITOR

Left: Choose your favourite colours for your flashy motor.

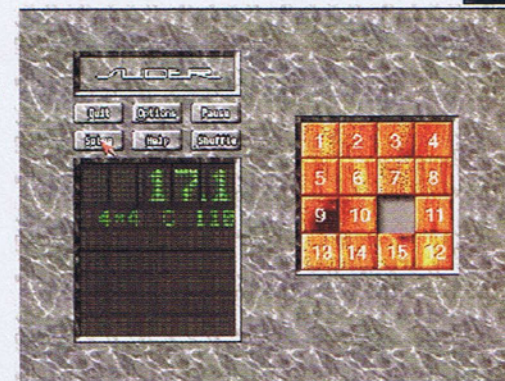
to put an image or numbers in order once jumbled up). After completing the numbers on all levels I decided to try the pictures. They are displayed in 32 colours, and look flawless on an 8x8 square puzzle. My only problem was when I tried the smaller sized boards, as the images had no defined edges and were often tricky to solve. Despite this the game is great and has to be the best in its genre. On an ECS machine, without acceleration or a graphics board, the game only opens a slow 16 colour screen, and loses some of its impact, although it's still very enjoyable.

A flicker-free resolution is also recommended, although not essential, as the game opens a 640x480 screen. The game isn't strictly shareware, the author simply requests an e-mail with thanks.

SLIDER: Watch the clock ticking away as you try to put the numbers in order.



SLIDER: A stunning interface and smooth controls result in a slidy slick game.



SLIDER: By far the best in its field.

TOP 10 PUBLIC DOMAIN TITLES

Top 10 courtesy of:

17 BIT SOFTWARE

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2/8 Market Street
Wakefield, West Yorks
WF1 1DH
☎ 01924 366982

1. Boulderdash 3D AGA
2. MUI v3.3
3. Wormnoiz
4. Worm Maps 1
5. Worm Maps 2
6. Virus Workshop v5.9
7. Skidmarks 2 Cars AGA
8. Agene v5.0
9. Slider v2.0 AGA
10. Spectrum Solutions 1

WHERE TO GET THE DISKS IN PD SELECT THIS MONTH

F1 LICENCEWARE

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☎ 01392 493580

17 BIT SOFTWARE

1st Floor Offices
2/8 Market Street
Wakefield, West Yorks
WF1 1DH
☎ 01924 366982

Other good PD libraries



CHARLIE J COOL: Four levels for you to try out before you buy the full version.



CHARLIE J COOL: Cheerful, colourful graphics make Charlie look very cool.

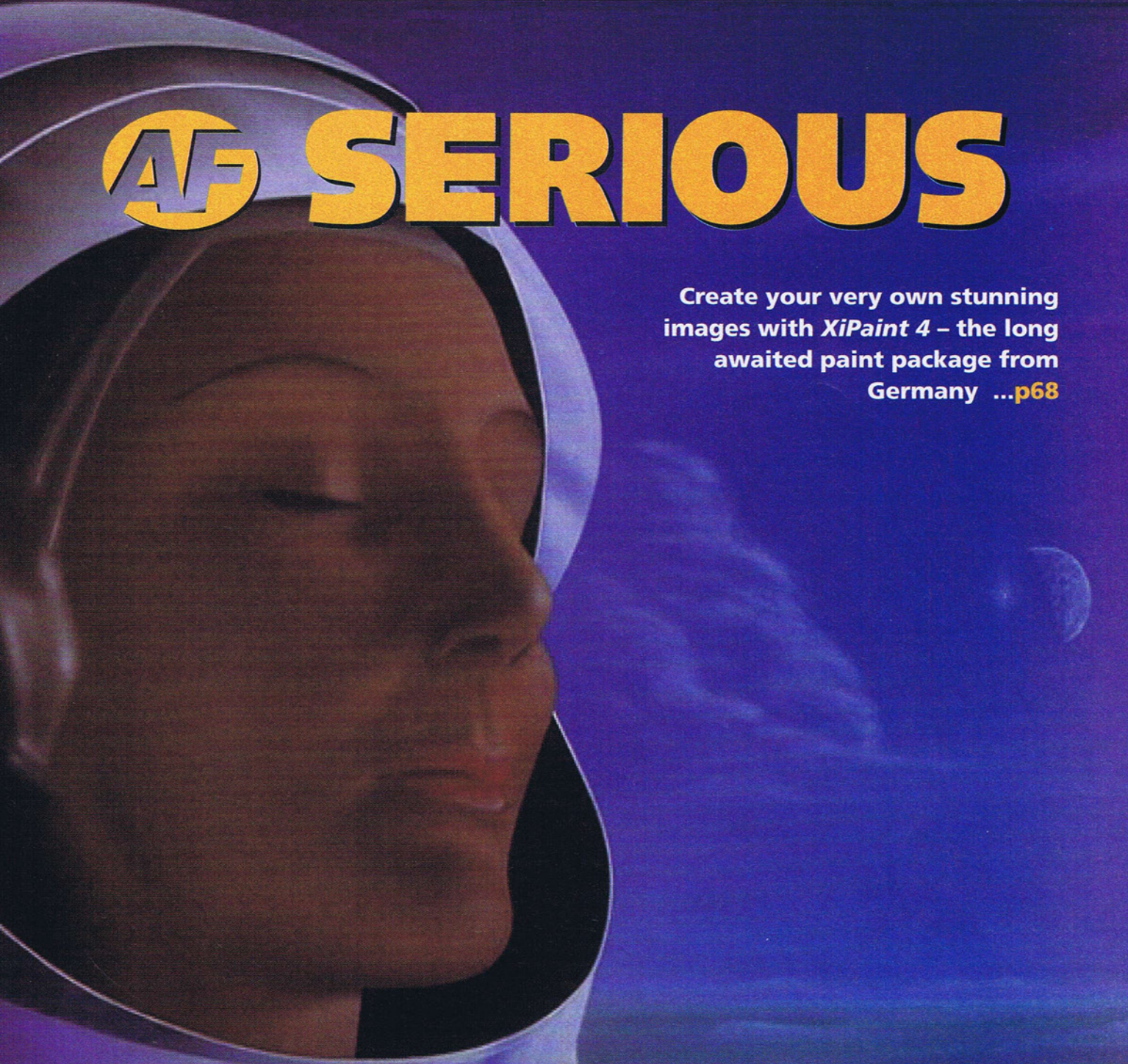
AMIGA POWER

goes to
the movies

Book your seat
25th June

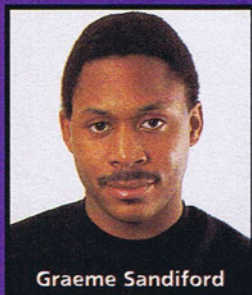
AF SERIOUS

Create your very own stunning images with *XiPaint 4* – the long awaited paint package from Germany ...**p68**



AMIGA FORMAT

SOMETHING FOR EVERYONE



Graeme Sandiford

This month we've got a real mixed bag of Amiga goodies. Although the majority of it is hardware we've also got some software in the form of the latest version of *XiPaint*. This potentially fantastic package has two major new additions; animation support and a built-in raytracer.

If our excellent networking feature has got you itching to attach your machine to something else, then you'll be interested in the Siamese system – it can be used to network the Amiga and the PC like never before. If you're bored with using a plain old mouse you might want to check out the GlidePoint fingery-slidy-thing. We'll reveal the cheapest way to double the scan rate of your machine and you'll discover what happened to the Vidi Amiga.

REVIEWS

58 VIDI AMIGA 24RT PRO

Digitising images on the Amiga has been a favourite pastime of **Graeme Sandiford's** for quite some time but the new digitiser from Quantum Leap fails to live up to the high reputation of the 24RT.

61 DBLSCAN

Your PC monitor can now be compatible with your Amiga. Just slot in the new video card from Blittersoft and **Graeme Sandiford** will reveal all.

63 SIAMESE SYSTEM

The Siamese system, a unique way to get the best out of both the Amiga and the PC is finally near completion and it's looking very impressive. **Graeme Sandiford** puts aside his PC prejudices to see if it really does work.

67 GLIDEPOINT

It might not really put up much of a challenge to the supremacy of the trusty mouse, but **David Taylor** felt the new GlidePoint certainly had its bonuses. Like durability and impressive good looks.

68 XIPAIN 4

This German painting program has always shown a great deal of promise, but has it really maximised its potential with the addition of a raytracer and animation support. **Graeme Sandiford** attempts to find out.

81 CD-ROM ROUND-UP

David Taylor has been glancing over the huge pile of CD-ROMS that have landed on his desk this month. It seems there's almost something to interest everyone, except perhaps, potential movie-makers.



I can never understand why, if they're such good friends, Ken and Ryu are always fighting.



The poor quality of the images is enough to reduce some people to tears.



This poor fellow is so distressed by the Vidi Amiga he's joined the sleeping-in-the-rain-naked cult.



This is an image taken from the TV and it has a wide range of subtle colours.

The Vidi Amiga 24RT was by the far the best digitiser on offer. Can the new Pro live up to the reputation of its predecessor?

Vidi

Grabbing images from your favourite videos or TV programmes or the real world is one of the coolest and most fun things you can do with your Amiga. Known as digitising, this process can be used in a variety of professional applications such as desktop video work and graphics.

However, in the "early days" there really wasn't much of a professional market as the technology wasn't up to producing images of sufficient quality for commercial use. At least that was the case until Rombo brought their range of high-quality digitisers to several home computing platforms including the Amiga.

The first version I recall using had me and a friend enthralled for ages, despite the fact it could only handle 16 shades of grey and had a huge delay between the preview and the actual frame that was grabbed.

As things progressed a colour module, that had to make several slow

passes before it could generate an image, appeared. This required you to have a perfect still-frame video that could pause at a frame without any distortion. Then came that wonder of wonders the real-time colour digitiser. Unfortunately, after a while the Vidi range of digitisers went out of circulation. But now they are back with a vengeance in the form of the Vidi Amiga (24) RT Pro.

IT'S A RE-MATCH

This digitiser can grab images in full 24-bit colour in real-time. However in its absence a new king of Amiga digitisers has been crowned – the Pro Grab 24 RT (reviewed *AF* 75 93%), and the Vidi is going to have a real battle on its hands if it's going to reclaim that title.

The physical unit itself has remained pretty much unchanged in appearance and in its capabilities. The box that does all the hard work is much the same as before, a relatively compact unit with a parallel, S-VHS and two

composite ports. Unfortunately it has an infuriatingly short lead from the unit to the Amiga's parallel port, which means the unit can barely be placed beside your Amiga. There is now an independent power supply so that the digitiser won't draw power from the Amiga, which is not a particularly good thing to do.

Both the Vidi Amiga 24RT Pro, the one on review here, and the ordinary Vidi Amiga 24RT are capable of grabbing 24-bit images. However the Pro version has double the horizontal resolution which means it can be used to capture screens in all of the standard Amiga Hi-Res modes (maximum of 760x576 with overscan), while the standard version is limited to Lo-Res modes (maximum of 380x576).

According to the manual the capture time for an image should only take 1/50 second (interlaced) or 1/25 second (non-interlaced). Despite this capture time there is still an incredibly annoying delay (much longer than Pro Grab) between the frame on display, the one you wish to grab, and the one the software actually captures. This is a serious pain in the neck even if you are familiar with the footage you wish to grab and often means you have to try several times to capture the frame or frames that you want.

However this is still not as annoying as the delay between frames if you attempt to capture a sequence. I don't know, maybe I've been spoilt by Pro Grab's 25 frames per second capture rate, but you might expect maybe ten or



You must remember that this is a printed image and may not reflect the true quality of the grabs.



As with most of the pictures on this page this picture is very grainy.



The fight is over at last, but we've missed a lot of the action because we can only take one grab every second.

Amiga

even five frames a second. Instead the software only gives you the option of grabbing images in one second and longer intervals. While setting a capture rate of a few minutes is great for a time-lapse sequence like capturing passing clouds, it's useless for creating animations that will play back at anything near normal speed.

POOR QUALITY

If all this fails to reduce you to tears then the abysmal quality of the grabs will soon have you pounding your desk in anguish. If you decide to use the default software settings for your grab you will be rewarded with a crackly image that looks so bad you'll wonder if you haven't grabbed an image from a Russian TV satellite. Quite how they managed to take a product that was so good and then distribute it as such a vastly inferior package is beyond my comprehension.

I tried long and hard to find something good to say about the new Vidi Amiga, if only for all the good memories that I have, but the closest I came was the image processing features of the program. While not particularly outstanding, and certainly not good enough to rescue the images grabbed by the hardware, they are quite extensive.

Overall the new Vidi Amiga Pro is a big disappointment and, as it costs nearly twice the price of the Pro Grab, it really doesn't stand any chance of reclaiming its position as the Amiga's premier digitiser.



VIDI AMIGA 24RT PRO

DISTRIBUTOR

Quantum Leap
01506 461917

PRICE

£249 (Pro version)
£149 (Standard)

SYSTEM REQUIREMENTS

Workbench 2

INSTALLATION ●●●●

You should have no difficulty in setting up the hardware or the software.

MANUAL ●●

The manual is hard to follow and quite sketchy with details in places.

FEATURES ●●●

The software is miles behind the Pro Grabs in terms of both the interface and the supported features.

QUALITY ●●

It's a mystery how they've done it, but the quality of this once great product has been severely reduced.

VALUE ●●

Considering the poor quality of the images and the fact that it costs twice as much as the Pro Grab, the Vidi Amiga 24 RT Pro doesn't sound like good value to me.

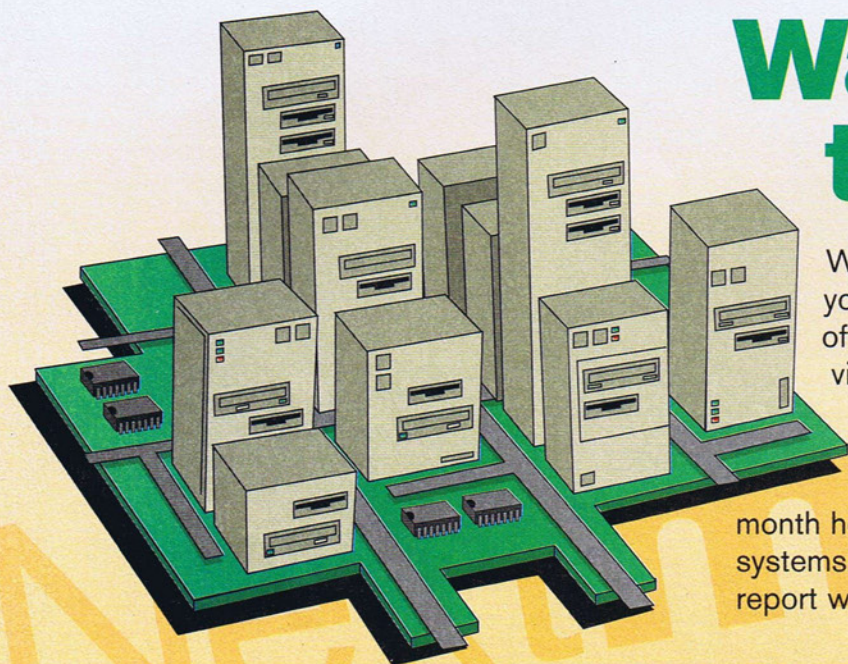
"Save yourself £100 and buy the much superior Pro Grab"

65%

The **essential** magazine for Amiga enthusiasts

AMIGA

Issue 65 **SHOPPER**



Way above the rest?

What benefits can an external tower system add to your A1200? There are now several systems that offer SCSI housing, additional IDE bays, Zorro slots, video slots... We wanted to know which ones offered the best expansion capabilities and which ones suited different users. So, we set John Kennedy on the case (if you'll excuse the pun) and next month he'll be presenting a full round-up of the available systems. If you are looking to expand your A1200, this report will be the one for you.

AMIGA MAG*SAVE SHOPPER

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Reviews

Well, release date changes caught us out last month, but we're going to put our neck on the line again and say that next month we'll have reviews of the Surfin' Squirrel, Photogenics 2, the Genius 1212HR graphics tablet and Infrarexx – the system that allows you to control infra red controlled systems with your Amiga! There's more, but let's not tempt fate by mentioning their hallowed names.

Why not take advantage of our special six-month subscription deal? Telephone the Subscription Hotline on ☎ 01225 822511.

Regulars

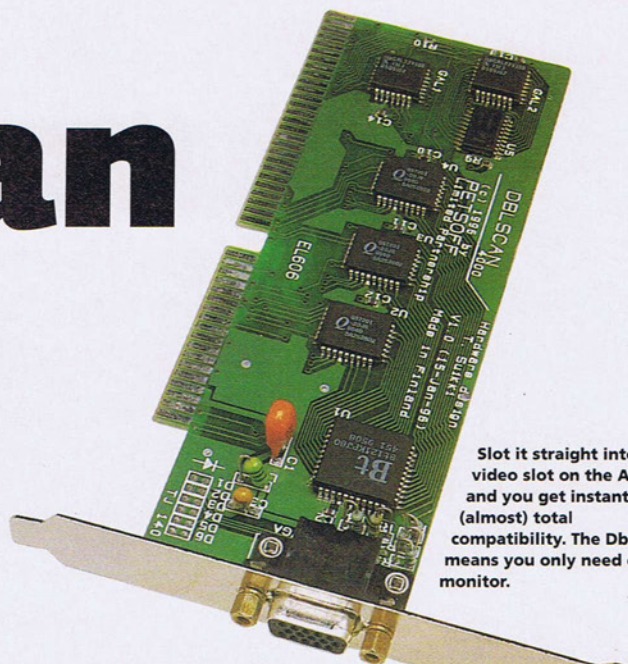
All the AS regulars will be in next month. As well as Answers and the Public Domain, there'll be the Comms column, the excellent Coverdisk and the How to... series. The tutorials continue with HiSoft BASIC, CanDo, Music and AMOS.



August issue **65**. On sale Tuesday, **25th June** 1996

DblScan 4000

The latest video card from Blittersoft enables you to use PC monitors with your Amiga but does it really work?



Slot it straight into the video slot on the A4000 and you get instant and (almost) total compatibility. The DblScan means you only need one monitor.

The video output from an Amiga can occasionally be a bit embarrassing. Yes, it's terrific for video work

because it works at the same frequency as TVs and Video Recorders. The AGA chipset, can display millions of different colours, and it's perfect for use with a genlock for creating scrolling titles and so on. This "video friendly" approach also means that unlike a PC, no special monitor is required for an Amiga.

The downside is that many users demand the better picture quality (and larger screen sizes) which dedicated monitors provide. Unfortunately, most computer monitors are designed for PC compatible systems, and that means they work at completely different frequencies from standard video. The AGA chipset tries to provide screen modes which are compatible with these VGA rates, but can't quite pull the trick off. So, although some PC monitors will display dbiPAL or dbiNTSC modes, many won't – even so called "multisyncs" which can handle a wide range of frequencies.

VIDEO CARDS

Amiga Video cards are one solution, however, they require special driver software in order to work: for example, using the *CyberGFX* system, the Monitor Preferences program sprouts a few new screen modes. Applications which allow the screen mode to be selected (for example, Workbench) can then open up using the card, and benefit from the extra speed and colours.

The drawback is that not all application software will allow the screen mode to be selected. Some can be forced, but the success rate isn't 100%. Worse still, most games will talk straight to the video hardware and bypass any extra video cards – if you have a VGA monitor and you run a game, chances are you won't see a thing.

The DblScan 4000 is designed to get around this problem once and for all. It works in the video slot present in an A4000, taking the standard video signal and upgrading it into totally SVGA friendly modes. No matter what software

you run, the video output can always be displayed on the SVGA monitor: the output is even provided as a standard 15-pin SVGA plug which means you can connect a cheap PC monitor without any extra adaptors.

The card works in full 24-bit colour and the new, improved screen mode will look exactly like the original – except it will be on your new monitor. The image will be slightly darker because of the way the card works, but a tweak of the monitor's brightness control gets it back to normal.

All screen modes under 18kHz are supported, which means any software which opens a PAL or NTSC screen will work perfectly. An exception is the rarely used Super Hi-Res modes, which contain too much information for the DblScan to deal with. No big loss there. Interlaced screens are fine: as long as you don't mind the associated flicker.

This card is not a flicker-fixer and that's the big difference between this and the Power Computing card – it's also the main reason why this card is a lot cheaper.

Who needs it? Any A4000 owner who wants to use a cheap PC monitor. If a video card is also present in the A4000, the doubler is still useful: it means the card can be used for Workbench and most applications, whilst the scan doubler ensures older software and games can also be used. The price is tempting enough too, especially if you happen to have access to a PC monitor and fancy giving your eyes a treat from the old colour portable. It's good to see new hardware arriving, and I await with interest the promised DSP card from the same developers.

SUPPORTED SCREEN MODES

The following screen modes will be scan doubled by DblScan 4000. Note that Super Hi-Res modes contain too much detail and aren't displayed perfectly.

Euro36 Hi-Res (640 by 200)
Euro36 Hi-Res Interlaced (640 by 400)
Euro36 Lo-Res (320 by 200)
Euro36 Lo-Res Interlaced (320 by 400)
Euro36 Super Hi-Res (1280 by 200)
Euro36 Super Hi-Res Interlaced (1280 by 400)
NTSC Hi-Res (640 by 200)
NTSC Hi-Res Interlaced (640 by 400)
NTSC Lo-Res (320 by 200)
NTSC Lo-Res Interlaced (320 by 400)
NTSC Super Hi-Res (1280 by 200)
NTSC Super Hi-Res Interlaced (1280 by 400)
PAL Hi-Res (640 by 256)
PAL Hi-Res Interlaced (640 by 512)
PAL Lo-Res (320 by 256)
PAL Lo-Res Interlaced (320 by 512)
PAL Super Hi-Res (1280 by 256)
PAL Super Hi-Res Interlaced (1280 by 512)

DBLSCAN 4000

DISTRIBUTOR

Blittersoft
01908 261466

PRICE

£149

SYSTEM

REQUIREMENTS
A4000/A4000T or any Amiga with an A4000 compatible video slot. SVGA style monitor

MANUAL

A couple of sheets of paper is all that's supplied, because that's all that's needed.

ACCESSIBILITY

Insert the card, connect a monitor and that's it – no driver software means total compatibility. You can even see the GURU again. Which is nice.

FEATURES

All modes under 18kHz are doubled, including interlaced modes. Works with video cards too. Flicker fixing would have been nice though.

VALUE

Fills a gap, but a fully-fledged graphics card doesn't cost much more.

"At last A4000 owners can display all the essential screen modes on one monitor. And about time too!"

87%

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SONY 17"	£679
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VGA Adaptor needed.

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200MB	£42.95	£7.52	£50.47
270MB	£39.95	£7.00	£46.95
EZ 135	£13.50	£2.37	£15.87

ZIP CARTS

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SCSI Card or Squirrel is needed to run SCSI devices on Amiga

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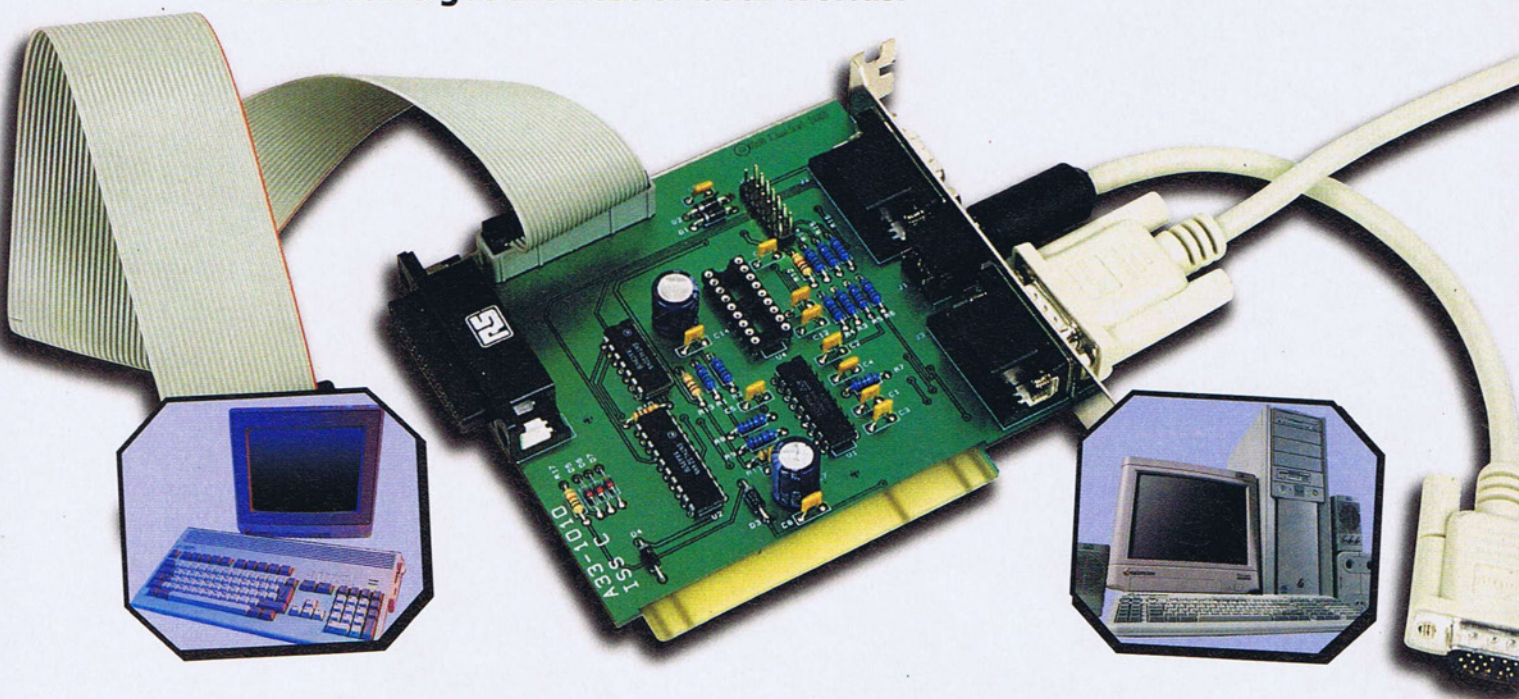
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The Siamese System

The benefits of the Amiga's superior operating system combined with the speed of the PC should mean users get the best of both worlds.



Despite what they may tell you, there are very few PC-owners who actually enjoy using their computers.

Trouble is, that while Amiga-users usually develop an unnatural affection for their machines because of its wonderful operating system (OS), there are things that the PC can do better.

Don't get me wrong, the Amiga is still my (and many others) first choice for many computing tasks. But, unfortunately many people are forced to use a PC at work either because they are much faster or because they are considered the standard machine. It has to be admitted that the PC is much

faster than the average Amiga, at the moment at least, and can make light-work of several processor-intensive tasks. In short PCs are great at grunt work like rendering 3D scenes and other number-crunching exercises.

Wouldn't it be great to have the best of both of these computing platforms? Well, that's exactly what the Siamese sets out to do by networking the two machines together. If you are not sure about the term networking, then you'd do well to flick back to the feature in this issue by my learned colleague, John Kennedy. Amazing stuff eh? Aside from being a darned good feature, it explains the principles behind networking and highlights some of the benefits of the Siamese system.

However the Siamese system does far more than your common-garden variety of networks. As well as enabling the sharing of resources such as disk space and printers, the Siamese combines the video output of the two machines so that you can neatly switch between the two and even share the same monitor. Likewise, the Amiga's mouse and keyboard can be used to

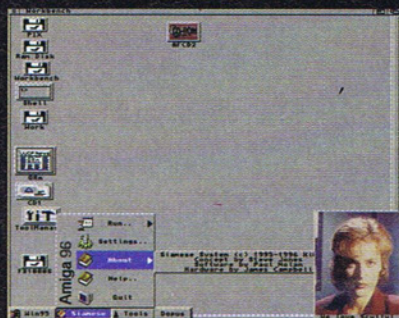
control the relevant system functions of the PC.

HiQ offer two options, a ready-configured PC and unit or just the Siamese unit by itself. This way both those who already have PCs and just want to connect them to their Amiga can just buy a unit, and those who don't want the hassle of buying and setting up a PC can get one already configured. If you are going to buy just the unit you will have to make sure you have Windows 95 installed, as this is the only version that will work with the Siamese.

NO EASY TASK

The unit itself is quite tiny, rather simple looking and could easily fit into your palm. To be quite frank I had no illusion about how difficult a task it would be to install the card and its software. Not because of the product itself, but just by virtue of the fact of having to fit any new item of hardware to a PC - Windows 95 plug-and-play, indeed. Sure enough a job that should, on paper at least, have taken less than ten minutes took at least two hours, due to a hardware conflict.

Continued overleaf →

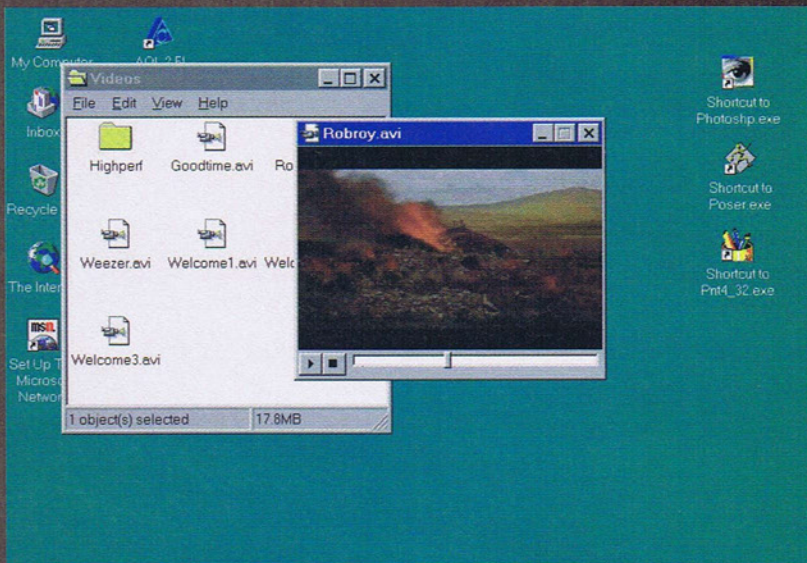


Personally I'm not a big Scully fan, but the guys at HiQ seem to be big admirers.

The process of installing the Siamese board is relatively straightforward – only a little more complicated than installing a sound or game card on a PC. The Siamese is quite happy to sit in a 16-bit expansion socket in your PC and the main part of the installation involves simply taking one of your serial interfaces and attaching it to the Siamese. You then use the serial lead supplied to provide a replacement serial interface in one of your PC's spare 25-way D type sockets. The rest of the hardware installation is done externally and simply involves attaching the correct leads from your graphics card, the Amiga's video output and the Siamese's video output to your monitor.

As the Siamese employs a SCSI networking system and most PCs don't come configured with a SCSI card you invariably encounter problems trying to fit one to a PC. However I was quite surprised, and more than a little disappointed to discover that there were some incompatibility problems with two of the A1200's most popular SCSI controllers – the Squirrel and the Blizzard range (both the 1230 and 1260 versions). Apparently these problems are not due to the Siamese and may be sorted out soon. By the time you read this the Surf Squirrel should be ready and will work with the Siamese and Phase V are considering producing a

If you have a high-spec PC you can get it to play multimedia files with a few simple commands from your Amiga.



modified SCSI interface if there is enough demand.

SCSI NETWORKING

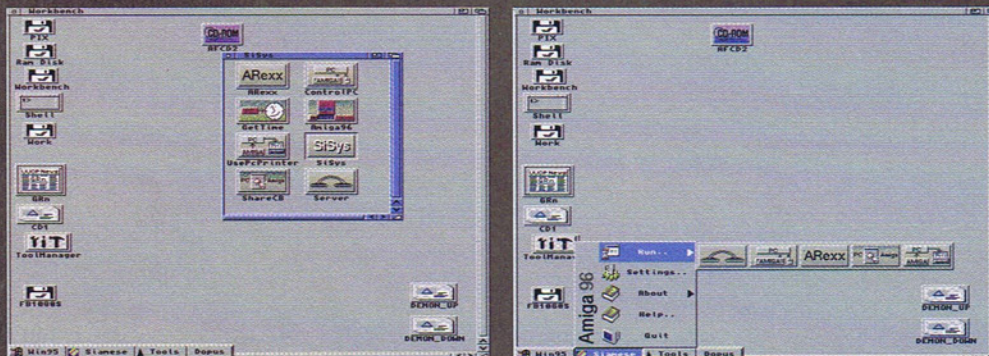
The SCSI network provides the most basic of services and the most useful, sharing devices. This enables you to access a drive from both machines so that files can be passed between them quickly and easily. The down-side to SCSI networking, as illustrated by the problems already mentioned – if you don't have two well-behaved controllers

then the network is unlikely to work properly. We managed to successfully use an Adaptec controller on the PC and both an Octagon 2008 and DKB 4091 in the office A4000. The list of working controllers is growing all the time and you should contact HiQ about which one you should get, not to mention buying one of their low-cost controllers while they are still in stock.

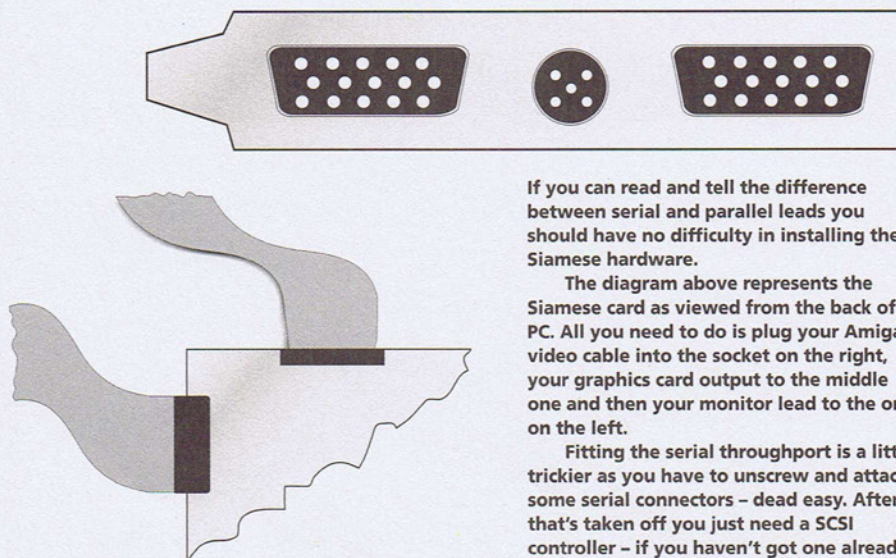
If your budget won't stretch to buying two SCSI controllers or you want to try out the system with an alternative method of networking, you'll be glad to hear that you can also use the serial ports to network your machines. Obviously this is not going to be anywhere near as fast as the SCSI network, but it will mean that you won't

Bottom Left: the Siamese system is made up of several programs.

Bottom Right: Amiga 96 can launch any program you like and switch to the PC's display.



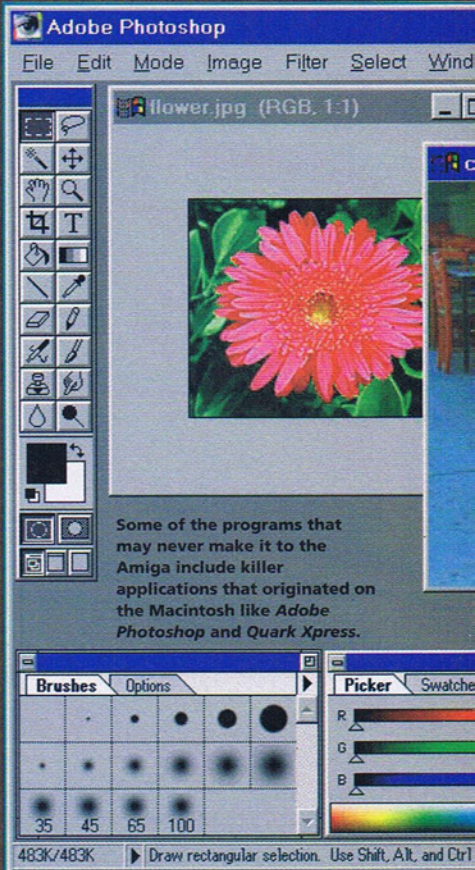
MAKING THE RIGHT CONNECTION



If you can read and tell the difference between serial and parallel leads you should have no difficulty in installing the Siamese hardware.

The diagram above represents the Siamese card as viewed from the back of a PC. All you need to do is plug your Amiga's video cable into the socket on the right, your graphics card output to the middle one and then your monitor lead to the one on the left.

Fitting the serial throughport is a little trickier as you have to unscrew and attach some serial connectors – dead easy. After that's taken off you just need a SCSI controller – if you haven't got one already.



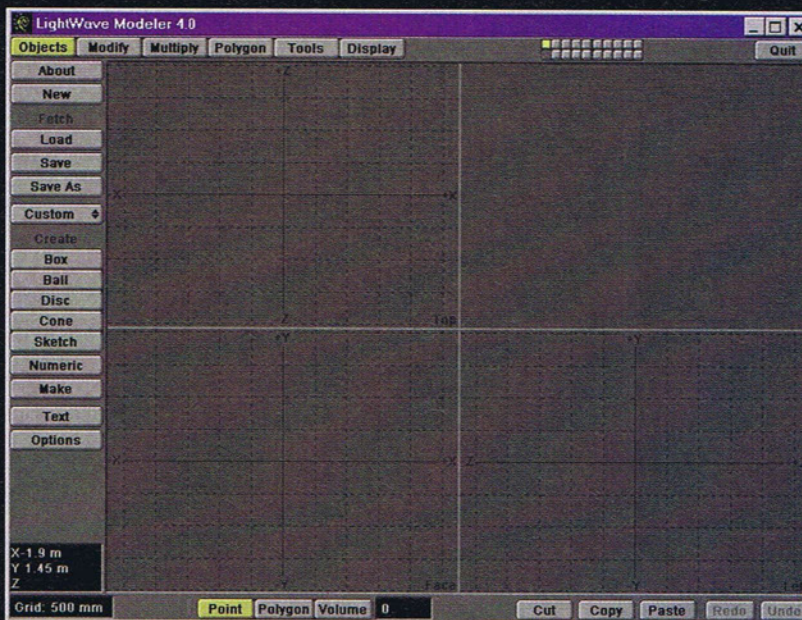
have to splash out on any extra kit. At the moment the serial network is working steadily at 5K/second, but by the time you are reading this it should be doubled to 10K/second. Like I said, not blisteringly fast but an acceptable budget option.

The one step in the installation process that had me in a cold-sweat was the setting up of the monitor. After having an unpleasant exploding monitor experience in the past, I have since been wary of attaching monitors to my Amiga. If you intend to use the video switching abilities of the Siamese system so that you need only one monitor, and intend to do so with a standard SVGA monitor you will need to modify the frequency of your Amiga's video output. To do this you'll need a program such as *Moned*. There is a section of the manual dedicated to explaining how to do this, but if you are not sure of what you're doing with the Amiga you'd be well-advised to get a more experienced friend to help you.

SOFTWARE

Right that's the hardware out of the way, the more interesting part of the system is the software. As mentioned before you need to have Windows 95 installed on your machine. Despite being a scandalous waste of resources, Windows 95 does have some good points mainly its virtual memory and networking features. Installing the software on both machines should take no more than about 15 minutes and is very simple. Once installed, you'll be able to set the degree of interaction

Lightwave is just one of many Amiga programs that are now on the PC as well.



between the PC and Amiga by running the program again or changing the icon Tooltypes manually.

The operation of the Siamese system is broken down into several small applications. One of the most useful is *ControlPC* which, as you might expect, can be used to control your PC. It does this by switching control of your PC's mouse and keyboard to the Amiga so that you can type and move your pointer around with your Amiga's keyboard mouse. You can also use the PC Printer function to print through a printer attached to your PC.

The Server handles the communication between the two machines and must be running for any of the other programs to work. It also enables you to switch between the Amiga and the PC by pressing <left-amiga><>. You can also use the commands SCopy and SList to copy files to and from the PC and view the contents of one of its directories.

The ARexx handler is potentially

an incredibly powerful tool, as it can be used to control the Siamese system and in turn, the PC itself. Imagine being able to render a *Lightwave* animation, saving it as an AVI file and then having it dumped across and played on the PC.

The MCI command controls the playback of multimedia files and even audio CD on the PC. An example of how this might work would be to type; `mci play cdaudio`. This would result in the current audio CD in the CD-ROM drive being played or an unpleasant hi-pitched noise if you have a data CD in the drive.

Those are the basics of the Siamese system, but there's a lot more to it. While there are still a few bugs to be worked out, HiQ have achieved an incredible feat by producing the closest integration of the Amiga and PC platforms yet. It has to lose marks for the slight hardware incompatibilities but this is a system that shows a great deal of promise and there are even more features on the way...



SIAMESE SYSTEM

DISTRIBUTOR

HiQ Systems
01525 211327

PRICE

Main Unit £129.95
PC prices £975-£2000 (no monitor or Windows95).

SYSTEM REQUIREMENTS

Amiga: WB2+, 020+ CPU, 2Mb RAM and SCSI interface that supports Bus Arbitration

INSTALLATION

While not especially complicated, if you're unsure you should get a more experienced friend to help out.

SPEED

The serial interface is as slow as you might expect, but the SCSI network zips along at some speed.

MANUAL

A little skimpy but tells you all that you need to know.

FEATURES

Just about everything you can think of is catered for or is being developed.

VALUE

For such a complete and unique way of getting the best out of both machines, £130 is more than a fair price.

"There may be a few problems but it has the potential to be great"

88%



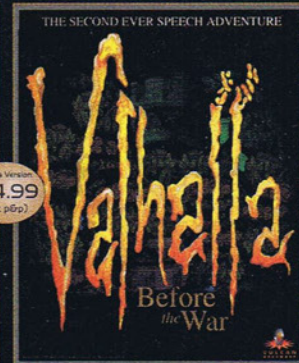
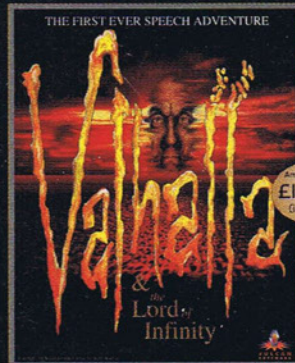
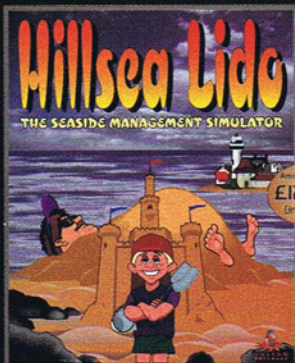
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All Amigas, 1 Meg min, Mouse Driver, Hard Drive Installable.
Hillsea Lido is the game in which you own a slice of coastline. Put your business skills to the test as you endeavour to turn an empty stretch of beach into a sun drenched gold mine. You must employ cunning decision making tactics in every aspect of the game. The positioning of your shops, the prices you charge for water sport hire, the shows you choose to book for your theatre and the amount you pay your staff are just a few of the many elements involved in building the finest seaside resort in the world.

All Amigas, 1 Meg min, Mouse Driver, Hard Drive Installable.
The Timekeepers are an elite police force from Earth's future established to protect the 4th dimension. Their latest mission concerns the antics of a psychotic warlord who has hidden nuclear devices in four different time zones. A platoon of 10 men have been chosen to travel back in time to locate and disarm the bombs. Using your skill and judgement you must organise, delegate, coordinate and manage each platoon through 30 treacherous levels in order to find the devices that threaten Earth's future, but beware for the levels are riddled with complex puzzles, obstacles and traps, the destiny is in your hands.

All Amigas, 1 Meg min, Joystick Driver, Hard Drive Installable.
Ten 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 exact vengeance for his father's death and claim his birthright. In the first ever Speech Adventure you are the Prince's mentor on his quest. Inching your way through four vast levels in the chilling castle of Valhalla you enter a world crammed with logical puzzles and richly interactive characters.

All Amigas, 1 Meg min, Joystick Driver, Hard Drive Installable.
In this four level prequel you play Infinity's mentor on his quest of hatred in which murder is the ultimate goal. You begin your quest in the Servants Hall under the watchful eye of Garamond's Sorcerer. Deep in the dungeons you meet the Royal Guardsmen, but whose side are you on? Be scared out your wits in the Haunted Gallery and dual in conversation with Mestophiles. In the Royal Chambers you will meet all the members of the Royal family including the little Prince star of Valhalla And The Lord Of Infinity.

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GlidePoint

The problem with new "pointing devices" is that testing them means putting aside your preconceptions and habits, born from years of using a mouse. It's difficult with any new device to not try rolling it around the desk and you expect the buttons to be where your fingers naturally fall. Surprisingly though, this new device is remarkably easy to get used to.

The *GlidePoint* is designed for use with the IBM/PC, but has been ported over with software by Power Computing. The most important result of this is that it is a serial device. There's an adaptor from the PC serial port to the Amiga's supplied, but this is going to hog your serial port and leave your mouse port empty (unless you have two joysticks).

To get the software running, you just need to install it in your WBStartup drawer. You could install it elsewhere and start it manually when you need it, but this seems pointless. When you do add it to WBStartup, you need to add DONOTWAIT to the tooltypes and I can't see why this wasn't included in the first place by default. It will start up using its own settings, but you can adjust these by opening the interface.

There are three buttons on the *GlidePoint* and you can assign either left or right clicks to any of them. There's also the option to adjust how responsive the surface is. Considering how small the device is, it's surprising that you have to reduce its sensitivity – if you don't you'll whizz across the screen when you move your finger an inch.

Unlike a mouse, the *GlidePoint* sits stationary on your desk. You then control the pointer by putting your finger lightly on the pad and moving it around. The pointer moves with your finger. You can initiate a click or double-click of the left button by tapping once or twice on the pad and this is undoubtedly the best feature.

The software, which is a commodity, allows you to run the hardware with any system compliant program, which means almost all applications. The only problems seemed to occur with some AMOS games. However, although

Has the mouse had its day or is this another bit of flash kit with no future. David Taylor finds out.



It looks great and it's remarkably easy to get used to but the software has a tendency to fail.

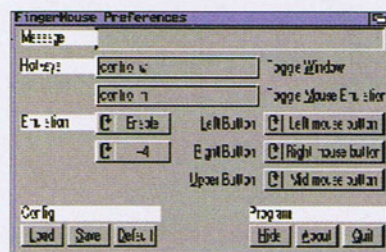
running Workbench and housekeeping tasks is quite effortless, drawing freehand in paint programs is very difficult. It would take a lot of practice and even then I'm not convinced you could be accurate enough. The big problem is that you have to hold down the left button to draw, which is not as simple as it is with a mouse.

When you do get used to the pad though, you find yourself holding it between fourth finger and thumb and sliding your index finger around. It's

compelling. The problems come to light with mouse clicks. Single and double left clicks are easy enough with the pad or one of the buttons but it's tricky holding the right button down and sliding your finger around the pad because the right button sits under your palm. I solved this by installing the PD utility *MenuStay*, which means that you just need to click the right button once and the menu stays on screen until an item is selected or it's cancelled.

There are also several problems with the software. Like the Power software for their external high density drive, it insists on showing you its screen on boot up, even with the pop-up tooltype set to "NO". This is very irritating and it slows down booting considerably. The software itself is not 100% stable either and the *GlidePoint* stopped working for no apparent reason a couple of times. It also ran incredibly slowly on an A1200 without Fast RAM.

Despite the problems, the *GlidePoint* is the closest yet to a rival for the mouse. It certainly beats the dire attempts of things like the *Pen Mouse* hands down, but I suspect the PC drivers for it are more reliable. It's not as cheap as a mouse and it's unlikely to replace it, but it feels very durable and for pose value, this is definitely the pointer with the best looks.



The software is a commodity and allows you to customise the hardware's functions.

GLIDEPOINT

DISTRIBUTOR
Power Computing
01234 273000

PRICE
£59.95

REQUIREMENTS
OS2.1+, A1200 with Fast RAM recommended

SPEED ●●●
Too fast sometimes and lagging behind others. You get accustomed to it though.

MANUAL ●●●●
There's not that much you need to know, but it's all covered.

ACCESSIBILITY ●●●●
The interface is easy, but having to

add the DONOTWAIT tooltype to the icon to use with WBStartup seemed annoying. Why wasn't this done already?

FEATURES ●●●●
It's very seductive and great fun to use, but at the end of the day, it only does the mouse's job.

VALUE ●●
Sure, it's durable, but software hiccups and a high price make it less tempting.

"It's fun but although the mouse may look boring in comparison it's still more functional."

60%

XiPaint 4

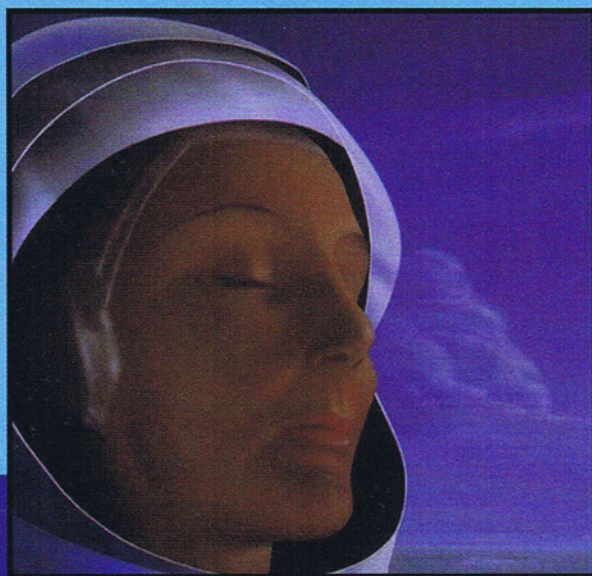
It's the paint package that can not only paint, but also image process and raytrace too. With all these abilities rolled into one integrated package, Graeme Sandiford looks at how good XiPaint 4 really is.

Graphics products on the Amiga have always been fairly rigidly categorised. They all seem to fall into three distinct groups; 2D painting, 3D/raytracing and image processing (we'll just conveniently forget about fractals for now).

Now however, the latest version of

XiPaint looks set to breakdown the boundaries between these disciplines because it offers Image processing, painting and raytracing features all in one fully integrated program.

If the name sounds familiar to you it's because we reviewed version 3.2 of *XiPaint* in issue 80 and it was



XIPAIN 4 INTERFACE

Not only does *XiPaint* allow for multiple brushes it shows them for you too - even if they are not loaded.

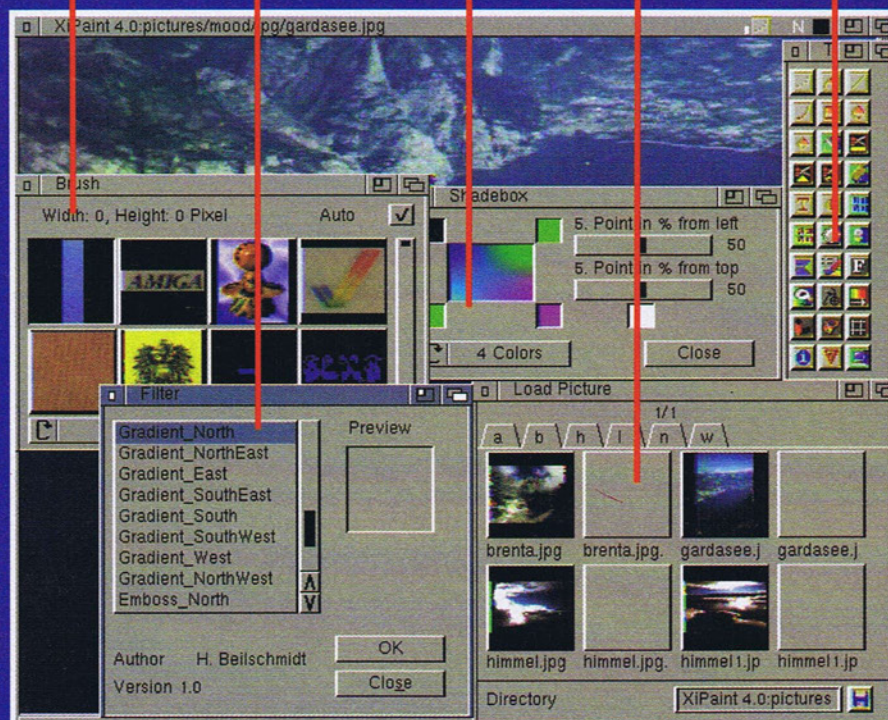
Although not intended as an image processor, the program has its fair share of filters to call upon.

If you are trying to create several shades of colour then the Shadebox should be just the ticket.

The built-in Picture Loader enables you to see a preview of an image before it is loaded in.

Logically the Toolbar is the place to go if you want to make use of one *XiPaint*'s many tools.

Here's a smashing picture by some talented German fellow. He's obviously been using *XiPaint* for ages because getting results like this is certainly not easy.



mentioned in last months' CD-ROM Round-up as it was given away free with *Aminet 11*. As with its predecessor, *XiPaint 4* is supplied on a CD-ROM. This not only makes installation a breeze, because there is no need for disk swapping, but it also means that there is plenty of room for including useful files and utilities.

However there is no printed manual which is a shame as some people, like myself, prefer to have a printed reference to a program as well as on-line help and text files - even if it is very good.

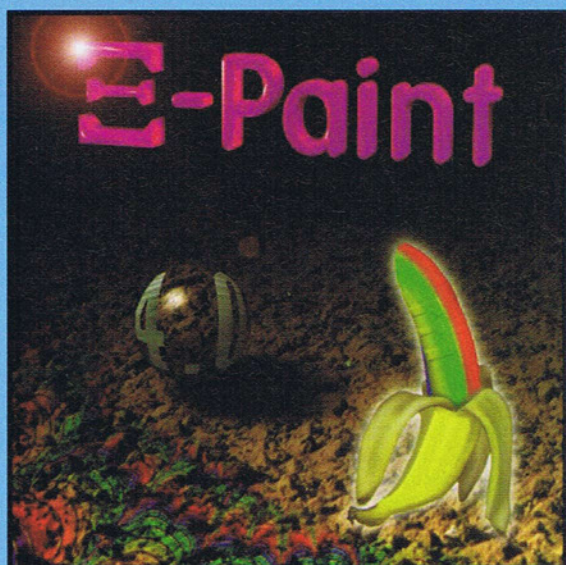
The program's interface is uncomplicated, but quite flexible and a tad reminiscent of programs like *Photogenics* and *TVPaint*. You can have as many or as few windows or requestors open as you want and, because they are non-locking, you can freely move from requestor to requestor. This could come in very handy, for example, when loading a picture executing an operation and then loading another picture or the original you don't have to bring up the requestor again.

One of the most unique features of *XiPaint 4* is the built-in raytracer. As far as I know there is no other 2D package on any platform that has a raytracer. You shouldn't expect a great deal of

TRACE THOSE RAYS

Although you can't really expect the built in raytracer that is featured in *XiPaint* to be equal to the raytracers featured in dedicated programs like *LightWave* or *Imagine*, it is still a very useful addition to *XiPaint*'s already well-rounded arsenal.

You are given the choice of several basic object shapes, materials and surface properties. You can then choose where you want to position your object, and where you want the camera and lighting. The next stage is to render your object, complete with shadows.



The cover of *XiPaint*'s CD casing provides an excellent example of what can be done with *XiPaint*, in experienced hands.

complexity from a non-specialist program but *XiPaint 4* is surprisingly well-endowed with easy-to-use features so you don't really need much experience in 3D graphics to use the raytracer. For more detailed information on the raytracer's abilities and how it works have a look at the boxout above.

As with previous versions *XiPaint* has great support for different display systems. Everything from a humble 16-colour screen to *CyberGraphX* is catered for, so that even though the program operates in full 24-bit mode, whatever your system is you'll be able to both view and save the images in the mode of your choice.

As you could probably guess from its name, *XiPaint* is intended to be more of a paint package than an image processor. However, that doesn't mean

Another major addition to *XiPaint*'s already considerable range of tools is support for the creation of animations.

that it's not equipped to perform image processing functions – it has several tools at its disposal. These include SNN, Grayscale, Hue adjust, Contrast, Brightness, Inverse, Colour cycle, Aequidens, several blur types, Gradient, Emboss, Smoothing and Smear.

However, unlike *Photogenics* and *Deluxe Paint V*, *XiPaint* lacks natural media emulation. Which means that it cannot copy the way that traditional art materials such as oils, watercolours, pencil, chalk and charcoal interact with the textures of different types of paper. This adds a whole new range of options to a computer artist and can make creating paintings that don't look quite as "clean" as most computer generated images much easier.

It's a real shame that *XiPaint* is lacking in this department as it would have made it perhaps the most rounded, in terms of features, of all the graphics programs around.

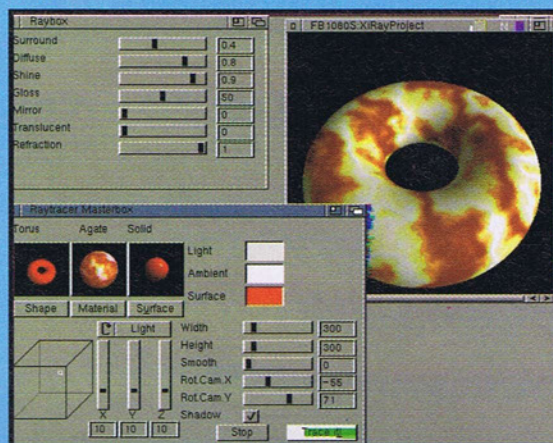
Perhaps one of *XiPaint*'s most powerful features is the implementation of multiple layers. In computer graphics terms, layers are like sheets of glass placed on top of

each other. The areas of a layer that have no paint on them will let the layer below show through. This enables you to have several independent elements that can be edited separately and then combined. While *XiPaint*'s implementation of this feature is not easy to follow, it's still very powerful.

Another new feature that has been added since version 3.2 is support for animation. As the Guide file points out, this is a new and not yet fully-implemented feature. While it is possible to create sequences of images you can't yet save an anim file, playback 24-bit animations or load animbrushes. However there are some handy third party add-ons that may be able to help in that department (subscribers see this month's subs disk).

Reviewing *XiPaint* has been an immensely frustrating process – the program has so much potential, but the implementation of its features could have been a lot better.

XiPaint 4 does seem a little faster than version 3.2, especially in HAM8, which helps improve the program's functionality quite a bit. But it certainly wouldn't be my first choice for either an image processor or a painting program. Despite this, I'll certainly be paying close attention to *XiPaint*'s future development and in the mean time I'll be trying to make use of it more effectively.



This is a picture of *XiPaint*'s unique raytracing module. I suppose it should really be in the boxout above – never mind, eh.

XIPAINT 4

DISTRIBUTOR
GTI 0049 6171 85937

PRICE
£49.95

SYSTEM REQUIREMENTS
2Mb of RAM

SPEED
It's a lot faster than version 3.2 ever was, but it's still a few yards behind the likes of *Photogenics*, *ImageFX* and co.

MANUAL
Although not a particularly poor manual in itself, the fact that there is not a printed version is a major nuisance.

ACCESSIBILITY
The interface has plenty of potential, but is still a little bit too quirky and fiddly.

FEATURES
No other package has anything like the range of tools at *XiPaint*'s disposal. However there are some obvious ones missing as well.

VALUE
While £50 seems a fair price, there are better programs, like *Photogenics*, available. However, there is still none quite as varied.

"If you're looking for a superb all-rounder then XiPaint is certainly worth a quick glance"

76%



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CD-ROM ROUND-UP

ARCADE CLASSICS PLUS

■ EPIC MARKETING ■ 01793 514188 ■ £14.99

Ah, I've got to admit, I'm a sucker for shoot-em-ups. Forget all this *Doom* nonsense; give me a ship and tell me what to shoot and I'm off. This CD is version 1.1 of the *Arcade Classics* pack. It contains pretty much every PD/shareware arcade game ever produced, which is why it's been updated – the nature of PD games is that the author constantly improves them or sorts out any bugs. Also, a new menu system has been added which looks very pretty, but is basically reliant on three separate IFFs. These react when you click on parts and so it doesn't have the instant feel of more "real" front-ends. Still, that's pretty much by the by as it does work and gives you easy access to the files.

This CD is dual format (Amiga/PC) and so to make room, everything has been kept archived. The front-end allows you to de-archive easily, but then getting out of the menu to run the game is a hassle. I'd have preferred to be able to run the games directly from the CD, but given that's not the case, at least they've made it as easy as possible to get the games off the CD. As far as the disc's contents go, all of the greats are here, from *Deluxe Galaga* to *WipeOut* to *Transplant* to *Deluxe Pacman* to... you get the picture.



AMIGA GOLD FORMAT

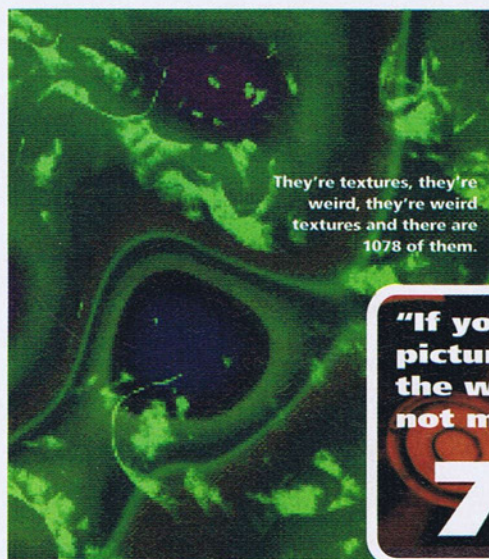
Here's some pics of the interface, because we've all seen the games before.

"You may already have most of these, but if you haven't here's the source"

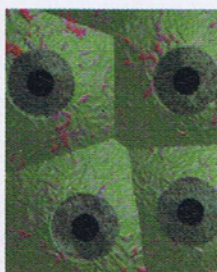
90%

ARCADE CLASSICS Plus

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TEMPLE	REFUGEE	PLATFORM
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BATLE ZONE	KLONING	SHARKS
DEAD MEN	THE CLASSICS	SPACEWAR
DISK	THE CLASSICS	SPORTS
BOULDER DASH	DEFENDING	
BRITANNIA	BOOPFIGHT	
ORIG CLASSICS	THROUGHER	
CENTURION	KAJAHN	



They're textures, they're weird, they're weird textures and there are 1078 of them.



"If you need strange pictures fine, but on the whole, they're not much use"

78%

1078 WEIRD TEXTURES

■ GROUND ZERO ■ 0117 907 6733 ■ £9.99

CDs have been a real boon for 3D users because, amongst being able to circulate masses of large objects or scenes cheaply, it's also an ideal medium for top-quality textures. This CD supplies, wait for it, 1078 textures that are incredibly weird. Each texture is supplied in a variety of file formats so that the CD can be used on different platforms (except that they aren't supplied in TIFF or BMP format so PC owners might have to convert the files anyway unless their package supports GIF, which isn't too common).

Amiga owners get them as IFFs or you could use the JPEGs if you wanted. Well, you could use any of them, but those two are the most useful. The textures come in 256x256 pixels and tessellate, i.e. will join seamlessly when repeated. A 24-page colour booklet allows you to locate the texture you want without having to search the CD or even refer to thumbnail indices. The downside is that the textures are a little too weird to be of general use.

MAGIC WORKBENCH ENHANCER V.2

■ EPIC MARKETING ■ 01793 514188 ■ £17.99

Another collection of utilities and PD games, this time designed around the popular *MagicWB* setup. *MagicWB* is a system that gives you much nicer icons than the standard ones and some funky backdrops and so it will come as no surprise that there are a hell of a lot of icons and backdrops (some very nice) on this CD. Thankfully, that's not all there is. There's also a set of programs, some of which are relevant to *MagicWB*, like *Iconian*, and others which aren't, like *NComm 3*. That's not to say the non-related programs are bad; there's an excellent selection, but incongruous to the title.

There are lots of Workbench games and a huge archive directory containing masses of programs. This CD is full of interesting stuff and you could spend hours searching through its nooks and crannies. It's not the most original title ever, but you'll find loads of good stuff on here.

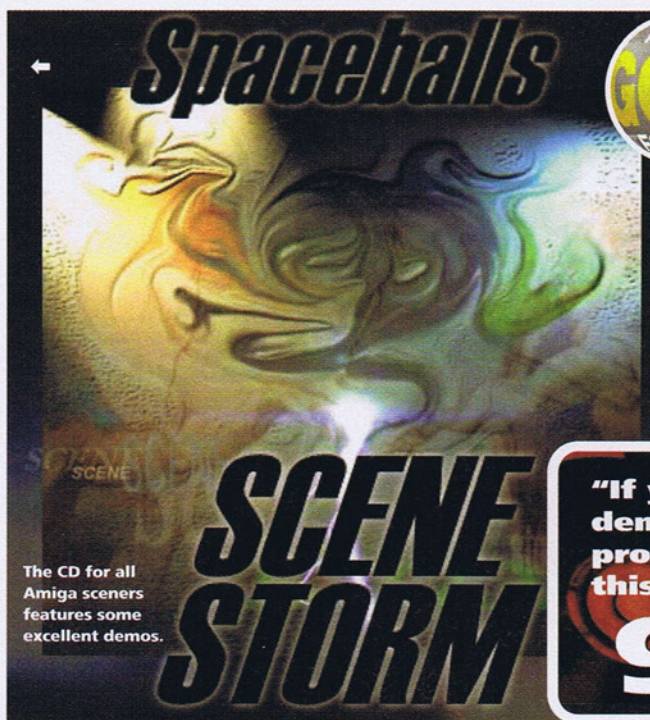
"There's a lot of fun to be had with all the icons and pictures"

82%



There are lots of sexy backdrops and new icons for *Magic WB*, but also some great programs.

Continued overleaf →



Spaceballs

←

SCENE

SCENE STORM

The CD for all Amiga sceners features some excellent demos.

AMIGA
GOLD
FORMAT

As well as demos there are music collections included.

largely original material. The demos have been collected from over 20 parties that occurred around the world over 1995/6. It ran flawlessly and just needed a quick assign script running first. The demos could mostly run from disc and each time you started one, you would be informed of any system requirements,

whether the demo multi-tasked and whether it was possible to exit the demo. This is much better than just running the demo immediately and then crashing because you're not running an adequate system.

Buying the CD gives you the right to three months of free downloads from the Digital Candy BBS and if you want to visit the BBS and find out more about the scene or the CD, then the modem number is 0191 232 5527.

"If you enjoy demos and neat programming then this is for you"

90%

JOHN PASTERNAK'S MOVIE MAKING SERIES VOLUME 1

■ EPIC MARKETING ■ 01793 514188 ■ £29.99

Every once in a while somebody comes up with the bright idea of making a multimedia CD that will teach you everything you need to know about something. Except that they don't. What they do is produce a CD which contains some CDXL video taken from an old video tutorial. They cut it all into bits and tell you that it's interactive because you can decide which bit to watch, when. What? Your VCR doesn't have fast forward?

Such shameless poor quality cash-ins are embarrassing. OK, so is this one any different? No. It's dreadful. It requires a minimum of an AGA with 4Mb RAM. I ran it on an 030 with 4Mb of Fast RAM and the jerkiness of the playback was distressing. Add to this the fact that there were some fiddly pseudo-VCR controls that gave you the fabled interactivity, i.e. you can see the footage, a film clip and details of what you need to do the stuff, and it's starting to look bad. The fact that the background on the film keeps changing colour around the quarter screen image and the jury has returned its verdict.

The actual ideas and films are useful to potential home film makers and the special effects are reasonably convincing (so I guess this CD is really Certificate 18) and if you manage to duplicate thanks to this CD, you'll be very pleased. It's just a shame you have to use this CD to get the info. Maybe someone knows where you can get the original video? Oh, and the warbled voice is really irritating too.

JOHN PASTERNAK'S MOVIE MAKER SERIES SPECIAL EFFECTS VOL:1

INTRODUCTION

MAIN FILM

DO IT YOURSELF

SAFETY FIRST

PRODUCT INFO

Does John Pasternak know that his name is being abused?



I cannot explain how poor the quality of the video is.

"An ideal present for a movie maker you really hate"

50%



NFA / SHARENESS PD PRESENTS

Nfa

AGA EXPERIENCE

The best part of AGA Experience 2 is the pictures, animations and demos.

AGA EXPERIENCE VOLUME 2

■ ACTIVE SOFTWARE ■ 01325 352260 ■ £19.99

What can you expect us to say about CDs like this? It is a general purpose PD/shareware CD covering every area. In terms of quality, this one pulls itself above the rest through the inclusion of different categories. As well as the usual utilities, there are also animations (although not that many), demos, slideshows and music modules. This is rather lucky, because the release of new utilities has become a lot less frequent recently.

Some of the utilities are new, others are just the best that have been around for ages (like *ReOrg*), while others are not quite the latest version (tut, tut) – e.g. *Virus Checker*. Likewise, some of the games are golden oldies, so most interest is generally to do with the creative stuff. It's an ideal library CD, but only if you don't have many other PD discs. By the way, in case you hadn't guessed, it's really for use with AGA machines although plenty of the programs will run on ECS.

"What can we say? It's a really useful variety pack of utilities and games"

82%

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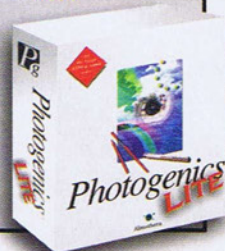
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Comparative MIPS performance figures measured using SysInfo. Each board had the appropriate SIMM fitted (required to activate accelerator).



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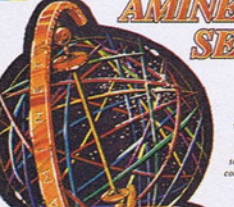
Amiga Computing "...If you want the fastest Amiga in the World, get this board." - 92% BLUE CHIP Rating

Amiga Format "...Ride on the fastest A1200 in the World..." - 95% GOLD Rating



A collage of various CD-ROM covers, including titles like '2050', 'RIS', and 'CD-ROM'. Overlaid on the collage is the text 'CDBoot 1.0' in large, bold, red letters with a black outline, slanted diagonally across the image.

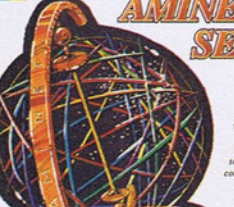

E-Paint





AMIGA

AMINET SET 1

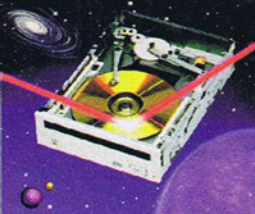
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CD-WRITE

What if you still can't write to your CDs?



AMINET 12

The magazine for all PC users
and all PC software reviews

June 95

AMINET

Raytracing - A fascinating area of the computer graphics. Pictures from the computer, perfectly rendered, fascinate people all over the world. The Amiga was the first computer to be used for raytracing and today it is still a leader, with many high quality programs. A real artist of raytracing is Tobias J. Richter from Cologne/Germany, whose detailed objects stun the people. Especially his space ships or famous science fiction films are used to demonstrate the capabilities of a raytracing program. The objects are highly detailed and extremely realistic due to the application of complex surface textures of the models. Until now it was difficult to acquire these objects in order to create ones own scenes or animations. **£29.95**

Aminet CD 12, dated June 1996, consists of approximately 1.1 gigabytes of software in 3800 archives. Since the release of Aminet CD 11 more than 710 MB new software has appeared. The current edition has a special focus on mods, more than 1000 music-modules from the internet were included. User friendly access software makes the Aminet CD 12 a pleasure to use. **£14.95**

NetNews Offline Vol. 1 is the first disk of a new bimonthly published series of Amiga CD-ROMs which contains all Amigo-related news groups from the internet. Every volume features about 50,000 articles which contain hot rumours, important information about all aspects of the Amiga, press-releases, discussions and flame wars, ... A newsreader is included. NetNews Offline is the cheap alternative of getting in touch with Usenet. **£14.95**



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Workbench

Life is full of mysteries and the Amiga is certainly no exception. Graeme Sandiford knows all about the quiet strength and willfulness of his favourite machine. So, send your queries to Workbench, *Amiga Format*, 30 Monmouth Street, Bath, Avon BA1 2BW.

AT HOME WITH A600

1. Is there a decent, cheap, five and a quarter inch, disk drive for the Amiga? I have a Commodore 64 emulator and I want to run the original games.
2. I want to expand my 1Mb Amiga A600 to 2Mb. What is the best upgrade on the market at the moment? I have a 1Mb A600, Kickstart 1.3 and Workbench 2.05. I have no external disk drives, no hard disk and no extra RAM. I have an Epson FX 850 Printer.
3. What is the difference between Workbench 2.05 and 3.0?
4. What is the best Word Processor for my Amiga and specifications?

Paul Bowen
Birmingham

1. Not that I know of. You'll find plenty of original games available from Public Domain libraries.
2. The best way to upgrade is to take your A600 to an Escom store dealers and get an A1200 at the special trade-in price, alternatively, if you have an original drive the A600 docs explain.

The A600 is singularly poor at expansion (beyond sticking an extra 1Mb in the trapdoor - which is what you should do), and any boards which I have seen were unreliable. By the way, you are quite unlikely to have Kickstart 1.3, as all A600s came with Kickstart 2 ROMs fitted. An

Amiga 600 has 1Mb of Chip memory as standard.

3. Workbench 3 added several new features to the desktop, but also saw the addition of useful concepts such as 'Datatypes' and more streamlining in the way Workbench was organised.

4. Using Blitz to type letters makes you a brave person, unafraid that other people may see you as a loony. The lack of memory and hard drive means that you cannot use the superb Final Writer and WordWorth programs. Instead you will have to raid the PD libraries looking for a good text editor, such as EdWord (which happens to be on the coverdisk of issue 63 of our pretty younger sister mag, *Amiga Shopper*).



Anyone with a pre-AGA Amiga should definitely take advantage of the upgrade A1200 offer.

MSDOS BOTHER

I have been given some disks by a PC owning friend (or fiend) which have several tracker MODS on them. Unfortunately, the disks have been archived/compressed using *MSBackup*. I wondered if you knew of any utilities that can restore these disks to the Amiga?

Ian Briscoe
Surrey

Although *MSBackup* uses its own proprietary method to store files, you can use a program called *PCRestore*. This is easy-to-use and PD and if you're a subscriber you'll get a copy on this issue's disk.

SWAP SHOP

I am the proud owner of an Amiga 600 with 2Mb of Chip RAM and an internal 2.5" 60Mb IDE hard drive. In the May issue of your excellent magazine I noticed that Escom were advertising a £150 trade-in on my old machine to a new Amiga 1200.

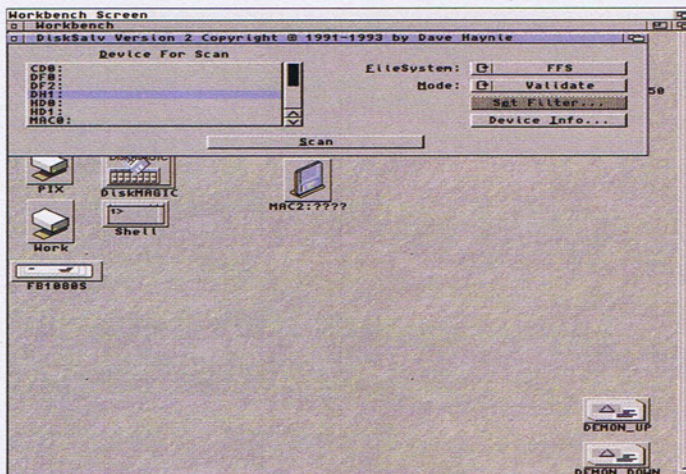
Seeing this as a brilliant opportunity to upgrade, I ran straight down to Escom. However, to my dismay the people at Escom seemed to know very little about Amiga's and don't even sell a version with a pre-installed hard drive. It is my plan to take my old hard drive and install it in a new A1200. My hard

drive is currently set up with two partitions, one with 6Mb containing Workbench 2.05 and another containing everything else. I also have a copy of *HDTToolBox*. My questions are these:

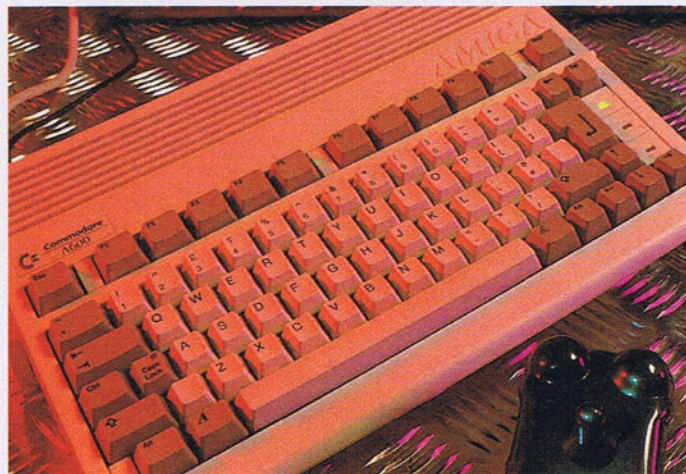
1. Will this be possible?
2. How do I install the new version of Workbench?
3. Will the 6Mb partition be large enough to contain the new Workbench?

I would be ever so grateful if you could help me out as I would hate to miss out on this opportunity to upgrade to a new machine.

Mark Bowler
Nottingham



If your hard disk is trying to commit suicide, use *DiskSalv* to save it.



Believe it or not, the A600 and A1200 both use the same type of hard disks.

Continued overleaf →

← Yes, the new hard drive should work without difficulty with the A1200. In fact, it should run slightly faster. The best way to install the new version of Workbench is to boot the A1200 from the floppy based Workbench disks, and then re-format the hard drive with a command such as:
 format drive hd0: name Workbench ffs quick
 format drive hd1: name Work ffs quick
 You'll need to substitute the name of your drive. If it isn't hd0: - try dh0: for example.

Remember to have backed up any important software from the drive to floppy first, as this will delete everything. You can now install the new version of Workbench. If there is no disk supplied to do this automatically (which there really should be), you can simply make sure you have selected everything on the Workbench 3.1 floppy (use 'show all' and 'select all') and drag the files over to the new, blank partition. Do the same with the Extras, Prefs and any other disks. Six megabytes will be ample, although if you want to enlarge it this is the ideal time - use HDToolbox before the formatting procedure.

LEAKY BOOT

I attended the World of Amiga show and took the opportunity to purchase a hard drive. I subsequently installed the drive in my A1200. The documentation stated that on following instructions, with Workbench already installed, the machine would boot from the hard disk. All I got on the screen was the logo requesting a Workbench floppy. There was no LED light from the hard disk.

Thinking the disk had not been installed with Workbench, I opened the case and checked the fitting again, this time I performed



This will be a familiar sight to those of us who have slow-booting hard drives, but it's nothing too serious.

a format and set two partitions, Workbench from backup.

On final booting I do exactly the same floppy request as before. I phoned the supplier and gave them all the details. They said they were well aware of the problem and indicated that on switching on the machine it was necessary to carry out the Ctrl./Amiga left/Amiga right key operation for the machine to boot from hard drive. They agreed that there was no information in the documentation on this requirement. The three key (warm reboot) did work. The drive is an IBM unit.

My question is, from what I have described, is there any input that would allow direct boot

from hard drive in the normal manner?

Mr L Smee
Middlesex

I have found that some drives simply refuse to boot from cold, and as you discovered, require a warm reset. The drives seem to take longer to spin up to speed, and by the time they are ready the Amiga has decided that there is no-one at home and tried to boot from floppy instead.

Some older drives work fine on an A1200 until an extra processor is fitted, and then require the warm reset to boot. It's a pain, and there often isn't a lot you can do about it.

I have discovered that some drives (Connor

ZIP ZAPPED?

I have a question concerning my Zip drive which I bought from Fourth Level Development. I use FLD Momiga software to control it. I have installed ImageFX software. When I boot up to Workbench, and the Zip disk with some of my programs installed on it isn't in the Zip drive, the computer displays a message asking me to place 'Grafik' (the name of the disk) in any drive, and then states that it can't find "grafik:ImageFX".

I suspect that has something to do with Assigns but I don't know what to do to avoid the Amiga asking for a disk which isn't present. I would be very glad if you could answer me.

Martin Berg
Sweden

When you start storing applications on removable disks, you need to be extremely careful about where you install the various files which it



These are hard disks in their native habitat. You'll notice that their lack of markings and cartridges distinguish them from their removable cousins.

requires. For example, when you install ImageFX it alters the user-startup sequence by adding some assign statements. These create shortcuts to the precise locations of the ImageFX directories and files. If you install the program on hard disk, this procedure works fine - however, try it on a removable disk and as you discovered, you run into problems.

The best way around this problem is to keep all your applications on the hard drive, and only store data (for example, pictures and animations) on the removable disk. This isn't a great solution I know, but when you start removing disks which are assumed to be permanently connected you must expect problems.

Let's say your program (let's call it 'SuperPlop') is installed on a removable disk (called 'Grafik'). When you examine the start-up sequence you may see something like this:

```
;BEGIN SuperPlop
assign SuperPlop: grafik:applications/superplop
assign SuperPlopPictures: grafik:applications/superplop/pictures
;END SuperPlop
```

Now these commands will work perfectly if you boot your Amiga with the ZIP drive present. However, if the disk isn't present the Amiga will display an error whilst booting and demand you replace device 'grafik'. There are two ways around this problem. The first is to remove the lines completely, and place them in a new file by themselves. When you want to run SuperPlop you can then insert the Grafik disk and execute this file.

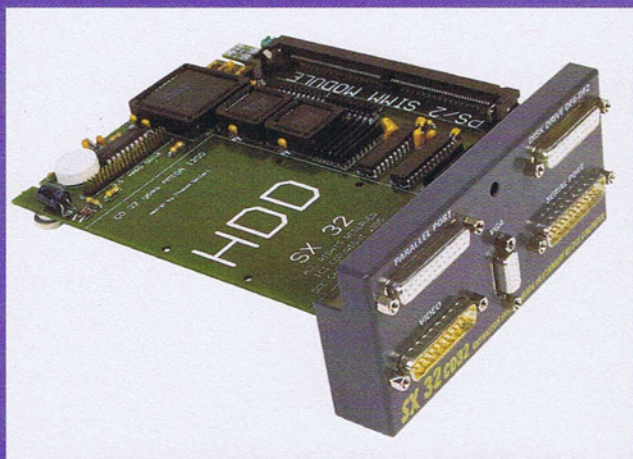
The second way is to add a little extra AmigaDOS to the assign statements, like this:

```
assign >nil: grafik: EXISTS if not warn
;BEGIN SuperPlop
assign SuperPlop: grafik:applications/superplop
assign SuperPlopPictures: grafik:applications/superplop/pictures
;END SuperPlop
endif
```

This will cause the assigns only to be executed if the disk 'Grafik' is present at startup time. Of course, if after booting with the disk removed you wish to run SuperPlop you will need to insert the disk and either reset the Amiga or enter the assigns by hand (or execute the file in which you have made a copy).

THE SX FILES

I have recently upgraded from an A600 to a CD³² with SX-1, 2 Amitek floppy drives, a Citizen ABC printer and a Goliath power supply. Could you please answer a few questions about my new set up:



The SX-32 is all the things that the SX-1 promised it would be. However, both expansions should be able to handle a 2.5-inch hard disk.

1. I am totally confused as to whether I can fit an internal hard drive. My SX-1 has hard drive connections internally, but a mate says I cannot fit a hard drive in there. Most 2.5" hard drives advertised in AF are for 600/1200s but some (like Gasteiner) say SX-1 as well. Do all 2.5" fit, only those advertised for SX-1, or is my mate right and none fit?
2. When I bought my CD³² setup I did not get any form of Workbench and my old copy was sold with my A600. Where can I get a copy of it?
3. Is it worth getting an SX-32 and getting rid of my SX-1?
4. I know you did so a couple of years back, but I think you should run a tutorial again on how to fit a hard drive into an A600, A1200 and the SX-1 (if you can fit one).

James Macleod
Grimsby

1. I don't know where your mate got his information from. The SX-1 can most definitely support an IDE hard drive drive through its IDE interface, but it was designed to accept them externally. Most newer 2.5" mechanisms will fit internally, but it is always worth checking with the supplier first.
2. It is tricky to know who to ask at the moment: Escom may have some lying around so ask in the local shop. Be prepared for blank stares though. Workbench has appeared on at least one CD-ROM, although I can't remember which. Ask Almathera as they will know.
3. Depends. If you only need the hard drive interface, then no - because you already have one, but see issue 84 of Amiga Format anyway for the full review of the SX-32.
4. I'll ask the editor. Please sir, can we do a hard drive fitting feature, sir?

mechanisms typically) have an extra set of jumpers marked 'CAM' or similar, and fitting or removing a jumper can make the difference. Sometimes removing the link to pin 1 also causes the drive to boot from cold - if you try this and it breaks your drive, please don't

blame me. All I am saying is that it worked on one disk I tried it with.

As a last resort you can create a boot floppy disk which loads, checks to see if the hard drive is present and then resets if it isn't.

DRIVE FOOL?

I have an A1200, Kickstart 3.1 Workbench v3.1 with 2 Mb RAM and a 2.5" 120Mb IDE

Continued overleaf →

DOUBLE DISK DRAMA

My son recently bought a second hand A1200 with a 120Mb internal SCSI hard drive and a Hawk accelerator fitted with 2Mb of fast RAM. We also have an A1200 with a 540Mb external IDE hard drive and an Apollo accelerator fitted with 4Mb of fast RAM.

On the 120Mb hard drive there was a large amount of software that he did not want while on the 540Mb there was a lot of serious software he did. We decided the quickest thing to do was to join the two hard drives and copy the required files over. Easy, I hear you say - not for us. We followed the hard drive manufacturers instructions, changed the names on the 120Mb partitions, gave it a boot priority of 1 and the external drive a priority of 2 and what happened? NOTHING - just a blank screen and nothing would load. We changed the priorities round and still nothing. Please tell me where we are going wrong?

Following this we decided to fit a null modem cable between the serial ports and use SerNet from the PD library. After many hours and following the various instructions we finally managed to get the two machines on line in as much as we could write on one machine and receive the message on the other but still could not transfer files.

Finally, in desperation, we gave up and copied approx. 70Mb of information off the original floppy disks and yet it took ages. Please tell me where we are going wrong.

R Good
Nuneaton

A slight degree of confusion here. First of all, are you completely sure that there is a SCSI hard drive in the A1200s? Have you fitted an internal SCSI interface? Remember that although HDToolBox says the internal disk drive is using the SCSI device, it isn't. It's an IDE device.

You can only use SCSI drives if you fit an extra, third party SCSI interface to the A1200. I'm therefore assuming it's actually an IDE mechanism.

I'm also assuming that when you say you

'connected the drives together', you plugged the external drive into the A1200 fitted with an internal drive. In theory this should have worked: with no need to mess around with boot priorities or anything like that. You can hold down the two mouse buttons at switch-on time to select the drive to boot from.

However, it sounds as though for hardware reasons the Amiga doesn't like having the two drives connected at once.

You did the next best thing, using a null modem lead. SerNet works (although slowly) and the fact that you were able to send and receive messages proves the cabling worked. The next step would be to check the client/server status of the SerNet setup, and check that you had actually mounted the remote drives as devices. Sounds complicated? It is, which is why I would normally recommend using a utility called 'ParBench' instead. This disk (available from all good PD libraries) installs ParNet (so you need a parallel cable instead of the serial cable) and makes it a doddle to use. It also works much faster than SerNet.

Remember though that with a null modem cable connected you are free to use a terminal emulation program such as Ncomm or Term to transmit and receive files using Zmodem. This is much less hassle than using floppies!

You don't have to splash out on a networking system to transfer files - you just need a null-modem and a comms package.

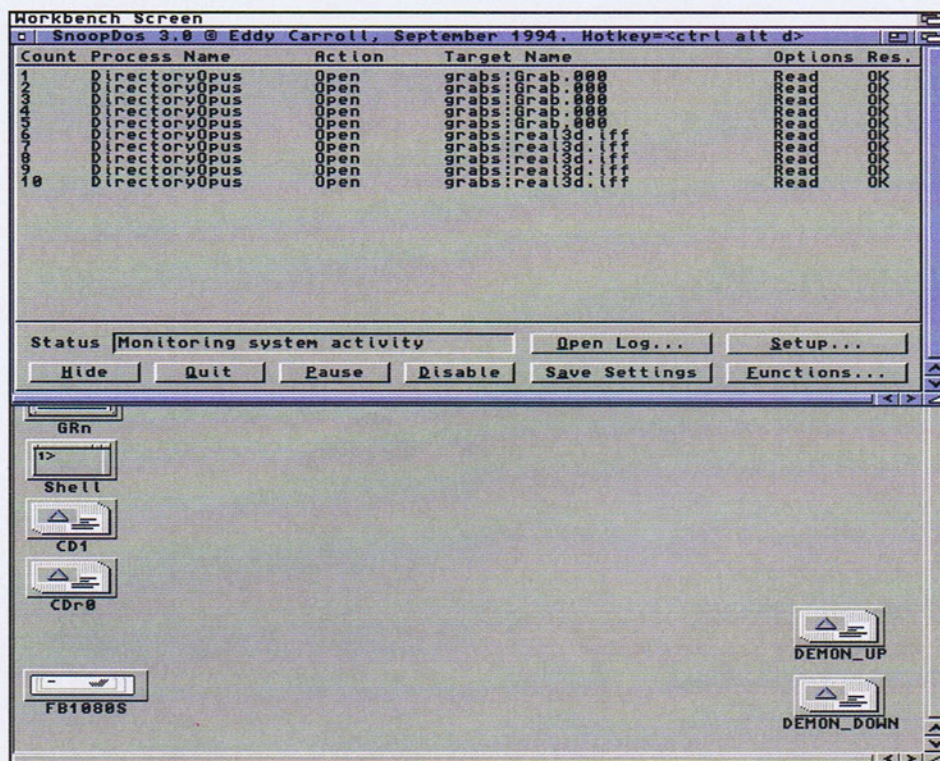
NComm v1.92 Copyright © 1988, 1989, 1990, 1991 Daniel Bloch & co.

Unable to open NComm1.font
Unable to open NComm2.font

CONNECT 28800/AR Dialing ...

Number: 981812961255
Speed: 38400
Comment: (none)
Script: (none)
Config: (none)
Macros: (none)
Retries: 0
Next: (Select from menu)
Esc/Abort Space/Next Del/Remove

support



Even Scully and Mulder would have to admit that SnoopDOS is the tops for investigating strange goings-on where Amigas are concerned.

IF YOU HAVE A QUERY...



Graeme Sandiford

At Amiga Format we aim to answer as many questions as possible. Unlike some magazines, we don't just concentrate on our areas of expertise - we take on all your problems (as long as an Amiga is involved). Here are a few tips on sending in questions:

- Be concise.
- Detail the actual problem as best as you can.
- Describe the events that caused the problem.
- Give full details of your equipment.
- Make sure your question is relevant and wouldn't be more easily solved by contacting the dealer from whom you bought the goods.

Bear these points in mind and fill in, photocopy, or copy the form below as best you can.

Send your letters to Workbench, Amiga Format, 30 Monmouth Street, Bath, Avon BA1 2BW.

Your Amiga:

- ☐ A500 ☐ A500 Plus ☐ A600
☐ A1000 ☐ A1200 ☐ A1500
☐ A2000 ☐ A3000 ☐ A4000

Kickstart version:

- ☐ 1.2 ☐ 1.3 ☐ 2.x ☐ 3.x

Workbench revision:

- ☐ 1.2 ☐ 1.3 ☐ 1.3.2
☐ 2.04/2.05 ☐ 2.1 ☐ 3.0

Total memory fitted _____

Chip memory available _____

Extra drive #1 (3.5in/5.25in) as DF: manufacturer: _____

Extra drive #2 (3.5in/5.25in) as DF: manufacturer: _____

Hard disk: _____ Mb as DH _____

Manufacturer: _____

Extra RAM fitted - type, size (Mb) and manufacturer: _____

Details of other hardware: _____

Quantum hard disk drive from Gasteiner. I have two questions:

1. My work partition on the hard drive is only 17% full out of 96Mb, yet I cannot install games such as *EOBII* and *Syndicate*, which need 3.5Mb free - although it seems that other programs can be installed. What is going on?

I have installed all the programs that came with the Magic Pack plus a few extra utilities and also *Colonization* and *Worms* successfully.

2. I found an AGA fix for *Jimmy Whites Whirlwind Snooker* on Coverdisk 52a but when I loaded it up I only got a screen full of bright colours that became one colour when I clicked the mouse and did not do anything at all.

Am I meant to wait for a long time or does it not work with the new A1200? Please help me as one of the reasons that I purchased the drive was to avoid disk swaps in games like *EOBII*.

Shane Harry
Salisbury

1. You may have loads of space on the Work partition, but maybe the games are trying to install on the Workbench partition. Obtain a utility such as SnoopDos to see where they are writing files. They may be trying to copy new fonts or libraries, and the default location for these is Workbench.

2. AGA fixes don't always work, as often many versions of original games exist. Be careful with them. Have you tried the options from an earlier letter, using ReloKick and other utilities?

UPGRADE PROBLEMS

I recently upgraded from the Amiga 500 to the Amiga Technologies' A1200. As we now know there is a problem with software compatibility with the internal drive.

I have quite a few games that have built up over the years since the A500 came out, when you pay £20 to £30 for software you expect it to work on the machine that it is made for. So faced with the problem of losing 50% of my favourite programs I have tried some different ways to save some of them.

The list below are some ways to help your readers get some of the software to work:

1. If a high density disk has been used then tape up the left hand slot, as the disk drive doesn't recognise HD disks.
2. If you have an external disk drive try booting from there. Hold down both mouse buttons on boot up, select boot options.
3. Try changing to the original chip set, as above but select display options.
4. Try loading from Workbench if it is a DOS disk. Double click the icon. If there is no no icon select 'show all' from the pulldown menu and double click on the main program file.
5. Similar to the above but using Directory Opus double click on main programme file. If it works try adding an icon and load from Workbench.
6. Use a degrader like ReloKick 1.3. This has quite a good success rate.

Using the above methods I reckon I am getting about 75 - 80% success. If you get some extra fast RAM this percentage will go up.

Here are some titles that run with ReloKick:

Seek and Destroy
Lancaster
Silent Service
Fields of Glory ECS
Africa Korps
Dass Boat
Blitzkrieg May 1940
Vulcan
Action Stations

R Finlay
Tyne and Wear

Thanks for your suggestions, I'm sure many readers will benefit from them. Remember though that not all of the problems (and subsequent solutions) you describe are due to the new floppy disk drive Amiga Technologies have used in place of the original Commodore device. Most of the problems (all those solved with ReloKick for example) are due to differences in the Kickstart ROM and will affect any A1200 in the same way.



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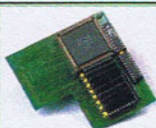
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Oki ML182/183/192/193/195	3.17	3.02	2.82	2.62		Star LC24 - 10/20/200	9.63	9.48	9.28	8.88	
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Amiga.net

Introducing Miami...

One of the things that makes the Internet so useful is the flexible way in which the protocol used by every Internet application (TCP/IP), can be adapted for a huge range of purposes. This very flexibility also makes developing new Internet applications troublesome and, more importantly, can make TCP/IP a tricky system for the end user to install and get to grips with. When you first get an Internet account with an Internet Service Provider (ISP), you are given a number of (at first) meaningless IP numbers and domain names, and it can be a real struggle to discover where to put these in terms of the setup of your Internet software.

For a long time the only real choice if you wanted to get your Amiga connected to the Net in the proper way using TCP/IP (there are other methods, but all of them unsatisfactory) was to run *AmiTCP*. Now don't get me wrong here, *AmiTCP* is a very flexible implementation of TCP/IP and I've been using it for years myself, but one thing it isn't is easy to install. Sure, ISPs, such as the ubiquitous Demon Internet who support the Amiga, have always provided an installer script to get users of their system up and running relatively painlessly.

Darren Irvine takes a look at a new Internet TCP/IP stack that looks like giving both Amiga Technologies' new system and the old favourite *AmiTCP* a run for their money.

Other ISPs have not been so forthcoming, and one of the questions I get asked mostly frequently is "how do I set up *AmiTCP*". Unfortunately it's not a particularly easy question to answer quickly, but if you turn to our new tutorial on page 90, it'll give you some hints on getting started.

The new system provided by Amiga Technologies is of a similar nature to *AmiTCP* – countless text files that must be updated by hand if you want to tweak your TCP/IP setup. Although both these systems mirror fairly closely the original implementation of TCP/IP (on Unix) they certainly don't win any prizes in the user-friendliness stakes.

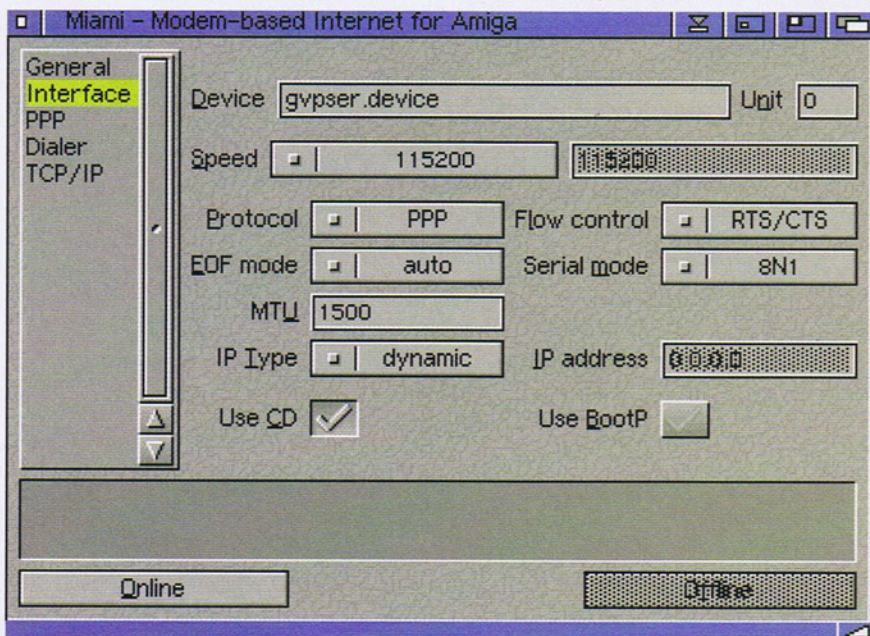
MIAMI

Although my own *AmiTCP* system is fairly stable, I was still very interested to hear about a new

TCP/IP implementation for the Amiga which uses a GUI based system to control all of the relevant TCP/IP parameters. The new system is called "*Miami*" and is due for release sometime in June or July, and so may well be available by the time you read this.

The configuration is to be completely GUI-driven, with no fiddly environment variables to set up or configuration files to edit. It also incorporates its own phone dialer (something which always had to be obtained separately from *AmiTCP* and fiddled with separately too) and supports both SLIP and PPP type Internet connections.

Installation is handled by a separate program, called *MiamiInit*, which is said to be able to automatically configure *Miami* for your respective Internet Service Provider. And since *Miami* has been designed to specifically replace *AmiTCP* (and also the older Commodore AS225 system) most of your existing *AmiTCP* compliant client and server applications should still work under the *Miami* TCP/IP stack. In theory at least, installing *Miami* on top of an existing TCP/IP setup should be a relatively straightforward operation, and shouldn't affect the operation of any Internet applications you are already using. Similarly, *Miami* should be



Miami offers all the functionality of traditional TCP/IP stacks such as AS225 and *AmiTCP*, but with a modern looking GUI based control and implementation system.

(L)USER OF THE MONTH

I was going to give this award to the sad loony who was advocating the use of special HTML tags in Web pages to stop them being read by people browsing using Microsoft's Win95 program *Explorer*, but, as usual, even this pathetic nonsense was out-saddened. A certain Leon Blackwell posted a message (under a thread title of "Telepathic Bond between Amiga Users") suggesting that you couldn't rightly be considered a "hardcore" Amiga user unless you were a slavish fan of either *Star Trek* or *Babylon 5* – preferably both. The sad thing was that he appeared to approve of this fact. You know Leon, some of us manage to use our Amiga's without a regular *Star Trek* fix.

fairly simple to install as your first time Internet TCP/IP system.

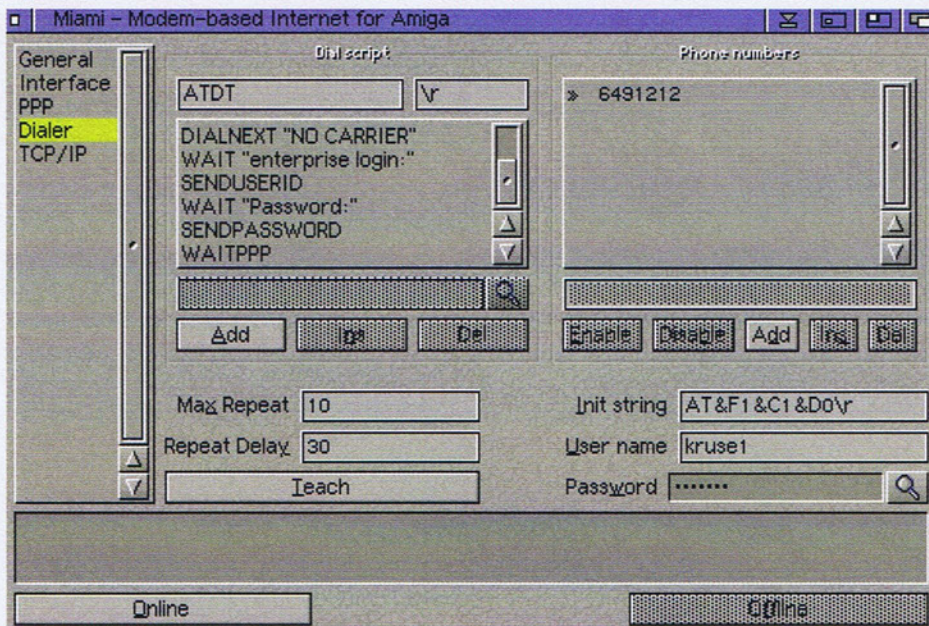
EXTRA FEATURES

In addition to simply providing an easy to use alternative to *AmiTCP*, *Miami* also comes with a number of add-ons, such as an estimated phone-bill display, support for multiple ISP phone numbers and setups, and even a built in Domain Name System (DNS) cache. Although features like these have always been available to run under *AmiTCP*, they have had to be obtained and installed separately, with no guarantee that installing a new piece of TCP/IP related software won't screw up the rest of your system, resulting in lost hours (or days) as you try to get things back to the way they were before.

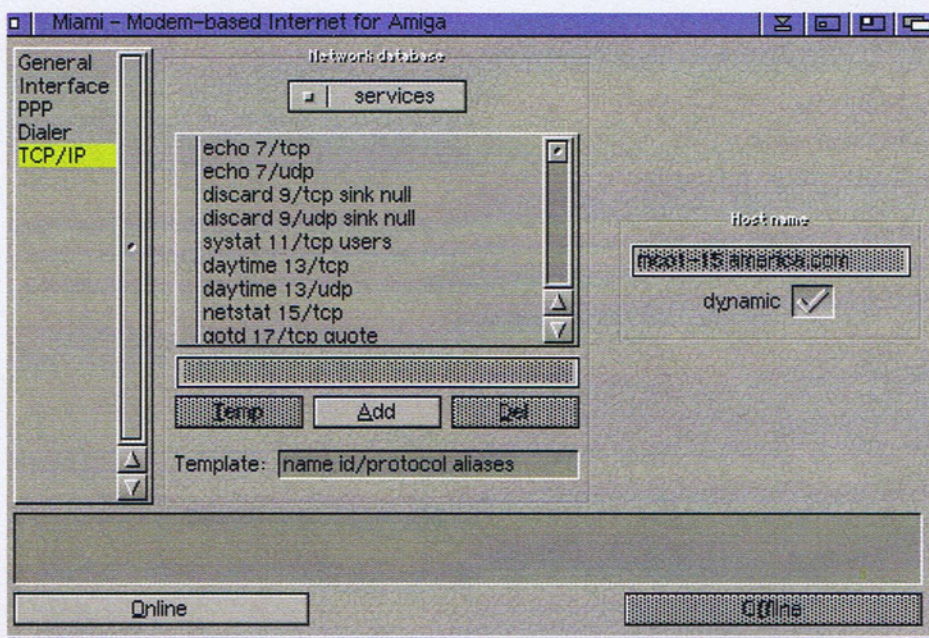
THE DOWNSIDE

Well, of course there is always a downside, and rather predictably for such a graphical system, *Miami* requires version 3.3 of *Magic User Interface* (MUI) and so, if you're one of the born-again *MUI* haters, you'll probably stop reading about now. That of course leaves the rest of you to consider that probably using *MUI* isn't too bad (it means nice features such as full drag-and-drop support and context-sensitive help bubbles among other things), and you can get around to considering *Miami*'s other big drawback – it costs money. Admittedly not a lot of money – the registered version costs \$40, and a time-limited demo will also be made available, so that you can see if it's suitable for your needs without shelling out the cash.

To sum up then, it's possibly slightly too early to say whether or not *Miami* will be worth it's registration fee (there are a number of other replacement TCP/IP systems expected to be announced very soon) compared to the old *AmiTCP* system. And certainly, it will need to be exceptionally good to persuade users of the new Amiga Technologies to pay money for an easier to use version of something they already have. As with the development of Amiga Web browsers, the once mostly static area of Amiga TCP/IP stacks is starting to become hotly contested, and over the next few months the overall winner will emerge. Whatever the outcome, all this activity is very good news for the Amiga Internet user.



Setting up your dialer script is also done under GUI control – this means no more endless mucking around with multiple files to edit.



Even the individual TCP/IP services can be modified using the *Miami* GUI, making adding support for new Server processes extremely simple.

RUMOUR MILL

The original plan was for Rumour Mill to bring back some cutting and incisive news from the World of Amiga Show. Due to circumstances beyond the control of Rumour Mill (the free bar) this will no longer be possible. Rumours of possible extremely dubious behaviour by Rumour Mill's own field operative cannot be printed here for reasons of security (and embarrassment). Instead, here's a couple of pictures of Amiga.net's Darren Irvine engaged in some "networking" with some "notable" people on the Amiga scene.



"I explain to former editor and now Team 17 person Marcus Dyson that, although still fat, my stomach used to be this size"

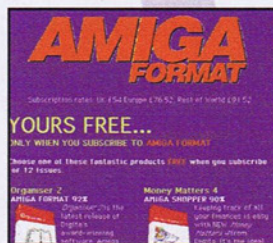
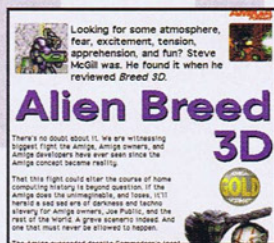
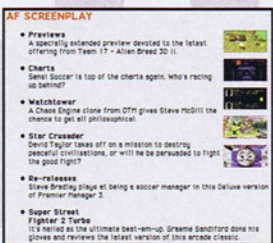
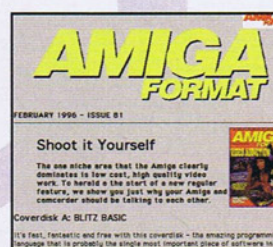
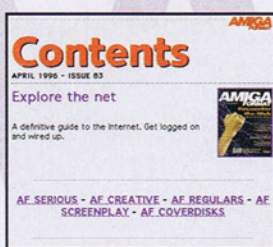
"So Nick, when we print this picture, do you think he'll still deny being ugly?"



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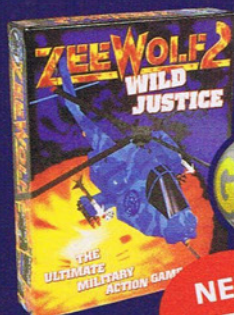
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NEW OFFERS



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AMIGA FORMAT 93%

If you've got an A1200 then you positively *need* this game. Tension, excitement and rock solid gameplay. A classic, matey!



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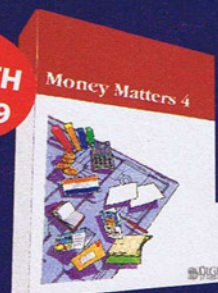
ORGANISER 2

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Organiser 2 is the latest release of Digita's award-winning software. We gave it a stonking 92% in the February issue and gave you a time limited working version to sample on the coverdisk.

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Communicator III

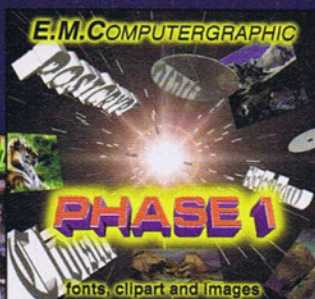


If you have a CD³² and an Amiga with Communicator, you can use your CD³² as a CD-ROM – and it brings many new features, including AGA Viewer (view CD pictures and animations in 16.7 million colours), Virtual CD (select which menu the CD boots with) and more. Comes with software and leads to connect to the serial port.

Communicator needs at least 1Mb Chip RAM and Kickstart 2 or 3.

Description	Communicator III		
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Phase 1, 2 and 3



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Gloom

Top of the A1200 chart for a long time and given a well-deserved Amiga Format Gold award, Gloom is an excellent, atmospheric and darned frightening shoot-'em-up.

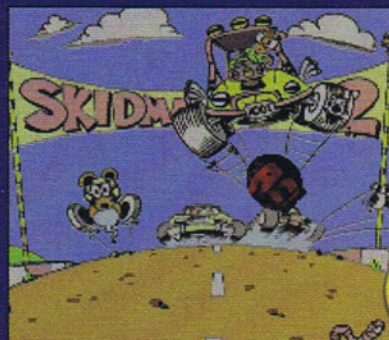
This first person perspective game takes you roaming through levels, maps, mazes and secret rooms and, to spice things up, you get to blast your way through ghoulies, devils, general nasties, weapons, blood and gore.

This is the Doom-clone the Amiga has been eagerly waiting for.

You definitely don't want to miss this one. Get it today!

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Super Skidmarks



An Amiga Format Gold with 92% in issue 71, Super Skidmarks was described as "the best driving game in its class ever seen on the Amiga".

This is a racing game that's all about control, skill, timing, confidence, aggression, instinct and ability. A test of yourself against your friends and fellows. Add it to your collection as soon as humanly possible!

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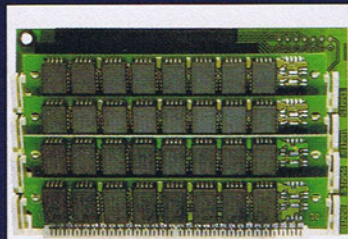


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Your Amiga will always know what day it is with this handy device which sets the correct time and date. The Turbotech Clock Cartridge simply fits into the disk drive port (or on the back of your second drive). Comes complete with software. Save £2 off the recommended retail price.

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A600 version shown

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A collection of database, spreadsheet, graphics and word processor programs from Europress that you shouldn't be without. It can be especially useful if you are planning on setting up, or already have a small business.

NEW!

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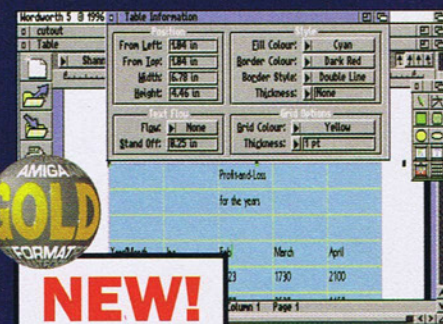
WORDWORTH 5

This new version of the Amiga's most popular word pro is ideal for both home users and professionals. This is much more than a program to write letters - it's a complete document design package with a range of new features including drag and drop style sheets.



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WORDWORTH 5SE

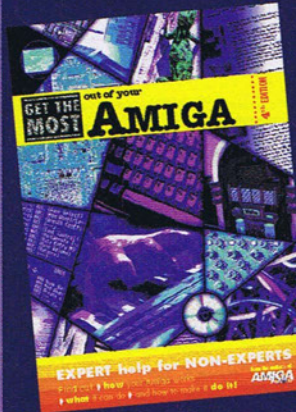


The Wordworth 5 Special Edition will appeal especially to users who don't really need the complete range of features offered by Wordworth 5. It's a slimmed down model at a reduced price but it still contains all the important additions that set it apart from the previous version.

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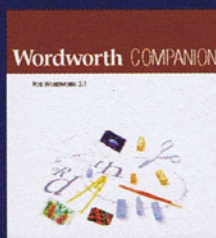
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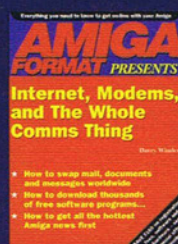
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Wordworth Companion

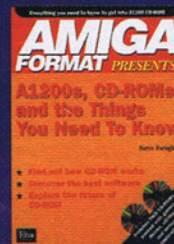
This guide was written with the full support of Digita International. It contains in-depth explanations of every aspect of the software and includes a bonus disk packed with fonts and clip art.

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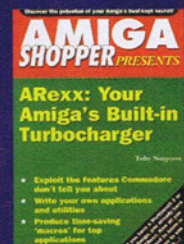
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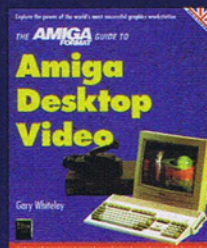
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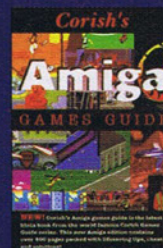
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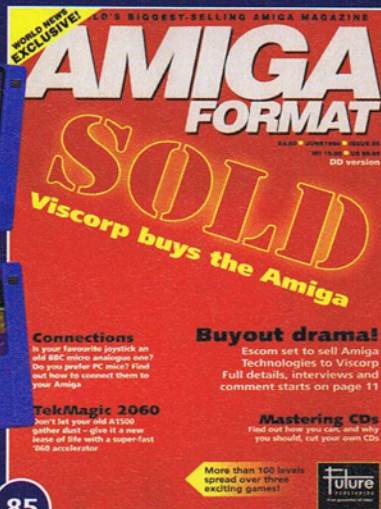
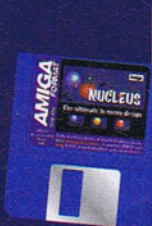
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Amiga Technologies sold again!
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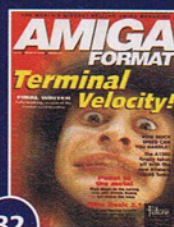
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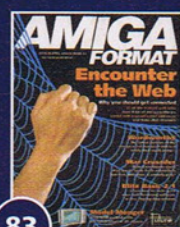
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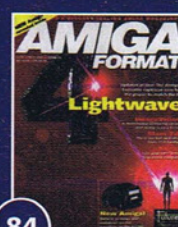
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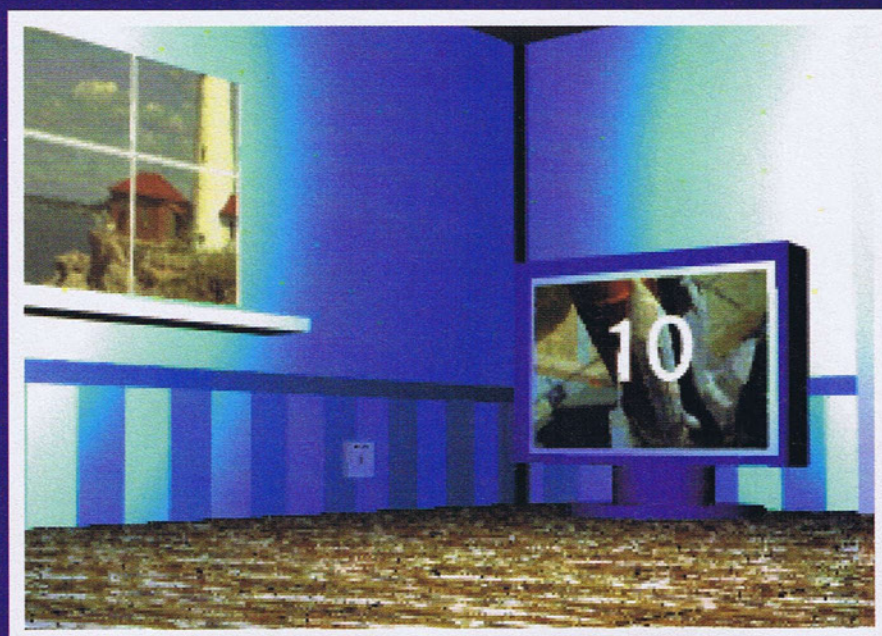
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4F CREATIVE



It's tutorial number 10 and we've moved on to creating household appliances to put in our re-created living rooms. Join John Kennedy ...p96



TUTORIALS



Nick Veitch

We've introduced two new tutorials for you this month. We've had loads of letters from people requesting information on how to get connected to the Internet, via their Amiga.

Darren Irvine is our resident expert in this area so this month he introduces the first in a new series of tutorials devoted to getting started.

Our second new tutorial deals with mathematics. **Paul Overaa** has created a program in ARExx which can solve complicated simultaneous equations. So if you've been pouring over your maths text books and you're looking for some help then we may have the answers.

90 INTERNET TUTORIAL

Amiga.net has always been a valuable source of information for those connected to the Internet, but what about people who have yet to get on-line? **Darren Irvine** goes back to the very beginning with some advice on obtaining AmiTCP.

93 AREXX

Many people wince at the thought of tackling simultaneous equations but **Paul Overaa** has created a program that can solve them for you.

96 REAL 3D

John Kennedy wasn't happy with the decor in the room he created last month. Join him on an interior design course with Real 3D.

100 BLITZ

Well it looks like we finally got there. **John Kennedy** introduces some Blitz code for parsing HTML documents.

First Steps with AmiTCP

Darren Irvine gets back to basics and looks at how to get and set-up basic Net software.

Our Amiga.net series has dealt with some of the software available for the Amiga Internet user, but there may be some of you who aren't sure how to get started using the Net, and this series is for you. Although as mentioned in this month's Amiga.net, there are a number of new systems becoming available to let you connect up your Amiga, the old favourite *AmiTCP* is still the tried and tested method.

As well as the *AmiTCP* software itself, you'll also need to get hold of a dialer program such as *Dialup* which will, as the name suggests, actually call your ISP and make your connection to the Internet. There are a number of dialers available, all with slightly differing syntax. Although the example setup here uses *Dialup*, you can use whichever your ISP supplies you with or you can get hold of. Since you'll almost certainly want to use the Web, *AMosaic* also has to be obtained separately. See the boxout for details on where all these programs can be obtained.

GETTING STARTED

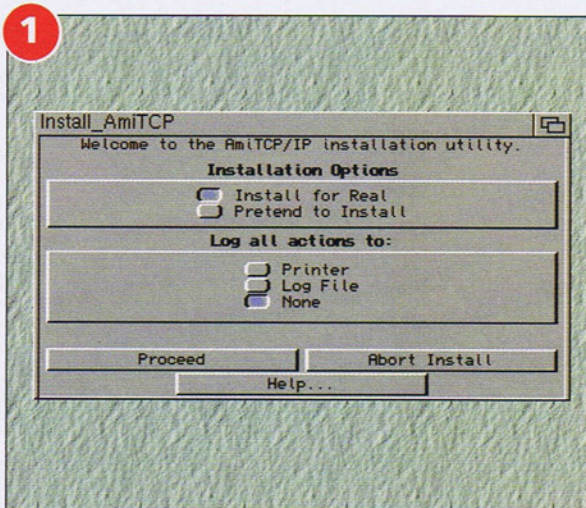
AmiTCP is available as several different releases, with the latest being the commercial version 4. Since hardly any software currently requires version 4,



This month's CD contains all you need to get started on the Net, including a one month trial with FirstNet.

Select a sensible place to install - I'm using RAM: here so as not to mess up my existing setup.

Well - here we go. Time to bite the bullet and get started.



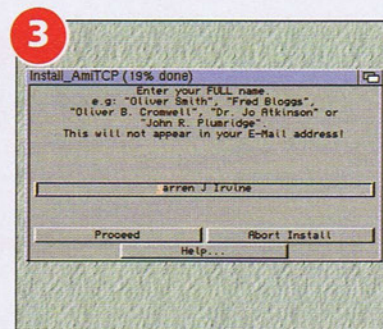
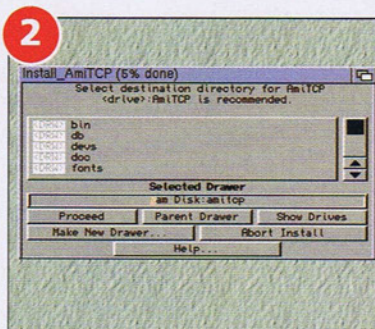
CHOOSING AN ISP

A few years ago this choice would have been a simple one, if only because there were so few ISPs to choose from. Now, with new service providers popping into existence on an almost weekly basis, a bit more thought has to go into making your mind up.

There are a number of factors to consider before making your choice. The most obvious of these is to try and pick an ISP within a local call distance of where you live - given the number of ISPs this is becoming easier. Also try and choose the service which looks like being the best value for money. On the other hand, it may well be worth

paying slightly extra for an ISP with a good reputation for reliability - asking people on the local comms scene for advice will come in handy here, since ISPs quickly acquire a good or bad name in this area.

Other factors that may play a part in your decision are whether or not the ISP supports the Amiga (and it has to be said here that most don't). If you are interested in having your own pages on the Web, you should also find out which ISPs offer the best deal in this area (some offer a certain amount of space on their Web servers for free, whilst some charge a small annual fee).



Supply your real name as you would like it to appear when you send email to people.

and it has a number of annoying nags built into the unregistered version, it is probably best to start off installing the non-commercial version 2.3 (or the beta of version 3 if you can get hold of it). After you have downloaded the software or obtained it from your ISP, unarchive the *AmiTCP* archive to RAM: or a temporary working directory. Now create a directory on your hard drive where you want the *AmiTCP* system to live - calling it "AmiTCP" wouldn't be a bad idea. Now, we're finally ready to get started - in case you hadn't worked it out already, click on the icon marked "Install AmiTCP".

ALL THOSE NUMBERS

Although the number of questions asked by the *AmiTCP* installer isn't great, if you've never seen them before it can all seem extremely confusing - asking about IP number this and SLIP connection that. Fortunately almost all of the questions asked are answered with details that will have been supplied

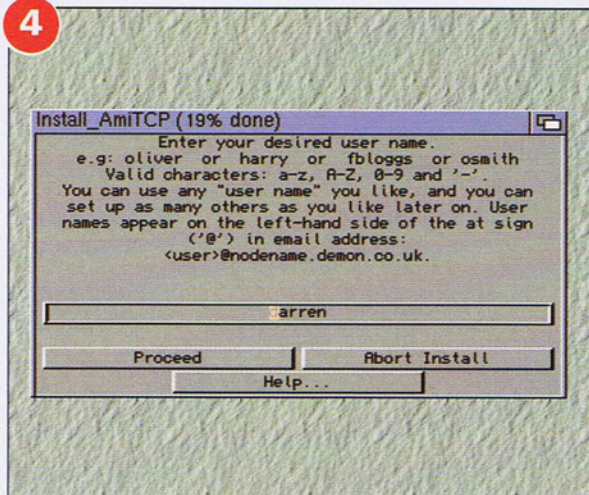
to you by your ISP - it's just a case of getting them in the right order.

The most important of these is your Internet Protocol or "IP" number. This is a series of four numbers separated by decimal points. Since you will be using a modem connection, you will also need to know whether your ISP supports the use of SLIP or PPP. This fact determines which driver you select. You will also have been given the IP number of the computer belonging to your ISP which is the Destination Address for your system. This all seems like a lot of jargon, but have a look at the screenshots and everything should become clear.

AND ODD NAMES AS WELL

The details that you will have been given by your ISP will also include various names, again interspersed by decimal points. You will probably have decided on a "Host" name for your

4



computer itself. This is the part of your Internet address that goes in front of the ISP's own "Domain" name to form what is known as the "Fully Qualified Domain Name" or FQDN. In my case, my Hostname is "plasma" and the Domain name is "TheGAP.com", giving a FQDN of "plasma.TheGAP.com". This, along with my default username (which you will also have to supply in your setup) forms my complete Internet email address of:

darren@plasma.TheGAP.com

If your account is with Demon, your address will be something like:

username@someoldsystem.

demon.co.uk

Other ISPs will give you email addresses based on your username, your hostname, and their domain name. You will have been told by your ISP the FQDNs of their "Name Server" and you should enter this when prompted.

Once all these details have been entered, you have to make a choice as to where they will be stored – whether to store files representing the environment variables in ENV: or whether to make changes to your S:USER-STARTUP file. Personally I prefer the latter, as it makes it easier for you to see exactly what is going on.

This name determines part of your actual email address – the part that comes before the "@" sign.

And this bit determines the rest of your email address – this is the name for your system which you will have agreed with your ISP.

GETTING CONNECTED

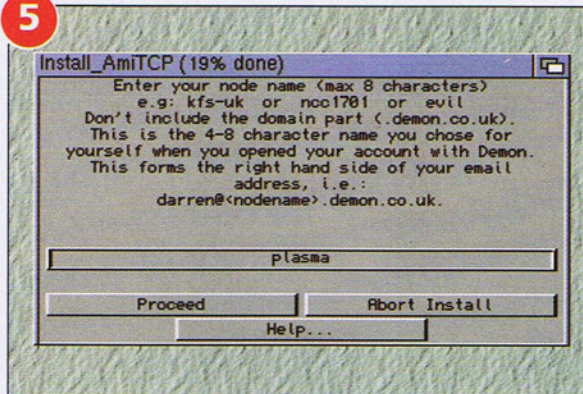
After installing *AmiTCP*, you should copy *Dialup* (or whichever dialer program you are using) to your C: directory, and create a script file to get things up and running. I have called mine "Genesis" since that is the name of my ISP, and the file contains the following:

```
echo "Calling GENESIS" dialup
pw="*****" lin="plasma-du"
pn="ATDT01232560551" echo
"Waiting for Connection" wait 5
echo "Starting AmiTCP" run >nil:
nil: online rhlip.device 0 echo
"Here we go...." run startnet
```

One or two things probably need explaining here. The second and third line tell *dialup* which phone number to call and what to use for a login name (lin) and password (pw) – these will be given to you by your ISP. I've rather cunningly blanked out my password here – obviously you should type in your actual password rather than asterisks. If you are using something other than *Dialup* you should substitute it in this line – check the documentation that comes with your dialer to find the exact syntax to use.

The sixth line runs the *AmiTCP* program "online" and activates the driver which I'm using – in this case *rhlip*. If you're using a different driver such as "ppp", substitute it here as

5



JARGON

BROWSER – A piece of software used to navigate the World Wide Web by displaying the Hypertext pages and allowing the user to select any of the links displayed.

DOMAIN NAME – The text equivalent of an IP number. When you access an Internet site via its name, behind the scenes this name is translated into the IP Number by a computer belonging to your ISP known as a Name Server.

IP NUMBER – The 32-bit number representing the "address" of a particular computer on the Internet. You will need to know the IP number of your own machine, as well as the machine belonging to your ISP that is to act as your gateway to the Internet.

GETTING HOLD OF THE SOFTWARE

AmiTCP software is widely available on the Internet, but you can't get hold of it until you're on the Internet, and you can't get on the Internet until you get hold of the software. And so on. Fortunately, most ISPs will be only too happy to download the software for you – if they aren't then you'd probably be better off taking your custom elsewhere. Alternatively, many Amiga related BBS will have the archives that you need. They also appear in the Comms drawer on this month's CD.

If you do have another Internet account to get hold of the software, the addresses and paths you need are:

AmiTCP

src.doc.ic.ac.uk/pub/aminet/comm/tcp

Note that both versions 2.2 and 4 are available in this directory

Dialup

src.doc.ic.ac.uk

[/pub/aminet/comm/net/Dialup14.lha](http://pub/aminet/comm/net/Dialup14.lha)

AMosaic

max.physics.sunysb.edu/pub/amosaic

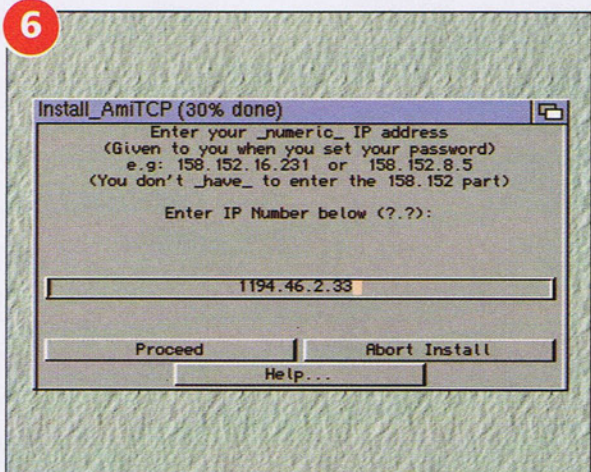
appropriate. In the case of some dialer programs, this line will be integrated with line three – again check the appropriate documentation.

The last line actually starts up the *AmiTCP* system. The script "Startnet" is created by the installer and resides in AMITCP:BIN. If you have any problems it's always a good idea to have a look in here and make sure all the various IP numbers have been set up correctly by the installer – feel free to modify them by hand using an editor if they appear to be wrong.

CONCLUSION

Once you get *AmiTCP* up and running, you'll need to get hold of the software to handle such things as Email, Usenet News, and of course, Web browsing. Over the next few months, we'll take a look at the various choices to be made in these areas and how to set each type of application up on your system.

6



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Simultaneous Equations

Remember being given loads of simultaneous equations to solve at school? I do! But at school most of us are only ever involved with fairly small equations, e.g. having to solve for two unknowns like this...

$$(1) 2x + y = 7$$

$$(2) x + y = 3$$

In this example by subtracting equation (2) from equation (1), and then back-substituting the first x value obtained, it's quite easy to work out that the solutions are....

$$x = 4 \quad \text{and} \quad y = -1$$

Two unknowns are fairly straightforward, but now try it with half a dozen or more unknowns and you'll soon see that the work involved grows. This is why so much effort has been put into techniques which are suited to computer based solutions and it's just one of these methods that I've programmed.

Fortunately, you don't need to understand how the program works in order to use it. So, if you'd rather skip the 'mathematical basis', and just concentrate on learning how to use the program – then read on but ignore the boxout that deals with the maths.

SOME MODERN NOTATION

In order to use the program you do need to be familiar with a particular sort of notation. In a nutshell you need to be able to enter your equations using matrix form and here's how it's done: First look again at the example given earlier...

$$2x + 1y = 7$$

$$1x + 1y = 3$$

To produce a 'matrix form' just remove the coefficients from the 'x' terms and place them in a left-hand-side coefficients array. Then do a similar thing with the x's and the right hand side coefficients so that you end up with this type of thing...

$$\begin{array}{c|cc|c|c} & 2 & 1 & | & x & | & 7 \\ & & & | & & | & \\ & 1 & 1 & | & y & | & 3 \end{array}$$

Mathematicians often write such equations as a general form $Ax=b$, so following this convention I'm going to be calling the left hand coefficients matrix the 'A' matrix – and the right hand side matrix the 'b' matrix. It's

A set of simultaneous equations with three, four, or a dozen unknowns, would you know how to solve them? Your Amiga could and Paul Overaa has written a utility which performs this task automatically.

convenient to identify the individual elements of the matrix, i.e. the individual numbers present, by using a subscript notation. With this arrangement the top left element of the 'A' matrix in our example is called A(1,1) and the bottom right element A(2,2). Similarly the top element of the 'b' matrix is b(1,1) and the bottom element is b(2,1).

THE PROGRAM AND HOW TO USE IT

The program, when it runs, will ask you for the dimension of the simultaneous equation system you wish to solve. This is the number of variables involved. For

the earlier example it was 2, for the equations I'll be looking at in a moment there are four equations with four unknowns – so this will be a four dimensional system! Once the terms of the equations have been put in the program prints the input data and then makes a first 'estimate'. In many cases this will be exact, but on other occasions it may be necessary to make two or three additional attempts.

How do you tell when you've got a reasonable solution? Some equations are difficult to handle because the equations themselves are mathematically awkward, or because the coefficients have come from experimental data which is itself subject to error. Either way the resulting 'ill-conditioned' equations are a pain to solve – although my script handles many types of ill-conditioned equations surprisingly well. Unfortunately, knowing that particular equations are ill-conditioned doesn't always help us and it's important to recognise cases when the program has not been able to produce an accurate solution.

As results are printed, estimated error levels (as delta-X values) are provided. As a general guide you should look at the delta-X terms and when they become close to zero (and your solved X values are not changing) then the program will have found the solution to your equations.

A SAMPLE SESSION WITH THE PROGRAM

Here's a nice easy example to get you going: The idea is to solve this four dimensional equation set...

$$1x + 1y + 1z + 1t = 198.14$$

$$2x + 3y + 0z + 4t = 386.26$$

$$1x + 0y + 1z + 2t = 299.78$$

$$0x + 1y - 1z + 2t = 91.38$$

The program will use X1, X2, X3, and X4 to label unknowns – the

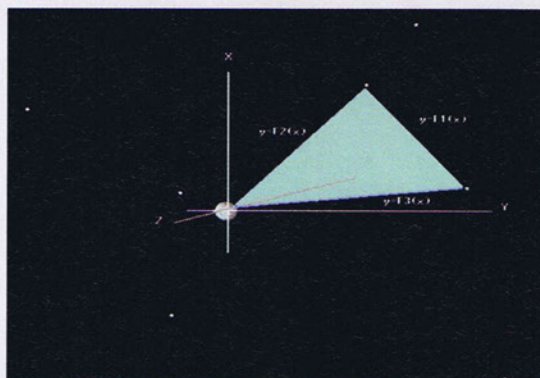
Continued overleaf →

FIGURE ONE - ENTERING THE COEFFICIENTS

AREXX GAUSSIAN ELIMINATION PROGRAM (V1.00) PAUL OVERAA(1995)

What dimension system do you wish to solve? 4

A(1,1)... ? 1
A(1,2)... ? 1 (here you enter the
A(1,3)... ? 1 complete set of coefficients)
A(1,4)... ? 1
A(2,1)... ? 2
...etc.
B(1)... ? 198.14
B(2)... ? 386.26
B(3)... ? 299.78
B(4)... ? 91.38



I don't need to tell you that a series of N simultaneous equations can be used to identify crossing points in N-dimensional hyperspace – because you knew already didn't you?

AREXX GAUSSIAN ELIMINATION PROGRAM (WITH PARTIAL PIVOTING AND ITERATIVE REFINEMENT)

Programmed by Paul Overaa (1995) Version 1.00

MAIN BLOCK

```
PRECISION=8
NUMERIC DIGITS PRECISION
SPACE = '20'x
LF = '0A'x
TITLE= LF||'AREXX GAUSSIAN ELIMINATION
PROGRAM (V1.00) - Paul Overaa (1995)||LF
PROMPT1 = LF||'What dimension system do
you wish to solve?'
PROMPT2 = LF||'Press RETURN for next
estimate - any other key (+RETURN) to quit'||LF
PROMPT3 = LF||'PROBLEM TO BE SOLVED IS
AS FOLLOWS:'||LF||LF
ERROR1 = LF||'These equations are invalid -
no solution possible'||LF||LF
ERROR2 = LF||'Aborting - an error has
occurred during
processing'||LF||LFINVALID_OPERAND=48;
INVERSE_L.=0; U.=0; X.=0
signal on syntax
Writech(stdout,TITLE)
Writech(stdout,PROMPT1); pull N
call Collect() /* INPUT ROUTINE ----- */
call Display() /* PRINT PROBLEM ----- */
call Estimate() /* -----> Get initial X
estimate */input$="
do while Length(input$)=0
call Refine() /* ITERATIVE
REFINEMENT */
call CurrentSolution() /* PRINT ITERATION
VALUES */
X.I=X.I-DELTA_X.I /* Adjust X()
values */
end
Writech(stdout,PROMPT2); pull input$
end
exit /* Logical end of program! */"
```

ELIMINATE WITH PARTIAL PIVOTING

```
Estimate: do PIVOT=1 to N-1
LARGEST=PIVOT
do ROW=PIVOT+1 to N
```

```
if abs(U.ROW.PIVOT)>abs(U.LARGEST.PIVOT) then
LARGEST=ROW
end
if LARGEST=PIVOT then call Interchange() /*
Row interchange routine */ do ROW=PIVOT+1 to
N
```

```
MULTIPLIER=-
1*U.ROW.PIVOT/U.PIVOT.PIVOT
do COLUMN=1 to N
U.ROW.COLUMN=U.ROW.COLUMN+MULTIPLIER*
U.PIVOT.COLUMN
```

```
INVERSE_L.ROW.COLUMN=INVERSE_L.ROW.COU
MN +MULTIPLIER*INVERSE_L.PIVOT.COLUMN
end
C.ROW=C.ROW+MULTIPLIER*C.PIVOT /* Do this
at the same time (easier) */
end
end
```

BACK SUBSTITUTION

```
do ROW=N to 1 by -1
X.ROW=C.ROW
do COLUMN=ROW+1 to N
X.ROW=X.ROW-
U.ROW.COLUMN*X.COLUMN
end
X.ROW=X.ROW/U.ROW.ROW
end
return
```

ROW INTERCHANGE SUBROUTINE

```
Interchange:
do COLUMN=1 to N
copy=U.PIVOT.COLUMN
U.PIVOT.COLUMN=U.LARGEST.COLUMN
U.LARGEST.COLUMN=copy
copy=INVERSE_L.PIVOT.COLUMN
INVERSE_L.PIVOT.COLUMN=INVERSE_
L.LARGEST.COLUMN
INVERSE_L.LARGEST.COLUMN=copy
end
copy=C.PIVOT
C.PIVOT=C.LARGEST
```

```
C.LARGEST=copy
return
```

ITERATIVE REFINEMENT

(First compute residual vector)

```
Refine:
do ROW=1 to N
R.ROW=0 /* Initialise */
do COLUMN=1 to N
R.ROW=R.ROW+A.ROW.COLUMN*X.COLUMN
end
R.ROW=R.ROW-B.ROW
end
Now compute DELTA_C()
do ROW=1 to N
DELTA_C.ROW=0
do COLUMN=1 to N
DELTA_C.ROW=DELTA_C.ROW+INVERSE_L.ROW.
COLUMN*R.COLUMN
end
end
```

Finally back substitute to find DELTA_X()

```
do ROW=N to 1 by -1
DELTA_X.ROW=DELTA_C.ROW
do COLUMN=ROW+1 to N
DELTA_X.ROW=DELTA_X.ROW-
U.ROW.COLUMN*DELTA_X.COLUMN
end
DELTA_X.ROW=DELTA_X.ROW/U.ROW.ROW
end
return
```

INPUT ROUTINE A MATRIX

```
Collect:
do ROW=1 to N
do COLUMN=1 to N
Writech(stdout,'A('||ROW||','||COLUMN||')... '); pull
U.ROW.COLUMN
A.ROW.COLUMN=U.ROW.COLUMN
end INVERSE_L.ROW.ROW=1 /* Set up
identity during input loop (convenient) */
end
```

INPUT ROUTINE B VECTOR

```
do COLUMN=1 to N
Writech(stdout,'B('||COLUMN||')... '); pull
C.COLUMN
B.COLUMN=C.COLUMN
end
return
```

PRINT PROBLEM TO BE SOLVED

```
Display:
Writech(stdout,PROMPT3)
do ROW=1 to N
COLUMN=1
Writech(stdout,'('||Left(U.ROW.COLUMN,
PRECISION)||SPACE)
do COLUMN=2 to N-1
Writech(stdout,Left(U.ROW.COLUMN,
PRECISION)||SPACE)
end
COLUMN=N
```

```
Writech(stdout,Left(U.ROW.COLUMN,PRECISION)||
') ')
```

```
Writech(stdout,'(X'||ROW||') =
('||Left(C.ROW,PRECISION)||') '||LF)
end
Writech(stdout,LF)
return
```

PRINT CURRENT SOLUTION

```
CurrentSolution:
do I=1 to N
Writech(stdout,'X'||I||' =
' ||Left(X.I,PRECISION))
Writech(stdout,SPACE||'delta-X' ||I)
Writech(stdout,' = '
Left(DELTA_X.I,PRECISION)||LF)
end
return
```

```
Syntax:
if rc=INVALID_OPERAND then call
Writech(stdout,ERROR1)
else call Writech(stdout,ERROR2)
exit
```

mechanism is the same no matter what the unknowns are called. All we need to do is strip out the coefficients using the scheme mentioned earlier to produce this sort of equation description...

```
1 1 1 1 | 198.14
2 3 0 4 | 386.26
1 0 1 2 | 299.78
0 1 -1 2 | 91.38
```

For initial experiments the easiest way to run the script is to copy it to the RAM disk and then open a Shell window and make RAM: the current directory (by typing cd RAM:). Then run the script by typing 'rx arexx_gaussian'. The program will introduce itself, ask for the dimension of the system to be solved, and then prompt you to enter the coefficients. Once you've done that the program will display the equation set and provide some first estimates of the unknowns. It will tell you to either hit Return to produce a refined solution set, or to hit any other key (plus Return) to quit the program. As you interact with the script then your screen display will look something like the outputs shown in

JARGON

COEFFICIENT: The number which comes before the unknown quantity. For example in the expression $3x - 5y$ the coefficient of x is 3 and the coefficient of y is -5.

ELEMENT: One of the numbers in the array or matrix

GAUSSIAN: Gauss was a mathematician who a lived long time ago. The basic method used in this month's program was named after him. Iterative Refinement: To produce a solution by making additional attempts as long as the answers are getting better.

MATRIX: An array of numbers much like you'd find in a BASIC type array. In the simultaneous equation mathematical sense a matrix is simply an $N \times M$ set of coefficients. Mathematicians have worked out powerful ways of working with these objects as whole units.

PARTIAL PIVOTING: A mathematical technique based on swapping numbers around in order to

minimise potentially error prone division operations.

RESIDUAL ERROR: A value or set of values which attempt to estimate the 'incorrectness' of the solution.

SIMULTANEOUS EQUATIONS: These are sets of linear equations (equations which do not involve unknowns containing powers) with more than one unknown quantity to be found. To find two unknowns you need to have at least two independent equations To find three unknowns you'll need three independent equations etc..

SKELETON INPUT/OUTPUT ROUTINES: This means exactly what it says... bare bones simple routines without fancy graphics or sophisticated editing facilities.

UPPER TRIANGULAR / LOWER TRIANGULAR: Matrix terms for coefficient arrays in which only the lower and upper areas of the matrix contain non-zero coefficients.

figures one and two.

With this example the first estimates are all we need since the zero residual error (delta X) values tell us we already have good answers. If you substitute the X1-X4 program results, which do of course correspond to the $x=2.1$, $y=3.5$, $z=101.4$ and $t=98.14$ variables in the original equations, you'll see that they are in fact 100% correct. So, that's the basic idea of how the program is used.

SOME NOTES ON CODING

With most high-level languages, programmers would, as you might

expect, rely heavily on the use of array variables to represent matrix data. AREXX has no array variables but it does support powerful compound variables which can be used to mimic the array variables found in other languages. These AREXX-specific compound variables do not get the exposure they deserve in most computing magazines so a recap of the basic ideas are clearly worthwhile.

An AREXX compound variable is an entity whose name contains at least one period and at least two other characters. The name may not start with a digit or a period and, if there is only

PROGRAMMING THE MATHEMATICS

The first thing to bear in mind is that this program is not a 'toy' application. I've gone out of my way to make it a tool solid enough to be used with the sort of linear equations that crop up in real life.

The basic technique used is called Gaussian Elimination but I've made some, fairly standard, concessions to help the accuracy of the computer based solution: Firstly, I am using something known as partial pivoting to minimise errors in the coefficients matrix.

Secondly, I'm attempting to iteratively refine the answers produced by estimating the errors and using them to 'guide' the solution to the best possible values.

The overall technique is given the rather long winded name of 'Gaussian Elimination with Partial Pivoting and Iterative Refinement'. How does it work? Well, our input data goes into matrices 'A' and 'b' so the equation we want to solve can be written as... $Ax = b$.

-1

Now if we can perform a set of operations L on matrix A, such that the resulting left hand side is an upper triangular matrix U, then we're able to pre-multiply each side of the equation to produce this arrangement...

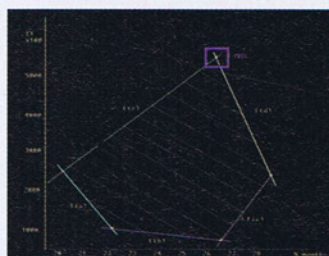
$$L Ax = L b$$

$$ie \quad Ux = L b$$

The upper triangular type of matrix can be solved by back substitution and, since we will know U, b, and the inverse L matrix we can therefore compute the required 'x' values. In the program the inverse L matrix is obtained in rather a sneaky way - we load it initially as an identity (ie 0's in all elements except the leading diagonal which are all 1's) then whatever we do to the left hand side coefficients matrix we do to the identity matrix. By the time the left hand side is in upper triangular form the inverse L matrix will be known.

The program goes through all of the above operations and, having got the left hand side in upper triangular form, it then back-substitutes to find the unknown 'x' values. The partial pivoting technique used initially to minimise errors is not enough because floating point computer arithmetic is not (in general) exact. Residual error analysis is therefore also used to modify and help improve the solutions obtained. I've stuck to a fairly standard implementation of this approach and have broken the program up into lots of small clearly labelled sections and routines - so those of you who fancy looking at the mechanics of the script will be able to identify the code related to the individual parts of the method.

If, incidentally, you would like to brush up on the maths involved then most standard 'A' level and graduate level numerical analysis books will include details of solving simultaneous equations by Gaussian Elimination - it's a technique which is very well known!



Linear Programming, a technique used by lots of big businesses, relies heavily on the use of large sets of simultaneous equations.

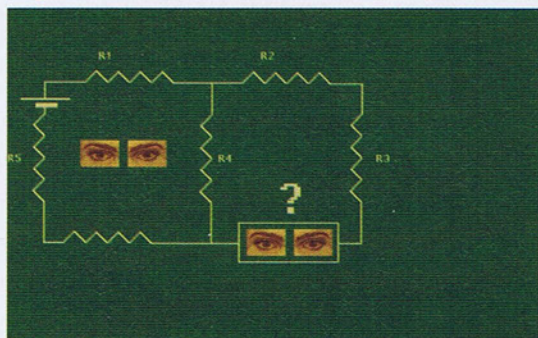
FIGURE TWO - THE RESULTS THE PROGRAM PRODUCES USING THE EXAMPLE DATA

PROBLEM TO BE SOLVED IS AS FOLLOWS:

{1 1 1 1} {X1} = {198.14}
 {2 3 0 4} {X2} = {386.26}
 {1 0 1 2} {X3} = {299.78}
 {1 1 1 1} {X4} = {91.38}

X1 = 2.1.000 delta-X 1 = 0
 X2 = -3.500 delta-X 2 = 0
 X3 = 101.40 delta-X 3 = 0
 X4 = 98.14 delta-X 4 = 0

Press RETURN for next estimate - any other key (+RETURN) to quit



Without the use of simultaneous equations electronic engineers, or indeed anybody else, wouldn't be able to identify unknown quantities in their resistor networks!

one period, it may not be the terminal character. So x.1 and U.r.2 are both valid compound symbols. The first part of the name, i.e. the portion up to and including the first period, is called the 'stem' of the compound variable and so the stems associated with the compound symbol examples shown above are x., and U. The remainder of the name is called the 'tail' and these may be constant symbols, simple variable symbols or nulls.

When ARexx encounters a compound variable name it generates a 'derived name' by replacing any references to simple symbols in the tail by the values of those symbols, so simple one dimensional arrays are easily set up by defining a compound variable with a tail that consists of a single variable name.

To represent two-dimensional arrays we use tails with two components. For example to set up the identity of an N x N matrix we could use a loop like this one...

```
a. = 0
do i=0 to N-1
  a.i.i=1
end
```

If N was set to 3 this loop would produce a matrix with the array equivalent of this formation of values...

```

1 0 0
0 1 0
0 0 1

```

LISTING ONE: THE SKELETON INPUT ROUTINES USED BY THE PROGRAM

INPUT - ROUTINE - A - MATRIX

```
Collect:
do ROW = 1 to N
do COLUMN = 1 to N
  Writech(stdout,'A('||ROW||','||COLUMN||')...');U.ROW.COLUMN=Readln(stdin)
  A.ROW.COLUMN=U.ROW.COLUMN
end
INVERSE_L.ROW.ROW=1 /* Set up identity during input loop (convenient) */
end
/*
```

INPUT - ROUTINE - B - MATRIX

```
do COLUMN = 1 to N
  Writech(stdout,'B('||COLUMN||')...');C.COLUMN = Readln(stdin)
  B.COLUMN=C.COLUMN
end
return
/*
```

One particularly interesting characteristic of these variables is that large arrays do not have to be pre-declared before use (as they do in languages like Basic). The very act of initialising the stem ensures that all elements which subsequently receive no other value will take their value from the stem. Needless to say you will find many examples of compound variables use in the example script.

You'll also see that I've stuck to using skeleton input/output routines and have kept all program I/O statements well away from the 'guts' of the program (See listing One). This is deliberate and the idea is that serious users will be able to swap my I/O routines for their own if they feel it is necessary. If, for example, equations with several dozen unknowns frequently need to be solved then it would be best to store the coefficients in a disk file.

NOW GET CRACKING

As ARexx scripts go this program is fairly large and it actually took quite a while to develop and test. You'll find the code for the utility on page two of this feature and on this month's CD-ROM. You'll realise this is not the sort of ARexx code that you'll come across very often. I searched ARexx libraries for about six months before deciding to write my own program.

Once you've experimented with the script, and got the hang of it you should find the utility fairly straightforward to use. The benefit of course, is that you never need worry about tackling simultaneous equations again!

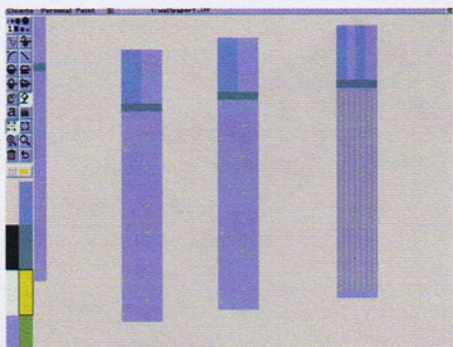
Real 3D Tutorial

Decorating the house

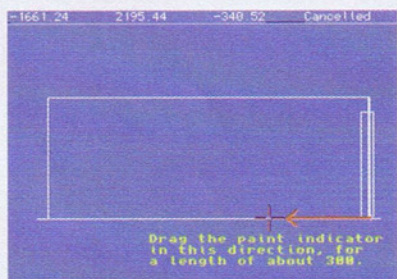
This month we'll see how to add more colour and detail using textures. We'll also have a look at how textures can be used to create "fake" objects, saving on memory and rendering times.



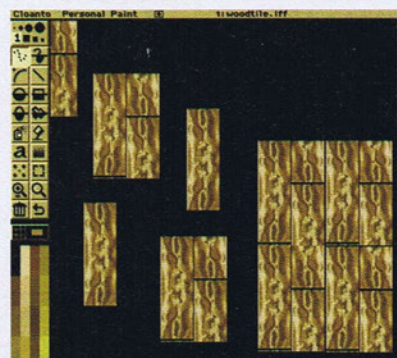
PROJECT 1



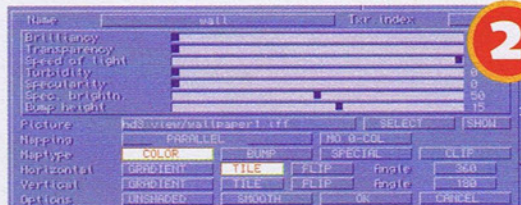
1 First of all we'll try to create some wallpaper to add to the walls. Load up your favourite paint package, and sketch some designs. You'll only need to draw a single strip of paper, because we can make Real 3D repeat the pattern as many times as is required. If you have access to an image scanner, why not scan in some real wallpaper designs?



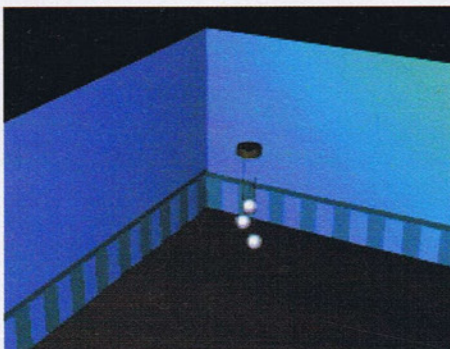
3 Now apply the material to the wall object. Use the 'B' key shortcut. Did you notice the pattern for the wallpaper was upside down? After experimenting with applying textures, this is the most reliable way I've found. Use 'V' to control how the texture is painted on, and drag it over the wall like this.



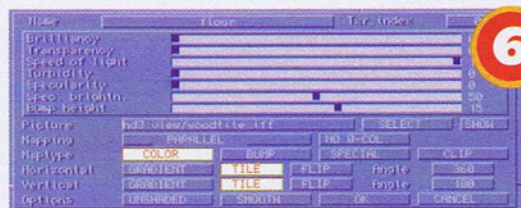
5 Creating the floor requires a similar method. I created a wooden plank effect, and snipped out a brush which looks good when repeated. Again, if you have a scanner you can digitise a real wooden floor or real carpet.



Now we need to create a material type for the wallpaper. Make it repeat horizontally so that it covers the entire wall. This saves you having to draw out an entire wall's worth of paper, although even with bold and simple designs like this the memory saving isn't great.



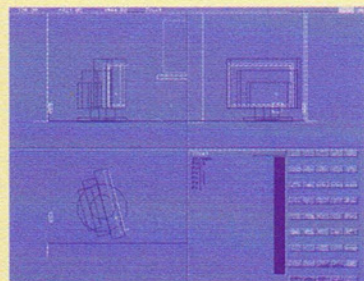
4 When you render it (remember to use at least LAMPLESS mode to see the textures) you'll hopefully see something close to this, with the wall paper texture repeated and covering all the walls. I've removed the ceiling for this bird's eye view.



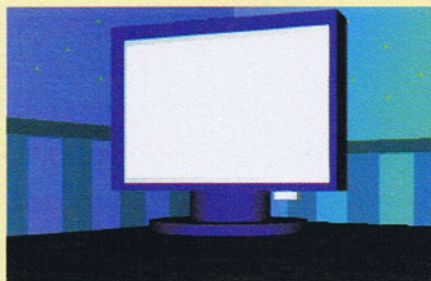
The process for making the material for the floor is almost exactly the same as for the wallpaper, although this time the pattern is tiled in both horizontal and vertical directions. You may want to click on the FLIP buttons.

PROJECT 2

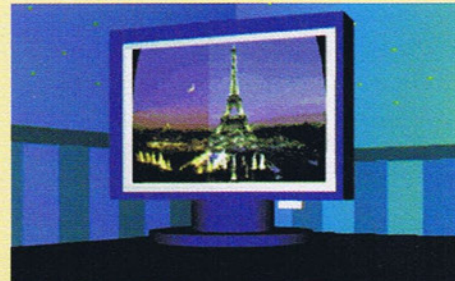
Building a TV set



1 Create a TV set from various squares and cylinders. If you're perfectionist, find the instruction manual which came with your telly, as they often contain wire-frame diagrams to get the measurements. Make sure the screen is defined as a rectangle right at the front.



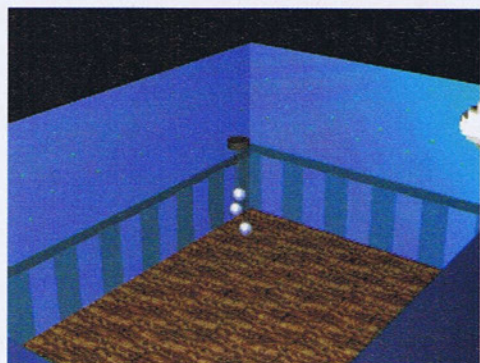
2 When you render it, it should look roughly like this - I've always wanted a wide-screen set. Don't forget to render a remote control too, or you won't be able to switch it on. As you can probably guess, we can now create an image to appear on the screen



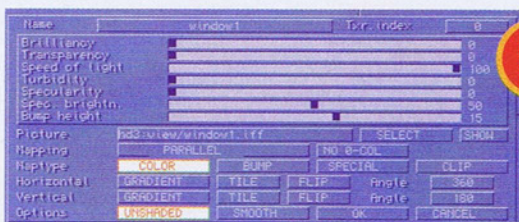
3 I found that the Art Department's "Sphere" tool does a good job of warping an image to make it look as though it is on-screen. When making the material, make the image UNSHADED again, and add a little specular and brilliance.

part 10

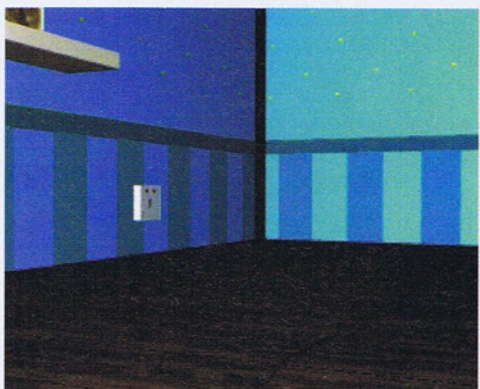
Last month we left our house in a particularly sad shade of conservative grey. **John Kennedy** is going to show us how to brighten things up a bit.



7 Adding a little "Brilliance" to the floor texture gives an excellent reflective surface, but dramatically increases rendering times. Leave it until you have finished all the other objects. Notice how at the moment, the detailed textures in the wooden floor don't look so hot. We'll come back and fix that later.



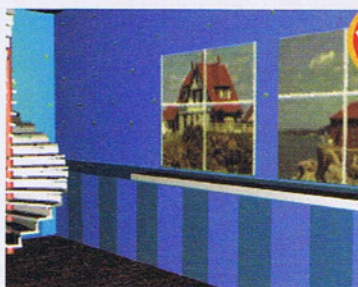
Create a material for the windows. There will be no tiling required this time, but the window texture will be UNSHADED as we are assuming they are lit from outside. You might want to design more detailed windows which actually cut holes in the wall for more depth.



11 You can use the same technique to create other simple objects, such as plug sockets and light switches. There is very little to be gained modelling objects like this unless they are going to be seen in detail. An accurate drawing mapped to an object will often achieve the same result. Whoops! Upside down - do you think anyone will notice?



8 Add some windows using some digitised pictures. I've taken an image, and cut two windows out of it. Then I've blurred them slightly and drawn a border and a frame to make it look a little more window like. Once again, the images are upside down to make locating the texture easier.



10 Make a flat rectangle the same dimensions as the window image, and paste the window material onto it. Stick the window to the wall and add a sill-type object underneath. Render at gas mark 8, and here's one I prepared earlier.

ANTI-ALIASING

When using complicated textures, it pays to experiment with the anti-aliasing setting, available from the Solid rendering screen. Anti-aliasing makes a large difference to the "smoothness" of the textures, but also the rendering time. Here are two frames, one with no anti-aliasing and one with full anti-aliasing (and some extra "brilliance" and "specularity" switched on).



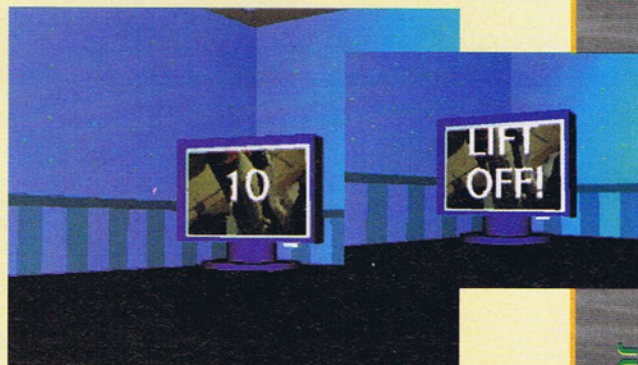
Every house needs a television set in the living room, so that's what we need to create next. You can even have your favourite animations running on the screen.



4 If you like creating animations with *Real 3D*, take your favourite one and split it into frames. Re-size it so that it'll fit on the virtual TV screen and if you have the time, process each one to give it a slight curve. Save each frame of the animation with a name such as: picture.iff.1, picture.iff.2...



5 Now you'll need to alter the material used on the screen. First set the index counter in the top right hand corner to reflect the number of frames in the animation. For each frame in the *Real 3D* animation, a new texture is loaded. When the index is reached, the texture frames start from 0 again.



6 Now you need to create an animation. Here the camera is moving closer to the television set whilst the on-screen texture changes. Remember that normally animations play back at 25 frames a second, so you need to take this into account when you are creating the images which will appear on the television set.

"I think that Microsoft is afraid of us."

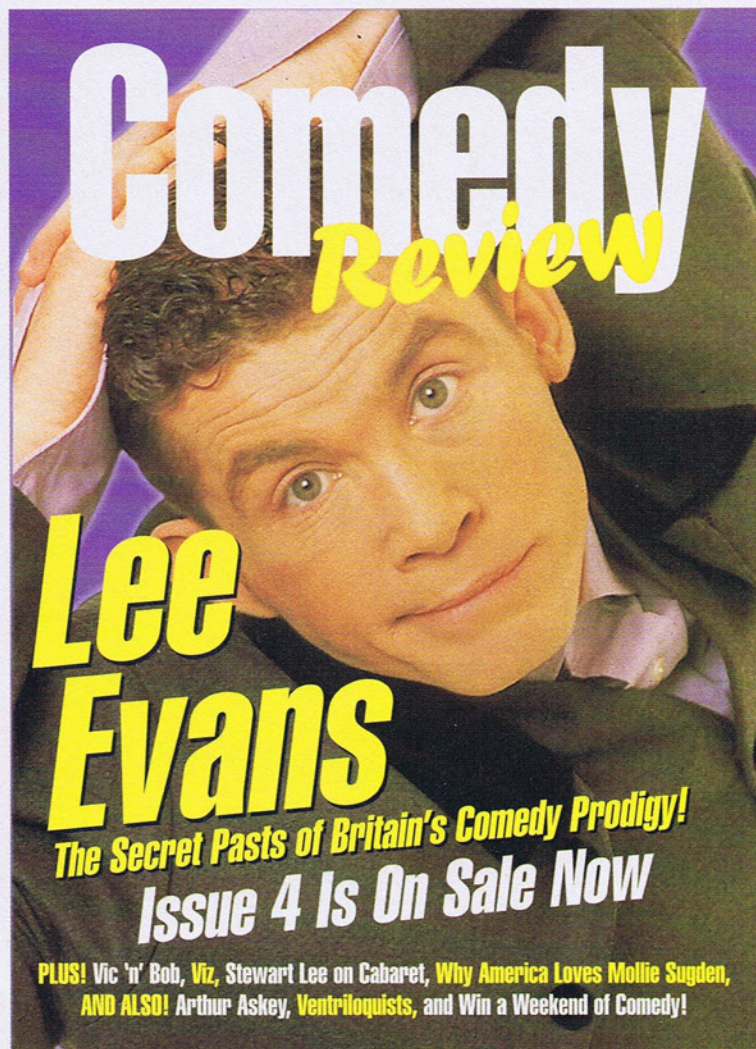
Netscape's head honcho Jim Clark talks exclusively to .net – find out why he has given Bill Gates the willies (in the nicest possible way).



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Blitz Tutorial



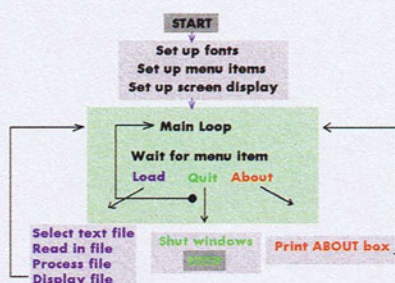
The tutorials so far have looked at how Amiga programs work, and how *Blitz* can be used to deal with Intuition to create screens, windows, menus and even file requestors. That's more than enough words for a story so let's get started.

If you know your World Wide Web, you'll know that HTML consists of special codes called "tags" which are embedded in a plain text document. The tags are special words and letters contained within "<" and ">" symbols. Some tags come in pairs: for example, and will switch on and off bold text. Other tags are "one off" jobs, such as <p> which starts off a new paragraph.

SIFTING THROUGH

Our program therefore needs to be able to go through the HTML document, picking out the tags and acting on them accordingly. Half the work is creating a reliable method of picking out the tags, and the other half is the code which does what the tags require it to.

A note for those who are already into HTML: there is no way I'm going to spend time covering every single tag as defined by the HTML2 and HTML3 standards. Sorry, but if you are interested you should find adding support for these tags an excellent exercise in *Blitz* programming. When you see the listing, you'll soon discover



Listing One:
Here is an overview of the the HTML viewer program in glorious colour.

Gasp! What's this, some *Blitz* code for parsing HTML documents? Yes – the time has finally come when we can start to get our teeth into some real programming.

```
.process
; Process and display an HTML page

HTitle "Processing HTML","Processing HTML"

MCIs
bold=off
underline=off
italic=off
size=3
oldsize=3
original=3
Gosub _SS-font
chunks=""
startx=0
starty=0
xpos=startx
ypos=starty
sizey=13
limitx=100
HLocate xpos,ypos

letter=1
tag=False
value=False
ts=""
inks=""

While letter<count
  ls=Mid$(html$,letter,1)
  If Asc(ls)=10 ls=""
  If tag=True
    If ts="" Gosub process_tag:ls="":tag=False
  Else
    If ls<"<" tag=True:ts="":ls=""
    If (ls<">" AND value=True) vs=vs+ls
    If (ls<">" AND value=False) Then Gosub process_text
  EndIf
  letter=letter+1
Wend
Return
```

Set up variables and screen for each new HTML page.

Process the HTML file, character by character.

Listing Two:
Called from the main loop, this code sets-up the screen and variables for each new page, and then processes the HTML file.

where any new tags can be inserted.

Remember flow charts? I have a vague recollection of them from school, but **Listing One** describes roughly how this program works. You might find it useful to look at it whilst viewing the source code (which incidentally, is on the CD-ROM).

PARSE THE TAGS!

Loading the HTML file is already something we've seen in previous installments, so here's how the parsing process works. The label ".process" indicates where the processing starts, and it assumes it is starting with a blank page. It therefore resets all the fonts and clears the screen. It also assumes that the text it will be processing is by default normal text rather than a tag.

Now the main loop (which is a WHILE/WEND) looks at each letter in turn. After some fiddling to ignore extra linefeed characters, if the letter is the "<" sign then we know that a tag is

about to appear. We therefore set the variable "tag" to true and continue to load in letters and build up a string, ts, with the tag itself. Once we get to a ">" we jump to a routine which deals with the tag, called "process_tag". (See **Listing Two**)

If we don't get a "<", we continue loading in letters and passing them to the text processing routine (process_text). This routine builds up a string (called "chunk") until it would reach the end of the screen, and then prints it. (See **Listing Three**)

That's all there is to it: the next stage is to look at "process_tag" in more detail. (See **Listing Four**) Here we strip any excess spaces (*Blitz* is very good at providing commands to make this and other string processing fast and efficient – it rarely gets the credit it deserves) and use the Select/Case construct to deal with the possible tags. Most require that the text already stored in the chunk\$ is printed

```
.process_text
chunk$=chunk$+ls
If (Len(chunk$)>limitx OR (Len(chunk$)>(limitx-20) AND ls=" "))
  Print chunk$
  Gosub line_break
  chunk$=""
EndIf
Return
```


COMMON HTML TAGS – TABLE OF HTML CODES

<code><hr></code>	Draw a horizontal line
<code><p></code>	Take a new paragraph
<code>
</code>	Force a carriage return
<code><h1> </h1></code>	Text size 1 (huge)
<code><h2> </h2></code>	Text size 2
<code><h3> </h3></code>	Text size 3 (medium)
<code><h4> </h4></code>	Text size 4
<code><h5> </h5></code>	Text size 5
<code><h6> </h6></code>	Text size 6 (small)
<code> </code>	Bold text
<code><i> </i></code>	Italic text
<code><u> </u></code>	Underline text
<code><tt> </tt></code>	Typewriter font
<code></code>	Display an image
<code> </code>	Create a link to another site <a>

e slash "/" is always used in HTML to "switch off" a particular option).

immediately – for example, you can see that it would be obvious to print the previous stored text when we are asked to take a new paragraph tag or print a horizontal line tag.

FONT OF ALL KNOWLEDGE

Let's now deal with the HTML code which looks after the business of changing font size. If you have used HTML before, you'll know that you can use the tags <H1> to <H6> to control the size of the text displayed. To achieve this, at the start of **Listing Five**, I've written code which defines six Amiga fonts of suitable sizes.

The fonts used in the headings are Times, whilst I've used Helvetica for the body. This looks quite smart, although of course you should choose the fonts which you think are appropriate. These are the sizes which I've had most success with.

different colour. You'll see some lines are commented out for the moment. The "title" tag is used to change the title at the top of the Window, because this is a pretty simple thing to do.

If you know HTML, this is where you can start writing your own code for processing tags. Some will be harder to implement than others of course, and if you want to build yourself a Netscape Navigator, you have a lot of work in front of you.

BLITZ ON THE NET

As you would expect, there is a great deal of material regarding *Blitz Basic* available on the Internet.

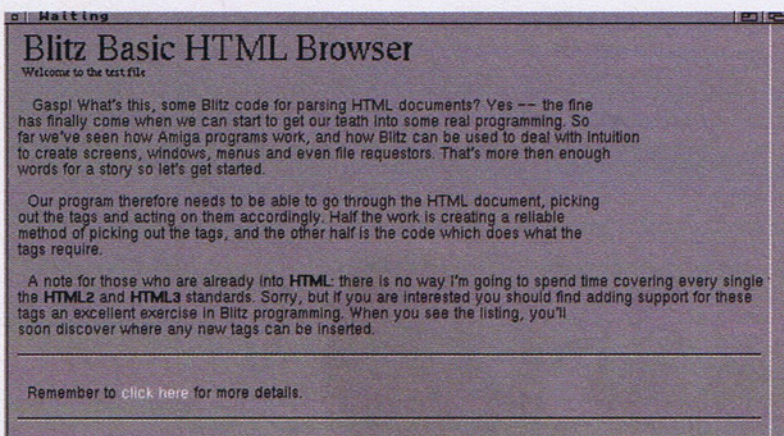
As well as the excellent mailing list (blitz-list@cc.helsinki.fi) there are plenty of Web sites too. For starters, make sure you check out: <http://www.man.ac.uk/~mgbe4cd1/Blitz/tutorial.html>

MORE TAGS

Now we can start to look at the code required to perform the functions demanded by the tags. **Listing Six** hasn't got any advanced tags, but you should be able to grasp what is happening. The horizontal line tag draws its line and then calls the `.new_paragraph` routine to move the text down the screen. Pictures aren't yet supported, and currently a small square is drawn in their place.

Links are detected, but at the moment nothing is done about them other than displaying the text in a

Above & Below:
Here is the parser in action. You'll find the code and some test files on the CD-ROM.



Remember to [click here](#) for more details.

[illegible]

```

; FONT Routines
.use_font

; Control the font used, depending on size and attributes
    style=8
    if underlined On style=style+1
    if bold On style=style+2
    if italic On style=style+4
    windowFont size,style
Return

.prepare_fonts
f5="times.font"

LoadFont 5 f5 11
LoadFont 5 f5 12
LoadFont 5 f5 14
LoadFont 5 f5 16
LoadFont 5 f5 18
LoadFont 5 f5 20
LoadFont 5 f5 24
LoadFont 8 "helvetica.font",13

```

```

.horizontal_line
y=WCursorY
w=InnerWidth
WLine 8,y,(w-8),y,1
WLine 8,y+1,(w-8),y+1,2
Gosub new_paragraph
Return

.picture
Gosub flush_text
Gosub new_paragraph

y=WCursorY
x=WCursorX

HBox x,y,x+16,y+16,2
WLine x,y,x+16,y+16,1
WLine x,y+16,x+16,y,1

Gosub new_paragraph
Return

.print_title
vs=StripTrails$(vs,32)
vs=StripLeads$(vs,32)
WTitle vs,vs
Return

.make_link
Gosub flush_text
vs=StripTrails$(vs,32)
vs=StripLeads$(vs,32)
WColour 2
Print vs
WColour 1
:Print " and the text of the link itself is "
:Print links
:NPrint "
Return

:
:
: Text positions

.line_break
xpos=startx
ypos=ypos+sizey
WLocate xpos,ypos
Return

.new_paragraph
xpos=startx
ypos=ypos+sizey+sizey
WLocate xpos,ypos
Return

```


TOTAL FOOTBALL EUROMANIA!

FREE!

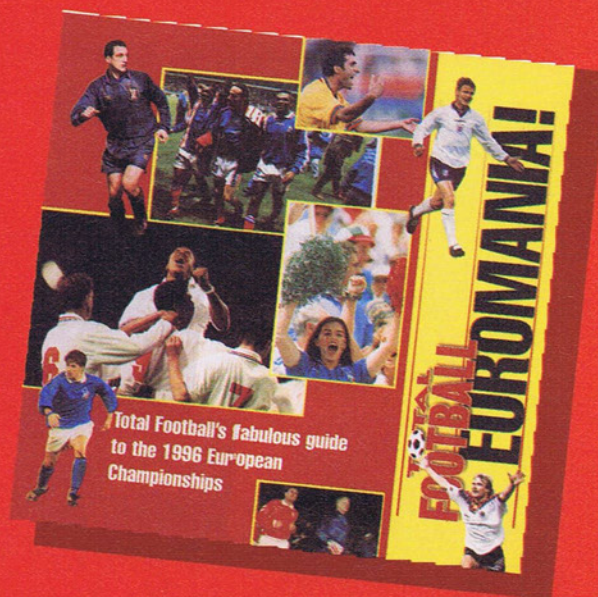
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MailBag

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YOUNG TALENT

I am 13 years old and working on a project to write a PD game. I am looking for a programmer and an artist to help them draw all the characters and background stuff. If anyone is interested then please write to:
101 Sole Farm Avenue,
Great Bookham,
Surrey KT23 3DG.

I would prefer if you were around my age and if you lived in Surrey.

Sean Talbot
Surrey

DISKONTENT

I felt that I must write and complain about the distinct lack of information in the magazine regarding this month's Coverdisks. As I am on a 'restricted' budget, I cannot afford to buy magazines 'willy-nilly' and I was rather annoyed to say the least to find that both of the main programs on your coverdisks were "useless". Why were they useless? Coverdisk 84b - AB 3DII demo:

This was the main reason that I parted with £4.50 (apart from the magazine itself), but why oh why did you have to hide the system requirements in a millimetre high font on the Coverdisk? Come on AF, surely you



Some people seem to have been disappointed that we bring you the best from the gaming world on our disks...

Letter of the Month

JUST REWARDS

Just a quick note to say thanks for the excellent first AFCD and to pass on some advice to owners of a CD³² and a "conventional" Amiga. If you have Weird Science's network software you can view the AFCD through this set-up, although the larger file will cause a crash.

If you don't have this set-up, buy it soon, or the Communicator III from this very magazine, because I find this a most acceptable stop-gap until I can save up for a CD-ROM drive - although the appearance of the SX-32, with its parallel port and other useful features is currently a serious option.

I will say though, that the transfer of files onto my A1200 hard drive is slow through the serial port. It took three hours to transfer the commercial drawer and I wouldn't even recommend trying to transfer the 3D drawer, as it works out at around 100Mb every 24 hours.

Thanks again for this CD, it has persuaded me

to subscribe for the CD version of Amiga Format so that I can receive more of the same every month.

P Casson
Bristol

Thanks very much for your excellent tips. Obviously, the best way to access the Amiga Format CD is to have a CD drive fitted to your Amiga, but we realise that not everyone has one or can afford one. That is why we ran a special offer in the last issue for a Squirrel CD-ROM from Hisoft.

I am glad that you are able to access the files though, and I'm sure your advice will help many other owners. If anyone else has any tips on how to get the best out of the Amiga Format CD, or you have more suggestions about what you'd like to see on it, please drop me a line and you too might be the lucky recipient of an exclusive AF sweatshirt.

could have put in the Coverdisk section that it required 4Mb of RAM! There was not one reference to the system requirements in a legible text anywhere in the magazine. Please, please, correct this in future... I like the magazine, but not enough to fork out £4.50 for the mag itself...[and so on]

N P Rowe
Plymouth

Well, we applied the standard test in this situation - we held it up three feet in front of Graeme, who managed to read it perfectly at a distance of 1.5m (and he wasn't even wearing his glasses). The system requirements are always in the same place on the disk.

I'm sure there were a lot of readers who didn't have the necessary hardware to make use of this disk, but as it was such an important release, and since there was a full game on the other disk, we felt that it would be unfair to those people who could use this disk to deny them of it.

I long ago became resolved to the fact that our disks never please everybody. I would however, like to say that we do have to make considered judgements and we try to cater for everybody, but that is simply not always possible.

AAAAARRRRGH!

I recently managed to scrape together enough cash to get myself an accelerator for my 1200. Since I'd got quite a lot of money, I decided to go the whole hog and get myself a Blizzard 1260. Wow! what a difference. Alien Breed 3D went from almost unplayable after level 8, to super smooth. Of course, it wasn't all smiles, as Formula 1 Grand Prix won't work at all and Worms is a pain in the behind to get going properly. That said, I'll get on with the real point of this letter.

Basically, now I've got a super fast Amiga, I'd like to get some games that will take advantage of it. Unfortunately two games that really would run fantastically have not appeared yet, and don't seem to be in a hurry to either. I speak of TFX and First Encounters. So here is the question AF Where are they?

TFX was previewed way back in the mists of time and was even reviewed in your excellent publication last year. Then....nothing. Not an electronic sausage has been heard from Ocean about...

Continued overleaf →

30 Monmouth
Bath, Avon
BA1 2BW
READERS' LETTERS
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Continued overleaf →
JULY 1996
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Sim City 2000 – wouldn't it be damaging to the industry to see games like this put on magazine Coverdisks?

Knights of the Sky – far too good to be given away?



happy, educate new A1200 owners what the Amiga was all about in the good old days and also maybe give the software houses as little pocket money.

Games such as: *Knights of the Sky*, *Monkey Island*, *Sim City with the Editors*, *A Train* I know I have moaned a lot but number 3 is a real bug bear of mine, as next time I will let my subscription lapse and then rejoin at your expense. Many thanks

Simon D. Copestake (sorry I do not know my subs number as I am in work and it is 4.30am)
Liverpool

Sorry, had to cut you back a bit there. Ok, your first point is a very good one,

and one that was dealt with last month, but it's worth going over again for the people who obviously don't pay attention.

Basically, you can use the form in the magazine to claim your free gift when you re-subscribe. Simply fill in your subs number on the form when you do so.

As the offers are subject to change, it is only possible to find out what current offers are from the latest issue of the mag.

In answer to your second point, there are a few things you haven't considered. The first and more obvious one is that *Monkey Island*, *Knights of the Sky* and many others come on

Continued overleaf →

OH

Many of you obviously braved the crowds and trekked all the way to the recent World of Amiga show. Here is a collection of your thoughts:

"My son and I, both A1200 owners went to the World of Amiga Show last Saturday. The stands were great but the influx of people coming in as soon as the doors opened was tremendous and overshadowed what should have been a more relaxed and enjoyable experience. Instead everyone was pushed and jostled around the tiny hall that was the exhibitors arena.

We did manage to pick up some bargains in the form of RAM cards and a modem. On the whole we found the prices to be very good and trading to be fair. Most standholders had their prices clearly marked and with those there was no problem. We witnessed and experienced two instances however, where staff at stands with no prices visibly displayed, charged erratically. The whole atmosphere at these two stands was sadly one of being ripped off. We still enjoyed the show, there was a brilliant atmosphere, staff were happy and chatty and all in all it was a good day. I am sure that a lot of people have learned some helpful lessons for the next show and last but certainly not least, the Amiga and it's fans are definitely not dead!"

Frank Szafran
Hull

"We joined a queue a few metres from the door and slowly made progress until the queue just stopped. We found out that Amiga Technologies had underestimated the number of people who would turn up, there were now two or three hundred people waiting outside the hall with all the allocated people in, that is the

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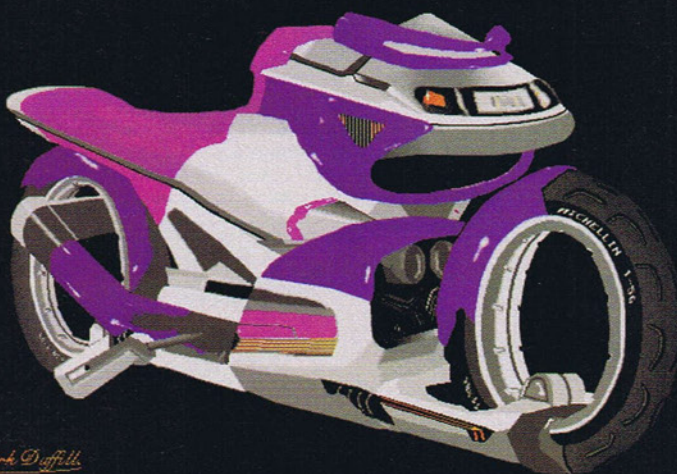


DMA Design Ltd

BIKE

By Mark Duffill

We were really impressed with Mark's pictures of motorbikes, which is why we've included two of them this month



Mark Duffill

JULY 1996

WHAT A CIRCUS!

second bad point. We got talking to a couple of others in the queue who were friendly; one of them had come from Portugal to go to the show. That is the first good point, everyone was friendly, even giving advice to each other about which CD-ROM's are worth buying.

Secondly, there were some good bargains with a lot of large hard drives at very cheap prices. I managed to get a Quad speed IDE CD-ROM drive from Siren for £150 and a 4Mb RAM-8 card from Wizard for £80. There were some great things on show including the Squirrel MPEG and Surf Squirrel, *Alien Breed 3D II*, and quite a few Amigas to play around with. It was also a chance to go star spotting including David Pleasance and of course yourself Nick. Generally, it was an enjoyable, even if a little crushed, day out."

Martin Garratt

"what happened to the events advertised for the show that just were not there. I refer here to the "Games Arcade", the "Competitions Galore", and of

course, the almost non-existent "Presentation Theatre". Please do not tell me that the games arcade was actually meant to be the Team 17 stand running *AB3D II*? Or even the Power Computing stand running *Breathless*? (or whatever was running on the A1200 on the Future Publishing stand – I could not get close enough to see, too many people!). And what about Amiga users like myself, who went there with one thing in mind: spend money on some decent software?

There were no stands there that I could see selling new Amiga games, or serious Amiga software. Okay, so I did get *Photogenics* for £30 (bargain!) and for the same amount I could have got *Opus 5*, but that was about it.

In summing up then, the show wasn't a patch on past Amiga shows and a real let down to some of us. I only hope that Amiga Technologies and the shows organisers realise this and improve it all by 200% for next year - that is if there is a show next year."

Keith Elcombe



This World of Amiga show seems to have been just a bit too popular according to most of the letters we have received.

"A friend and I made our way from sunny South Wales to the Novotel in Hammersmith for the "World of Amiga" show. It was the first time my friend had been to a computer show and I had regaled him with tales of the wonderful hardware and software bargains that could be had, the product demo's etc etc. Unfortunately, once inside, all optimism evaporated. The exhibition area was woefully small and the number of exhibitors pathetic. Whilst I'll give full credit to those who were there (although I have some reservations regarding Gasteiner's "Sold as Seen - No Warranty" sales pitch), I must ask where were the rest, notably Silica and Blittersoft who were actually shown in the advertising blurb?"

Mark Williams

"...apart from being, I suppose understandably small, I thought the show was really good. It was nice to see that even though some "leading brand" people didn't bother coming (whither Silica, Harwoods, Blittersoft?) all the mags were there to support the Amiga (except I didn't see an AUI stand - are they still going?) and

Amiga Technologies put on a good show within the confines of the space they had."

David Green

"...where is the bar?"

Darren Irvine

Well, it was a shame that so many of the exhibitors didn't share our view that a large number of Amiga faithful would turn up. More exhibitors would have meant more space for the whole exhibition.

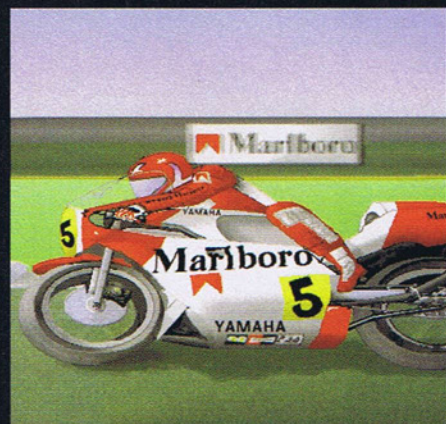
We all thought that it was a great opportunity for Amiga owners to meet Amiga Technologies and converse with each other on diverse topics such as "who would buy anything that looked like that?" or "where is the cheapest '060 card?"

Although overcrowding did become a problem, it was certainly a busy day for AF. All the staff are sorry if we didn't get to talk to everyone, but there were just too many of you!

Hopefully the success of this show will provide the foundation for another, bigger show in the future. AF will certainly bethere, and we hope you can make it too.



"Let those that were not here call themselves accursed" as Shakespeare might have put it – the turnout of dealers and developers was not so overwhelming.



BIKE RACING

By Mark Duffill

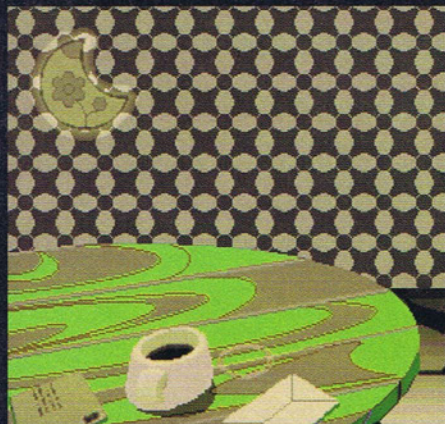
Mark sent this and a selection of other pictures equally as good



SCARLET MACKAWS

By Stuart Le Grice

These beautiful birds were drawn using DPaint 3



A QUIET MOMENT

By Richard Laguerre

Richard created this on his A500 using DPaint 3 in Lo-Res and 64 shades of grey.

← several disks so they simply wouldn't fit.

Secondly, there has, for many years a "gentleman's agreement" between magazine publishers, not to put full commercial games on the Coverdisks of Amiga (or PC or Mac) mags.

The reasoning behind this is that giving away software harms the games industry, because people can simply buy magazines and get games cheaply. Obviously, some companies are more gentlemanly than others. Some magazines have already been breaking this agreement, so it will be interesting to see what happens.

NETTED, NOT NOTTED

Has the Amiga Format metamorphosed into the chameleon species called Amiga Internet Monthly. In April's edition there were a total of nine pages devoted to the net, and believe it or not some Amiga nuts do have a life outside their 'girlfriend' and its' endless Black Widow's web.

There are plenty of devoted

mags out there, so try and leave it to .net mag etc.

Mark Saunders
Lancs

Very well. Just for you we will deprive everybody who is interested in the Internet and never run anything about it again. Spoilsport.

On second thoughts, no we won't. So, because we have a regular Amiga.net column and we have done one feature on it, we are overdoing it. Well, I'm sorry, but you're out of order. Last month we had about nine pages on CDs (more, if you count the round-up) and I expect if you don't have a CD, you'll be complaining about that.

INNOCENT PARTY

I am writing in response to a letter that you published in the March issue of Amiga Format from Andy McDonnell. To make HMV's position regarding Amiga software clear. The problem that Mr McDonnell rightly underlined is unfortunately, beyond our control, it does not lie with the retailer but



Nine pages devoted to the Internet does not seem excessive. It's a vitally important area if the Amiga intends to continue into the next century.

with the software houses and suppliers within the Amiga market. We endeavour to stock a full range of Amiga products in all of our stores and will certainly back the format for as long as new quality releases are produced. This is becoming more and more difficult to do as more and more software

houses opt for the PC as their main focus. We can only sell the products the publishers give us to sell. We are not in a position to force the likes LucasArts to produce Dark Forces or TIE Fighter for the Amiga.

Darren Newnham
Games Buyer HMV

THE LOVEABLE HOOVER

Well, I am pleased that Amiga Technologies have taken steps forward and come up with a decent Amiga design. I know that the new Amiga exterior design is just a concept but unfortunately my living room is not a vacuum cleaner showroom. I would like to inform Amiga Tech. that MY LIVING ROOM DOES NOT CONTAIN CARPET CLEANING EQUIPMENT! There is nothing wrong with a big box design like the A4000 which can comfortably support a monitor, if you want it to fit in why not give it a CDTV style design, but don't you think that the 'fitting in' design of the CDTV, CDI and PCTV was a bit of a mistake? All failed miserably (and continue to do so).

Away from the exterior design gripes may I shout thank you in an excited voice for the inclusion of a hard disk, a high density floppy drive, a CD-ROM of decent speed and decent memory, there is hope for the Amiga yet.

I would just like to finish and say that the inclusion of a 3D graphics card would be a wise step, as all the 'next generation' consoles include them. 3D cards are emerging on the PC as well. Shouldn't we follow suit? I have yet to see any 3D games running at a decent rate on an Amiga at the type of resolutions and screen sizes seen on the previously mentioned mind-rottingly useless console things.

Also, will Sound-Blaster cards (of the 16-bit+ wavetable MIDI sounds variety) be made to work in the new Amiga with the correct drivers? This is one inclusion that could interest some of the big third party developers from the PC market.

James Tunnicliffe
Hull

As one of your older readers I can remember this machine when you could get the Light Programme on the left hand side of the dial. I like being a computer nerd and I don't mind if my visitors know and anyway how can you balance a monitor or tea mug on top of it? Is this a ploy to sell high profit extras, such as monitor stands and mug holders? Last week I spotted an Amiga Magic pack in Tandy's window in Ayr. I think I



The 'CarpetWalker'. Adrian Cole from Runcorn sent us this interesting advert for the new machine. Whether it will ever be manufactured remains to be seen.

deserve a prize for observation, for although the pack was in the centre of the window at eye level, it had two radio cassette type things partly obscuring it and each had an A5 size card with their details covering even more of the box.

To add insult to injury there was no card to describe the Amiga or any indication of price. Surely as the trend in the shops, judging by this and other readers experiences, seems to be to ignore the Amiga, the last thing we want is a machine that blends in with other Hi-Fi toys. How do they expect businesses to take the Amiga seriously when it looks like a nostalgic copy of a 1950s wireless? It doesn't matter, to the general public, how good the technology is, if it doesn't look right, no-one will buy it.

Angus Blair
Ayrshire

So the new Amiga is going to look like a pensioned-off "scutter from 'Red Dwarf'"? Ok, I can live with that. But in black and silver to blend in with the living room? Black and silver will stand out like an elephant at a mouse convention - why not be bold and do cases in different colours - even transparent - that would truly fit into the decor. Why not, like DJ mixer manufacturers, do 'limited editions' in

camouflage (for the war game fans), with football club stickers (for the footie fans), on car badge stickers (for the F1 fanatics) - It could become a design icon, something which no PC will ever do! Finally, if the case is brightly coloured, Escom will not find it so easy to hide it in their shops and generally ignore it, as is now the case with the A1200.

D Griffith
Cheltenham

Well, opinion is divided on the design, but perhaps it will be more interesting to see if and when the machines will be actually launched, given the recent news events. However, I hope you have read the news piece in this issue about Phase 5 - I'm sure their machine won't look like a vacuum-cleaner.

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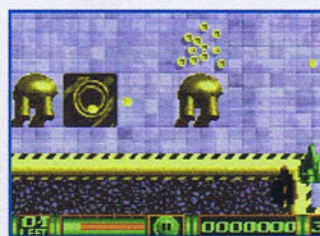
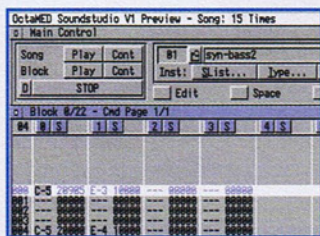
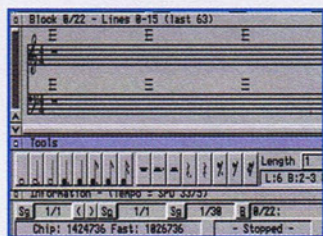
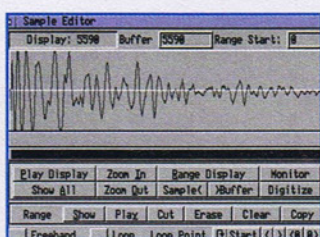
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AMIGA FORMAT COVERDISKS



A demo of the new *OctaMED Soundstudio*, the full *OctaMED 5* tutorial, *EdwordPro 5.5* and *MagnifiCAD*.

The exclusive demo of *XP8* will keep the trigger happy content, while *Breed 96* caters for the more strategically minded.

XP8



Shoot everything, collect power ups and shoot some more. Especially satellite dishes. Left: Watch out for the frightening, floating apparitions of Nick Veitch.

After Steve Bradley awarded this new shoot-em-up 85% last issue, we chased the programmers to create a special demo just for *AF* readers. *XP8* is a classic shoot-em-up. You control a space ship in this vertically scrolling game and the enemy attacks in waves. All you need to do is shoot everything. The actual objective is to destroy five communication dishes. Power ups appear from underneath buildings that you destroy and one tip is to make use of the barrels marked with a radioactive sign. Shooting these will destroy all ground forces on the screen – especially useful when three of the dishes are lined up next to each other.

When you gather power ups, you can swap between weapons by pressing the space bar. There is an options screen at the beginning of the demo that allows you to change many of the game's parameters like difficulty, weapon intensity and shield integrity.

This demo has been specially created for *AF* – watch out for the waves of Nick Veitch aliens half way through! You can get the full game for £19.99 from Weathermine Software, 50 Talleforth Road, Ashted, Surrey, KT21 2PY.

A massive demo of the new shoot-em-up and a new shareware game that's taken the PD world by storm. David Taylor leads the way.

BREED 96 (V1.3)



Not only a shareware game that's really good, but written in AMOS as well!



Aliens inhabit other planets so you need to get into space as quickly as possible.



Build enough habitation modules to allow your colony to grow large enough.

Imagine a cross between *Civilisation*, *Dune 2*, *K240* and *Sim City*. *Breed 96* is a fantastic strategy game that won our PD selection of the month last issue. You can play one of four races and the aim of the game is to colonise your planet and build enough forces to overcome the other races.

Other races will also be attempting to conquer each other and your planet. You can strike up alliances and trade with them, but if you do, your allies may request your help against attacking enemies. The advantage is that they'll also come to your aid if you're attacked.

You start the game on an empty planet with the ability to build a variety of centres. In order to advance your race, you must research other structures that you will then be able to add to your colony. Research is made by clicking on the second button along.

The button on the very left is for choosing buildings and placing them on the planet surface. When you select a building, the outline will appear on the planet and you can choose where to place it. When you are planning your colony, you should note that you will need to run roads through the colony and that repair robots need a thickness of two squares to be able to pass between them. If you want to cancel placing a building you have selected, press the Escape button.

To start your colony, you need to place a power station, a food generator and a

residential dome. Power stations can power up to about 18 buildings, while food generators can supply food for around ten residential domes. Each dome holds 50 people. Your colony will expand quite rapidly, so make sure that you have enough domes to cope.

As time goes by, you will discover other worlds and develop relations with aliens, but remember to keep your colony in order with adequate commerce centres and law enforcement. You can manufacture space ships that can trade or attack other worlds.

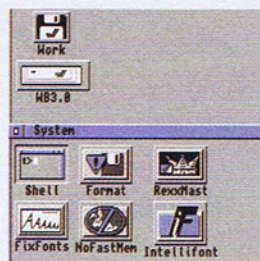
The game can be saved at any point by clicking on the Save game button in the options screen. For this operation, you must make sure your disk is write-enabled (i.e. the disk tab is down). There are many other screens for you to explore and many other game features too.

Note that you cannot colonise other planets in this version, so space stations are of no use. In order to colonise other worlds, you need to register the game, which costs \$20 Australian (about £10) or \$25 Australian (about £13) if you are sending a cheque in foreign currency. The registered version has scenario settings (like missions), different game difficulties, more intelligent aliens and even more. Registration is available from the author at: Damian Tarnawsky, 4/5 King Street, Raymond Terrace, NSW Australia 2324.

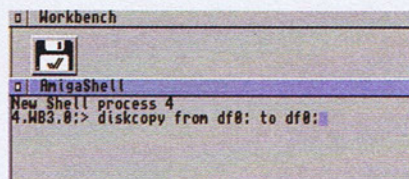
More details about the game and registration can be found in the documents.

BACKING UP YOUR COVERDISK

Copying your Coverdisk is really very simple. Just follow the stages below...

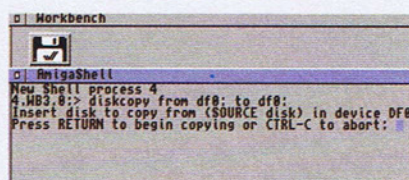


1 Boot up with your Workbench disk and find the Shell icon, in your system drawer. Double-click on this to go into the Shell.

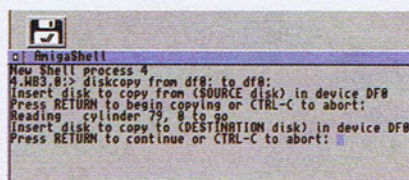


2 Type in the following line (with a zero, not the letter O), taking care to put the spaces in the correct places:

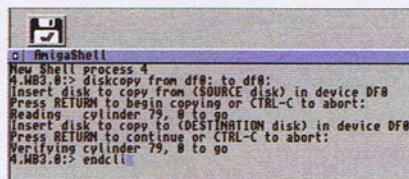
DISKCOPY FROM DFO: TO DFO:



3 When asked for the Source disk, insert your write-protected Coverdisk and press Return. All of the info on this disk will then be copied from the disk into memory.



4 Once your Amiga has read the info, it will ask for the Destination disk. Insert it and press Return. All information on this disk will be destroyed.



5 On an unexpanded machine, the Amiga may ask for the source disk again, because it copies in chunks. Finally, type `endcli` to close down the Shell.

DISK NOT WORKING?

We take every care to test the Coverdisk software, but Future Publishing cannot accept any responsibility for any damage occurring during its use. If your disk is faulty, send it back, including an SAE, for a free replacement to:

Amiga Format (insert name of disk)
TIB PLC
TIB House
11 Edward Street
Bradford BD4 7BH

IMPORTANT! READ ME FIRST! INSTALLATION

In order to fit these two great games on the disk, we've had to archive them. Unpacking them is done automatically, but you do need two spare disks. These disks must be pre-formatted by you and be completely empty. Note that the *XP8* disk must be FFS, which is the Workbench 2 type disk that holds 878K. Information about formatting a disk can be found in your Workbench manual. Workbench 2 and above owners can simply boot the Coverdisk and follow the instructions from

there, inserting the empty disks when asked. If you have a Workbench 1.3 machine, you need to boot your Workbench and then insert the Coverdisk. Open the disk and double click on the Install icon. You will need to insert the spare disk when asked.

Note that you need an A1200 to play *XP8*. It can be auto-booted, but *Breed 96* requires you to boot your Workbench disk to play it. (There are instructions in the game's docs about how to create an auto-booting game disk.)



OCTAMED SOUNDSTUDIO

The Amiga's favourite music program will not see version seven. Instead, we're getting a whole new package named *Soundstudio*. It offers some remarkable developments such as up to 64 independent audio channels and 14-bit playback through the Amiga's standard hardware! This month, we're very pleased to be able to let you sample the program's delights (excuse the pun) with an exclusive demo.

The most significant of the new features is the mixing routine. Instead of the old 4-channel mode which was tightly tied to the audio hardware of the Amiga, the mixing routine is hardware-independent, and can use several output options. Supported output devices are Amiga (8- and 14-bit), Toccata (16-bit), Maestrix (16-bit) and Delfina (16-bit). It's also possible to record digital sound data directly onto disk at the desired resolution (8/16) and sampling frequency.

Based on the mixing technique used in five to eight channel mode, the new Mix channel

mode can play 64 notes at once using the normal Amiga sound capabilities! You can also bring your song to life with effects such as echo, and use it to record part of your song direct to disk as a sample.

As well as all the advantages of the last version of *OctaMED*, there are masses of other improvements too. The notation editor, which didn't appear in version six, has returned considerably enhanced and now includes up to 16 staves. There's a new window which allows you to do powerful search and replace operations on notes, instrument numbers, commands or any combination!

Note that in order to run the annotation editor, you must copy the font from the fonts drawer on the disk to your fonts directory on your Workbench disk.

A much more comprehensive list of new features can be found on the disk in the readme file. Also on the disk, you'll find two modules that have been converted to play back in the new 14-bit mode and also a couple of samples for you to try out within the demo.

The demo is save disabled, but you can get more information or an upgrade to *OctaMED Soundstudio* from RBF Software. Their address is: RBF Software (OSSV1), 169 Dale Valley Road, Southampton, SO16 6QX or you can visit

OctaMED has been with the Amiga for as long as most of us can remember. David Taylor introduces the new version which promises to revolutionise Amiga music.

their WWW site at:

<http://www.compulink.co.uk/~octamed/> or E-mail rbfsoft@cix.compulink.co.uk.

A telephone answering service is also available on: 01703 785680.

Upgrade prices are set at £35 for registered *OctaMED 6* users and £70 full price.

OCTAMED 5 TUTORIAL

In addition to the *Soundstudio* demo, we also have the official tutorial guide to *OctaMED 5*. This is simply an extensive amigaguide that you can work through as a guide to the features of the program. If you're an *OctaMED* user, then this guide is heaven sent.

If you don't have *OctaMED 5*, then you can obtain it from this month's Cover CD which contains the full package. If you've got the CD version that is. Sorry, but there wasn't room to include it on the floppy.

MAGNIFICAD

Computer aided design is an excellent way for your Amiga to help you plan out projects. *MagnificAD* is a very accessible program that allows you to use its features and tools to plan out 2D designs. You could create a house floorplan, that can be made on several levels, or design an office or any other room for that matter. It can output DXF files for use in other design packages.

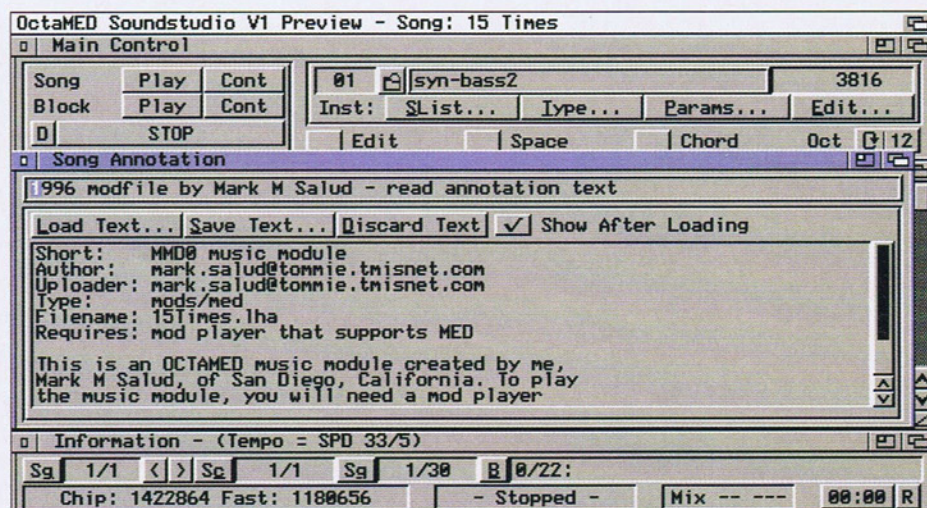
MagnificAD allows the use of four different types of drawing elements: polylines, arcs, text and symbols.

The polylines and the arcs are the common drawing elements and they are the real elements that make up a design. The other two types, text and symbols, play a supporting role in a drawing.

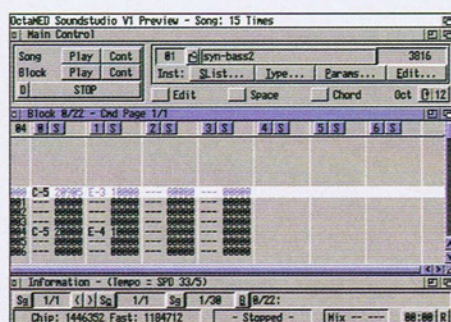
A polyline is a series of connected line segments, and may be open or closed. A polyline may consist of only one line segment. A special polyline type, the rectangle, is constrained to preserve its rectangular shape.

An arc is represented by the parameters that are used to generate it, not by line segments such as in polylines. An arc can be open (a partial circle) or closed (a full circle or ellipse). Text elements consist of a character string and can only be placed horizontally.

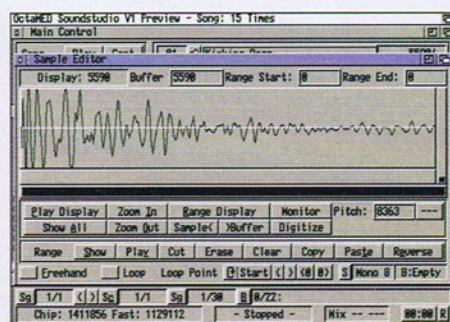
Symbols are elements composed of several



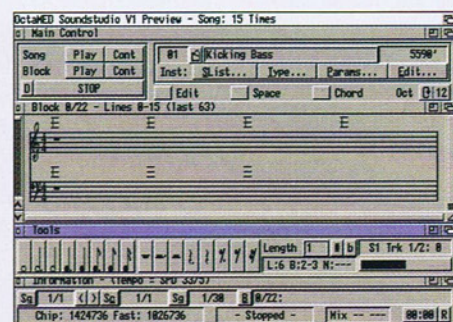
When you load the demo of *OctaMED Soundstudio*, you can load in two demo modules and the program will display a small file giving you information about the module.



The form might look familiar to *OctaMED* users, but you'll soon see that there are many additions.

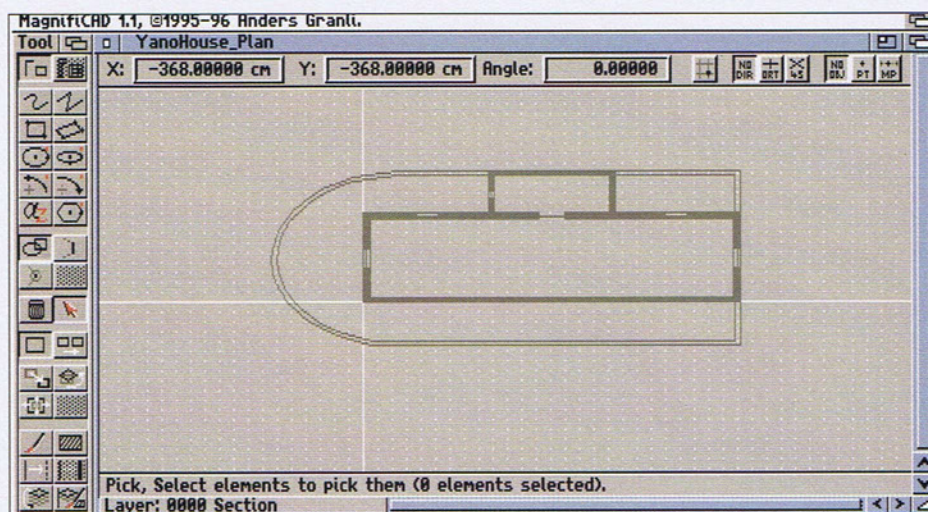


There is a built-in Sample editor to allow you to mess around with the samples themselves.

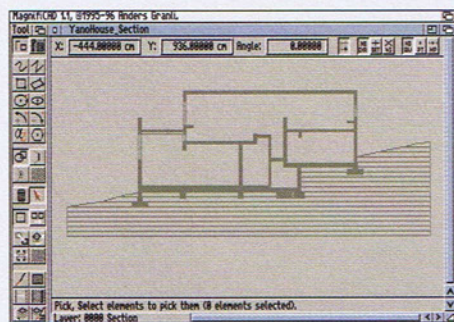


Heh, heh! You can even compose on *OctaMED* using the standard set of notes.

OctaMED Soundstudio



MagnificAD is a computer aided design program and you can see how many tools are available by viewing the toolbar down the left hand side. The whole thing is laid out in the way standard paint programs are.



You can now design multiple layers of 2D plans and have your house redesigned in minutes!

other elements and are useful for repetitions. When the symbols are created, they are placed in a library of symbols, from which they may be retrieved and repeatedly placed in a drawing as many times as necessary.

MagnificAD requires Workbench 3 and is shareware – read the docs for the registration details.

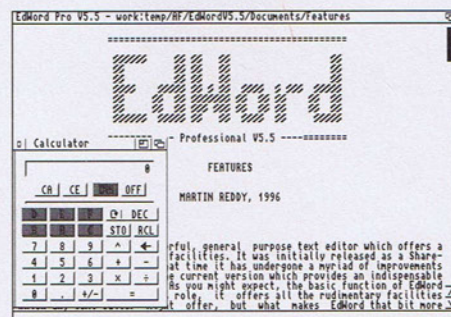
EDWORDPRO 5.5

Edword has long been popular with Amiga owners as a replacement text editor for *Ed*, the rather lacklustre editor that comes with Workbench. While perfectly capable of producing letters and much longer documents, *Edword* really shines when you are creating AmigaDOS scripts or the like. It is a package that is teaming with features, including all the obvious ones like find/replace. It also has a calculator with many functions that can be called (the calculator, incidentally, can also be used standalone from Workbench) and the

program supports ARexx too. The ARexx interface has 24 new commands including FindFile, GotoDoc, SetMargin and GetInput. There are many scripts supplied with ones to re-format text to margins as well as left, right or fully justified blocks of text.

In addition, you can record and playback your own macros so that repetitive tasks become simple. This is brilliant for multiple documents on which you need to perform the same set of functions. These macros can be saved and loaded back in for future use.

Among its main new features are an auto-complete function where the program will automatically try to complete a word based on a loaded Keyword file. This function is enabled by pressing Alt and the space bar. For programmers there is a Find Function facility to locate functions and procedures within source code. The editor itself can now be opened on any Public Screen as well as on its own and a Help menu has been added too.



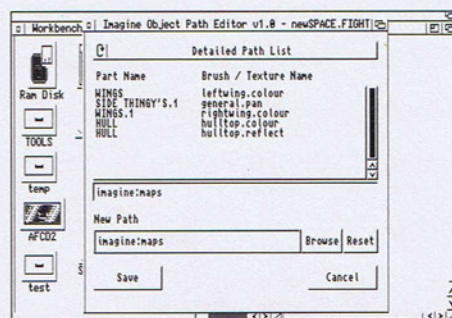
EdwordPro has many features including this excellent calculator for quick sums.

This program is also shareware and you should read its documentation for more information.

IOP EDITOR

Imagine users will know that whenever you get a new object, it's almost always got a path attached to it for textures that either aren't on your machine or are in a different place to the one the object expects.

IOP Editor makes it easy to identify these and to change them to one that suits you quickly. The program's features are all easily accessible from an obvious graphical user interface.



The *Imagine* Path Editor allows you to edit the paths to textures assigned to objects very easily.

INSTALLATION

The software on this disk has been archived to fit it all on. You require a WB2 machine to de-archive them. All you need to do is boot the Coverdisk by inserting it in the internal drive (df0:) and turning your Amiga on. You need three spare disks to install to, but they do not need to be pre-formatted as the disk will do this automatically for you. Simply follow the on-screen instructions and choose the disk you want to install. The programs can be installed directly to a hard drive, but it is suggested that you create a test directory to install to so that you can easily remove the programs should you want to. If you have a PCMCIA or SCSI drive that is not accessible on boot-up, load up Workbench and then insert the Coverdisk. There is an Install icon on the disk that will let you install everything to a hard drive from there. Note that in order to run the annotation editor, you must copy the font from the fonts drawer on the disk to your fonts directory on your Workbench disk. In order to see the fonts drawer, you must select the "Show all files" menu item from the Window menu on Workbench. All the contents of this drawer must be copied.

AMIGA FORMAT COVER CD

Welcome to yet another *Amiga Format* Cover CD. We have, as you would expect, another disc full of images, animations, PD, Licenceware and a whole load of other excellent material.

COMMERCIAL SOFTWARE

CanDo is a rather excellent package, designed to help you create your own applications and presentations quickly and easily. It does this job so well in fact, that we used version 3 to create the GUI interface for the CD.

Version 2.5 is installed on the CD and is ready to run (make sure you run the assign program first though!).

Using *CanDo* is fairly straightforward, and there are plenty of examples on the CD to get you started. The important thing to remember is to click on the "Browse" mode in the *CanDo* panel to use the applications, and to use the Design mode to add new buttons, scripts, sounds or whatever. Hopefully we will be able to do a special deal for manuals in the next issue of *Amiga Format*.

If you would like to get hold of the latest version, you will find details of the upgrade offer on the actual CD.

OctaMED

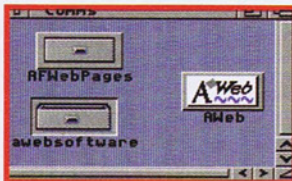
Possibly the best known sound tracker program ever, the CD contains the full commercial release version 5.0. *OctaMED* enables anyone, with or without any musical knowledge (or indeed, talent) to come up with some cracking tunes. It can be a little daunting to use at first, but don't worry, because we've also included the giant *Amiga.guide* official tutorial for this version to get you started.

If you like what you see, it would probably be a good idea to check out the Demo drawer on the CD as well, where you will find a demo version of *Soundstudio*, which is essentially, a vastly improved version of *OctaMED*.

ATTENTION CD³² OWNERS!

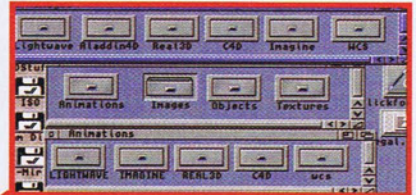
Due to last minute technicalities, this disk will not boot directly from CD-ROM. Most files and software are usable if you have a mouse and external floppy drive though. We apologise and we hope to have sorted this problem out in time for the next issue.

PLACES TO GO WITH YOUR CD-ROM



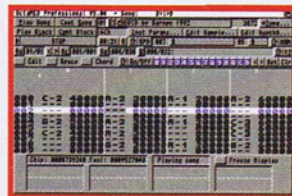
The comms drawer contains the latest shareware version of the increasingly popular *AWeb* browsing software. You will also find a drawer full of useful PD and shareware, and also the software which allows you to take advantage of our fabulous Internet offer (see the opposite page for some more details).

There are plenty of demos of commercial software and CDs tucked away on the disk. We have an excellent demo of Optonica's *MMEExperience*,

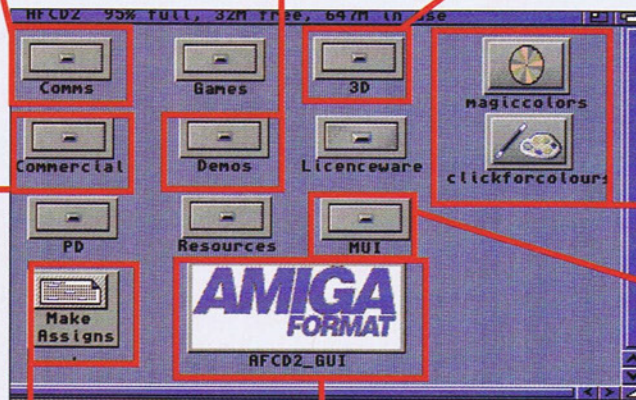


You will find the 3D directory stuffed full of images, animations, objects and textures suitable for use with all the major rendering packages, including *Real 3D*, *Lightwave*, *Imagine* and *Cinema 4D*. Most of the animations are in HAM8 mode, but there are some surprisingly good 16-colour anims suitable for any machine - check out the cave drawer to find out what can be achieved on an original chipset machine.

Double-clicking on these two icons will set the correct screen depth and palette to display *Magic Workbench* style icons. You don't have to click on them to use the disc (it will take up slightly more Chip RAM), but it will make things a bit prettier. Oh, and thanks to the excellent *AGA Experience* disc, where we needed the scripts from in the first place.



This month you will find a full version of *CanDo* 2.5, the multimedia authoring software and the full release version of *OctaMED* 5, including the official *Amiga.guide* tutorial document. Upgrade offers for this software are included on the CD.



Please double-click on this before you try and access anything else on the CD, or the chances are you'll get some sort of error message.

To help you around the CD, we have developed an excellent graphical front-end, which will allow you to view many of the images and animations present on this disc. You will need an AGA Amiga though.



Some of the software on the disk requires the excellent *MUI* system by Stefan Stuntz to work. We have included a version on the disk, but to avoid unnecessary memory usage, you will have to run it as and when you need it and remember to execute the assigns script first. Remember that *MUI* is shareware, and if you continue to use it, you must register with the author.

FIRSTNET SOFTWARE

Due to sustained media hype, just about every computer-owner has probably considered connecting their machine to the Internet. However most are put off by the complexity of configuring the necessary software, not to mention finding an ISP (Internet Service Provider) that knows anything about the Amiga. Well this month could be your lucky month because we're giving you the chance to sample the delights of the Internet for free for a whole month. After this free period you will be charged £12.50 per month if you live in the Leeds area or £15.00 elsewhere in mainland Britain.

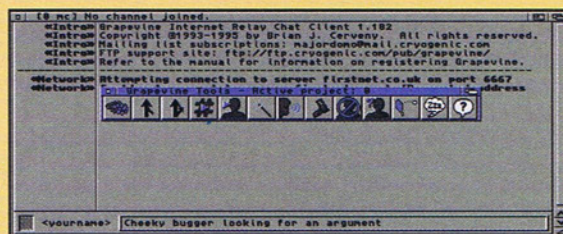
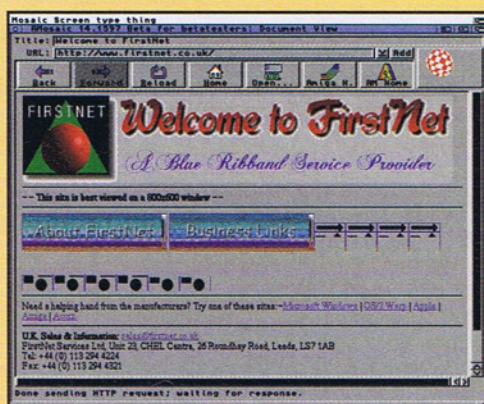
All the software you need is in the FirstNet drawer of the comms directory and includes email software and a web-browser. All you need to do is call FirstNet on 0113 294 4224 and they will sort out your user name and password and provide any further information you need. Be prepared to give them your Access or Visa card number when you call as they will need this. Don't worry it's

a standard procedure and you won't be charged unless you use the service after the one month trial which starts after your call. Once you're on-line though, don't give out your number to anyone.

To install the software, including a demo version of *AmiTCP 4*, double-click on the install icon. If the install script asks you to choose the names of your boot and main disks, don't panic if yours are called something else – simply assign them using Shell with a similar line to the following; Assign DH0: yourdrive: where your drive is the name of your boot partition. Do the same thing if your main partition is not called Work, but substitute DH0: for DH1:

Make friends, or in Graeme's case, enemies, all over the world with Grapevine and Internet Relay Chat.

Install the software and a quick phone call later you'll be browsing the web.



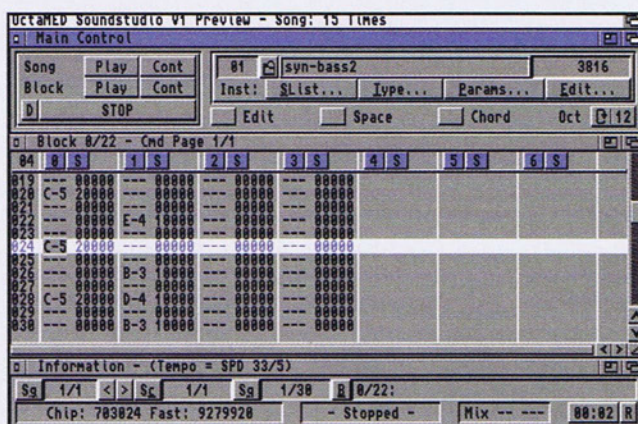
LICENCEWARE

There are over twenty Licenceware titles from the ProSoft and 5D libraries this month. Among them you will find useful programs such as *ProGreyhounds* (which Linda didn't need when she went to the dogs), several games, a pools predictor and an assortment of Lottery programs

GAMES

It's another veritable games fest this month with indispensables such as the latest version of *Breed '96*, the rather tremendous *Super Foul Egg*, the quite astounding if you stop to think about it *Alien Bash 2* and the just plain bizarre *Train Driver* – a remarkably lifelike simulation of BR's amazing rail network.

If you have ever wondered what it's like to drive the 10SR from London to Carlisle you now have the opportunity to find out. The simulation even includes the AWS system, which prevents you from speeding through yellow signals into the back of the Edinburgh sleeper, although you can still turn off the warnings and speed through stations doing a ton. It is well



You will find the demo version of *OctaMED Soundstudio* in the Demos drawer.

Another demo on this month's CD is the rather useful *MMExperience* from Optonica.

worth a look, just so you can say that you've done it.

You will also find some commercial demos in the games section, both of released titles such as *Slam Tilt* and *XP8*, and the upcoming *Alien Breed 3DII* and *Capital Punishment*.

We have included the '060 update for *Breathless* and a saved game editor for *SWOS* (but don't you dare come running to us if you accidentally turn Yeboah into Beardsley).

PD

There are plenty of PD and shareware titles to be found in this drawer including some quite amazing utilities. Our favourite of the month is probably *TapAvi*. We have included the older version which will work on AGA Amigas, although a newer version exists but only

for owners of the Picasso card.

There are some demo AVI files in the examples drawer taken from the latest season of *Babylon5* – they're great with the volume up.

You will also find the rather controversial but incredibly powerful Mac emulator, *Shapeshifter*. Obviously we cannot distribute the Mac ROM image or the system software on disc, but the complete distributable archive is there, ready for use.

Obviously, we have also included the very latest version of *Virus Checker* to protect your disks from unwanted visitors. Make sure you use it!

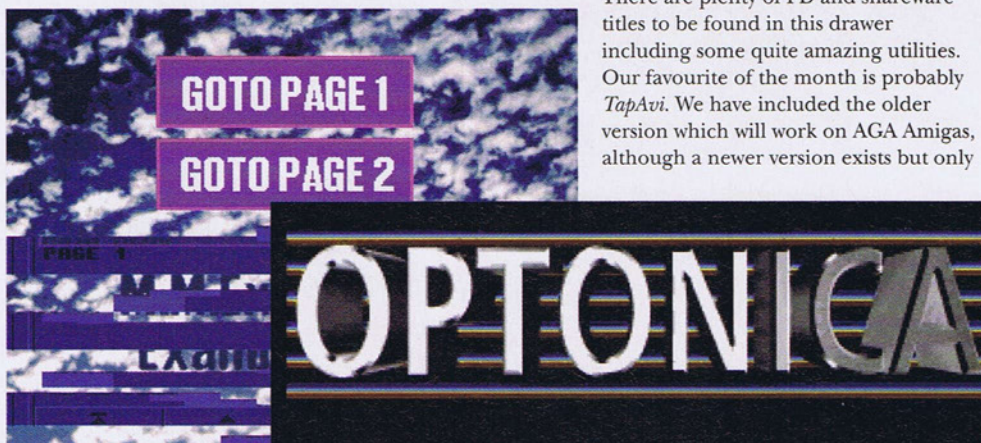
DISC NOT WORKING?

If the CD is defective, please return it to the address below. Please make sure you have followed our installation procedures correctly to ensure that there is a physical problem. Please send the CD along with a description of the fault plus a self addressed envelope. Return postage will be paid.

Ablex Audio Video Limited, Harcourt, Halesfield 14, Telford, Shropshire TF7 4QR

A CD should only need replacing if the CD itself cannot be read. If, instead you are experiencing problems with an individual demo or application phone our technical support line. This is open between the hours of 9.30am and 6.00pm from Monday to Friday. Tel: 01225 442244. Fax: 01225 732279. Email: support@futurenet.co.uk

Please note that the helpline staff provide assistance with technical problems directly related to our cover CD and cannot provide training on the software or hardware in general.



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C64 & 45 original games£4-99

C64 & 100 original games.....£8-99

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PS: C64 V3 & 100 GAMES PACK SCORED 88% WHEN REVIEWED IN AMIGA SHOPPER ISSUE 54

ZX SPECTRUM 48K



Now you can play 100s & 100s of Spectrum 48K games on your Amiga. Any pack below is complete & ready to run on your Amiga. Full printed instructions provided.

SPECTRUM + 50 GAMES PK 1 ONLY £4-99
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SPECTRUM + 200 GAMES PK 3 ONLY £16-99

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More Spectrum games available
...screen shot from AMIGA

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C64 & 45 games pack
Spectrum V2 & 50 games
Vic 20 & 30 games

All 3 packs for only £9-99

SEE LEFT FOR DESCRIPTION

1000

SPECTRUM GAMES pack

See left for detail. This pack comes on a very large number of disks. rrp £39-99

NOW ONLY £29.99

+ £2.45 for parcel postage (due to the very large number of disks in this pack).

AGA A1200 & A4000 ONLY

THIS LISTING IS FOR USE WITH AGA AMIGAS

AGA001 EXTENSION DEMO Stunning demo, fast landscape anim and a rotating city, regarded as the best AGA demo
AGA002 FRACTAL GENERATOR fractal in 256 colours
AGA003 WORKBENCH HACK hacky/blanker etc
AGA006 NEW SUPER KILLER recognises & kills over 316 types of virus. Must for all A1200 owners
AGA007 MINIMAP very first demo for the A1200
AGA011 SLEEPLESS NIGHT 3
AGA012 PLANET GROOVE Super A1200 demo
AGA013 MOTOR INVADER 2 (2 disks) Brilliant INVADER game
AGA015 POINT OF SCALE Great A1200 only demo
AGA016 CHROMAS - Fairly good demo
AGA017 WORLD OF MANGA (4 disks) magnificent Japanese comic style show. Recommended
AGA021 MAGIC WORKBENCH Improve the look of your WB & add some functions to your WB. Really BRILLIANT
AGA022 WB 3 UTILITIES loads of WB 3 only utilities
AGA023 U-CHESS the best chess game program so far but requires a megabyte. Brilliant graphics
AGA024 WORKBENCH 3 SCREEN Great backdrop

DEGRADER
AGA090 A1200 FIX DISK COLLECTION 1
AGA091 A1200 FIX DISK COLLECTION 2
AGA094 RELCOAT V1 4a latest ver. AS50 SOFTWARE
AGA096 A1200 FIX DISK VOL 3 (New July 95) All disks above are designed to make any older A500-A600 Amiga programs/games etc run on your A1200/A4000
A MUST FOR ALL AGA AMIGA OWNERS. RECOMMENDED

AGA097 A1200 UTIL - AGA TESTER, SYSINFO etc
AGA098 ACTION REPLAY V4 Complete ACTION REPLAY
AGA099 MADFIGHTER 2 Brilliant Street Fighter clone
AGA100 AGA BLITZ SCREEN BLANKER
AGA101 FAST GIFF 2 display GIFF pic in Workbench
AGA102 AGA DIAGNOSTIC - NEW system tester
AGA103 BLACK BOARD AGA decent image processor
AGA105 QUICK GRAB AGA - AGA screen grabs
AGA110 WORLD BEYONDS (3) stunning 256 colour fantasy art. Leaves Atari users breathless
AGA114 SHELLS LIKE CHANTEL No.5 most brilliant demo ray trace picture ever released on the A1200
AGA121 MAGIC FACTORY 1 STAR TREK (5 disks)
AGA133 AGA UTIL v1 & 2 (2) AGA util compilation
AGA135 AGA UTIL V3 & 4 (2) more of above
AGA137 MULTIBOOT - 4 different versions A500 EMU
AGA138 OFFICIAL WORKBENCH 3 HARD DRIVE INSTALLER
AGA139 WB3 HARD DISK PREF & INSTALLER installing
AGA140 CROSS DOS PLUS v1.1 read/write PC files
AGA142 SUPER LEAGUE 3 - latest manager games
AGA144 SPEAK & SPELL - educational software for kids
AGA146 KELLOG LAND - brilliant platform game
AGA150 ACTION REPLAY V5 - NEW UPDATE TO V4
AGA160 GIGER TRIZ very playable 256 colour Tetris
AGA162 FATAL-BLOW new STREET-FIGHTER 2 clone
AGA166 INFESTATION (3 disks) The ultimate AGA demo
AGA172 VIDEO TRACKER AGA ultimate demo maker
AGA174 MAGIC WB EXTRA V1 & 2 (2 disks)
AGA189 FRIDAY AT 8 another brilliant AGA demo
AGA190 ASSASSIN MULTIVISION AGA pic viewing util
AGA192 ALIEN FRENZY 2 player blasting + power up
AGA194 BIG TIME SEXUAL (2 disks) SPACE BALL 2
AGA200 MASQUERADE (2 disks) brilliant puzzle game
AGA202 RAM JAM 94 I can't be done (2 disks)
AGA204 COMPLEX ORIGIN (2 disks) requires 2 disk drive
AGA206 TREASURE OF TUTANKHAMUN - educational tool
AGA230 LOVE (2 disks) simply brilliant DEMOS
AGA231 AGA UTIL 7 & 8 (2 disks). More USEFUL util
AGA234 KNOTTY Stunning AGA sliding picture puzzles
AGA240 LOTTERY WINNER hopefully will improve your chance of winning a jackpot. GOOD-LUCK
AGA241-258 AGA GAME-GALORE AGA 01-18 lots of games

AGA251 PACKMAN AGA - The best pacman yet
AGA252 ROCKET PD - Super thrust clone brilliant graphics for 1 or 2 players
AGA253 REAL DEMO Stunning special effects
AGA254 DIRT AGA Brilliant 256 colour effects
AGA255 DELIGHT EXPLORER Excellent demo
AGA256 KEFEREN AGA Demo lots of effects
AGA257 MINOMIST RAVE great rave music
AGA258 OXYGENE Fantastic demo
AGA259 INTEL-OUT Another very good demo
AGA260 SOME JUSTICE 94 Demo of the month. Brilliant whirl effect. RECOMMENDED
AGA262 TO THE DEATH Very good STREET-FIGHTER clone with excellent graphics
AGA263 GEORGE GALAXO (2 disks) Brilliant multi level shoot'n/blast game. RECOMMENDED
AGA265 MISSILE OVER ZENON (2 disks) Brilliant 3D missile commander with fantastic graphics
AGA266 TEAM-HOI DINO PLATFORM Excellent dino platform
Note: this disk was a commercial game
AGA274 MUSIC 2 SURVIVE (2 disks) 8 excellent music masterpieces. Well worth getting
AGA271 RAVE MAXIMUM OVERDRIVE II (2 disks)
AGA278 CHANNEL Z ISSUE 1 (AGA) (2 disks)
AGA base disk magazines. RECOMMENDED
AGA disk magazine topic demo/music
AGA285 WORKBENCH BACKDROP VOL 3
AGA286 DELUXE MONOPOLY - Board game. Very addictive
AGA288 DONKEY KONG Arcade classic conversion
AGA297 BOMB PAC Extremely good gameplay
AGA298 ROCKET 2 set deep underground Brilliant graphics. Even better with 2 players
AGA299 SCRABBLE - Now runs on all Amigas
AGA300 MAGIC WB V2. Demo of version 2
AGA302 TUTANKHAM II (2) Education-Egyptian Mummy
AGA305 TIMEZONE (2) Very good graphic adventures.
AGA307 DENTAWOLF Doom demo
AGA308 NAVIS - Really shows what AGA graphics can do
AGA110 FEARS (2d) - Doom clone demo
AGA312 JINX (2d) Fantastic arcade puzzle
AGA313 RAM JAM THE TASTE DEMO wicked demo.
AGA315 LEX MYSTIC. New AGA demo
AGA320 KLONDIKE 3 (4 disks) HD required & 2 MEG. We also have a list of 25 cards for above.
Hundreds of quality Magic WB icons & backdrops
AGA388 DESK-TOP MAGIC - 32 animated screen blanker
AGA389 PSSST Amiga version of Spectrum games
AGA400 FEAR II - Brilliant 3D game plays just like DOOM on the PC. Guaranteed to impress.
AGA393 PC EMULATOR V3 - Latest PC emulator
AGA400 HYPER RACE (2) Super racing games
AGA419 EXCELLENT CARD GAMES 3 latest
AGA421 COLOUR WB make your WB more colourful
AGA422 RIDGE RACER Demo on the Amiga
AGA423 DRUG STORE DEMOS (2 disks)
AGA424 DREAM WALKER (2) Demos
AGA425 RYMSTIC DEMOS (2) 95 excellent demos
AGA426 ORIGIN 2 (2 disks). Amazing

AGA427 MAGIC WB EXTRA V1 & 2 (2 disks)
AGA428 MAGIC WB EXTRA V1 & 2 (2 disks)
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This pack is ideal for any Amiga owner who doesn't own a CD ROM drive and wants a large amount of the very latest software at minimum cost.
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 - CP04 CLIP-ART VOL 4 (5 disks)
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SEE PAGE 1 FOR MORE AMIGA SOFTWARE

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U008 LABEL DESIGNER Design your own labels
U144 DESKTOP PUBLISHING The best DTP available
U128 BUSINESS CARD MAKER (not A1200) very good
U160 600 BUSINESS LETTER Very handy. Get it now
U101 DATA BASE WORKSHOP (2) Lots of data base
U121 SPREAD SHEET Very easy to use spreadsheet
U183 QUICK BASE Very powerful Database Easy to use
U195 AMIBASE-Professional version of the best database yet
U227 TEXTRA Can edit several documents at once
U239 FLEXI BASE Small easy to operate database.
U259 PENNY WISE Very powerful database.
U297 VISICALC Great database lots of functions
U343 LITTLE OFFICE - Databases/word processor/spread
U345 HOME BUSINESS JOURNAL Easy to use database
U364 HOME ACCOUNT - Account program
U368 AMICASH Regarded as the best account prog.
U400 LORAN NOTE BOOK Database & world map.
U390 DATA BASE compilation - Bestseller to date
U287 FORM UNLIMITED Design any type of form
U388 MORTGAGE CALC Calculate mortgage repay rate etc.
U489 ADDRESS PRINT V2.1 Store & print address
U489 TEXT ENGINES V4.1 & 36,000 word spellchecker.
U488 INVENTORY 2 Detail home contents, for insurance
U712 EDWORD PROFESSIONAL Truly the best wordprocessor
U722 EASYCALC - Massive spreadsheet max 92583 cell
U756 PAY ADVANCE ANALYZER Money prog.
U781 ACCOUNT MASTER V3 Lots of functions & easy to use
U889 ADDRESS PRINTING Print addresses on labels
U889 PAY ADVANCE V3 Account program
U815 LABEL MAKER - Print labels etc. New
U900 THE MONEY PROGRAM - Accounts
U915 ONFORM One of the best Invoice makers
U965 ONFORM FILE Very fast & efficient database
U956 GEN-TR - Keep track of your family tree
U957 ABANK II - New account software. RECOMMENDED
U958 ACCOUNT MANAGER V3 - New Account program

LITTLE OFFICE 2
New Release includes:
550 Business Letters
Word Processor
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Name & Address Database
All this for only £1-99
COMPATIBLE WITH ALL AMIGAS
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Epu V1.6 this doubles the size of your HD or Disk Drive storage capacity.
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Build dozens of projects including an accelerator for an A500 for less than £15. Install 3.5 Hd in your A800 & A1200. Put your A500/A600/A1200 in a towercase for less than £30. Use 1.44 PC disk drive on your Amiga, add a Pocket Modem to your Amiga & many many more. This could save you £££ (not for beginners) 3 disk pack only £5

New Titles

- G938 ULTIMATE TOUR TENNIS (2 disks) - Excellent tennis game
- G939 DARK ANGEL - (not WB 1-3) Superb arcade adventure
- G940 RAISE THE TITANIC - Good 3D adventure game
- G941 PHANTOM - Excellent shoot-em-up games (DEFENDER 96)
- G942 MACDONALD - Brilliant game similar to ZOOL (not A1200)
- G943 JOUST III - Brilliant C64 games with updated Amiga graphics
- G944 DELUXE GALAGA V2.6 - The very latest Galaga. Highly recommended
- G955 LAZER RACE - Good Tron type game. Extremely addictive.
- G956 TRAIN-Driver SIMULATION - The most realistic train sim.
- G957 MASTER-BLASTER - Kill various monsters with bombs.
- G958 KNOCK-OUT - Mini destruction derby. Very addictive.
- G959 DUNGEON HERO - 3D Graphic adventure, similar to DOOM
- G960 MORTAL KUMQUAT 3 - Weird but fun beat-em-up
- G961 CODE NAME NANO - Super Thrust clone (NANO FLY 2)
- G962 MICRO MARKET V3 - Get rich by buying shares. Great game.
- G963 POKER-MANIA - If you like poker then this is for you
- G965 LETHAL FORMULA - Adventure similar to Monkey Island
- E253 BEGINNERS TYPING TUTOR
- E254 WORD PUZZLE PRO - Create Crossword puzzles or solve puzzles.
- E255 KID DISK 7 - Another fine educational program
- E256 EARLY LEARNER (age 3-5) - Teach your kids how to read
- E257 A-Z COUNTRIES OF THE WORLD
- E258 UK COUNTIES - Similar to above, but based entirely on ENGLAND, WALES, SCOTLAND & NORTHERN IRELAND
- E259 BASIC ELECTRONICS V1-5 (2 disks) - For the electronics fan
- E261 MASSIVE GUIDE TO THE INTERNET V2.3
- AGA 429 POWERDROID-96 - New Asteroid game with brilliant graphics
- AGA 430 ULTIMATUM - The ultimate 3D tank battle
- U1010 WB3 INSTALLER - Install A500/A600 Workbench to HD
- U1011 TURBO-CAT PRO V1.2 (not WB1-3) - create cartoons
- U1012 TEXT-ENGINE V5 (not WB1-3) - The very latest wordprocessor with spellchecker. This is the full version. Highly recommended
- U1013 DIARY 2000 - use just like a real diary
- U1014 TOTAL ECLIPSE - Disk Magazine 1
- U1015 NEW CHEAT DISK V2.1 (2 disks) - Includes some games cheats
- U1016 ULTRA ACCOUNT - Another very good accounts program
- U1017 PRO LOTTERY 96 - The very latest & best lottery prog
- U1018 PRO GREYHOUND - Like ProGamble but for dogs
- U1019 AUTO STEREO GRAM V4 - Latest Magic eye generator
- U1021 ELECTRONIC ADDRESS BOOK
- U1022 PRO-FOOTBALL 1.1 (2) - Football predictor like ProGamble
- U1023 REMDATE - Remember important dates
- U1024 SHAPE-SHIFTER V3-3 - The very latest Mac emulator
- U1025 MESSY DISK 3 - The latest PC-AMIGA disk converter
- U1026 HD GAME INSTALLER 4 - Install loads more games to HD
- U1027 SOFT MEMORY - Double your computer memory. This version does not require HD or MMU. Give this a try. Recommended
- U1028 MAGIC USER INTERFACE V3.1 - Update from version 2.3
- U1029 ORIC 48K EMULATOR (not 1-3) At last it works
- U1030 CLM II - Emulator V2.1 (WB 3-0) MSX computer
- U1031 900 AMIGA GAMES, HINTS & CHEATS V4 (2 disks)
- U1032 VIRUS CHECKER V8.2 - (not WB 1-3). Latest version

MAGIC WB & EXTRA DISK
This is the cheapest way to obtain Magic WB extra. Each pack below will fill 12 disks when unpacked, (very easy to unpack by clicking a few buttons).
MAGIC WB EXTRA PACK (01-12)£6-99
MAGIC WB EXTRA PACK (13-24)£7-99
MAGIC WB EXTRA PACK (25-36)£7-99
MAGIC WB EXTRA PACK (37-48)£7-99
AGA21 MAGIC WB V1.3 - THE LATEST MAGIC WB FOR A1200
U956 MAGIC WB V1.3 - this is for the A500 / A500X & A600
Magic BackDrop
This is ideal for use with Magic WB or normal A1200 work (WB2 users require NICKPREF to use the BackDrop)
Various Back Drops 1 (4)£3-99
Various Back Drops 2 (2)£1-99
Sexy BACKDROP£0-99
NEW AMIGA LOGO BD£0-99
Magic Scenery BD (2)£1-99
Glamour Face£1-99
All New BackDrop 96 (5)£4-95

AMIGA FORMAT COVERDISKS

**CAN'T GET YOUR DISK
SOFTWARE WORKING?
CALL
(MON-FRI 2PM-6.30PM)
0191 584 0682**



EXTRA!

Your Coverdisk should be working fine, but if it's not, these hints, tips and corrections should sort out the problem quickly and easily.



WORMS (AF79)

The amount of telephone calls to the Coverdisk helpline about Worms suggests that many of you weren't very careful when decompressing this game. It is easy to ruin your Worms Coverdisk by not changing to a blank disk at the correct time in the procedure. The result is that Worms disk One is decompressed over the Coverdisk, losing the compressed Worms Disk Two file in the process. Before using any Coverdisk write-protect it first and then make a spare copy. (if you don't know how to copy a disk see the box on page 115)



ULTIMATE WORKBENCH UTILITIES (AF80)

If you are having trouble reading the documentation that accompanies the Workbench utilities it is likely that you don't have the tool that your Amiga looks for when you double click on a doc icon; e.g. Muchmore, Multiview, AmigaGuide etc. Or that these aren't set up properly on your Workbench. You can use a word processor or a text editor to read the docs, or use the program ordering included in the collection.



ZEEWOLF 2 (AF81)

Many readers have phoned in saying they are having problems with Zeewolf 2. One meg A500 users who have two floppy disk drives should disconnect the external drive to make more memory available to the game. Unfortunately Zeewolf 2 just doesn't seem to work at all with some accelerator cards.



FINAL WRITER 4 LITE (AF82)

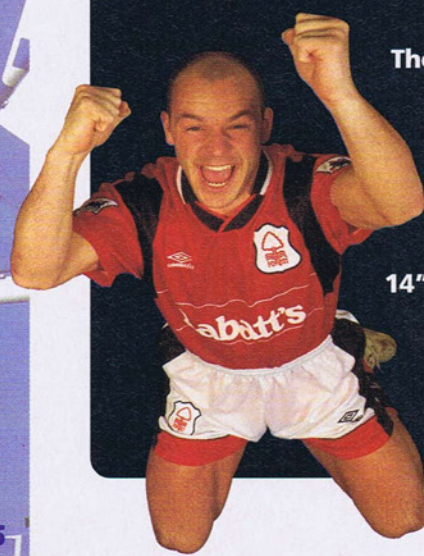
If Final Writer's pull-down menus won't pull down it is probably because you are running a menu enhancement commodity (i.e. MagicMenu). Such programs don't work correctly with Final Writer and should be disabled. In order to print Final Writer documents it is vital that you have the correct printer driver installed in the devs/printers drawer of your Workbench disk and that the driver is selected and configured using Workbench's printer prefs utilities. Your Workbench manual describes how to do this. To print out larger documents Final Writer requires more memory. If you are using the program on a 2Mb machine, try to maximise the amount of memory available to Final Writer by removing any utilities or commodities run-

ning in the background - if you still experience problems, use Workbench's prefs utilities to alter the Workbench screen to a lower resolution screenmode with less colours and no backdrop pictures. Lastly, it was inadvertently stated that Final Writer works on all 2Mb+ Amigas. Sorry, but it's incompatible with old Kickstart 1.2/1.3 machines.

GENERAL PROBLEMS

I often hear from people who have returned their Coverdisks for replacements several times and are still meeting with the same problems. The most common are Read/Write or Checksum errors which occur during the decompression process. It is important to note which disk is in the drive when such errors occur - is it the Coverdisk or one of your own disks? If it's one of your own disks then that is the disk with the problem, not the Coverdisk. Did you format your blank disks correctly? Try re-formatting them and make sure that you do a full format not just a quick format, use the verify option and make sure you format from your Workbench, not from utilities like X-Copy. Disable Directory Caching, Trashcan and International Mode. Don't decrunch to HD (High Density) disks as these can be unreliable. **Always write protect and back up your Coverdisk before you use it.**

COMPETITION WINNER



There were loads and loads of entries for our "They think it hasn't started. It hasn't yet" competition. Unfortunately though, there can only be one winner. Mr S. J. Gasking from Leicester is the lucky recipient of a Goodmans 14", colour, portable television which should be winging its way towards him very soon. Congratulations and thanks to everyone else who entered.

IF YOUR DISK IS FAULTY...

Please remember that the technical helpline above is purely for difficulties you have getting the programs to work properly. If your disk is physically damaged, bent, broken with a loose or missing shutter, it should be returned to the duplicators for a replacement at the following address:

**AF DISK NUMBER XX
TIB PLC
TIB HOUSE
11 EDWARD STREET
BRADFORD BD4 7BH**

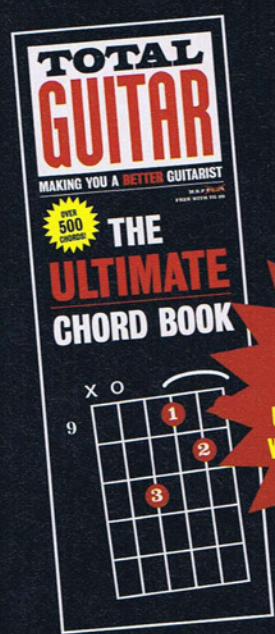
This includes any system messages you may get saying: "Read/write error", "Disk invalidated" and "Checksum Error". In this case, the disk has been damaged and needs to be replaced.



TOTAL GUITAR

MAKING YOU A **BETTER** GUITARIST

<http://www.futurenet.co.uk/music/totalguitar.html>



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THE TOTAL GUITAR
ULTIMATE CHORD BOOK
WITH OVER 500 CHORDS
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GET MORE FROM YOUR GUITAR WITH BRITAIN'S MOST POPULAR GUITAR MAG!



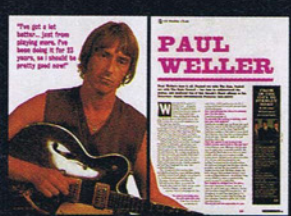
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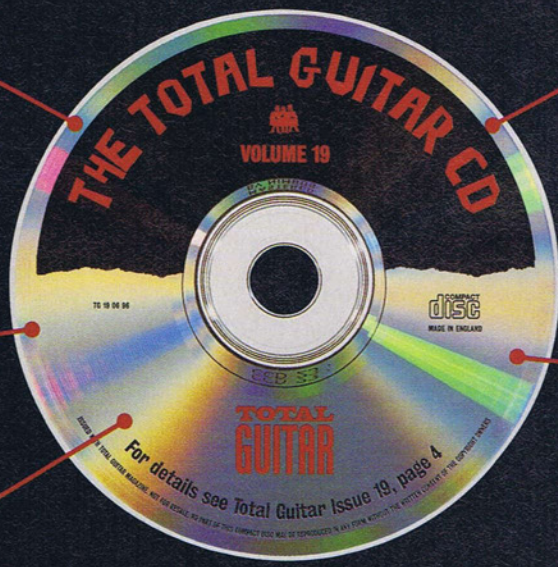
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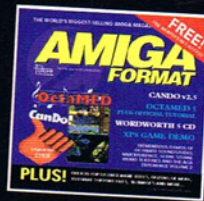
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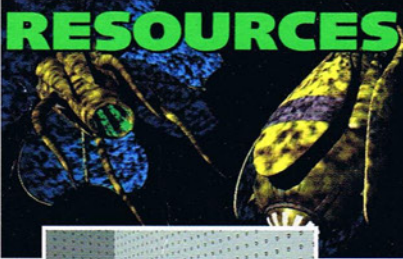


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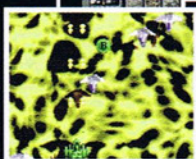
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